Tiltak for å hindre reinnleggelser

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Nasjonalt kunnskapssenter for helsetjenesten fremskaffer og formidler kunnskap om effekt av metoder, virkemidler og tiltak og om kvalitet innen alle deler av helsetjenesten. Målet er å bidra til gode beslutninger slik at brukerne får best mulig helsetjenester. Kunnskapssenteret er formelt et forvaltningsorgan under Helsedirektoratet, men har ingen myndighetsfunksjoner og kan ikke instrueres i faglige spørsmål.

Nasjonalt kunnskapssenter for helsetjenesten
Oslo, oktober 2013

Hovedfunn

Reinnleggelser kan være et uttrykk for kvaliteten på behandlingen av pasienten. Kunnskapssenteret måler reinnleggelsesrater som del av det nasjonale kvalitetsindikatorsystemet. For å få kunnskap om hvilke tiltak som kan hindre uønskede reinnleggelser har Kunnskapssenteret gjennomført et systematisk litteratursøk med sortering for å kartlegge mulige tiltak som kan hindre uønskede reinnleggelser.

Vi identifiserte 829 systematiske oversikter. Prosjektleder og prosjektmedarbeider har lest gjennom titler og sammendrag og valgt ut 213 referanser som ser ut til å være relevante. Ingen publikasjoner er innhentet eller lest i fulltekst. De inkluderte referansene er sortert etter diagnosegruppe og intervensjon.

- 25 oversikter gjelder geriatriske pasienter
- 33 oversikter gjelder pasienter med hjertesvikt
- 10 oversikter gjelder pasienter med andre hjerte/karlidelser
- 9 oversikter gjelder pasienter med astma eller KOLS
- 32 gjelder pasienter som har gjennomgått en operasjon
- 31 oversikter gjelder psykiatriske pasienter
- 58 oversikter gjelder flere eller uspesifiserte diagnoser
- 15 oversikter gjelder andre diagnosegrupper

Tittel:
Tiltak for å hindre reinnleggelser

Publikasjonstype:

Systematisk litteratursøk med sortering

Svarer ikke på alt:

I et systematisk litteratursøk med sortering innhenter vi ingen artikler.

Hvem står bak denne publikasjonen?

Kunnskapssenteret har gjennomført oppdraget etter forespørsel fra avdelingsdirektør Anne Karin Lindahl, Avdeling for kvalitet og pasientsikkerhet , Kunnskapssenteret.

Når ble litteratursøket utført?

Søk etter studier ble avsluttet i september 2013.

Key messages (English)

Readmissions can be a sign of the quality of the treatment of the patient. The Norwegian Knowledge Centre for the Health Services measures readmission rates as part of the national system for quality indicators. In order to gain information about which interventions that can prevent unnecessary readmissions The Knowledge Centre has made a systematic reference list that maps possible interventions that may prevent unnecessary readmissions.

We identified 829 systematic reviews. Project leader and project collaborator have both read the titles and abstracts and assessed that 213 references appears possibly relevant. No publications have been read in full text. The references included have been sorted by diagnostic group and intervention.

- 25 reviews applies to geriatric patients
- 33 reviews applies to patients with heart failure
- 10 reviews applies to patients with other cardiovascular diseases
- 9 reviews applies to patients with asthma or COPD
- 32 reviews applies to patients that has had surgery
- 31 reviews applies to psychiatric patients
- 58 reviews applies to multiple or unspecified diagnoses
- 15 reviews applies to patients with other diagnoses

Title:
Interventions aimed at preventing readmissions

Type of publication:
Systematic reference list

Doesn't answer everything:
In a systematic reference list no article is read in full text.

Publisher:
Norwegian Knowledge Centre for the Health Services

Updated:
Last search for studies: September, 2013.

Innhold

Forord

Nasjonalt kunnskapssenter for helsetjenesten kartlegger reinnleggelsesrater som del av det nasjonale kvalitetsindikatorsystemet. For å få mer kunnskap om hvilke tiltak helsetjenesten kan sette inn for å unngå unødige reinnleggelser gjennomførte vi et systematisk litteratursøk med sortering etter systematiske oversikter om effekt av tiltak som hindrer reinnleggelser. Dette notatet er tenkt som et utgangspunkt for en videre diskusjon om slike tiltak.

Prosjektgruppen har bestått av:

- Prosjektleder: seniorforsker Hilde H. Holte, Kunnskapssenteret
- Prosjektmedarbeider: bibliotekar Gyri Hval Straumann, Kunnskapssenteret

Gro Jamtvet	Gunn E. Vist	Hilde H. Holte
Avdelingsdirektør	*Seksjonsleder*	*Prosjektleder*

Problemstilling

Lage en sortert liste over systematiske oversikter som har vurdert effekt av tiltak for å hindre reinnleggelser.

Innledning

Kunnskapssenteret har i sitt arbeid med kvalitetsindikatorer vært opptatt av reinnleggelser. Et notat fra 2013 beskrev en modell for beregning av reinnleggelser blant eldre ved norske sykehus (1). Beregningene er utført for pasienter over 67 år med tilstander innenfor 11 avgrensede diagnosegrupper, og viser at reinnleggelser forekommer hyppig i norske sykehus. En reinnleggelse var definert som en akutt innleggelse som finner sted mellom 8 timer og 30 dager etter en utskrivelse (primært innleggelsesforløp), uavhengig av årsak og innleggelsessykehus. I dette notatet har vi ikke definert reinnleggelser like strengt i forhold til tidsrommet den kan ha skjedd, da vi kun har forholdt oss til tittel og sammendrag.

Formålet med notatet vi publiserte i 2013 (1) var å dokumentere forskjeller i reinnleggelsesrater, men disse beregningene sier ingen ting om årsakene til forskjellene i forekomst. Reinnleggelser kan skyldes både god behandlingskvalitet når det er et uttrykk for nødvendig tett oppfølging, og for dårlig behandlingskvalitet f eks om reinnleggelsen skyldes at pasienten ble skrevet ut for tidlig. Fra tidligere studier er det kjent at i den grad reinnleggelse skyldes sviktende kvalitet i behandlingskjeden, kan dette forklares med forhold både i spesialisthelsetjenesten og i kommunal/primærhelsetjenesten, samt i samhandlingen mellom de ulike forvaltningsnivåene, og samhandling med pasienten og/eller pårørende. For å kunne fokusere ytterligere på hvilke tiltak som kan påvirke reinnleggelser vil en oversikt over hvilke tiltak som har vært gjenstand for effektstudier, være nyttig.

I dette prosjektet skulle vi gjøre et systematisk søk etter systematiske oversikter som besvarte problemstillingen. Vi vurderte kun tittel og sammendrag og hentet ikke artikler eller leste artiklene i fulltekst. De studiene vi har vurdert som relevante er sortert i egnede grupper for å skaffe en oversikt over hvilke tiltak som er gjennomført. Vi vil i dette notatet kun presentere tittel og sammendrag, og ikke oppsummere resultater eller effektestimater, eller presentere tiltakene utover hva som er presentert i tittel og sammendrag.

Metode

Litteratursøking

Vi søkte systematisk etter litteratur i følgende databaser:

- Medline
- EMBASE
- Cinahl
- Cochrane Database of Systematic Reviews
- Cochrane Central Register of Controlled Trials (CENTRAL)
- DARE
- HTA

Forskningsbibliotekar Gyri Hval Straumann planla og utførte samtlige søk. Den fullstendige søkestrategien er presentert i vedlegg 1 i denne rapporten. Søk etter oversikter ble avsluttet september 2013.

Inklusjonskriterier

Populasjon	Alle som utskrives fra sykehus. Pasientene kan studeres samlet, eller i diagnosespesifikke grupper som pasienter med hjertesvikt, hjerteinfarkt, hjerneslag, kirurgiske pasienter, diabetespasienter, barn, kreftpasienter, psykiatriske pasienter, eller i grupper uten spesifisert diagnose.
Intervensjon	Alle mulige tiltak for å hindre reinnleggelse. Tiltakene kan skje både i sykehus, i kommunen og være tiltak på tvers av slike grenser, f eks samhandlingstiltak
Sammenligning	Vanlig pleie eller ingen tiltak
Utfall	Antall/andel reinnleggelse i sykehus. Skade som følge av at pasienter ikke legges inn i sykehus. Pasientens opplevelse av trygghet, av kvalitet på behandlingen, pasienttilfredshet, patient relatated outcome measures (PROMs), pårørende erfaringer mv.

Studiedesign	Systematiske oversikter.

Referanseutvelging

To personer (Hilde H. Holte og Gyri Hval Straumann) gikk uavhengig av hverandre gjennom alle referanser for å identifisere relevante publikasjoner. De relevante referansene ble så sortert etter egnede kriterier. Ved eventuell uenighet diskuterte de seg fram til enighet.

Ingen artikler ble innhentet i full tekst, og informasjon som presenteres om tiltakene er begrenset til informasjon fra sammendragene.

Resultat

Søket identifiserte 829 oversikter. Av disse fant vi at 213 var relevante for problemstillingen, og disse er så sortert etter diagnose og intervensjon.

Av disse 213 oversiktene gjelder 58 enten flere eller uspesifiserte diagnosegrupper. For de diagnosegruppene som omfatter flest oversikter er det 33 som gjelder pasienter med hjertesvikt, 32 gjelder ulike typer operasjoner, 31 gjelder psykiatriske pasienter og 25 gjelder geriatriske pasienter.

Utvelgelse av studier

Vi har kun inkludert oversikter som har vurdert effekt av tiltak som muligens hindrer reinnleggelser. Samtidig har det vært vanskelig å finne en tydelig grense for hva disse tiltakene skulle inneholde. Innhold i behandling, som operasjonsmetode, kvalitet på behandlingen som følge av volumet på behandlingen og rehabilitering har vi oppfattet som uttrykk for oppfyllelse av generelle standarder for pasientbehandling, og ikke som et tiltak med formål å redusere reinnleggelsene. Heller ikke organiseringer av hele sykehus, som opprettelse av spesielle fagavdelinger, har vi tatt med. Hvis intervensjonen var knyttet til tid for gjennomføring, som en korttidsavdeling, eller en depotbehandling i stedet for daglig inntak, har vi inkludert studiene.

Studier av risikofaktorer som ikke kan påvirkes gjennom de vurderte tiltakene er ekskludert. Her inngår kjønn, alder, rase, sosial status, alvorlighetsgrad og at pasienten har flere sykdommer. Vi har også ekskludert studier av faktorer som indirekte vil kunne påvirke risikofaktorer for sykdom, som betydningen av røykeslutt.

Sortering

Antallet oversikter varierer mellom ulike diagnosegrupper. For å bedre leservennligheten av dette notatet har vi for noen diagnosegrupper valgt å dele intervensjonene i mindre grupper. Det vil være en stor grad av skjønn i denne sorteringen.

Vi har inkludert mange typer intervensjoner, uavhengig av hvem som gjennomfører dem, hvor de gjennomføres og over hvor lang tid de gjennomføres. Om disse faktorene er beskrevet eller ikke har vi heller ikke kunnet ta hensyn til. Tiltakenes navn

er sjelden konkrete, som disease management. Noen studier beskriver intervensjonen som disease management, andre som disease management program, vi har ikke vurdert om det er hensiktsmessig å sortere med hensyn til dette skillet. Disease management, self-management, nurse-led management, care management, transistional care og discharge er samlet under overskriften tiltak på sykehus om tilrettelegging av behandling under og etter oppholdet. Studier av clinical pathways, care pathways og guidelines er presentert samlet under overskriften bruk av retningslinjer og behandlingslinjer. Intervensjoner som skjer i hjemmet er samlet, og det er også intervensjoner som skjer i kommunenhelsetjenesten. Studier av hvem som har ansvar for behandling og kontakt på sykehuset er samlet, i tillegg til kjennetegn ved behandlingen som fast-track, short-stay under overskriften intervensjoner for organisering av personell og opphold. Intervensjoner om pasientopplæring omfatter også psychoeducation og shared decision making.

Oversiktene er sortert etter pasientgruppe med ulike tiltak innen hver gruppe i underkategorier. Til sist lister vi oversiktene alfabetisk etter førsteforfatter. Under er en oversikt over pasientgruppene og gruppene av tiltak med antall oversikter identifisert innen hver gruppe.

Geriatriske pasienter (25)
- Flere eller uspesifiserte intervensjoner (4)
- Intervensjoner i kommunen (1)
- Intervensjoner om elektronisk oppfølging og monitorering (4)
- Intervensjoner på sykehus om tilrettelegging av behandling under og etter opphold (12)
- Intervensjoner i pasientens hjem (1)
- Intervensjoner om organisering av personell og opphold (3)

Pasienter med slag (6)

Pasienter med hjertesvikt (33)
- Intervensjoner om elektronisk oppfølging og monitorering (5)
- Intervensjoner i kommunen (2)
- Intervensjoner om bruk av retningslinjer og behandlingslinjer (1)
- Intervensjoner på sykehus om tilrettelegging av behandling og etter utskrivning (15)
- Intervensjoner om organisering personell og opphold (4)
- Intervensjoner knyttet til opplæring av pasienten (6)

Andre hjerte-/karlidelser (4)

Lungesykdommer, astma (2)

Lungesykdommer, KOLS (7)
- Intervensjoner i pasientens hjem (4)
- Intervensjoner på sykehuset (3)

Pasienter som har gjennomgått en hjerteoperasjon (3)

Pasienter som har gjennomgått en operasjon i fordøyelsessystemet (29)

- Intervensjoner om bruk av behandlingslinjer og retningslinjer (13)
- Intervensjoner om organisering av personell (2)
- Intervensjoner knyttet til tidsramme for behandling (14)

Psykiatriske pasienter (31)

- Flere eller uspesifiserte intervensjoner (4)
- Intervensjoner på sykehus om tilrettelegging for behandling under og etter opphold (9)
- Intervensjoner om pasientopplæring (12)
- Depotbehandling vs daglig inntak (6)

Flere diagnosegrupper eller uspesifisert diagnose (58)

- Flere eller uspesifiserte intervensjoner (14)
- Intervensjoner i pasientens hjem (11)
- Intervensjoner i regi av kommunehelsetjenesten (1)
- Intervensjoner på sykehus, elektronisk oppfølging og monitorering (4)
- Intervensjoner på sykehus, medisinforskrivning (4)
- Intervensjoner på sykehus om tilrettelegging av behandling under og etter opphold (10)
- Intervensjoner på sykehus om bruk av behandlingslinjer og retningslinjer (5)
- Intervensjoner på sykehus om organisering av personell og opphold (9)

Andre diagnoser (15)

Barn (7)

Hoftebrudd (2)

Kreft (2)

Lungebetennelse (3)

Hjemløse (1)

Geriatriske pasienter (26)

Flere eller uspesifiserte intervensjoner (4)

Campbell SE, Seymour DG, Primrose WR. A systematic literature review of factors affecting outcome in older medical patients admitted to hospital. Age & Ageing 2004;33(2):110-5.

ABSTRACT:

INTRODUCTION: The ACMEplus project aims to devise a standardised system for measuring case-mix and outcome in older patients admitted to hospitals in different parts of Europe for primarily 'medical' (i.e. not surgical or psychiatric) reasons. As a first step in this project, a systematic review was carried out to identify factors which had a significant influence on outcome in such patients.

METHODS: The systematic search used Medline 1966-2000, Cinahl 1982-2000, Web of Science 1981-2000, reference lists of relevant papers and a hand search of Age and Ageing 1974-2000. A six-category grading system was devised to classify the 313 identified papers with regard to their relevance to the ACMEplus project, study design and power. The analysis of the 14 'category 1' papers is presented.

RESULTS: The main areas of assessment of case-mix were function, cognition, depression, illness severity, nutrition, social elements, aspects of diagnosis and demographic details. Statistically significant predictors, for the four outcome measures, listed below were: For length of stay: functional status score, illness severity, cognitive score, poor nutrition, comorbidity score, diagnosis or presenting illness, polypharmacy, age and gender. For mortality: functional status score, illness severity, cognitive score, comorbidity score, diagnosis or presenting illness, polypharmacy, age and gender. For discharge destination: functional status score, cognitive score, diagnosis or presenting illness and age. For readmission rate: functional status score, illness severity, co-morbidity, polypharmacy, diagnosis or presenting illness and age.

CONCLUSIONS: Factors affecting outcome in older medical patients are complex. When looking at outcomes of hospital admission in older people it is important not just to look at routinely available statistics such as age, gender and diagnosis but also to take into account multifaceted aspects such as functional status and cognitive function

Garcia-Perez L, Linertova R, Lorenzo-Riera A, Vazquez-Diaz JR, Duque-Gonzalez B, Sarria-Santamera A. Risk factors for hospital readmissions in elderly patients: a systematic review. QJM : monthly journal of the Association of Physicians 2011;104(8):Aug.

ABSTRACT:

Population ageing is associated with an increase in hospital admissions. Defining the factors that affect the risk of hospital readmission could identify individuals at high risk and enable targeted interventions to be designed. This aim of this study was to identify the risk factors for hospital readmission in elderly people. A systematic review of the literature published in English or Spanish was performed by electronically searching EMBASE, MEDLINE, CINAHL, SCI and SSCI. Some keywords were aged, elder, readmission, risk, etc. Selection criteria were: prospective cohort studies with suitable statistical analysis such as logistic regression, that explored the relationship between the risk of readmission with clinical, socio-demographic or other factors in elderly patients (aged at least 75 years) admitted to hospital. Studies that fulfilled these criteria were reviewed and data were extracted by two reviewers. We assessed the methodological quality of the studies and prepared a narrative synthesis. We included 12 studies: 11 were selected from 1392 articles identified from the electronic search and one additional reference was selected by manual review. Socio-demographic factors were only explanatory in a few models, while prior admissions and duration of hospital stay were frequently relevant factors in others. Morbidity and functional disability were the most common risk factors. The results demonstrate the need for increased vigilance of elderly patients who are admitted to hospital with specific characteristics that include previous hospital admissions, duration of hospital stay, morbidity and functional disability

Linertova R, Garcia-Perez L, Vazquez-Diaz JR, Lorenzo-Riera A, Sarria-Santamera A. Interventions to reduce hospital readmissions in the elderly: in-hospital or home care. A systematic review. [Review]. J Eval Clin Pract 2011;17(6):1167-75.

ABSTRACT:

RATIONALE, AIMS AND OBJECTIVES: Unplanned hospital readmissions of elderly people represent an increasing burden on health care systems. This burden could theoretically be reduced by adequate preventive interventions, although there is uncertainty about the effectiveness of different types of interventions. The objective of this systematic review was to identify interventions that effectively reduce the risk of hospital readmissions in patients of 75 years and older, and to assess the role of home follow-up

METHODS: We searched studies in MEDLINE, CINAHL, CENTRAL and seven other electronic databases up to October 2007, and we updated the MEDLINE search in October 2009. Clinical trials (randomized or controlled)

evaluating the effectiveness of an intervention aimed at reducing readmissions in elderly patients were selected. Quality was assessed using the SIGN tool and the information extracted is presented in text and tables

RESULTS: Thirty-two clinical trials were included and they were divided into two groups: in-hospital interventions (17 studies) and interventions with home follow-up (15 studies). A positive effect of the intervention evaluated on the readmission outcome was found in three studies from the first group and in seven from the second group

CONCLUSIONS: Most of the interventions evaluated did not have any effect on the readmission of elderly patients. However, those interventions that included home care components seem to be more likely to reduce readmissions in the elderly. 2010 Blackwell Publishing Ltd

Linertova R, Garcia-Perez L, Vazquez-Diaz JR, Lorenzo-Riera A, Sarria-Santamera A. Interventions to reduce hospital readmissions in the elderly. Value in Health Conference: ISPOR 13th Annual European Congress Prague Czech Republic Conference Start: 20101106 Conference End: 20101109 Conference Publication: (var pagings) 2010;13(7):November.

ABSTRACT:

OBJECTIVES: Unplanned hospital readmissions of elderly people present an increasing burden for health systems. This could be, theoretically, reduced by adequate preventive interventions. However, there is uncertainty about the effectiveness of different types of interventions. The objective of this systematic review was to summarise available evidence on the effectiveness of interventions to reduce the risk of unplanned readmissions in patients of 75 years and older and to determine the role of home care components.

METHODS: We searched studies in MEDLINE, CINAHL, CENTRAL and seven other electronic databases up to October 2007 and updated the search in MEDLINE up to October 2009. Clinical trials (randomized or controlled) evaluating the effectiveness of an intervention to reduce readmissions in elderly patients compared to a control group were selected. Quality was assessed by the SIGN tool. The extracted information was presented in text and tables.

RESULTS: Thirty-two clinical trials were included and divided into two groups: in-hospital interventions (17 studies) and interventions with home follow-up (15 studies). Three studies from the first group and seven from the second group found positive effects of the evaluated intervention on readmission outcome.

CONCLUSIONS: Most of the evaluated interventions did not have any effect on readmissions of elderly patients. However, those interventions that comprised some kind of home care seem to be more likely to reduce readmissions in the elderly

Intervensjoner i kommunen (1)

Christensen M, Lundh A. Medication review in hospitalised patients to reduce morbidity and mortality. [Review]. Cochrane Database of Systematic Reviews 2013;2:CD008986.

ABSTRACT:

BACKGROUND: Pharmacotherapy in the elderly population is complicated by several factors that increase the risk of drug related harms and poorer adherence. The concept of medication review is a key element in improving the quality of prescribing and the prevention of adverse drug events. While no generally accepted definition of medication review exists, it can be defined as a systematic assessment of the pharmacotherapy of an individual patient that aims to evaluate and optimise patient medication by a change (or not) in prescription, either by a recommendation or by a direct change. Medication review performed in adult hospitalised patients may lead to better patient outcomes

OBJECTIVES: We examined whether the delivery of a medication review by a physician, pharmacist or other healthcare professional improves the health outcomes of hospitalised adult patients compared to standard care

SEARCH METHODS: We searched the Cochrane Effective Practice and Organisation of Care (EPOC) Group's Specialised Register (August 2011); The Cochrane Central Register of Controlled Trials (CENTRAL), The Cochrane Library 2011, Issue 8; MEDLINE (1946 to August 2011); EMBASE (1980 to August 2011); CINAHL (1980 to August 2011); International Pharmaceutical ABSTRACTs (1970 to August 2011); and Web of Science (August 2011). In addition we searched reference lists of included trials and relevant reviews. We searched trials registries and contacted experts to identify additional published and unpublished trials. We did not apply any language restrictions

SELECTION CRITERIA: We included randomised controlled trials (RCTs) of medication review in hospitalised adult patients. We excluded trials of outclinic and paediatric patients. Our primary outcome was all-cause mortality and secondary outcomes included hospital readmission, emergency department contacts and adverse drug events

DATA COLLECTION AND ANALYSIS: Two review authors independently included trials, extracted data and assessed trials for risk of bias. We contacted trial authors for clarification of data and additional unpublished data. We calculated relative risks for dichotomous data and mean differences for continuous data (with 95% confidence intervals (CIs))

MAIN RESULTS: We identified 4647 references and included five trials (1186 participants). Follow-up ranged from 30 days to one year. We found no evidence of effect on all-cause mortality (risk ratio (RR) 0.98; 95% CI 0.78 to 1.23) and hospital readmissions (RR 1.01; 95% CI 0.88 to 1.16), but a 36% relative reduction in emergency department contacts (RR 0.64; 95% CI 0.46 to 0.89)

AUTHORS' CONCLUSIONS: It is uncertain whether medication review reduces mortality or hospital readmissions, but medication review seems to reduce emergency department contacts. However, the cost-effectiveness of this intervention is not known and due to the uncertainty of the estimates of mortality and readmissions and the short follow-up, important treatment effects may have been overlooked. Therefore, medication review should preferably be undertaken in the context of clinical trials. High quality trials with long follow-up are needed before medication review should be implemented

Intervensjoner om elektronisk oppfølging og monitorering (4)

Bowles KH, Baugh AC. Applying research evidence to optimize telehomecare. [Review] [29 refs]. J Cardiovasc Nurs 2007;22(1):5-15.

ABSTRACT:

Telemedicine is the use of technology to provide healthcare over a distance. Telehomecare, a form of telemedicine based in the patient's home, is a communication and clinical information system that enables the interaction of voice, video, and health-related data using ordinary telephone lines. Most home care agencies are adopting telehomecare to assist with the care of the growing population of chronically ill adults. This article presents a summary and critique of the published empirical evidence about the effects of telehomecare on older adult patients with chronic illness. The knowledge gained will be applied in a discussion regarding telehomecare optimization and areas for future research. The referenced literature in PubMed, MEDLINE, CDSR, ACP Journal Club, DARE, CCTR, and CINAHL databases was searched for the years 1995-2005 using the keywords "telehomecare" and "telemedicine," and limited to primary research and studies in English. Approximately 40 articles were reviewed. Articles were selected if telehealth technology with peripheral medical devices was used to deliver home care for adult patients with chronic illness. Studies where the intervention consisted of only telephone calls or did not involve video or in-person nurse contact in the home were excluded. Nineteen studies described the effects of telehomecare on adult patients, chronic illness outcomes, providers, and costs of care. Patients and providers were accepting of the technology and it appears to have positive effects on chronic illness outcomes such as self-management, rehospitalizations, and length of stay. Overall, due to savings from healthcare utilization and travel, telehomecare appears to reduce healthcare costs. Generally, studies have small sample sizes with diverse types and doses of telehomecare intervention for a select few chronic illnesses; most commonly heart failure. Very few published studies have explored the cost or quality implications since the change in home care reimbursement to prospective payment. Further research is needed to clarify how telehomecare can be used to maximize its benefits among diverse adult chronic illness populations. [References: 29]

Ghatnekar O, Bondesson A, Persson U, Eriksson T. Health economic evaluation of the Lund Integrated Medicines Management Model (LIMM) in elderly patients admitted to hospital. BMJ Open 2013;3(1):2013.

ABSTRACT:

OBJECTIVE: To evaluate the cost effectiveness of a multidisciplinary team including a pharmacist for systematic medication review and reconciliation from admission to discharge at hospital among elderly patients (the Lund Integrated Medicines Management (LIMM)) in order to reduce drug-related readmissions and outpatient visits

METHOD: Published data from the LIMM project group were used to design a probabilistic decision tree model for evaluating tools for (1) a systematic medication reconciliation and review process at initial hospital admission and during stay (admission part) and (2) a medication report for patients discharged from hospital to primary care (discharge part). The comparator was standard care. Inpatient, outpatient and staff time costs (Euros, 2009) were calculated during a 3-month period. Dis-utilities for hospital readmissions and outpatient visits due to medication errors were taken from the literature

RESULTS: The total cost for the LIMM model was 290 compared to 630 for standard care, in spite of a 39 intervention cost. The main cost offset arose from avoided drug-related readmissions in the Admission part (262) whereas only 66 was offset in the Discharge part as a result of fewer outpatient visits and correction time. The reduced disutility was estimated to 0.005 quality-adjusted life-years (QALY), indicating that LIMM was a dominant alternative. The probability that the intervention would be cost-effective at a zero willingness to pay for a gained QALY compared to standard care was estimated to 98%

CONCLUSIONS: The LIMM medication reconciliation (at admission and discharge) and medication review was both cost-saving and generated greater utility compared to standard care, foremost owing to avoided drug-related hospital readmissions. When implementing such a review process with a multidisciplinary team, it may be important to consider a learning curve in order to capture the full advantage

Khan A, Malone M, Pagel P, Vollbrecht M, Chen H. Using the electronic medical record to identify seniors at high risk for readmission. Journal of the American Geriatrics Society Conference: 2011 Annual Scientific Meeting of the American Geriatrics Society National Harbor, MD United States Conference Start: 20110511 Conference End: 20110514 Conference Publication: (var pagings) 2011;59(pp S151-S152):April.

ABSTRACT:

BACKGROUND: Approximately one-fifth of Medicare beneficiaries are readmitted within 30 days of discharge. The discharge process is complex and some seniors are more vulnerable during this time than others. Risk factors and strategies to reduce readmissions are well known. A bedside tool derived from the electronic medical record may help identify vulnerable seniors in the hospital. The electronic medical record "case finding" may enable the clinical team to target their efforts to reduce readmissions.

RESEARCH QUESTION: Can a real-time risk assessment tool embedded in the electronic medical record predict readmission to the hospital? Development of readmission risk tool: An extensive literature search was performed to identify risk factors for readmission. The risk factors were grouped into four categories. 1) Admitting diagnoses: congestive heart failure (CHF), psychosis, other vascular surgeries, chronic obstructive pulmonary disease (COPD), pneumonia, gastrointestinal problems 2) Chronic disease states: CHF, COPD, diabetes mellitus, shortness of breath, skin ulcers, cirrhosis, leukemia, peripheral vascular disease, stroke, metastatic cancer, malnutrition, acute respiratory failure, rheumatoid arthritis, hypertension. 3) Demographics: hospital admission in prior 6 months, length of stay. 4) Social factors: functional status, insurance type, living situation and educational barriers. Based on these risk factors an automated score was generated ranging from 0-20 and is available to the health care team during the hospital stay. We hypothesized that a higher score predicts increased risk for readmission. Validation of readmission risk tool: Eighty-three patients age 65 years and above were reviewed in seven medical surgical units at three acute care hospitals in Milwaukee. Overall 30-day readmission rate was 20%. Forty four percent were high risk for readmission if a cut-off value score of 7 or more was used. Of these 30% were readmitted. Using a cutoff value of 7, sensitivity was 64%, specificity= 60%, positive predictive value=31%, negative predictive value= 87%. The positive and negative likelihood ratios were 1.6 and 0.9.

CONCLUSION: This initial version of a real-time risk assessment tool embedded in the electronic medical record provides an inadequate prediction of readmission to the hospital. The tool may be better at identifying those who are not at risk for readmission

Lisby M, Thomsen A, Nielsen LP, Lyhne NM, Breum-Leer C, Fredberg U, et al. The effect of systematic medication review in elderly patients admitted to an acute ward of internal medicine. Basic and Clinical Pharmacology and Toxicology 2010;106(5):May.

ABSTRACT:

Elderly patients are vulnerable to medication errors and adverse drug events due to increased morbidity, polypharmacy and inappropriate interactions. The objective of this study was to investigate whether systematic medication review and counselling performed by a clinical pharmacist and clinical pharmacologist would reduce length of in-hospital stay in elderly patients admitted to an acute ward of internal medicine. A randomized, controlled study of 100 patients aged 70 years or older was conducted in an acute ward of internal medicine in Denmark. Intervention arm: a clinical pharmacist conducted systematic medication reviews after an experienced medical physician had prescribed the patients' medication. Information was collected from medical charts, interview with the patients and database registrations of drug purchase. Subsequently, medication histories were conferred with a clinical pharmacologist and advisory notes recommending medication changes were completed. Physicians were not obliged to comply with the recommendations. Control arm: medication was reviewed by usual routine in the ward. Primary end-point was length of in-hospital stay. In addition, readmissions, mortality, contact to primary healthcare and quality of life were measured at 3-month follow-up. In the intervention arm, the mean length of in-hospital stay was 239.9 hr (95% CI: 190.2-289.6) and in the control arm: 238.6 hr (95% CI: 137.6-339.6), which was neither a statistical significant nor a clinically relevant difference. Moreover, no differences were observed for any of the secondary end-points. Systematic medication review and medication counselling did not show any effect on in-hospital length of stay in elderly patients when admitted to an acute ward of internal medicine. 2010 Nordic Pharmacological Society

Intervensjoner på sykehus om tilrettelegging av behandling under og etter opphold (12)

Bauer M, Fitzgerald L, Haesler E, Manfrin M. Hospital discharge planning for frail older people and their family. Are we delivering best practice? A review of the evidence. [Review] [40 refs]. J Clin Nurs

2009;18(18):2539-46.

ABSTRACT:

AIMS AND OBJECTIVES: This paper examined the available evidence concerning hospital discharge practices for frail older people and their family caregivers and what practices were most beneficial for this group

BACKGROUND: Hospital discharge practices are placing an increasing burden of care on the family caregiver. Discharge planning and execution is significant for older patients where inadequate practices can be linked to adverse outcomes and an increased risk of readmission

DESIGN: Literature review

METHODS: A review of English language literature published after 1995 on hospital discharge of frail older people and family carer's experiences.

RESULTS. Numerous factors impact on the hospital discharge planning of the frail older person and their family carer's that when categorised focus on the role that discharge planning plays in bridging the gap between the care provided in hospital and the care needed in the community, its potential to reduce the length of hospital stay, the impact of the discharge process on family carer's and the need for a coordinated health professional approach that includes dissemination of information, clear communication and active support

CONCLUSION: The current evidence indicates that hospital discharge planning for frail older people can be improved if interventions address family inclusion and education, communication between health care workers and family, interdisciplinary communication and ongoing support after discharge. Interventions should commence well before discharge. Relevance to clinical practice. An awareness of how the execution of the hospital discharge plan is perceived by the principal family carer of a frail older person, will allow nurses and others involved with the discharge process to better reconcile the family caregivers' needs and expectations with the discharge process offered by their facility. The research shows there is a direct correlation between the quality of discharge planning and readmission to hospital. [References: 40]

Bowman E, Sachs G, Emmett T. Do hospital-to-home transitional care programs for older adults address palliative care domains? A systematic review. Journal of Pain and Symptom Management Conference: Annual Assembly of the American Academy of Hospice and Palliative Medicine and the Hospice and Palliative Nurses Association 2012 Denver, CO United States Conference Start: 20120307 Conference End: 2012 2012;43(2):February.

ABSTRACT:

OBJECTIVES 1. To understand and appreciate the complexities challenging patients, caregivers, and health care providers alike in preparing frail hospitalized older adults to transition home from an acute hospitalization. 2. To gain an appreciation of the paucity of palliative care domains addressed in existing hospital-to-home care transitions literature. 3. To challenge all providers invested in the care of hospitalized elderly adults to better incorporate palliative care domains, especially those regarding care of the imminently dying and ethical / legal aspects of care, when designing future hospital-to-home transitional care programs.

BACKGROUND. Transitional care programs focus on providing patients/families with resources/ support to regain function post-hospitalization and reduce readmissions. Hospital palliative care teams are often consulted for patients imminently dying. These separate approaches overlook patients going home who aren't imminently dying, but have life-limiting chronic conditions with unmet palliative needs. Aim. Review literature on hospital-to-home transitional care programs for elderly to determine extent to which domains of palliative care are addressed.

METHODS/Session Descriptions. Design: Structured content analysis of studies published 1985-2008 using search terms: progressive patient care, after-care, transitional programs, and related terms. Databases: CINAHL, EMBASE, MEDLINE, EBM Reviews (CCRCT/CDRS/DARE). Inclusion criteria: English, >50% subjects >age 60, studies of hospital-to-home transitions. Strategy: Developed structured scoring tool based on National Consensus Project for Quality Palliative Care "Clinical Practice Guidelines" assessing 8 domains: Structure/Processes; Physical; Psychological/Psychiatric; Social; Spiritual, Religious & Existential; Cultural; Care of Imminently Dying; and Ethical/Legal. Domains scored: 0-content absent; 1-content minimally helpful; 2-content very helpful. Total score: 0- 16. Descriptive statistics reported.

CONCLUSION. We identified 1182 titles; 903 were eliminated (not meeting inclusion criteria) after inspection of titles/abstracts. 279 publications were selected for independent review by authors EB/GS. Ultimately 83 articles met inclusion criteria, were analyzed and scored. Domains were identified 340 out of a possible 664 times (51.2%). Physical aspects was identified in all 83 articles and Social aspects in 82 (98.8%). Ethical/ Legal aspects was identified in only 9 (10.8%) of all articles reviewed, and Care of Imminently Dying merely 6 (7.2%) times. Physical and Social aspects were scored with mean of 1.771 (SD 0.422) and 1.831 (SD 0.408), respectively. Physical and Social aspects of care for elders in hospital-to-home transitional literature are often included and categorized as very helpful; however, other important aspects seem limited in previous transitional care literature with opportunities for collaboration in future research

Bowman EH, Sachs GA. Do Hospital-to-home transitional care programs for older adults address palliative

care domains? a systematic review. Journal of the American Geriatrics Society Conference: 2011 Annual Scientific Meeting of the American Geriatrics Society National Harbor, MD United States Conference Start: 20110511 Conference End: 20110514 Conference Publication: (var pagings) 2011;59(pp S51):April.

ABSTRACT:

Introduction Transitional care programs focus on providing older patients and families with resources and support to regain function post-hospitalization and reduce readmissions. Hospital palliative care teams are often consulted for patients imminently dying. These separate approaches may overlook patients going home who aren't imminently dying, but have life-limiting chronic conditions with unmet palliative needs. Objective Review the literature on hospital-to-home transitional care programs for elderly to determine extent to which domains of palliative care (PC) have been addressed.

METHODS Structured content analysis of studies published 1985-2008 identified by search terms: progressive patient care, after care, transitional programs, and related terms. Databases included CINAHL, EMBASE, MEDLINE, and EBM Reviews (CCRCT, CDRS, DARE). Inclusion criteria: English language, human subjects, >50% older than age 60, and studies of hospital-to-home transitions. We developed a structured scoring tool based on National Consensus Project for Quality Palliative Care "Clinical Practice Guidelines" assessing 8 PC domains: Structure & Processes; Physical; Psychological & Psychiatric; Social; Spiritual, Religious & Existential; Cultural; Care of Imminently Dying; and Ethical & Legal. Domains scored: 0-content absent; 1-content minimally helpful; 2-content very helpful. Total score: 0-16. Descriptive statistics are reported.

RESULTS (based on interim analysis/preliminary data) We identified 1182 total titles; 903 were eliminated as not meeting inclusion criteria after inspection of titles and abstracts. 279 publications were selected for independent review by the two authors. To date, 64 articles have been analyzed and scored. PC domains were identified 435 times (mean 6.80). Physical aspects of care was identified in all articles and Social aspects in 63 articles. Ethical and Legal aspects was identified in 8 of the 64 articles reviewed. Physical and Social aspects were scored with a mean of 1.812 (SD 0.393) and 1.766 (SD 0.463), respectively.

CONCLUSIONS Physical and Social aspects of care for elders in hospital-tohome transition literature seems to be included and categorized as very helpful; however, other important aspects of PC seem limited in previous transitional care literature with opportunities for collaboration in future research

Chiu WK, Newcomer R. A systematic review of nurse-assisted case management to improve hospital discharge transition outcomes for the elderly. Professional Case Management 2007;12(6):330-6.

ABSTRACT:

PURPOSE: This article reviews 15 clinical trials of nurse-assisted case management intended to improve posthospital transitions of elderly patients to other settings. PRIMARY PRACTICE SETTING(S): Hospitals.

METHODOLOGY AND SAMPLE: The trials were selected after a systematic search of the PubMed database for the period 1996 to 2006.

RESULTS: Eight of the 15 interventions showed reduced hospital readmission rates and/or fewer hospital days. These findings were observed across patients with "all cause" and heart failure, a variety of hospital types, and variations in the intervention. Reductions in the use of emergency departments were observed in 3 of the 11 studies investigating this. Lower expenditures were reported by all 6 studies reporting such comparisons.

IMPLICATIONS FOR CM PRACTICE: Home visits/continuous contact with patients, early postdischarge and frequent contacts, patient education, and the use of specialized nurses who could offer appropriate training and coaching were often credited as program strengths

Comprehensive discharge planning and post-discharge support reduces hospital readmission in older people with congestive heart failure. Evidence-Based Healthcare and Public Health 2004;8(5):October.

ABSTRACT:

QUESTION: Does comprehensive discharge planning and post-discharge support reduce readmission rates for older people with congestive heart failure? Study design: Systematic review with meta-analysis.

MAIN RESULTS: 18 RCTs (N = 3304) met inclusion criteria. Comprehensive discharge planning and post-discharge support significantly reduced re-admission rates compared with usual care (35% vs. 43%; $p < 0.001$: see results table). There were no significant differences in mortality or length of hospital stay between groups (intervention vs. usual care-mortality 14% vs. 17%, $p = 0.06$; length of hospital stay 8.4 days vs. 8.5 days, $p = 0.60$). The intervention increased quality of life scores significantly more from baseline compared with usual care (25.7%; 95%CI 11.0 to 40.4% vs. 13.5%, 95%CI 5.1% to 22.0%). There was no significant increase in monthly medical costs per patient between groups (-$536, 95%CI $956 to -$115, for US trials).

AUTHORS' CONCLUSIONS: In elderly people with congestive heart failure, comprehensive discharge planning with post-discharge support significantly reduced readmission rates. Routine application of such an intervention

should be considered. 2004 Elsevier Ltd. All rights reserved

Fox MT, Persaud M, Maimets I, Brooks D, O'Brien K, Tregunno D. Effectiveness of early discharge planning in acutely ill or injured hospitalized older adults: a systematic review and meta-analysis. BMC Geriatrics 2013;13:70.

ABSTRACT:

BACKGROUND: Older age and higher acuity are associated with prolonged hospital stays and hospital re-admissions. Early discharge planning may reduce lengths of hospital stay and hospital readmissions; however, its effectiveness with acutely admitted older adults is unclear

METHODS: In this systematic review, we compared the effectiveness of early discharge planning to usual care in reducing index length of hospital stay, hospital readmissions, readmission length of hospital stay, and mortality; and increasing satisfaction with discharge planning and quality of life for older adults admitted to hospital with an acute illness or injury.We searched the Cochrane Library, DARE, HTA, NHSEED, ACP, MEDLINE, EMBASE, CINAHL, Proquest Dissertations and Theses, PubMed, Web of Science, SciSearch, PEDro, Sigma Theta Tau International's registry of nursing research, Joanna Briggs Institute, CRISP, OT Seeker, and several internet search engines. Hand-searching was conducted in four gerontological journals and references of all included studies and previous systematic reviews. Two reviewers independently extracted data and assessed risk of bias. Data were pooled using a random-effects meta-analysis. Where meta-analysis was not possible, narrative analysis was performed

RESULTS: Nine trials with a total of 1736 participants were included. Compared to usual care, early discharge planning was associated with fewer hospital readmissions within one to twelve months of index hospital discharge [risk ratio (RR) = 0.78, 95% CI = 0.69 - 0.90]; and lower readmission lengths of hospital stay within three to twelve months of index hospital discharge [weighted mean difference (WMD) = -2.47, 95% confidence intervals (CI) = -4.13 - -0.81)]. No differences were found in index length of hospital stay, mortality or satisfaction with discharge planning. Narrative analysis of four studies indicated that early discharge planning was associated with greater overall quality of life and the general health domain of quality of life two weeks after index hospital discharge

CONCLUSIONS: Early discharge planning with acutely admitted older adults improves system level outcomes after index hospital discharge. Service providers can use these findings to design and implement early discharge planning for older adults admitted to hospital with an acute illness or injury

Parker SG, Peet SM, McPherson A, Cannaby AM, Abrams K, Baker R, et al. A systematic review of discharge arrangements for older people. Health Technol Assess 2002;6(4):1-183.

ABSTRACT:

Executive summary available for free by visiting the document URL listed with this record

Phillips CO, Wright SM, Kern DE, Singa RM, Shepperd S, Rubin HR. Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis.[Erratum appears in JAMA. 2004 Sep 1;292(9):1022]. JAMA 2004;291(11):1358-67.

ABSTRACT:

CONTEXT: Comprehensive discharge planning plus postdischarge support may reduce readmission rates for older patients with congestive heart failure (CHF)

OBJECTIVE: To evaluate the effect of comprehensive discharge planning plus postdischarge support on the rate of readmission in patients with CHF, all-cause mortality, length of stay (LOS), quality of life (QOL), and medical costs

DATA SOURCES: We searched MEDLINE (1966 to October 2003), the Cochrane Clinical Trials Register (all years), Social Science Citation Index (1992 to October 2003), and other databases for studies that described such an intervention and evaluated its effect in patients with CHF. Where possible we also contacted lead investigators and experts in the field

STUDY SELECTION: We selected English-language publications of randomized clinical trials that described interventions to modify hospital discharge for older patients with CHF (mean age > or =55 years), delineated clearly defined inpatient and outpatient components, compared efficacy with usual care, and reported readmission as the primary outcome

DATA EXTRACTION: Two authors independently reviewed each report, assigned quality scores, and extracted data for primary and secondary outcomes in an unblinded standardized manner

DATA SYNTHESIS: Eighteen studies representing data from 8 countries randomized 3304 older inpatients with CHF to comprehensive discharge planning plus postdischarge support or usual care. During a pooled mean observation period of 8 months (range, 3-12 months), fewer intervention patients were readmitted compared with controls

(555/1590 vs 741/1714, number needed to treat = 12; relative risk [RR], 0.75; 95% confidence interval [CI], 0.64-0.88). Analysis of studies reporting secondary outcomes found a trend toward lower all-cause mortality for patients assigned to an intervention compared with usual care (RR, 0.87; 95% CI, 0.73-1.03; n = 14 studies), similar initial LOS (mean [SE]: 8.4 [2.5] vs 8.5 [2.2] days, P =.60; n = 10), greater percentage improvement in QOL scores compared with baseline scores (25.7% [95% CI, 11.0%-40.4%] vs 13.5% [95% CI, 5.1%-22.0%]; n = 6, P =.01), and similar or lower charges for medical care per patient per month for the initial hospital stay, administering the intervention, outpatient care, and readmission (-359 dollars [95% CI, -763 dollars to 45 dollars]; n = 4, P =.10 for non-US trials and -536 dollars [95% CI, -956 dollars to -115 dollars]; n = 4, P =.03, for US trials)

CONCLUSION: Comprehensive discharge planning plus postdischarge support for older patients with CHF significantly reduced readmission rates and may improve health outcomes such as survival and QOL without increasing costs

Preyde M, Macaulay C, Dingwall T. Discharge planning from hospital to home for elderly patients: a meta-analysis. Journal of Evidence-Based Social Work 2009;6(2):198-216.

ABSTRACT:

In the present healthcare environment, budget cuts, staff shortages, and resource limitations are grave concerns. The elderly in particular consume a considerable proportion of hospital resources. Thus, the discharge planner's role, particularly with respect to elderly patients, is extremely important. In this systematic review recent (within the last 10 years) randomized, controlled or quasi-experimental trials of discharge planning (DP) from hospital to home of patients age 65 years or older were examined. The most important finding was the paucity of investigations by social work professionals. A second important finding was the lack of appropriate reporting of methods and results. Where data were provided, an effect size was computed for statistically significant results (overall mean d = 0.51, SD 0.35). Large effects were noted for patient satisfaction, while moderate effects were evident for patients' quality of life and readmission rates. The integration and evaluation of current knowledge in this field may inform further research and may lead to the advancement of clinical practice and new policy development, with the ultimate goal of improving the quality of patient care and the quality of patient outcomes. The implications for social work clinicians and researchers are discussed

Yu DS, Thompson DR, Lee DT. Disease management programmes for older people with heart failure: crucial characteristics which improve post-discharge outcomes. [Review] [77 refs]. Eur Heart J 2006;27(5):596-612.

ABSTRACT:

AIMS: Disease management programmes (DMPs) have evolved as an innovative clinical practice system to enhance the discharge outcomes of older people with heart failure. Yet, clinical trials which have examined their effectiveness have reported inconsistent findings. This may be explained by variations in the design of DMPs. The aim is to identify the characteristics of DMPs which are crucial to reducing hospital readmission and/or mortality of older people with heart failure

METHODS AND RESULTS: A systematic computerized search was conducted to identify randomized controlled trials of the last 10 years, which examined the effects of DMPs on hospital readmission and mortality of older people with heart failure. The identified DMPs were classified as effective and ineffective, according to statistically significant changes in discharge outcomes. Twenty-one trials were identified, 11 (52.4%) of which reported DMPs improving the discharge outcomes of older people with heart failure. The results indicate that an effective DMP should be multi-faceted and consists of an in-hospital phase of care, intensive patient education, self-care supportive strategy, optimization of medical regimen, and ongoing surveillance and management of clinical deterioration. Cardiac nurse and cardiologist should be actively involved and a flexible approach should be adopted to deliver the follow-up care

CONCLUSION: This study defines precisely the characteristics of the care team and the organization content and delivery method of the DMP which are crucial to enhance the discharge outcomes of older people with heart failure. [References: 77]

Intervensjoner i pasientens hjem (1)

Caplan GA, Sulaiman NS, Mangin DA, Aimonino RN, Wilson AD, Barclay L. Is Hospital in the Home a good option for older people? Journal of the American Geriatrics Society Conference: 2010 Annual Scientific Meeting of the American Geriatrics Society Orlando, FL United States Conference Start: 20100512 Conference End: 20100515 Conference Publication: (var pagings) 2010;58(pp S7):April.

ABSTRACT:

BACKGROUND: Hospital in the Home (HITH) services provide acute or subacute treatment and interventions in a patient's residence, as a substitute for in-hospital treatment, and speculation suggests that the substitution improves outcomes. They are commonly used as a treatment option for older patients. However, the effectiveness of HITH in

improving outcomes or reducing costs is in doubt. Purpose: To assess HITH treatment, where it substitutes substantially for inpatient treatment as measured by the intervention patients being in hospital at least 25% or 7 days less than the control patients, on mortality, readmission rates, patient satisfaction and costs when compared with inpatient treatment. Data Sources: Medline, Embase, Social Sciences Citation Index, CINAHL, EconLit, PsychInfo and Cochrane through 31 July 2008. Study Selection Randomised trials that compared HITH with hospital inpatient treatment Data extraction: Two authors independently reviewed articles and extracted data.

RESULTS: 55 studies met the inclusion criteria. Overall HITH treatment led to a reduction in mortality [Odds Ratio (OR) 0.81;95% confidence interval (CI) 0.69 to 0.95; p=0.010], readmission [OR 0.80; 95% CI 0.68 to 0.95; p=0.01] and cost [OR -714.84 [95% CI -761.72 to -667.96; p < 0.00001].The number needed to treat in HITH to prevent one death is 48. Patient and carer satisfaction was higher in HITH in 23/24 and 7/9 studies respectively while carer burden was lower in 9/12 studies, though not statistically significantly [OR 0.00 (95% CI - 0.19, 0.19]. Dividing the studies into tertiles according to average age of subjects revealed no significant differences in mortality.

CONCLUSION:HITH is associated with a reduction in mortality, readmission rates, and costs, and an increase in patient and carer satisfaction but no change in carer burden compared to inpatient treatment. (Table presented)

Intervensjoner om organisering av personell og opphold (3)

Deschodt M, Flamaing J, Haentjens P, Boonen S, Milisen K. Impact of geriatric consultation teams on clinical outcome in acute hospitals: A systematic review and meta-analysis. BMC Medicine 2013;11(1):48. 725

ABSTRACT:

BACKGROUND: Comprehensive geriatric assessment for older patients admitted to dedicated wards has proven to be beneficial, but the impact of comprehensive geriatric assessment delivered by mobile inpatient geriatric consultation teams remains unclear. This review and meta-analysis aims to determine the impact of inpatient geriatric consultation teams on clinical outcomes of interest in older adults.

METHODS: An electronic search of Medline, CINAHL, EMBASE, Web of Science and Invert for English, French and Dutch articles was performed from inception to June 2012. Three independent reviewers selected prospective cohort studies assessing functional status, readmission rate, mortality or length of stay in adults aged 60 years or older. Twelve studies evaluating 4,546 participants in six countries were identified. Methodological quality of the included studies was assessed with the methodological Index for Non-Randomized Studies.

RESULTS: The individual studies show that an inpatient geriatric consultation team intervention has favorable effects on functional status, readmission and mortality rate. None of the studies found an effect on the length of the hospital stay. The meta-analysis found a beneficial effect of the intervention with regard to mortality rate at 6 months (relative risk 0.66; 95% confidence interval 0.52 to 0.85) and 8 months (relative risk 0.51; confidence interval 0.31 to 0.85) after hospital discharge.

CONCLUSIONS: Inpatient geriatric consultation team interventions have a significant impact on mortality rate at 6 and 8 months postdischarge, but have no significant impact on functional status, readmission or length of stay. The reason for the lack of effect on these latter outcomes may be due to insufficient statistical power or the insensitivity of the measuring method for, for example, functional status. The questions of to whom IGCT intervention should be targeted and what can be achieved remain unanswered and require further research.Trial registration: CRD42011001420 (http://www.crd.york.ac.uk/PROSPERO). 2013 Deschodt et al; licensee BioMed Central Ltd

Halasyamani L, Kripalani S, Coleman E, Schnipper J, van WC, Nagamine J, et al. Transition of care for hospitalized elderly patients--development of a discharge checklist for hospitalists. [Review] [31 refs]. Journal of Hospital Medicine (Online) 2006;1(6):354-60.

ABSTRACT:

BACKGROUND: Discharge from the hospital is a critical transition point in a patient's care. Incomplete handoffs at discharge can lead to adverse events for patients and result in avoidable rehospitalization. Care transitions are especially important for elderly patients and other high-risk patients who have multiple comorbidities. Standardizing the elements of the discharge process may help to address the gaps in quality and safety that occur when patients transition from the hospital to an outpatient setting

METHODS: The Society of Hospital Medicine's Hospital Quality and Patient Safety committee assembled a panel of care transition researchers, process improvement experts, and hospitalists to review the literature and develop a checklist of processes and elements required for ideal discharge of adult patients. The discharge checklist was presented at the Society of Hospital Medicine's Annual Meeting in April 2005, where it was reviewed and revised by more than 120 practicing hospitalists and hospital-based nurses, case managers, and pharmacists. The final checklist was endorsed by the Society of Hospital Medicine

RESULTS: The finalized checklist is a comprehensive list of the processes and elements considered necessary for

optimal patient handoff at hospital discharge. This checklist focused on medication safety, patient education, and follow-up plans

CONCLUSIONS: The development of content and process standards for discharge is the first step in improving the handoff of care from the inpatient to the posthospital setting. Refining this checklist for patients with specific diagnoses, in specific age categories, and with specific discharge destinations may further improve information transfer and ultimately affect patient outcomes. (c) 2006 Society of Hospital Medicine. [References: 31]

Steel C, Ellis G. Age specialist services emergency team (ASSET): Initial results of a new clinical service. European Geriatric Medicine Conference: 8th Congress of the European Union Geriatric Medicine Society Brussels Belgium Conference Start: 20120926 Conference End: 20120928 Conference Publication: (var pagings) 2012;3(pp S110):September.

ABSTRACT:

INTRODUCTION.- Older patients form a large proportion of the medical take and this is increasing. They are at highest risk of increased length of stay, adverse health events and institutionalisation. Qualitative studies suggest elderly patients would prefer to be treated in theirownhomethan be admitted to hospital. Meta-analysis implies that Admission Avoidance Hospital at Home may be associated with better health outcomes than admission to hospital. We report the first 100 patients of a novel Age Specialist Services Emergency Team (ASSET), multidisciplinary assessment and management in the patient's own home to avoid hospital admission.

METHODS.- Patients referred to a bed bureaux for admission were offered Hospital at Home. This included review in their own home by a multidisciplinary team and consultant geriatrician within one hour. We evaluated the impact of the ASSET team on hospital admission and 30 day outcomes.

RESULTS.- One hundred consecutive patients (10% from nursing homes) were assessed by the ASSET team. Sixty-one percent were female andmeanagewas82 (range 60-98).Meanlength of staywas 4.9 days. Seventy-eight percent were able to be supported at home with only 20% being admitted to hospital. One patient died and one went into respite care temporarily. On assessing 30-day outcomes, 3% were still in hospital, 24% of patients had been readmitted to hospital with 68% supported at home and five had died.

CONCLUSION.- A hospital at home team can significantly reduce the number of admissions to hospital. Outcomes at 30 days suggest the intervention is relatively safe

Pasienter med slag (6)

Kwan J, Sandercock P. In-hospital care pathways for stroke: a Cochrane systematic review. [Review] [15 refs]. Stroke 2003;34(2):587-8.

Kwan J. Care pathways for acute stroke care and stroke rehabilitation: From theory to evidence. Journal of Clinical Neuroscience 2007;14(3):March.

ABSTRACT:

Care pathways aim to promote evidence- and guideline-based care, improve the organisation and efficiency of care, and reduce cost. In the past decade, care pathways have been increasingly implemented as a tool in acute stroke care and stroke rehabilitation. In the most recent Cochrane systematic review, which included three randomised and 12 non-randomised studies, patient management with stroke care pathways was found to have no significant benefit on functional outcome, and patient satisfaction and quality of life might actually be worse. On the other hand, it was associated with a higher proportion of patients receiving investigations and a lower risk of developing certain complications such as infections and readmissions. Overall, the evidence supports the use of care pathways in acute stroke but not stroke rehabilitation. Future developments, including electronic care pathways, patient pathways, and pre-hospital care pathways for hyperacute stroke, will be discussed. 2006 Elsevier Ltd. All rights reserved

Lichtman JH, Leifheit-Limson EC, Jones SB, Watanabe E, Bernheim SM, Phipps MS, et al. Predictors of hospital readmission after stroke: a systematic review. Stroke (00392499) 2010;41(11):2525-33.

ABSTRACT:

BACKGROUND AND PURPOSE: Risk-standardized hospital readmission rates are used as publicly reported measures reflecting quality of care. Valid risk-standardized models adjust for differences in patient-level factors across hospitals. We conducted a systematic review of peer-reviewed literature to identify models that compare hospital-level poststroke readmission rates, evaluate patient-level risk scores predicting readmission, or describe

patient and process-of-care predictors of readmission after stroke.

METHODS: Relevant studies in English published from January 1989 to July 2010 were identified using MEDLINE, PubMed, Scopus, PsycINFO, and all Ovid Evidence-Based Medicine Reviews. Authors of eligible publications reported readmission within 1 year after stroke hospitalization and identified >=1 predictors of readmission in risk-adjusted statistical models. Publications were excluded if they lacked primary data or quantitative outcomes, reported only composite outcomes, or had <100 patients.

RESULTS: Of 374 identified publications, 16 met the inclusion criteria for this review. No model was specifically designed to compare risk-adjusted readmission rates at the hospital level or calculate scores predicting a patient's risk of readmission. The studies providing multivariable models of patient-level and/or process-of-care factors associated with readmission varied in stroke definitions, data sources, outcomes (all-cause and/or stroke-related readmission), durations of follow-up, and model covariates. Few characteristics were consistently associated with readmission.

CONCLUSIONS: This review identified no risk-standardized models for comparing hospital readmission performance or predicting readmission risk after stroke. Patient-level and system-level factors associated with readmission were inconsistent across studies. The current literature provides little guidance for the development of risk-standardized models suitable for the public reporting of hospital-level stroke readmission performance

Prvu Bettger J, Alexander KP, Dolor RJ, Olson DM, Kendrick AS, Wing L, et al. Transitional care after hospitalization for acute stroke or myocardial infarction: a systematic review. Ann Intern Med 2012;157(6):407-16.

ABSTRACT:

BACKGROUND: Transitional care is a time-limited service to prevent discontinuous care and adverse outcomes, including rehospitalization. PURPOSE: To describe transitional care interventions and evidence of benefit or harm in patients hospitalized for acute stroke or myocardial infarction (MI). DATA SOURCES: Cumulative Index to Nursing and Allied Health Literature, MEDLINE, Cochrane Database of Systematic Reviews, and EMBASE, supplemented with manual searches of reference lists of relevant studies and review articles (January 2000 to March 2012). STUDY SELECTION: 6 reviewers screened 5857 citations to identify English-language reports of trials or observational studies that compared transitional care with usual care among adults hospitalized for stroke or MI and that reported patient, caregiver, process, or systems outcomes within 1 year of hospital discharge.

DATA EXTRACTION: Data on study design, quality, population, intervention characteristics, and patient- and system-level outcomes were extracted by 3 reviewers and confirmed by 1 additional reviewer.

DATA SYNTHESIS: 62 articles representing 44 studies of transitional care for either acute stroke (27 studies) or MI (17 studies). Four intervention types were studied: hospital-initiated support (n = 14), patient and family education (n = 7), community-based support (n = 20), and chronic disease management (n = 3). Most studies (68%) were of fair quality. Overall, moderate-strength evidence showed that hospital-initiated support reduced length of stay for patients who had a stroke, and low-strength evidence showed that it reduced mortality for patients who had an MI. Evidence about benefits of other interventions and harms from transitional care services was insufficient.

LIMITATIONS: Few studies had high-quality research designs. The usual care comparator was often poorly defined. Applicability to U.S. clinical practice was limited; only 6 studies were conducted in the United States.

CONCLUSION: Available evidence shows that hospital-initiated transitional care can improve some outcomes in adults hospitalized for stroke or MI. Finding additional transitional care interventions that improve functional outcomes and prevent rehospitalizations and adverse events is a high priority for the growing population of patients who have an MI or a stroke. PRIMARY FUNDING SOURCE: Agency for Healthcare Research and Quality

Stevenson D. Review: early supported discharge may reduce length of hospital stay in patients with acute stroke, but does not reduce death. Evidence Based Nursing 2002;5(4):117.

ABSTRACT:

QUESTION: In patients admitted to hospital with acute stroke, do early supported discharge (ESD) services accelerate return to home, improve patient outcomes, and reduce resource use?

DATA SOURCES Studies were identified by searching the Cochrane Stroke Group Specialised Register of Controlled Trials in April 2001 (which includes studies identified through searches of Medline, EMBASE/Excerpta Medica, BIOSIS, DERWENT Drug File, SCISEARCH, and other databases; and handsearches of selected journals, conference proceedings, and books) and by contacting trialists

STUDY SELECTION Randomised controlled trials (RCTs) of patients with stroke were included if they compared conventional hospital discharge procedures with alternative services that aimed to accelerate patient discharge from hospital by providing rehabilitation and/or physical support in community settings (ie, ESD)

DATA EXTRACTION Data were extracted on methods, participants, interventions, and outcomes. Main outcomes were death, place of residence, and physical dependency. Secondary outcomes included, among others, resource

outcomes such as length of hospital stay and readmissions. Methodological quality of individual trials was assessed (concealment of allocation, intention to treat analysis, and blinding of outcome assessors)

MAIN RESULTS Of the 9 trials that met the selection criteria, primary outcome data were only available for 4 (n=757, mean/median age ranged from 71-75 y). 3 trials involved units with a coordinated ESD team, which both planned and provided care, whereas the fourth trial had no coordinated ESD team, with care being planned and provided by a range of community stroke services. All 4 trials had concealed allocation to groups and blinded outcome assessment; follow up ranged from 92% to 98%. Meta-analysis of these 4 trials showed that the ESD and conventional care groups did not differ for death, combined death or institutional care, or combined death or dependency (table). Patients in the ESD group had a shorter initial hospital stay than the conventional care group (4 trials, n=741, weighted mean difference -15 d, 95% CI -24 to -6), but did not differ for readmissions (2 trials, n=423, 22% v 22%)

CONCLUSION In patients admitted to hospital with acute stroke, early supported discharge may reduce length of initial hospital stay, but does not reduce death, combined death or institutional care, or combined death or dependency

Stroke: prevention of readmission - Primary research (Project record). 2003.

Pasienter med hjertesvikt (33)

Intervensjoner om elektronisk oppfølging og monitorering (5)

Abraham WT. New approaches to monitoring heart failure before symptoms appear. Reviews in Cardiovascular Medicine 2006;7(SUPPL.#1):2006.

ABSTRACT:

Intrathoracic impedance monitoring (approved by the US Food and Drug Administration) and implantable hemodynamic monitoring (IHM), which is under investigation, are promising techniques for the improved management of heart failure by detecting early changes in fluid status or hemodynamic congestion. Routine outpatient surveillance of intrathoracic impedance data from implanted devices may significantly reduce the currently high rates of hospital admission/readmission for patients with heart failure. IHM systems may extend such monitoring capabilities. Both emerging approaches for monitoring patients with heart failure may alert clinicians (and possibly patients) to impending decompensation before symptoms appear. 2006 MedReviews, LLC

Inglis SC, Clark RA, Cleland JGF, McAlister F, Stewart S. Structured telephone support or telemonitoring programs for patients with chronic heart failure. Cochrane Database of Systematic Reviews (3) , 2008 Article Number: CD007228 Date of Publication: 2008 2008;(3):CD007228.

Louis AA, Turner T, Gretton M, Baksh A, Cleland JG. A systematic review of telemonitoring for the management of heart failure. [Review] [51 refs]. European Journal of Heart Failure 2003;5(5):583-90.

ABSTRACT:

BACKGROUND: Telemonitoring allows a clinician to monitor, on a daily basis, physiological variables measured by patients at home. This provides a means to keep patients with heart failure under close supervision, which could reduce the rate of admission to hospital and accelerate discharge

OBJECTIVE: To review the literature on the application of telemedicine in the management of heart failure

METHODS: A literature search was conducted on studies involving telemonitoring and heart failure between 1966 and 2002 using Medline, Embase, Cochrane Library and Journal of Telemedicine and Telecare

RESULTS: Eighteen observational studies and six randomised controlled trials involving telemonitoring and heart failure were identified. Observational studies suggest that telemonitoring; used either alone or as part of a multidisciplinary care program, reduce hospital bed-days occupancy. Patient acceptance of and compliance with telemonitoring was high. Two randomised controlled trials suggest that telemonitoring of vital signs and symptoms facilitate early detection of deterioration and reduce readmission rates and length of hospital stay in patients with heart failure. One study also showed a reduction in readmission charges. One substantial randomised controlled study showed a significant reduction in mortality at 6 months by monitoring weight and symptoms in patients with heart failure; however, no difference was observed in readmission rates. Another randomised study comparing videoconsultation performed as part of a home health care programme for patients with a variety of diagnoses, suggested

a reduction in the costs of hospital care, which offset the cost of video-consultation. Patients with heart failure were not reported separately. One randomised study showed no difference in outcomes between the telemonitoring group and the standard care group

CONCLUSION: Telemonitoring might have an important role as part of a strategy for the delivery of effective health care for patients with heart failure. Adequately powered multicentre, randomised controlled trials are required to further evaluate the potential benefits and cost-effectiveness of this intervention. [References: 51]

Martinez A, Everss E, Rojo-Alvarez JL, Figal DP, Garcia-Alberola A. A systematic review of the literature on home monitoring for patients with heart failure. [Review] [48 refs]. Journal of Telemedicine & Telecare 2006;12(5):234-41.

ABSTRACT:

We conducted a systematic review of the literature for assessing the value of home monitoring for heart failure (HF) patients. The abstracts of 383 articles were read. We excluded those in which either no home monitoring was done or only the technical aspects of the telemedicine application were described. Forty-two studies met the selection criteria. We classified the results into feasibility (technical and institutional) and impact (on the clinical process, on patient health, on accessibility and acceptability of the health system, and on the economy). Evaluating the articles showed that home monitoring in HF patients is viable, given that: (1) it appears to be technically effective for following the patient remotely; (2) it appears to be easy to use, and it is widely accepted by patients and health professionals; and (3) it appears to be economically viable. Furthermore, home monitoring of HF patients has been shown to have a positive impact on: (1) the clinical process, supported by a significant improvement of patient follow-up by adjustment of treatment, diet or behaviour, as well as hospital readmissions and emergency visits reduction; (2) the patient's health, supported by a relevant improvement in quality of life, a reduction of days in hospital, and a decrease in mortality; and (3) costs resulting from the use of health resources. [References: 48]

Seto E. Cost comparison between telemonitoring and usual care of heart failure: a systematic review. [Review] [32 refs]. Telemedicine Journal & E-Health 2008;14(7):679-86.

ABSTRACT:

Heart failure (HF) is associated with high direct and indirect costs to the patients and the healthcare system. This systematic review aims to analyze existing economic data to determine whether telemonitoring of patients with HF will result in decreased costs. The Scopus and PubMed databases were searched independently by two reviewers for journal articles that reported on an economic analysis (i.e., calculated monetary amounts or percentage change in costs) of a study using a HF telemonitoring system. Only articles describing telemonitoring systems with a component of home physiological measurements were included. Eleven articles met the inclusion criteria, describing 10 different HF telemonitoring systems. Nine of the 10 studies analyzed the direct costs to the healthcare system. All the studies found cost reductions from telemonitoring compared to usual care, which ranged between 1.6% and 68.3%. Cost reductions were mainly attributed to reduced hospitalization expenditures. Only one study discussed the impact of HF telemonitoring on direct patient costs. The study found a 3.5% lower travel cost for patients using telemonitoring compared to those in the usual care group. The single study that was found for indirect costs described the willingness to pay for telemedicine by patients with HF (55% of the patients with HF were willing to pay $20 to access telemedicine, and 19% were willing to pay $40). Available data from existing studies suggest that although HF telemonitoring will require an initial financial investment, it will substantially reduce costs in the long term, particularly by reducing rehospitalization and travel costs. [References: 32]

Intervensjoner i kommunen (2)

Case R, Haynes D, Holaday B, Parker VG. Evidence-based nursing: the role of the advanced practice registered nurse in the management of heart failure patients in the outpatient setting. Dimens Crit Care Nurs 2010;29(2):57-62.

ABSTRACT:

Heart failure (HF) is a chronic debilitating illness that affects millions of Americans each year. Patients with HF are faced with chronic physical symptoms, emotional strain, and significant socioeconomic burden. Goals in the management of HF are to slow the disease progression, decrease symptom acuity, and prevent exacerbations that lead to hospital readmission. Management of HF remains a challenge for healthcare providers. There is a fine balance between optimizing patient functioning and minimizing healthcare expenditures. With the incidence of HF increasing annually, it is important to have effective disease management strategies in place. In any disease management program, it is important to follow those guidelines outlined by evidence-based practice. The purpose of this systematic review was to evaluate current evidence-based practice and determine what benefit exists of having an advanced practice registered nurse assist in the management of patients with HF

Ponniah A, Anderson B, Shakib S, Doecke CJ, Angley M. Pharmacists' role in the post-discharge management of patients with heart failure: A literature review. J Clin Pharm Ther 2007;32(4):August.

ABSTRACT:

BACKGROUND and Objective: The incidence of heart failure is increasing in developed countries. In the aged population, heart failure is a common cause of hospitalization and hospital readmission, which in conjunction with post-discharge care, impose a significant cost burden. Inappropriate medication management and drug-related problems have been identified as major contributors to hospital readmissions. In order to enhance the care and clinical outcomes, and reduce treatment costs, heart failure disease management programmes (DMPs) have been developed. It is recommended that these programmes adopt a multi-disciplinary approach, and pharmacists, with their understanding and knowledge of medication management, can play a vital role in the post-discharge care of heart failure patients. The aim of this literature review was to assess the role of pharmacists in the provision of post-charge services for heart failure patients.

METHOD: An extensive literature search was undertaken to identify published studies and review articles evaluating the benefits of an enhanced medication management service for patients with heart failure post-discharge.

RESULTS: Seven studies were identified evaluating 'outpatient' or 'post-discharge' pharmacy services for patients with heart failure. In three studies, services were delivered prior to discharge with either subsequent telephone or home visit follow-up. Three studies involved the role of a pharmacist in a specialist heart failure outpatient clinic. One study focused on a home-based intervention. In six of these studies, positive outcomes, such as decreases in unplanned hospital readmissions, death rates and greater compliance and medication knowledge were demonstrated. One study did not show any difference in the number of hospitalizations between intervention and control groups. The quality of evidence of the randomized controlled trials was assessed using the Jadad scoring method. None of the studies achieved a score of more than 2, out of a maximum of 5, indicating the potential for bias. Discussion: The DMPs carried out by pharmacists have contributed to positive patient outcomes, which has highlighted the value of extending the traditional roles of pharmacists from the provision of professional guidance to the delivery of continuity of care through a more holistic and direct approach.

CONCLUSION: This review has demonstrated the effectiveness of pharmacists' interventions to reduce the morbidity and mortality associated with heart failure. However, there is an on-going need for the development and evaluation of pharmacy services for these patients. 2007 Blackwell Publishing Ltd

Intervensjoner om bruk av retningslinjer og behandlingslinjer (1)

Kul S, Barbieri A, Milan E, Montag I, Vanhaecht K, Panella M. Effects of care pathways on the in-hospital treatment of heart failure: a systematic review. [Review]. BMC Cardiovascular Disorders 2012;12:81.

ABSTRACT:

BACKGROUND: Care pathways have become a popular tool to enhance the quality of care by improving patient outcomes, promoting patient safety, increasing patient satisfaction, and optimizing the use of resources. We performed a disease specific systematic review to determine how care pathways in the hospital treatment of heart failure affect in-hospital mortality, length of in-hospital stay, readmission rate and hospitalisation cost when compared with standard care

METHODS: Medline, Cinahl, Embase and the Cochrane Central Register of Controlled Trials were searched from 1985 to 2010. Each study was assessed independently by two reviewers. methodological quality of the included studies was assed using the Jadad methodological approach for randomised controlled trials, controlled clinical trials and the New Castle Ottawa Scale for case-control studies, cohort studies and time interrupted series

RESULTS: Seven studies met the study inclusion criteria and were included in the systematic review with a total sample of 3,690 patients. The combined overall results showed that care pathways have a significant positive effect on mortality and readmission rate. A shorter length of hospital stay was also observed compared with the standard care group. No significant difference was found in the hospitalisation costs. More positive results were observed in controlled trials compared to randomized controlled trials

CONCLUSION: By combining all possible results, it can be concluded that care pathways for treatment of heart failure decrease mortality rates and length of hospital stay, but no statistically significant difference was observed in the readmission rates and hospitalisation costs. However, one should be cautious with overall conclusions: what works for one organization may not work for another because of the subtle differences in processes and bottlenecks

Intervensjoner på sykehus om tilrettelegging av behandling og etter utskrivning (15)

Ditewig JB, Blok H, Havers J, van Veenendaal H. Effectiveness of self-management interventions on mortality, hospital readmissions, chronic heart failure hospitalization rate and quality of life in patients with chronic heart failure: a systematic review. Patient Education & Counseling 2010;78(3):297-315.

ABSTRACT:

OBJECTIVE: This review examined the effectiveness of self-management interventions compared to usual care on mortality, all-cause hospital readmissions, chronic heart failure hospitalization rate and quality of life in patients with chronic heart failure.

METHODS: A systematic review was performed. MEDLINE, EMBASE, CINAHL and the Cochrane Library were searched between 1996 and 2009. Randomized controlled trials were selected evaluating self-management interventions designed for patients with chronic heart failure. Outcomes of interest are mortality, all-cause hospital readmissions, chronic heart failure hospitalization rate and quality of life.

RESULTS: Nineteen randomized controlled trials were identified. The effectiveness of heart failure management programs initiating self-management interventions in patients with chronic heart failure indicate a positive effect, although not always significant, on reduction of numbers of all-cause hospital readmitted patients and due to chronic heart failure, decrease in mortality and increasing quality of life.

CONCLUSION: This systematic review found that current available published studies show methodological shortcomings impairing validation of the effectiveness of self-management interventions on mortality, all-cause hospital readmissions, chronic heart failure hospitalization rate and quality of life in patients with chronic heart failure.

PRACTICE IMPLICATIONS: Further research should determine independent effects of self-management interventions and different combinations of interventions on clinical and patient reported outcomes

Driscoll A, Worrall-Carter L, McLennan S, Dawson A, O'Reilly J, Stewart S. Heterogeneity of heart failure management programs in Australia. European Journal of Cardiovascular Nursing 2006;5(1):75-82.

ABSTRACT:

BACKGROUND: Heart Failure Management Programs (HFMPs) have proven to be cost-effective in minimising recurrent hospitalisations, morbidity and mortality. However, variability between the programs exists which could translate into variable health outcomes

OBJECTIVE: To survey the characteristics of HFMPs throughout Australia and to identify potential heterogeneity in their organisation and structure

METHOD: Thirty-nine post-discharge HFMPs were identified from a systematic search of the Australian health-care system in 2002. A comprehensive 19-item questionnaire specifically examining characteristics of HFMPs was sent to co-ordinators of identified programs in early 2003

RESULTS: All participants responded with six institutions (15%) indicating that their HFMP had ceased operations due to a lack of funding. The survey revealed an uneven distribution of the 33 active HFMPs operating throughout Australia. Overall, 4450 post-discharge HF patients (median: 74; IQR: 24-147) were managed via these programs, representing only 11% of the potential caseload for an Australia-wide network of HFMPs. Heterogeneity of these programs existed in respect to the model of care applied within the program (70% applied a home-based program and 18% a specialist HF clinic) and applied interventions (30% of programs had no discharge criteria and 45% of programs prevented nurses administering/titrating medications). Sustained funding was available to only 52% of the active HFMPs

CONCLUSION: Inequity of access to HFMPs in Australia is evident in relation to locality and high service demand, further complicated by inadequate funding. Heterogeneity between these programs is substantial. The development of national benchmarks for evidence-based HFMPs is required to address program variability and funding issues to realise their potential to improve health outcomes

Duffy JR, Hoskins LM, Chen M. Nonpharmacological strategies for improving heart failure outcomes in the community: a systematic review. J Nurs Care Qual 2004;19(4):349-60.

ABSTRACT:

The purpose of this systematic review was to synthesize current evidence regarding nonpharmacological approaches to heart failure (HF) management. Following a literature search, identified studies were coded using the Heart Failure Study Assessment Scale (HFSAS) developed by the authors. Results included high-quality ratings, a pre-

dominance of multidisciplinary disease management studies, decreased readmission rates, and some improvement in quality of life. Implications for practice, leadership, education, and research are described

G+¦hler A, Januzzi JL, Worrell SS, Osterziel KJ, Gazelle GS, Dietz R, et al. A systematic meta-analysis of the efficacy and heterogeneity of disease management programs in congestive heart failure. J Card Fail 2006;12(7):554-67.

ABSTRACT:

BACKGROUND: We sought to systematically combine the evidence on efficacy of disease management programs (DMPs) in the treatment of congestive heart failure (CHF), to identify and explain heterogeneity of results from prior studies of DMPs, and to assess potential publication bias from these studies.

METHODS AND RESULTS: We conducted a systematic literature search on randomized clinical trials investigating the effect of DMPs on CHF outcomes and performed meta-analyses and meta-regressions comparing DMPs and standard care for mortality and rehospitalization. We included 36 studies from 13 different countries (with data from 8341 patients). Our meta-analysis yielded a pooled risk difference of 3% (95% confidence interval [CI] 1-6%, P < .01) for mortality and of 8% (95% CI 5-11%, P < .0001) for rehospitalization, both favoring DMP. Factors explaining heterogeneity between studies included severity of disease, proportion of beta-blocker at baseline, country, duration of follow-up, and mode of postdischarge contact. No statistically significant publication bias was detected.

CONCLUSION: DMPs have the potential to reduce morbidity and mortality for patients with CHF. The benefit of the intervention depends on age, severity of disease, guideline-based treatment at baseline, and DMP modalities. Future studies should directly compare the effect of different aspects of disease management programs for different populations

Gonseth J, Guallar-Castillon P, Banegas JR, Rodriguez-Artalejo F. The effectiveness of disease management programmes in reducing hospital re-admission in older patients with heart failure: a systematic review and meta-analysis of published reports. Eur Heart J 2004;25:1570-95.

Goto Y. Secondary prevention of heart failure: prevention with cardiac rehabilitation as a disease management program. Journal of Cardiac Failure Conference: 15th Annual Scientific Meeting of the Japanese Heart Failure Society, JHFS 2011 Kagoshima Japan Conference Start: 20111013 Conference End: 20111015 Conference Publication: (var pagings) 2011;17(9 SUPPL.#1):September.

ABSTRACT:

Heart failure (HF) is characterized by impaired exercise tolerance, increased risk for readmission, and reduced survival. Until recently, exercise was believed to be harmful for HF, and bed rest was recommended as a primary treatment for HF. However, recent studies have demonstrated that cardiac rehabilitation/exercise training (CR/ ET) with an appropriate exercise prescription effectively improves exercise capacity without adversely affecting left ventricular function or plasma B-type natriuretic peptide (BNP) levels in patients with HF. In addition, an outpatient CR/ET program has been reported to successfully play the role of a disease management program to improve quality of life (QOL) and to reduce readmission for hospitalized HF patients. Furthermore, recent meta-analyses and a large clinical trial (HF-ACTION) have indicated that ET programs improve long term prognosis (death/rehospitalization) in HF patients. Despite the accumulated evidence of efficacy of CR/ET, a nationwide survey in Japan indicated that the implementation of outpatient CR/ET programs remains very low.

CONCLUSIONS: CR/ET has become an important management modality of secondary prevention for HF, and therefore, CR/ET should be implemented more widely in the treatment strategy for HFto improve not only exercise capacity, but also QOL and long term prognosis of HF patients

Gwadry-Sridhar FH, Flintoft V, Lee DS, Lee H, Guyatt GH. A systematic review and meta-analysis of studies comparing readmission rates and mortality rates in patients with heart failure. [Review] [27 refs]. Arch Intern Med 2004;164(21):2315-20.

ABSTRACT:

BACKGROUND: Heart failure is the leading cause of hospitalization and readmission in many hospitals worldwide. We performed a meta-analysis to evaluate the effectiveness of multidisciplinary heart failure management programs on hospital admission rates

METHODS: We identified studies through an electronic search and mortality using 8 distinct methods. Eligible studies met the following criteria: (1) randomized controlled clinical trials of adult inpatients hospitalized for heart failure enrolled either at the time of discharge or within 1 week after discharge; (2) heart failure-specific patient education intervention coupled with a postdischarge follow-up assessment; and (3) unplanned readmission reported. Four reviewers independently assessed each study for eligibility and quality, achieving a weighted kappa of 0.73 for eligibility and 0.77 for quality. For each study we calculated the relative risk for readmissions and mortality for patients

receiving enhanced education relative to patients receiving usual care

RESULTS: A total of 529 citation titles were identified, of which 8 randomized trials proved eligible. The pooled relative risk for hospital readmission rates using a random-effects model was 0.79 (95% confidence interval, 0.68-0.91; P<.001; heterogeneity P = .25). There was no apparent effect on mortality (relative risk, 0.98; 95% confidence interval, 0.72-1.34; P = .90; heterogeneity P = .20). Data were insufficient to meaningfully pool intervention effects on quality of life or compliance

CONCLUSION: This systematic review suggests that specific heart failure-targeted interventions significantly decrease hospital readmissions but do not affect mortality rates. [References: 27]

Jovicic A, Holroyd-Leduc JM, Straus SE. Effects of self-management intervention on health outcomes of patients with heart failure: a systematic review of randomized controlled trials. [Review] [25 refs]. BMC Cardiovascular Disorders 2006;6:43.

ABSTRACT:

BACKGROUND: Heart failure is the most common cause of hospitalization among adults over 65. Over 60% of patients die within 10 years of first onset of symptoms. The objective of this study is to determine the effectiveness of self-management interventions on hospital readmission rates, mortality, and health-related quality of life in patients diagnosed with heart failure

METHODS: The study is a systematic review of randomized controlled trials. The following data sources were used: MEDLINE (1966-11/2005), EMBASE (1980-11/2005), CINAHL (1982-11/2005), the ACP Journal Club database (to 11/2005), the Cochrane Central Trial Registry and the Cochrane Database of Systematic Reviews (to 11/2005); article reference lists; and experts in the field. We included randomized controlled trials of self-management interventions that enrolled patients 18 years of age or older who were diagnosed with heart failure. The primary outcomes of interest were all-cause hospital readmissions, hospital readmissions due to heart failure, and mortality. Secondary outcomes were compliance with treatment and quality of life scores. Three reviewers independently assessed the quality of each study and abstracted the results. For each included study, we computed the pooled odds ratios (OR) for all-cause hospital readmission, hospital readmission due to heart failure, and death. We used a fixed effects model to quantitatively synthesize

RESULTS. We were not able to pool effects on health-related quality of life and measures of compliance with treatment, but we summarized the findings from the relevant studies. We also summarized the reported cost savings results: From 671 citations that were identified, 6 randomized trials with 857 patients were included in the review. Self-management decreased all-cause hospital readmissions (OR 0.59; 95% confidence interval (CI) 0.44 to 0.80, P = 0.001) and heart failure readmissions (OR 0.44; 95% CI 0.27 to 0.71, P = 0.001). The effect on mortality was not significant (OR = 0.93; 95% CI 0.57 to 1.51, P = 0.76). Adherence to prescribed medical advice improved, but there was no significant difference in functional capabilities, symptom status and quality of life. The reported savings ranged from 1300 to 7515 dollars per patient per year

CONCLUSION: Self-management programs targeted for patients with heart failure decrease overall hospital readmissions and readmissions for heart failure. [References: 25]

Lambrinou E, Kalogirou F, Lamnisos D, Sourtzi P. Effectiveness of heart failure management programmes with nurse-led discharge planning in reducing re-admissions: A systematic review and meta-analysis. Int J Nurs Stud 2012;49(5):610-24.

ABSTRACT:

BACKGROUND: Heart failure (HF) is a clinical condition with major socioeconomic burden. Scientists are trying to find effective solutions to eliminate the effects of the disease and the current innovations in research address the introduction of HF management programmes (HF-MPs).

OBJECTIVES: A meta-analysis was undertaken to estimate the effect of HF-MP with a nurse-driven pre-discharge phase on the outcomes of HF and all-cause re-admission.

DATA SOURCES: A systematic search of PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Cochrane Library (reviews and clinical trials) was performed to locate randomised controlled trials (RCTs), published in English language, which implemented any HF-MP with discharge planning carried out by a nurse. Identified articles were further screened for additional studies.

STUDY SELECTION: Two reviewers independently screened relevant abstracts or titles using a standardised predefined check list. Pilot studies, studies additionally assessing other conditions and studies that evolved technology utilities or included medication management beyond optimisation of therapy, were excluded.

DATA EXTRACTION: Selected articles were thoroughly screened and data of interest (characteristics and outcomes) were obtained. Quality assessment was done by two reviewers separately.

DATA SYNTHESIS: Nineteen RCTs were selected for the meta-analysis. The overall pooled effect (relative risk,

RR) of the intervention group compared with the control group was estimated by using a random effects analysis (95% confidence interval (CI)) for the outcomes of HF-related re-admission and all-cause re-admission. The overall RR of HF re-admissions was 0.68, 95% CI (0.53, 0.86), p <0.05 and of all-cause re-admission was 0.85, 95% CI (0.76, 0.94), p <0.05 favouring the intervention. Metaregression analysis was performed while trying to explain the observed heterogeneity but none of the factors (environment, duration of follow-up, origin and complexity) were significantly related with the RR. No significant publication bias was observed regarding both HF and all-cause re-admission.

CONCLUSIONS: The results of the current meta-analysis highlight the potential of HF-MPs with nurse-driven pre-discharge interventions to reduce hospital re-admissions. Essential characteristics or components of a successful HF-MP are still to be determined; thus more studies are required to solve this issue

Lavenberg JG, Williams K, Behta M. Reducing heart failure readmissions.: Center for Evidence-based Practice (CEP); 2012.

Riegel B, Naylor M, Stewart S, McMurray JJV, Rich MW, Phillips CO, et al. Interventions to prevent readmission for congestive heart failure... Phillips CO, Wright SM, Kern DE et al. Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis. JAMA. 2004;291:1358-1367. JAMA: Journal of the American Medical Association 2004;291(23):2816-7.

Stewart S, McAlister FA, McMurray JJV, Gwadry-Sridhar FH, Flintoft V, Lee DS, et al. Heart failure management programs reduce readmissions and prolong survival... Gwadry-Sridhar FH, Flintoft V, Lee DS, Lee H, Guyatt GH. A systematic review and meta-analysis of studies comparing Readmission rates and mortality rates in patients with heart failure. Arch Intern Med. 2004; 164:2315-2320. Arch Intern Med 2005;165(11):1311-2.

Takeda A, Taylor SJ, Taylor RS, Khan F, Krum H, Underwood M. Clinical service organisation for heart failure. [Review][Update of Cochrane Database Syst Rev. 2005;(2):CD002752; PMID: 15846638]. Cochrane Database of Systematic Reviews 2012;9:CD002752.

ABSTRACT:

BACKGROUND: Chronic heart failure (CHF) is a serious, common condition associated with frequent hospitalisation. Several different disease management interventions (clinical service organisation interventions) for patients with CHF have been proposed

OBJECTIVES: To update the previously published review which assessed the effectiveness of disease management interventions for patients with CHF

SEARCH METHODS: A number of databases were searched for the updated review: CENTRAL, (the Cochrane Central Register of Controlled Trials) and DARE, on The Cochrane Library, (Issue 1 2009); MEDLINE (1950-January 2009); EMBASE (1980-January 2009); CINAHL (1982-January 2009); AMED (1985-January 2009). For the original review (but not the update) we had also searched: Science Citation Index Expanded (1981-2001); SIGLE (1980-2003); National Research Register (2003) and NHS Economic Evaluations Database (2001). We also searched reference lists of included studies for both the original and updated reviews

SELECTION CRITERIA: Randomised controlled trials (RCTs) with at least six months follow up, comparing disease management interventions specifically directed at patients with CHF to usual care

DATA COLLECTION AND ANALYSIS: At least two reviewers independently extracted data and assessed study quality. Study authors were contacted for further information where necessary. Data were analysed and presented as odds ratios (OR) with 95% confidence intervals (CI)

MAIN RESULTS: Twenty five trials (5,942 people) were included. Interventions were classified by: (1) case management interventions (intense monitoring of patients following discharge often involving telephone follow up and home visits); (2) clinic interventions (follow up in a CHF clinic) and (3) multidisciplinary interventions (holistic approach bridging the gap between hospital admission and discharge home delivered by a team). The components, intensity and duration of the interventions varied, as did the 'usual care' comparator provided in different trials.Case management interventions were associated with reduction in all cause mortality at 12 months follow up, OR 0.66 (95% CI 0.47 to 0.91, but not at six months. No reductions were seen for deaths from CHF or cardiovascular causes. However, case management type interventions reduced CHF related readmissions at six month (OR 0.64, 95% CI 0.46 to 0.88, P = 0.007) and 12 month follow up (OR 0.47, 95% CI 0.30 to 0.76). Impact of these interventions on all cause hospital admissions was not apparent at six months but was at 12 months (OR 0.75, 95% CI 0.57 to 0.99, I(2) = 58%). CHF clinic interventions (for six and 12 month follow up) revealed non-significant reductions in all cause mortality, CHF related admissions and all cause readmissions.Mortality was not reduced in the two studies that looked at multidisciplinary interventions. However, both all cause and CHF related readmissions were reduced (OR 0.46, 95% CI 0.46-0.69, and 0.45, 95% CI 0.28-0.72, respectively)

AUTHORS' CONCLUSIONS: Amongst CHF patients who have previously been admitted to hospital for this condi-

tion there is now good evidence that case management type interventions led by a heart failure specialist nurse reduces CHF related readmissions after 12 months follow up, all cause readmissions and all cause mortality. It is not possible to say what the optimal components of these case management type interventions are, however telephone follow up by the nurse specialist was a common component.Multidisciplinary interventions may be effective in reducing both CHF and all cause readmissions. There is currently limited evidence to support interventions whose major component is follow up in a CHF clinic

Verdiani V, Nozzoli C. Heart failure: Preventing rehospitalizations by disease management programs. [Italian]. Monaldi Archives for Chest Disease - Cardiac Series 2004;62(2):June.

ABSTRACT:

Chronic heart failure is a growing public health problem for prevalence, morbidity and costs. The major proportion of costs is attributable to rehospitalizations and many of these readmissions may be preventable. Since 1990, some investigators have tested a variety of disease management programs designed to improve quality of life, functional status and decrease rehospitalizations rates. We identified these studies by a computerized search of the MEDLINE database. The programs described reflected a wide variety of methods and we categorized these programs recognizing the prevalent disease management approach. We reported the results of these trials about rehospitalizations and analysed a number of limitations that must be considered when determining their adoption into clinical practice

Wakefield BJ, Boren SA, Groves PS, Conn VS. Heart Failure Care Management Programs: A Review of Study Interventions and Meta-Analysis of Outcomes. J Cardiovasc Nurs 2013;28(1):8-19.

ABSTRACT:

BACKGROUND:: The objective of this systematic review and meta-analysis was to describe and quantify individual interventions used in multicomponent outpatient heart failure management programs.

METHODS:: MEDLINE, CINAHL, and the Cochrane Central Register of Controlled Trials between 1995 and 2008 were searched using 10 search terms. Randomized controlled trials evaluating outpatient programs that addressed comprehensive care to decrease readmissions for patients with heart failure were identified. Forty-three articles reporting on 35 studies that reported readmissions separately from other outcomes were included. Three investigators independently abstracted primary study characteristics and outcomes.

RESULTS:: In the 35 studies, participants included 8071 subjects who were typically older (mean [SD] age, 70.7 [6.5] years) and male (59%). Using our coding scheme, the number of individual interventions within a program ranged from 1 to 7 within individual studies; the most commonly used interventions were patient education, symptom monitoring by study staff, symptom monitoring by patients, and medication adherence strategies. Most programs had a teaching component with a mean (SD) of 6.4 (3.9) individual topics covered; frequent teaching topics were symptom recognition and management, medication review, and self-monitoring. Fewer than half of the 35 studies reviewed reported adequate data to be included in the meta-analysis. Some outcomes were infrequently reported, limiting statistical power to detect treatment effects.

CONCLUSION:: A number of studies evaluating multicomponent HF management programs have found positive effects on important patient outcomes. The contribution of the individual interventions included in the multicomponent program on patient outcomes remains unclear. Future studies of chronic disease interventions must include descriptions of recommended key program components to identify critical program components

Willey R. Managing heart failure: a critical appraisal of the literature. J Cardiovasc Nurs 2012;27(5):403-17.

ABSTRACT:

BACKGROUND: : Preventing heart failure (HF) rehospitalizations requires examination of evidence-based research, which may lead to opportunities to improve on care transitions upon discharge from an acute care setting. This review was conducted to identify current literature in HF and disease management without focusing specifically on disease management programs.

PURPOSE: : The purpose of this study was to conduct a systematic review of the literature to better understand how to structure interventions for HF patients upon transition from the hospital to home and to outline critical research gaps.

CONCLUSION: : Patients recently hospitalized for HF or at high risk for HF decompensation should be considered for comprehensive heart failure disease management (HFDM) and/or structured HF interventions. Level 1 evidence demonstrated positive benefits from HFDM programs, structured telephone support, and telemonitoring interventions as an effective component of contemporary multidisciplinary HF management.

CLINICAL IMPLICATIONS: : Based on the evidence from this critique, key features and recommendations are provided. Also discussed is the State Action on Avoidable Rehospitalizations program, which may provide acute care centers in Massachusetts an opportunity to create an ideal transition home for HF patients

Intervensjoner om organisering av personell og opphold (4)

Biermann J, Mostardt S, Neumann T, Erbel R, Wasem J, Neumann A, et al. [Cost-effectiveness of study nurses in the management of patients with heart failure. A systematic review]. [Review] [German]. Herz 2010;35(4):273-83.

ABSTRACT:

BACKGROUND AND PURPOSE: Heart failure is currently one of the most common and cost-intensive diseases. Furthermore, high morbidity and mortality are distinctive for this disease. Therefore, new treatment programs are increasingly developed; especially the care of heart failure patients by specialized nurses (study nurses) represents a frequent new concept. This review gives a systematic overview of the cost-effectiveness of new treatment concepts with study nurses in comparison to the conventional care of heart failure

METHODS: A systematic literature search in MEDLINE was performed for the period from 1995 till April 2008. The search strategy included terms from three essential areas relating to the working subject: twelve search keys with regard to the clinical picture, 21 words concerning the intervention with study nurses, and 27 terms with reference to health economics. The literature selection was carried out on the basis of a priori defined in- and exclusion criteria. Economic evaluations based on randomized controlled trials with a study duration of at least 6 months which were published in English or German were enclosed. An extraction of the relevant data as well as a qualitative synthesis of information were conducted

RESULTS: A total of 13 studies were identified. With five of nine of the enclosed publications, a statistically significant reduction of the number of all-cause rehospitalizations was reported. Two of twelve publications showed a statistically significant decrease in mortality in favor of the intervention group. Twelve of 13 publications only reported the costs and effects of both groups separately. For the five of nine publications with significant reductions of rehospitalization, an own calculation of the incremental cost-effectiveness ratio (ICER) could be carried out based on the cost and effect data. It turned out an ICER of costs at the rate of 490 Euros up to savings of 7,330 Euros per prevented rehospitalization

CONCLUSION: This systematic review shows an international trend that concepts for the care of patients with heart failure that involve study nurses are cost-effective. For the German context there are no comparable data available

Briffa TG, Kinsman L, Maiorana AJ, Zecchin R, Redfern J, Davidson PM, et al. An integrated and coordinated approach to preventing recurrent coronary heart disease events in Australia. [Review] [32 refs]. Med J Aust 2009;190(12):683-6.

ABSTRACT:

Implementing existing knowledge about cardiac rehabilitation (CR) and heart failure management could markedly reduce mortality after acute coronary syndromes and revascularisation therapy. Contemporary CR and secondary prevention programs are cost-effective, safe and beneficial for patients of all ages, leading to improved survival, fewer revascularisation procedures and reduced rehospitalisation. Despite the proven benefits attributed to these secondary prevention interventions, they are not well attended by patients. Modern programs must be flexible, culturally safe, multifaceted and integrated with the patient's primary health care provider to achieve optimal and sustainable benefits for most patients. [References: 32]

Gafford E, Kraut R, Light-McGroary KA, Disch M. Is palliative care part of the solution for 30-day heart failure hospital readmission? (FR418) heart failure SIG. Journal of Pain and Symptom Management Conference: Annual Assembly of the American Academy of Hospice and Palliative Medicine and the Hospice and Palliative Nurses Association, AAHPN/NPNA 2013 New Orleans, LA United States Conference Start: 20130313 Con 2013;45(2):February.

ABSTRACT:

OBJECTIVES 1. Cite population characteristics of heart failure patients that are at highest risk for 30- day hospital readmission. 2. Recall the presentations, diagnoses, and other contributing factors common for heart failure (HF) readmissions. Consider techniques to identify possible points of effective palliative care intervention. 3. Identify a plan using the application of acquired knowledge to address the heart failure early readmissions in your institution, citing possible points of impact for palliative care. HF patients are chronically critically and eventually terminally ill patients. Sadly this progression comes as a surprise to many of them. Early awareness of the potential for terminal and disabling illness is the key not only for end-of-life planning, but also for empowering these patients to maximize the time they have by embracing and engaging their disease on their terms. Palliative care has long been valued for the team's ability to enhance awareness and incorporation of the patient's goals and values into the care plan for personalized end-of-life decision making and/or planning. Engaging patients in the same manner for the purpose of disease management has the promise of improving compliance, increasing empowerment in control of their future, and, perhaps most importantly, reducing hopelessness in a population of patients with the most prevalent terminal

illness on the planet. This presentation will review the literature regarding the impact of palliative care interventions on care plans and readmissions in general. A specific focus on discussion of the factors leading to readmission for the diagnosis of HF will attempt to identify those factors most likely to be causative-and those factors most likely to be amenable to influence of the benefit of early trajectory palliative care intervention. The mechanism and framework for assessment, engagement, and documentation of such encounters will also be presented for discussion. Findings from examination of HF patient patterns in our own institution will be presented. Projects in progress will be discussed as a resource for other institutions to develop plans specific to the needs of their patient population. Facilitated open discussion will offer an opportunity for collaboration to further these efforts

Lambrinou E, Kalogirou F. The effects of advanced nursing interventions on patients with heart failure. European Journal of Heart Failure, Supplement Conference: Heart Failure 2009 Nice France Conference Start: 20090530 Conference End: 20090602 Conference Publication: (var pagings) 2009;8(pp ii568):May.

ABSTRACT:

Introduction: Cypriots are living longer, but often with chronic diseases like Heart Failure (HF). Despite the recent pharmacological therapies the outcomes of patients with HF remain poor. The socioeconomic burden is huge and the scientific community aims to eliminate the consequences of heart failure via the implementation of cost effective, non pharmacological management programs. Several models of such heart failure management programs have revealed a variety of outcomes. Purpose of this study is to present the effectiveness of a specific alliterative model of management programs that include inpatient discharge planning and/or education, coordinated by a specialist nurse in HF.

METHODS: Clinical trials that were published in MEDLINE the last five years were pooled. The inclusion criteria were: nurse directed non-pharmacological strategies that included an in-patient discharge plan followed by telephone contacts and either home visits or clinical based follow up, or both.

RESULTS: Eight randomized clinical trials were identified as eligible for the review. Three of the five strategies resulted in no beneficial effect of the management on the readmission rates. Survival free of events was longer in the intervention group in one of the three studies examining the time between rehospitalizations or death. Two studies measuring the length of stay as an outcome ended up with fewer days in hospital in the intervention group. Two of the studies measuring the quality of life of patients with HF demonstrated significantly higher scores in the intervention group, with one claiming short term improvement in quality of life. In another study no significant interaction between quality of life and group assignment was observed. In two of the studies that examined the cost of the program, this was characterized as cost effective. Patient satisfaction was studied by one of the trials and revealed a short-term improvement in the intervention group. The most recent study showed no reduction in the endpoints including days of hospitalization or death. One of the studies tried to compare a strategy including both clinic and home-based intervention with those applying either a home or a clinic-based approach. These seemed to be equally effective.

CONCLUSIONS: Management programs associated with discharge planning have demonstrated a variety of results. The structural heterogeneity of the programs could be a reason. Nevertheless, five of the strategies discussed, can be characterized as effective. Further studies are needed in order to determine which model of disease management program is the most effective

Intervensjoner knyttet til opplæring av pasienten (6)

Anderson MA, Levsen J, Dusio ME, Bryant PJ, Brown SM, Burr CM, et al. Evidenced-based factors in readmission of patients with heart failure. J Nurs Care Qual 2006;21(2):160-7

ABSTRACT:

The purpose of this project was to organize the variables associated with the hospital readmission of patients with heart failure (HF) into a usable framework to inform clinical practice and facilitate administrative decision making. An integrated, systematic review of the literature was used as the research approach. A content analysis of the sample (31 research reports from the years 1986-2004) yielded multiple factors associated with the hospital readmission of HF patients. Factors and their definitions were extracted, grouped into like categories, and eventually classified into 5 domains-demographic, physiologic, psychosocial, patient functioning, and resource utilization. The resulting framework has clinical, research, and administrative implications in the delivery of care to HF patients

Bläuer C, Mahrer-Imhof R, Brunner-La R, Müller C, Eze G, Milbich I, et al. Development and implementation of a multidisciplinary nurse-led educational programme for inpatients with heart failure: the Basel-HF-Programme [German]. Pflege 2011;24(1):29-41.

ABSTRACT:

Individuals with chronic heart failure are a vulnerable group of patients, with a poor prognosis and frequent hospital-

isations. Research shows that multidisciplinary education outpatient programmes for heart failure (HF) increases the quality of life of these patients and decreases mortality and rehospitalisation respectively. As a result of this research, the University Hospital Basel has developed and implemented a multidisciplinary, nurse-led inpatient programme. The article describes the development and difficulties of the programme from its beginning until the verification of its effectiveness. Based on a systematic review of the literature and principles of action research the programme was developed by a group of nurses specialised in HF and two physicians under the guidance of an Advanced Practice Nurse student. The group developed a patient pathway and guidelines describing education, skills training sessions for patients, as well as descriptions of responsibilities and tasks of the different members of the multidisciplinary team. To date, an individualised programme with information material and specific documentation is offered to patients who receive personalised recommendations before their discharge. For the nurses the implementation of the programme was a new challenge of structured counselling in their normal "busy" routine because of this challenge the nurses needed continuing coaching

Delgado-Passler P, McCaffrey R. The influences of postdischarge management by nurse practitioners on hospital readmission for heart failure. J Am Acad Nurse Pract 2006;18(4):Apr.

ABSTRACT:

PURPOSE: The primary purpose of this literature review is to examine advanced practice nurse (APN)-directed versus registered nurse (RN)-directed telemanagement programs for heart failure patients. DATA SOURCES: Research articles identified through CINAHL and OVID databases.

CONCLUSIONS: Implementing a telemanagement program directed by an APN after hospital discharge decreases the costs and frequent rehospitalizations associated with heart failure and improves the patient's quality of life. While APNs are more costly than RNs, it is important to understand that this level of provider has a more significant impact on the outcomes of patients who use the services provided in the comprehensive discharge programs.

IMPLICATIONS FOR PRACTICE: An APN-directed heart failure telemanagement program can reduce the rising healthcare costs that result from frequent readmissions. These programs can improve the quality of care given to heart failure patients while reducing the cost to the institution, the patient, and the healthcare system. When considering the number of older adults hospitalized each year with heart failure, the potential patient benefits and savings to the healthcare system resulting from APN-directed telemanagement are substantial

Janssen V, De G, V, Dusseldorp E, Maes S. Lifestyle modification programmes for patients with coronary heart disease: A systematic review and meta-analysis of randomized controlled trials. European Journal of Preventive Cardiology 2013;20(4):August.

ABSTRACT:

BACKGROUND: Lifestyle modification programmes for coronary heart disease patients have been shown to effectively improve risk factors and related health behaviours, quality of life, reincidence, and mortality. However, improvements in routine cardiac care over the recent years may offset the incremental benefit associated with older programmes.

PURPOSE: To determine the efficacy of lifestyle modification programmes for coronary heart disease patients developed over the last decade (19992009) by means of a systematic review and meta-analysis.

RESULTS: The study included 23 trials (involving 11,085 randomized patients). Lifestyle modification programmes were associated with reduced all-cause mortality (summary OR 1.34, 95% CI 1.101.64), cardiac mortality (summary OR 1.48, 95% CI 1.171.88), and cardiac readmissions and non-fatal reinfarctions (summary OR 1.35, 95% CI 1.171.55). Furthermore, lifestyle modification programmes positively affected risk factors and related lifestyle behaviours at posttreatment (M=10.2 months), and some of these benefits were maintained at long-term follow up (M=33.7 months). Improvements in dietary and exercise behaviour were greater for programmes incorporating all four self-regulation techniques (i.e. goal setting, self-monitoring, planning, and feedback techniques) compared to interventions that included none of these techniques.

CONCLUSION: The evidence summarized in this meta-analysis confirms the benefits of lifestyle modification programmes over and above benefits achieved by routine clinical care alone. 2012 The European Society of Cardiology

Richardson J. Efforts to improve heart failure discharge teaching in a veteran's administration hospital. Heart and Lung: Journal of Acute and Critical Care Conference: 8th Annual Conference of the American Association of Heart Failure Nurses, AAHFN 2012 Chicago, IL United States Conference Start: 20120628 Conference End: 20120630 Conference Publication: (2012;41(pp 431):July-August.

ABSTRACT:

BACKGROUND: Heart failure is costly in both dollars and patient outcomes. This diagnosis is the most common reason for hospital admissions and readmissions in the Medicare system. In addition nearly 50% of patients will die within the first year of their diagnosis. In 1998, the Veteran's Health Administration (VA) developed a Quality En-

hancement Research Initiative (QUERI) focused on improving the quality of care provided and reducing the number of admissions due to HF. One of the specific targets of this initiative is encouraging patients to become active partners in their care. One way to accomplish this is to provide the HF patient with comprehensive, consistent and thorough discharge instructions. Increasingly, the responsibility for discharge teaching has fallen upon nurses. Providing these nurses with quality tools that meet established HF discharge teaching standards and with easily accessible templates to document their teaching in order to promote HF discharge teaching and decrease HF readmissions is the focus of this project.

METHODS: Through the authors experience and observations as a staff nurse, and through informal peer-to-peer interviews with nursing staff on the medical-surgical unit at a mid-western VA hospital, inconsistencies with HF discharge teaching were identified as a possible reason for HF readmissions. Nurses expressed frustration over the lack of a single, consistent source of teaching materials. A literature review was undertaken to identify patient teaching resources that included all core performance measures promoted by the Joint Commission, American Heart Association and the VA. A booklet published by Channing Bete Company, Learning to Live with Heart Failure: Self-Care Handbook, was identified as a resource that met requirements and expectations. Adoption of this resource was approved by facility leadership and the author undertook one-on-one teaching with identified staff nurse "champions" who conducted education and disseminated information on the unit. Simultaneous discussions with facility information services staff were conducted, and an electronic HF discharge teaching template was developed. This template facilitates not only consistent and thorough discharge teaching, but also serves as a formal record of HF teaching and allows for data capture and reporting.

RESULTS: The HF discharge teaching project was implemented February 1, 2012. Staff nurses have expressed their appreciation of having these tools at their disposal, and informal patient interviews reveal an increase in patient satisfaction with their knowledge level. Statistical data analysis measuring the impact of the project on HF readmissions is on going.

CONCLUSION: Regardless of the impact of the project on HF readmissions, it is the belief of the author that implementation of a consistent and comprehensive HF discharge teaching process will positively contribute to both patient outcomes and staff satisfaction

Vreeland DG, Rea RE, Montgomery LL. A review of the literature on heart failure and discharge education. [Review]. Crit Care Nurs Q 2011;34(3):235-45.

ABSTRACT:

The Centers for Medicare and Medicaid Services (CMS) have proposed changes in the health care reimbursement for patients diagnosed with heart failure (HF) if readmission to a hospital occurs within 30 days of their discharge. The Joint Commission (TJC) has identified 6 key education topics for HF patients with their families that can result in decreased readmissions. Though the patient may be too ill, critical care nurses have an opportunity to begin the discharge education process immediately with families or caregivers. This literature review discusses studies focused on discharge education in general and then those studies specific to HF discharge education. This review reports on what is known or supported by evidence within 8 major topics. Finally, the discussion section summarizes the evidence for discharge education by answering 6 questions that address the "who and when" as well as the "what" of discharge education

Andre hjerte-/karlidelser (4)

Abdelaal E, Rao SV, Gilchrist IC, Bernat I, Shroff A, Caputo R, et al. Same-day discharge compared with overnight hospitalization after uncomplicated percutaneous coronary intervention: a systematic review and meta-analysis. [Review]. Jacc: Cardiovascular Interventions 2013;6(2):99-112.

ABSTRACT:

OBJECTIVES: This study sought to evaluate outcomes of same-day discharge (SDD) following percutaneous coronary intervention (PCI) versus overnight hospitalization (ON)

BACKGROUND: Although there are data on the safety and feasibility of SDD after PCI, ON continues to be prevalent

METHODS: The Cochrane search strategy was used to search the PubMed database, EMBASE, and the Cochrane Library for relevant literature. Thirteen studies (5 randomized and 8 observational) of SDD after uncomplicated PCI versus ON met inclusion criteria. Data were pooled using a random effects model, and reported as odds ratios (OR) with their 95% confidence intervals (CI). The primary outcomes were incidence of total complications, major adverse cardiovascular events (MACE), and rehospitalization within 30 days after PCI

RESULTS: A total of 13 studies, involving 111,830 patients were pooled. There was significant variation in the definition of outcomes across studies. For total complications, the strategy of SDD compared with ON after PCI had an

estimated OR of 1.20 (95% CI: 0.82 to 1.74) in randomized and 0.67 (95% CI: 0.27 to 1.66) in observational studies. Similar results were found for MACE (randomized, OR: 0.99, 95% CI: 0.45 to 2.18; observational, OR: 0.59, 95% CI: 0.06 to 5.57) and rehospitalizations (randomized, OR: 1.10, 95% CI: 0.70 to 1.74; observational, OR: 0.62, 95% CI: 0.10 to 3.98) at 30 days post PCI

CONCLUSIONS: There is considerable heterogeneity across published studies comparing SDD with ON. This, coupled with the low event rate and wide corresponding CIs, suggest that an adequately powered multicenter randomized trial comparing SDD with ON would require a very large sample size (>17,000). Until such a trial is completed, SDD after uncomplicated PCI seems a reasonable approach in selected patients.

Auer R, Gaume J, Rodondi N, Cornuz J, Ghali WA. Efficacy of in-hospital multidimensional interventions of secondary prevention after acute coronary syndrome a systematic review and meta-analysis. Circulation 2008;117(24):17.

ABSTRACT:

BACKGROUND - Secondary prevention programs for patients experiencing an acute coronary syndrome have been shown to be effective in the outpatient setting. The efficacy of in-hospital prevention interventions administered soon after acute cardiac events is unclear. We performed a systematic review and meta-analysis to determine whether in-hospital, patient-level interventions targeting multiple cardiovascular risk factors reduce all-cause mortality after an acute coronary syndrome.

METHODS and RESULTS - Using a prespecified search strategy, we included controlled clinical trials and before-after studies of secondary prevention interventions with at least a patient-level component (ie, education, counseling, or patient-specific order sets) initiated in hospital with outcomes of mortality, readmission, or reinfarction rates in acute coronary syndrome patients. We classified the interventions as patient-level interventions with or without associated healthcare provider-level interventions and/or system-level interventions. Twenty-six studies met our inclusion criteria. The summary estimate of 14 studies revealed a relative risk of all-cause mortality of 0.79 (95% CI, 0.69 to 0.92; n=37'585) at 1 year. However, the apparent benefit depended on study design and level of intervention. The before-after studies suggested reduced mortality (relative risk [RR], 0.77; 95% CI, 0.66 to 0.90; n=3680 deaths), whereas the RR was 0.96 (95% CI, 0.64 to 1.44; n=99 deaths) among the controlled clinical trials. Only interventions including a provider- or system-level intervention suggested reduced mortality compared with patient-level-only interventions.

CONCLUSIONS - The evidence for in-hospital, patient-level interventions for secondary prevention is promising but not definitive because only before-after studies suggest a significant reduction in mortality. Future research should formally test which components of interventions provide the greatest benefit.

de WC, Lauret GJ, Ricciardi W, Ferket B, Teijink J, Spronk S, et al. Lifestyle interventions in patients with coronary heart disease: a systematic review. Am J Prev Med 2013;45(2):207-16.

ABSTRACT:

CONTEXT: Coronary heart disease (CHD) is responsible for about 15% of all deaths worldwide and is identified as a top priority for decision makers. Both primary and secondary prevention are considered key strategies in the prevention of CHD. The aim of this study was to assess the efficacy of nonpharmacologic interventions with multiple lifestyle components in patients with established CHD in comparison to usual care. For this reason, a systematic review and meta-analysis of RCTs were performed

EVIDENCE ACQUISITION: The Cochrane Library, MEDLINE, and EMBASE databases were examined until March 31, 2012 (without start date) in order to identify studies addressing patient-tailored multifactorial lifestyle interventions aimed at reducing more than one cardiovascular risk factor in patients with established CHD. Primary endpoints were fatal and nonfatal cardiovascular events. Secondary outcomes were overall mortality and cardiovascular disease-associated hospital readmissions

EVIDENCE SYNTHESIS: The search strategy yielded 14 unique RCTs, which were considered in the qualitative analysis. Nine of them contributed to the meta-analysis. A random effects model was used to pool the data. The meta-analysis showed a significant risk reduction of 18% (relative risk 0.82, 95% CI=0.69, 0.98) of fatal cardiovascular events in patients undergoing multifactorial lifestyle interventions. Further, a nonsignificant reduction of nonfatal events, overall mortality and hospital readmissions was found

CONCLUSIONS: Multifactorial lifestyle interventions aimed at improving modifiable risk factors in patients with established CHD reduce the risk for fatal cardiovascular events. Therefore, they may have added value in secondary prevention of CHD.

Keller P-F, Rodondi N, Auer R, Perneger T, Schneider F, Richard-Arlaud A, et al. Mutli-dimensional prevention program after acute coronary syndrome (ELIPS). Archives of Cardiovascular Diseases Supplements Conference: 20th European Days - Annual Meeting of the French Society of Cardiology Paris France Conference Start: 20100113 Conference End: 20100116 Conference Publication: (var pagings)

2010;2(1):January.

ABSTRACT:

BACKGROUND: Guidelines recommend pharmacologic and lifestyle interventions to reduce recurrence of events in patients with coronary and other atherosclerotic vascular disease. Based on our systematic review of tested interventions, we developed the ELIPS program, a multidimensional secondary prevention program targeting multiple cardiovascular risk factors for patients after an acute coronary syndrome (ACS). This programme targets an increase in prescription rates by physicians and/or long term medication adherence by patients. Objectives: To demonstrate the effectiveness of the ELIPS programme (Multi-dimEnsionaL preventIon Program after Acute coronary Syndrome), which aims at improving quality of care of patients admitted to hospital with ACS in the Swiss setting.

METHODS: A total of 2400 patients will be prospectively included in a multicenter study before and after the implementation of the ELIPS program with a follow-up of 12 months. The primary outcome is a composite of death from any cause, myocardial infarction, documented unstable angina requiring rehospitalization, revascularization (performed at least 30 days after randomization), and stroke. The secondary endpoints are the isolated endpoints of the primary endpoint as well as cardiovascular mortality, and surrogate outcomes such as cardiovascular risk factor control at follow-up. Expected

RESULTS: To demonstrate the benefits of the ELIPS program on recurrence rate of cardiovascular events. These results will certainly lead to a generalization of such programs in the field of atherosclerosis

Lungesykdommer, astma (2)

Banasiak NC, Meadows-Oliver M. Inpatient asthma clinical pathways for the pediatric patient: an integrative review of the literature. [Review] [21 refs]. Pediatr Nurs 2004;30(6):447-50.

ABSTRACT:

BACKGROUND: Asthma is one of the most prevalent childhood chronic illnesses in the United States leading to nearly 190,000 pediatric hospitalizations yearly. In response to the increasing number of children with asthma being hospitalized, some institutions have developed and implemented clinical pathways and are now reporting their findings in the literature. The purpose of this paper was to conduct an integrative literature review of studies using an inpatient clinical pathway for the management of pediatric asthma

METHOD: Five research-based articles evaluating clinical pathways for the management of inpatient pediatric asthma were included in this review. The integrative review was conducted using the guidelines set forth by Ganong (1987)

RESULTS: The results revealed that clinical pathways appear to be effective in reducing length of stay and hospital costs associated with inpatient pediatric asthma. The pathways were not as effective in reducing readmission rates or affecting clinical outcomes for patients such as increasing asthma education, the use of controller medications, spacers, and peak flow meters

PRACTICE IMPLICATIONS: Although the pathways are effective in reducing hospitalization costs associated with asthma, there was little reported improvement in clinical outcomes. Nurses should ensure that each pediatric asthma hospitalization provides an opportunity to promote education about asthma. This approach may lead to decreased asthma admissions and increased self and family management of pediatric asthma. Future research should focus on the clinical outcomes of patients using the inpatient pathways and also on the development of pathways to be used in outpatient settings that manage pediatric asthma. [References: 21]

Kessler KR. Relationship between the use of asthma action plans and asthma exacerbations in children with asthma: A systematic review. Journal of Asthma and Allergy Educators 2011;2(1):2011.

ABSTRACT:

The purpose of this integrative review is to describe and assess current research findings and summarize the relationship between action plans and asthma exacerbations in children with asthma. Medline, CINAHL Plus with full text, PubMed, and Cochrane Library databases were searched as well as bibliographies of included studies. Three hundred eighty-five studies were identified. Thirteen studies were identified meeting inclusion criteria. Eight studies com- pared asthma action plans (AAPs) with no AAPs. Five studies compared peak flow AAPs to symptom AAPs. Of the 8 studies comparing AAPs with no AAPs, 5 studies concluded that the plans were beneficial to pediatric asthma. One study concluded that AAPs may increase risk for readmission to the hospital. Another study concluded that there is no evidence to suggest that AAPs along with an educational package were beneficial in reducing morbidity in the subsequent 12 months for preschoolers. A third study concluded there were greater costs in the group

with AAPs without better out-comes. Of the 5 studies comparing peak flow AAPs with symptom AAPs, 3 studies found that AAPs are effective for pediatric patients but there is no benefit of peak flow AAPs over symptom AAPs. Two studies found that peak flow meter use along with an AAP was a more effective way to decrease hospitalizations. Data suggest that AAPs are beneficial to pediatric asthma patients. Either peak flow-based or symptom-based plans are effective in the control of asthma exacerbations. However, there does not appear to be evidence to support the use of peak flow-based AAPs over symptom-based AAPs. 2011 The Author(s)

Lungesykdommer, KOLS (7)

Intervensjoner i pasientens hjem (4)

Hermiz O, Comino E, Marks G, Daffurn K, Wilson S, Harris M. Randomised controlled trial of home based care of patients with chronic obstructive pulmonary disease. BMJ 2002;325(7370):938.

ABSTRACT:

OBJECTIVES: To evaluate usefulness of limited community based care for patients with chronic obstructive pulmonary disease after discharge from hospital.

DESIGN: Randomised controlled trial

SETTING: Liverpool Health Service and Macarthur Health Service in outer metropolitan Sydney between September 1999 and July 2000

PARTICIPANTS: 177 patients randomised into an intervention group (84 patients) and a control group (93 patients) which received current usual care

INTERVENTIONS: Home visits by community nurse at one and four weeks after discharge and preventive general practitioner care

MAIN OUTCOME MEASURES: Frequency of patients' presentation and admission to hospital; changes in patients' disease-specific quality of life, measured with St George's respiratory questionnaire, over three months after discharge; patients' knowledge of illness, self management, and satisfaction with care at discharge and three months later; frequency of general practitioner and nurse visits and their satisfaction with care

RESULTS: Intervention and control groups showed no differences in presentation or admission to hospital or in overall functional status. However, the intervention group improved their activity scores and the control group worsened their symptom scores. While intervention group patients received more visits from community nurses and were more satisfied with their care, involvement of general practitioners was much less (with only 31% (22) remembering receiving a care plan). Patients in the intervention group had higher knowledge scores and were more satisfied. There were no differences in general practitioner visits or management

CONCLUSIONS: This brief intervention after acute care improved patients' knowledge and some aspects of quality of life. However, it failed to prevent presentation and readmission to hospital

Jeppesen E, Brurberg KG, Vist GE, Wedzicha JA, Wright JJ, Greenstone M, et al. Hospital at home for acute exacerbations of chronic obstructive pulmonary disease. Cochrane database of systematic reviews (Online) 2012;5(pp CD003573):2012.

ABSTRACT:

Hospital at home schemes are a recently adopted method of service delivery for the management of acute exacerbations of chronic obstructive pulmonary disease (COPD) aimed at reducing demand for acute hospital inpatient beds and promoting a patient-centred approach through admission avoidance. However, evidence in support of such a service is contradictory. To evaluate the efficacy of hospital at home compared to hospital inpatient care in acute exacerbations of COPD. Trials were identified from searches of electronic databases, including CENTRAL, MEDLINE, EMBASE, and the Cochrane Airways Group Register (CAGR). The review authors checked the reference lists of included trials. The CAGR was searched up to February 2012. The additional databases were searched up to October 2010. We considered randomised controlled trials where patients presented to the emergency department with an exacerbation of their COPD. Studies must not have recruited patients for whom treatment at home is usually not viewed as an responsible option (e.g. patients with an impaired level of consciousness, acute confusion, acute changes on the radiograph or electrocardiogram, arterial pH less than 7.35, concomitant medical conditions). Two review authors independently selected articles for inclusion, assessed the risk of bias and extracted data for each of the included trials. Eight trials with 870 patients were included in the review and showed a significant reduction in readmission rates for hospital at home compared with hospital inpatient care of acute exacerbations of COPD (risk ratio (RR)0.76; 95% confidence interval (CI) from 0.59 to 0.99; P=0.04). Moreover, we observed

a trend towards lower mortality in the hospital at home group, but the pooled effect estimate did not reach statistical significance (RR 0.65, 95% CI 0.40 to 1.04, P = 0.07). For health-related quality of life, lung function (FEV1) and direct costs, the quality of the available evidence is in general too weak to make firm

CONCLUSIONS. Selected patients presenting to hospital emergency departments with acute exacerbations of COPD can be safely and successfully treated at home with support from respiratory nurses. We found evidence of moderate quality that hospital at home may be advantageous with respect to readmission rates in these patients. Treatment of acute exacerbation of COPD in hospital at home also show a trend towards reduced mortality rate when compared with conventional inpatient treatment, but these results did not reach statistical significance (moderate quality evidence). For other outcomes than readmission and mortality rate, we assessed the evidence to be of low or very low quality

Ram FS, Wedzicha JA, Wright J, Greenstone M. Hospital at home for acute exacerbations of chronic obstructive pulmonary disease. Cochrane database of systematic reviews (Online) (4) (pp CD003573), 2003 Date of Publication: 2003 2003;(Online):2003.

ABSTRACT:

BACKGROUND: Hospital at home schemes are a recently adopted method of service delivery for the management of acute exacerbations of chronic obstructive pulmonary disease aimed at reducing demand for acute hospital inpatient beds and promoting a patient centered approach through admission avoidance. However, evidence in support of such a service is contradictory. OBJECTIVES: To evaluate the efficacy of "hospital at home" compared to hospital inpatient care in acute exacerbations of chronic obstructive pulmonary disease.

SEARCH STRATEGY: The Cochrane Central Register of Controlled Trials; electronically available databases e.g. MEDLINE (1966-current), EMBASE (1980-current), PubMed, ClincalTrials, Science Citation Index and on-line individual respiratory journals; bibliographies of included trials were all searched and contact with authors was made to obtain studies. The most recent searches were carried out in August 2003. SELECTION CRITERIA: Only randomised controlled trials were considered where patients presented to the emergency department with an exacerbation of their chronic obstructive pulmonary disease. Studies must not have recruited patients that are usually deemed obligatory admissions.

DATA COLLECTION AND ANALYSIS: Two reviewers independently selected articles for inclusion, evaluated methodological quality of the studies and abstracted data.

MAIN RESULTS: Seven studies with 754 patients were included in the review. Studies provided data on hospital readmission and mortality both of which were not significantly different when the two study groups were compared (RR 0.89; 95%CI 0.72 to 1.12 & RR 0.61; 95%CI 0.36 to 1.05, respectively). Both the patients and the carers preferred hospital at home schemes to inpatient care (RR 1.53; 95%CI 1.23 to 1.90). Other reported outcomes included few studies.

REVIEWER'S CONCLUSIONS: This review has shown that one in four carefully selected patients presenting to hospital emergency departments with acute exacerbations of chronic obstructive pulmonary disease can be safely and successfully treated at home with support from respiratory nurses. This review found no evidence of significant differences between "hospital at home" patients and hospital inpatients for readmission rates and mortality at two to three months after the initial exacerbation. Both the patients and carers preferred "hospital at home" schemes to inpatient care

Reishtein JL. Review: hospital at home is as effective as inpatient care for mortality and hospital readmissions in patients with acute exacerbations of chronic obstructive pulmonary disease. Evidence Based Nursing 2005;8(1):23.

ABSTRACT:

Is hospital at home (HaH) as effective as inpatient care for reducing mortality and readmission to hospital in patients with acute exacerbations of chronic obstructive pulmonary disease (COPD)?

METHODSData sources: Medlin, EMBASE/Excerpta Medica, Science Citation Index, Cochrane Controlled Trials register, UK National Research Register, Web of Science, individual respiratory journal websites, and proceedings of the European Respiratory Society, American Thoracic Society, British Thoracic Society, and Thoracic Society of Australia and New Zealand (up to and including May 2003)

STUDY SELECTION AND ASSESSMENT: randomised controlled trials (RCTs) in any language that compared HaH with inpatient care for patients who were randomised within 72 hours of presenting to the emergency department (ED) with an acute exacerbation and were initially assessed by the hospital medical team. Exclusion criteria included patients with impaired consciousness, acute confusion, acute changes on radiography or electrocardiography, arterial pH<7.35, concomitant medical conditions, or who attended the ED for social reasons. 2 independent reviewers assessed the metodological quality of studies using the Cochrane approach to assessment of allocation concealment (adequate, uncertain, or clearly inadequate)Outcomes: readmission to hospital, mortality, number of patients with acute COPD exacerbations, and costs

MAIN RESULTS Of the 7 RCTs (n = 754) that met the selection criteria, 6 had adequate allocation concealment,

and 1 had uncertain allocation concealment. HaH comprised care by a specialist nurse according to initial assessment in the ED (guided by the hospital medical team), and visits by a respiratory nurse until discharge from care. Inpatient care comprised usual treatment at the discretion of the hospital medical team Meta-analysis was done using a fixed effects model. The HaH and inpatient groups did not differ for the number of patients readmitted to hospital or for mortality (table). 4 trials reported cost analyses: 2 found that HaH was less expensive than inpatient care (average savings per patient pounds 536, 95% CI pounds 532 to pounds 540), 1 found that the mean health service cost for HaH was approximately half of inpatient care (pounds 867 v pounds 1405, p = 0.003), and 1 trial reported a savings of 201 bed days/year with HaH care

CONCLUSION: In patients with acute exacerbation of chronic obstructive pulmonary disease, hospital at home does not differ from inpatient care for hospital readmissions or mortality

Intervensjoner på sykehuset (3)

Leonard B. Review: existing evidence does not support nurse led interventions in chronic obstructive pulmonary disease. Evidence Based Nursing 2006;9(2):56.

ABSTRACT:

In patients with chronic obstructive pulmonary disease (COPD), are nurse led chronic disease management innovations more effective than usual care?

METHODS Data sources: 16 English language and 8 Dutch language citation databases (1980 to January 2005), conference proceedings of 7 respiratory associations, and researchers and practitioners in the field

STUDY SELECTION AND ASSESMENT: randomised controlled trials (RCTs) that evaluated clinical service interventions or care packages aimed at improving the management of community dwelling patients with COED and were led, coordinated, or delivered by nurses. Trials that evaluated drugs, hospital at home or early discharge for acute exacerbations, or educational interventions for healthcare providers, or trials with a minority of patients with COP) were excluded. Methodological quality of individual studies was assessed using the Delphi list and the 5 point Jadad scale

OUTCOMES: mortality, use of healthcare resources, activities of daily living (ADL), patients' health related quality of life (HRQOL), and corers' quaky of life

MAIN RESULTS: 9 RCTs (n= 1428, mean age 63-71 y) and 1 systematic review that included 4 of the individual RCTs met the selection criteria. Methodological quality of the trials was generally low. 2 RCTs involved brief interventions (about 1 mo in duration) after a hospital admission; 7 RCTs involved intensive or long term interventions (about 1 y in duration). 5 RCTs included home visits by a nurse, 1 RCT was exclusively clinic based, and 3 did not provide a clear description. The interventions used a case management approach and promoted self care, including education about medication and advice on smoking cessation, fitness, and identifying acute exacerbations. Meta-analysis of 7 long term or intensive intervention trials showed no difference in mortality (table). The 2 RCTs on brief interventions showed no difference in hospital readmissions. Among the long term trials, 2 showed a reduction in readmissions favouring nurse led interventions, and 3 showed no difference. Meta-analysis of 3 RCTs measuring HRQOL with the St George's respiratory questionnaire at 3-6 months of follow up showed no difference between groups (Cohen's d standardised difference 0.06, 95% CI -0.14 to 0.26). The evidence was insufficient or too weak to show an effect on patients' ADL or carers' quality of life

CONCLUSION: Little or no evidence exists that nurse led chronic disease management innovations are more effective than usual care in patients with chronic obstructive pulmonary disease

Lodewijckx C, Sermeus W, Panella M, Deneckere S, Leigheb F, Decramer M, et al. Impact of care pathways for in-hospital management of COPD exacerbation: A systematic review. Int J Nurs Stud 2011;48(11):1445-56.

ABSTRACT:

BACKGROUND: In-hospital management of COPD exacerbation is suboptimal, and outcomes are poor. Care pathways are a possible strategy for optimizing care processes and outcomes. Objectives: The aim of the literature review was to explore characteristics of existing care pathways for in-hospital management of COPD exacerbations and to address their impact on performance of care processes, clinical outcomes, and team functioning.

METHODS: A literature search was conducted for articles published between 1990 and 2010 in the electronic databases of Medline, CINAHL, EMBASE, and Cochrane Library. Main inclusion criteria were (I) patients hospitalized for a COPD exacerbation; (II) implementation and evaluation of a care pathway; (III) report of original research, including experimental and quasi experimental designs, variance analysis, and interviews of professionals and patients

about their perception on pathway effectiveness.

RESULTS: Four studies with a quasi experimental design were included. Three studies used a preGÇôpost test design; the fourth study was a non randomized controlled trial comparing an experimental group where patients were treated according to a care pathway with a control group where usual care was provided. The four studied care pathways were multidisciplinary structured care plans, outlining time-specific clinical interventions and responsibilities by discipline. Statistic analyses were rarely performed, and the trials used very divergent indicators to evaluate the impact of the care pathways. The studies described positive effects on blood sampling, daily weight measurement, arterial blood gas measurement, referral to rehabilitation, feelings of anxiety, length of stay, readmission, and in-hospital mortality.

CONCLUSIONS: Research on COPD care pathways is very limited. The studies described few positive effects of the care pathways on diagnostic processes and on clinical outcomes. Though due to limited statistical analysis and weak design of the studies, the internal validity of resykts is limited. Therefore, based on these studies the impact of care pathways on COPD exacerbation is inconclusive. These findings indicate the need for properly designed research like a cluster randomized controlled trial to evaluate the impact of COPD care pathways on performance of care processes, clinical outcomes, and teamwork

Taylor SJ, Candy B, Bryar RM, Ramsay J, Vrijhoef HJ, Esmond G, et al. Effectiveness of innovations in nurse led chronic disease management for patients with chronic obstructive pulmonary disease: systematic review of evidence. [Review] [37 refs]. BMJ 2005;331(7515):485.

ABSTRACT:

OBJECTIVE: To determine the effectiveness of innovations in management of chronic disease involving nurses for patients with chronic obstructive pulmonary disease (COPD)

DESIGN: Systematic review of randomised controlled trials

DATA SOURCES: 24 electronic databases searched for English or Dutch language studies published between January 1980 and January 2005

REVIEW METHODS: Included studies described inpatient, outpatient, and community based interventions for chronic disease management that were led, coordinated, or delivered by nurses. Hospital at home and early discharge schemes for acute exacerbations of COPD were excluded

RESULTS: We identified nine relevant randomised controlled trials, most of which had some potential methodological flaws. All the interventions seemed to be variations on a case management model. The interventions described could be divided into brief (one month) and longer term (around a year) or more intensive interventions. Only two studies examined the effect of brief interventions, these found little evidence of any benefit. Meta-analysis of the long term interventions failed to detect any influence on mortality at 9-12 months' follow-up (Peto odds ratio 0.85, 95% confidence interval 0.58 to 1.26). There was evidence that the long term interventions had not improved patients' health related quality of life, psychological wellbeing, disability, or pulmonary function. The evidence on whether long term interventions reduced readmissions to hospital was equivocal, but the only study exclusively directed at patients on long term oxygen therapy reported a reduction in readmission. We identified several outcomes where little or no evidence was available; these included patients' satisfaction, self management skills, adherence with treatment recommendations, the likelihood of smoking cessation, and the effect of the interventions on carers

CONCLUSION: There is little evidence to date to support the widespread implementation of nurse led management interventions for COPD, but the data are too sparse to exclude any clinically relevant benefit or harm arising from such interventions. [References: 37]

Pasienter som har gjennomgått en hjerteoperasjon (3)

Fasken LL, Wipke-Tevis DD, Sagehorn KK. Factors associated with unplanned readmissions following cardiac surgery. [Review] [25 refs]. Prog Cardiovasc Nurs 2001;16(3):107-15. '

ABSTRACT:

Cardiac surgery patients are at risk for unplanned readmissions due to the various complications they may experience following surgery. The purpose of this report is to critically review the literature related to predictors of unplanned readmissions of cardiac surgery patients following discharge from the hospital. A literature review was conducted from 1989 to 1999 using MEDLINE and CINAHL, with the following key words: cardiac surgery, coronary artery bypass surgery, recovery, and readmission. The literature revealed that gender and race do have an effect on how well a patient will recover following cardiac surgery. It was also found that patients with longer lengths of stay due to complications were at greater risk for readmission following discharge from the hospital. There was no evi-

dence that decreased length of stay for this patient group led to a greater number of readmissions. Implications for nurses include the need for improved coordination of patient care and implementation of effective discharge planning in high-risk patients. Additional research is needed to develop interventions to decrease readmissions of women and African Americans and other racial groups specific to their particular risk factors for readmission following cardiac surgery. [References: 25]

Fredericks S. Coaching in the cardiovascular surgical population. [Review]. Can J Cardiovasc Nurs 2011;21(3):30-3.

ABSTRACT:

BACKGROUND: More than one quarter of all cardiovascular surgical patients are re-admitted to hospitals with postoperative complications experienced during the first three months of recovery

AIM AND METHOD: The purpose of this discursive paper is to review the literature pertaining to a self-management coaching intervention that is currently being evaluated using a randomized controlled clinical trial

RELEVANCE TO CLINICAL PRACTICE: A discussion of how to integrate coaching into clinical practice is presented. The use of coaching in the clinical setting has implications for nurses in that it can be used to assess behaviours, knowledge, and learning needs; provide individualized education that is reflective of a patient's identified learning needs; collaborate with patients in setting goals; identify barriers and engage in problem-solving to overcome barriers; and create a specific plan for follow-up

Magnus PC, Chaisson K, Kramer RS, Ross CS, Boss RA, Agha SA, et al. Causes of 30-day readmission after cardiac surgery in Northern New England. Circulation Conference: American Heart Association's Scientific Sessions 2011 Orlando, FL United States Conference Start: 20111112 Conference End: 20111116 Conference Publication: (var pagings) 2011;124(21 SUPPL.#1):22.

ABSTRACT:

BACKGROUND. There is a high rate of readmission within 30 days following discharge from a hospitalization for cardiac surgery. This is associated with increased morbidity, mortality, and cost of care. A systematic review of the medical record could identify details of the process of care and causes of readmission that are actionable and could lead to a decrease in rates of readmission.

METHODS. From our regional registry of open heart surgery, we identified 268 consecutive patients readmitted within 30 days (mean=11 days) of their index procedure. Trained health professionals systematically abstracted the records of their index and readmission hospitalizations, information that was merged to existing registry data.

RESULTS. Readmitted patients had more comorbid conditions at the time of their index procedure and were more likely to have valve surgery (30.2% v 23.2%). Early follow-up appointments were recommended for all patients but variably scheduled (CT surgery 54.1%; PCP 1.1%). A minority of patients (23.1%) were seen as outpatients prior to their readmission. Infections (24%), effusions (20%), and rhythm disturbances (16%) were the most common primary causes of readmission (Figure). Common secondary causes of readmission included CHF/SOB (28%) and effusions (18%).

CONCLUSIONS. Root cause analysis of causes of readmission following open heart surgery is feasible. Our pilot study suggests that more attention to volume status and management of effusions could substantially decrease rates of readmission

Pasienter som har gjennomgått en operasjon i fordøyelsessystemet (29)

Intervensjoner om bruk av behandlingslinjer og retningslinjer (13)

Adamina M, Kehlet H, Tomlinson GA, Senagore AJ, Delaney CP. Enhanced recovery pathways optimize health outcomes and resource utilization: A meta-analysis of randomized controlled trials in colorectal surgery. Surgery 2011;149(6):June.

ABSTRACT:

BACKGROUND: Health care systems provide care to increasingly complex and elderly patients. Colorectal surgery is a prime example, with high volumes of major procedures, significant morbidity, prolonged hospital stays, and

unplanned readmissions. This situation is exacerbated by an exponential rise in costs that threatens the stability of health care systems. Enhanced recovery pathways (ERP) have been proposed as a means to reduce morbidity and improve effectiveness of care. We have reviewed the evidence supporting the implementation of ERP in clinical practice.

METHODS: Medline, Embase, and the Cochrane library were searched for randomized, controlled trials comparing ERP with traditional care in colorectal surgery. Systematic reviews and papers on ERP based on data published in major surgical and anesthesiology journals were critically reviewed by international contributors, experienced in the development and implementation of ERP.

RESULTS: A random-effect Bayesian meta-analysis was performed, including 6 randomized, controlled trials totalizing 452 patients. For patients adhering to ERP, length of stay decreased by 2.5 days (95% credible interval [CrI] -3.92 to -1.11), whereas 30-day morbidity was halved (relative risk, 0.52; 95% CrI, 0.36-0.73) and readmission was not increased (relative risk, 0.59; 95% CrI, 0.14-1.43) when compared with patients undergoing traditional care.

CONCLUSION: Adherence to ERP achieves a reproducible improvement in the quality of care by enabling standardization of health care processes. Thus, while accelerating recovery and safely reducing hospital stay, ERPs optimize utilization of health care resources. ERPs can and should be routinely used in care after colorectal and other major gastrointestinal procedures.

Ahmed J, Khan S, Lim M, Chandrasekaran TV, Macfie J. Enhanced recovery after surgery protocols - compliance and variations in practice during routine colorectal surgery. Colorectal Disease 2012;14(9):September.

ABSTRACT:

AIM Although there are numerous studies on the efficacy of enhanced recovery after surgery (ERAS) protocols in reducing length of stay, the long-term compliance to such protocols in routine clinical practice has not been well documented. The aim of this study was to review the published literature on compliance to ERAS in patients undergoing colorectal surgery in routine clinical practice.

METHOD Medline, Embase and PubMed databases were searched to identify studies that focused on compliance to ERAS protocols during routine clinical practice. Fourteen studies fulfilled the inclusion criteria and a total of 19 perioperative ERAS modalities were identified across these studies.

RESULTS None of the studies used all 19 ERAS modalities within their ERAS protocols. Compliance to the various modalities varied considerably between studies and, in general, was poorest during the postoperative period. The use of epidural had the highest compliance (between 67 and 100%), whereas the use of transverse incisions (25%) had the lowest compliance. Length of stay in hospital ranged from 2 to 13days. Higher compliance was associated with a reduced length of hospital stay. However, reduced length of hospital stay was associated with a high rate of readmission.

CONCLUSION There is significant variation in the components of, as well as in compliance to, ERAS protocols in daily practice. This may contribute to the observed variation between the studies in length of hospital stay. A standardized and practically feasible ERAS protocol should be established in order to improve the implementation and optimal outcome.

Beamish AJ, Chan DS, Karran A, Blake PA, Thomas C, Lewis WG. Systematic review and meta-analysis of enhanced recovery programmes in esophageal cancer surgery. Gastroenterology Conference: Digestive Disease Week 2013, DDW 2013 Orlando, FL United States Conference Start: 20130518 Conference End: 20130521 Conference Publication: (var pagings) 2013;144(5 SUPPL.#1):May.

ABSTRACT:

AIMS. This systematic review and meta-analysis was performed to determine the influence of enhanced recovery programmes (ERPs) on outcomes after esophageal cancer surgery.

METHODS. PubMed, Embase, the Cochrane library, and ClinicalTrials.gov were searched for studies on outcomes of esphagectomy in enhanced recovery programme or fast-track programmes. The primary outcome measure was post-operative duration of hospital stay (LOHS), and secondary outcome measures were selected based on inclusion in two or more studies. Statistical analysis was performed using odds ratio (OR) as the summary statistic.

RESULTS. Five studies totalling 854 patients with esophageal cancer were analysed. LOHS was significantly shorter after ERP, when compared with controls (CON, standardised mean difference SMD -0.51, 95% confidence interval -0.66 to -0.35, P < .00001), but with significant heterogeneity between studies (I2=96%, P < .00001). ERP was associated with less operative morbidity (P < .0001), operative mortality (30-day mortality, p=0.020), and fewer anastomotic leaks (p=0.010). ERP was not associated with a higher incidence of pulmonary complications (p=0.560) or more frequent readmission to hospital (p=0.800). Conclusion. Multimodal, standardised approaches to perioperative esophagectomy care was feasible, and cost effective

Hall T, Dennison A, Bilku D, Metcalfe M, Garcea G. Enhanced recovery programmes in hepatobiliary and pancreatic surgery: A systematic review. HPB Conference: 10th World Congress of the International Hepato-Pancreato-Biliary Association Paris France Conference Start: 20120701 Conference End: 20120705 Conference Publication: (var pagings) 2012;14(pp 547):July.

ABSTRACT:

INTRODUCTION: 'Enhanced recovery after surgery' or 'enhanced recovery programme' (ERP) refers to multi-modal strategies aiming to streamline peri-operative care pathways, to maximise effectiveness and minimise costs. Whilst the results of ERP in colorectal surgery are well-reported; there have been no reviews examining if these concepts could be safely applied to Hepatobiliary and Pancreatic (HPB) surgery. This systematic review aims to appraise the current evidence for ERP in HPB surgery.

METHODS: A Medline literature search was undertaken using keywords 'enhanced recovery', 'fast-track', 'peri-operative', 'surgery', 'pancreas' and 'liver' and their derivatives such as 'pancreatic' or 'hepatic'. The primary end-point was length of postoperative hospital stay. Secondary end-points were morbidity, mortality and readmission rate.

RESULTS: Ten articles were retrieved describing an ERP. ERP protocols varied slightly between studies. A reduction in length of stay was a consistent finding following the incorporation of ERP when compared to historical controls. This was not at the expense of increased rates of readmission, morbidity or mortality in any study.

CONCLUSION: The introduction of an ERP in HPB surgery appears safe and feasible. Currently, many of the principles of the multi-modal pathway are derived from the colorectal ERP and distinct differences exist which may impede its implementation in HPB surgery

Lemmens L, van ZR, Vanhaecht K, Kerkkamp H. Systematic review: indicators to evaluate effectiveness of clinical pathways for gastrointestinal surgery. [Review] [42 refs]. J Eval Clin Pract 2008;14(5):880-7.

ABSTRACT:

BACKGROUND: A systematic review on clinical pathways for gastrointestinal surgery was performed. The aim was to study indicators that are used to evaluate these clinical pathways and to study which effects of clinical pathways are reported

METHODS: A search was performed for the period from January 2000 to November 2006 in MEDLINE, EMBASE and CINAHL. The Leuven Clinical Pathway Compass was used to categorize the indicators reported in literature

RESULTS: Twenty-three studies were selected, of which 16 were controlled studies. The studies assessed most frequently complication rates, re-admissions, mortality and length of stay. More specific indicators like time to start defecation and time to return to enteral feeding were reported as well. None of the studies reported adverse effects in any of the domains of the Clinical Pathway Compass

CONCLUSION: Clinical pathways for gastrointestinal surgery can enhance efficiency of care without adverse effects on outcome. Specific indicators to evaluate these clinical pathways are time to return to enteral feeding and time to defecate. Furthermore, additional to complication rates, number of re-admissions, mortality and length of stay, indicators such as the number of re-operations, pain scores and intensive care unit admission can be assessed to monitor effectiveness and patient safety of the clinical pathways. [References: 42]

Lv L, Shao YF, Zhou YB. The enhanced recovery after surgery (ERAS) pathway for patients undergoing colorectal surgery: an update of meta-analysis of randomized controlled trials. Int J Colorectal Dis 2012;27(12):1549-54.

ABSTRACT:

OBJECTIVE: This study aimed to produce a comprehensive, up-to-date meta-analysis exploring the safety and efficacy of enhanced recovery programs after colorectal resection

METHOD: Medline, Embase, and Cochrane database searches were performed for relevant studies published between January 1966 and April 2012. All randomized controlled trials on fast track (FT) colorectal surgery were reviewed systematically. The main end points were short-term morbidity, length of primary postoperative hospital stay, length of total postoperative stay, readmission rate, and mortality

RESULTS: Seven randomized controlled trials with 852 patients were included. The total length of hospital stay [mean difference (95% confidence interval), -1.88 (-2.91, -0.86), p=0.0003] and total complication rates [relative risk (95% confidence interval), 0.69 (0.51, 0.93), p=0.01] were significantly reduced in the enhanced recovery group. There was no statistically significant difference in readmission (risk ratio (RR) 0.90; 95% confidence interval (CI) 0.52 to 1.53, p=0.69) and mortality rates (RR 1.02; 95% CI 0.40 to 2.57, p=0.97)

CONCLUSION: Results suggested that enhanced recovery after surgery pathways can be able to reduce the length of stay and complication rates after major colorectal surgery without compromising patient safety. Future studies have to define the active elements in order to improve future fast track protocols

Neville A, Lee L, Mayo NE, Vassiliou MC, Fried GM, Feldman LS. A systematic review of enhanced recovery after surgery pathways: How are we measuring "recovery? ". Surgical Endoscopy and Other Interventional Techniques Conference: 2013 Scientific Session of the Society of American Gastrointestinal and Endoscopic Surgeons, SAGES 2013 Baltimore, MD United States Conference Start: 20130417 Conference End: 20130420 C 2013;27(pp S485):April.

ABSTRACT:

INTRODUCTION: Enhanced recovery after surgery (ERAS) pathways aim to improve patient "recovery.",However, there is no accepted definition of recovery and a lack of tools to measure this complex process during which patients regain preoperative function and activity. The goals of this review were to identify how recovery is measured in studies of ERAS pathways and provide recommendations for the design of future studies.

METHODS: A systematic search of Medline, Embase and Cochrane databases was conducted. Eligible studies must have described an ERAS pathway conforming to established consensus guidelines. Prospective studies of ERAS pathways for abdominal surgery published between 2000-2011 were considered. Two independent reviewers evaluated 981 citations for eligibility and extracted data from the eligible studies. All outcomes were recorded and classified as per the Wilson-Cleary model. This model links clinical variables to quality of life by classifying outcomes on a continuum of increasing complexity beginning with physiologic variables and progressing through symptom status, functional status, general health perceptions and finally overall quality of life. The phase of recovery measured was defined as early (until discharge from recovery room), intermediate (from recovery room discharge until hospital discharge) and late (from discharge until return to baseline).

RESULTS: Fourteen randomized trials and 35 prospective cohort studieswere included. Themost common "recovery",outcome reported was duration of hospitalization, which was reported in all studies. Other frequently reported outcomes included complications (90 %) and hospital readmission (76 %). Biologic outcomes were reported in 63 % of studies including time to return of gastrointestinal function (49 %), changes inpulmonary function(18 %), physical strength (10 %), changes inbodycomposition(6 %)and immunologicmeasures (12 %). Outcomes pertaining to symptoms were reported less commonly (49 % of studies) and included: pain (39 %), fatigue (27 %), nausea (21 %), analgesia use (12 %) and sleep disturbance (6 %). Functional outcomes, including mobilization (31 %), ability to perform activities of daily living (6 %) and return towork (8 %) were uncommonly reported (41 %of studies).Quality of life was reported in only 12 %of studies. Baseline assessment of reported outcomes were reported in 39 %. All studies reported in-hospital outcomes (intermediate phase of recovery)while only 37 %reported post discharge (late) outcomes other than complications or readmission.

CONCLUSION: Themost commonly reported outcome of ERAS pathways was duration of hospitalization. Patient-centered outcomes like functional status and quality of life,which reflect important dimensions of recovery, were rarely reported. Future studies of ERAS pathways should include more patient-centered outcomes to better estimate recovery, particularly those occurring after discharge from hospital

Oles M, Fitzgerald JEF, Stewart J, Maxwell-Armstrong C, Acheson A. Enhanced recovery for colorectal cancer surgery: Improving post-Discharge support. Colorectal Disease Conference: 4th Annual Meeting of the European Society of Coloproctology Prague Czech Republic Conference Start: 20090923 Conference End: 20090926 Conference Publication: (var pagings) 2009;11(pp 34):September.

ABSTRACT:

AIM: Enhanced Recovery protocols are increasingly facilitating early hospital discharge. Recent meta-analysis of clinical trials indicates higher readmission rates than traditional care, although factors precipitating this are unclear. This study investigated community practitioners' experiences of enhanced recovery following colorectal cancer (CRC) surgery.

METHOD: Patients identified from prospective cancer registry at regional teaching hospital from January 2007 to September 2008. General Practitioners (GPs) of survivors contacted retrospectively with 8-item questionnaire assessing knowledge and experience of caring for enhanced recovery patients.

RESULTS: 187 patients underwent enhanced recovery CRC surgery. 128 unique GPs contacted; response rate = 69 (53.9%). 91.3% were not aware of enhanced recovery protocols. Major postoperative problems encountered: infection (13.0%), inadequate communication from hospital (36.2%), inadequate nursing resources (15.9%). 27.5% of respondents felt they had inadequate facilities to deal with enhanced recovery patients. Extra facilities required: improved nursing resources (44.9%). 40.6% of respondents stated communication issues as main factor hindering patient care. Key themes: need for detailed/prompt discharge plan and contacts for surgical team.

CONCLUSION: Given little knowledge of enhanced recovery after discharge, surgical teams should educate and improve communication with community practitioners in order to provide better postdischarge support to minimize readmissions

Rawlinson A, Kang P, Evans J, Khanna A. A systematic review of enhanced recovery protocols in colorectal surgery. [Review]. Ann R Coll Surg Engl 2011;93(8):583-8.

ABSTRACT:

INTRODUCTION: Colorectal surgery has been associated with a complication rate of 15-20% and mean post-operative inpatient stays of 6-11 days. The principles of enhanced recovery after surgery (ERAS) are well established and have been developed to optimise peri-operative care and facilitate discharge. The purpose of this systematic review is to present an updated review of peri-operative care in colorectal surgery from the available evidence and ERAS group recommendations

METHODS: Systematic searches of the PubMed and EmbaseTM databases and the Cochrane library were conducted. A hand search of bibliographies of identified studies was conducted to identify any additional articles missed by the initial search strategy

RESULTS: A total of 59 relevant studies were identified. These included six randomised controlled trials and seven clinical controlled trials that fulfilled the inclusion criteria. These studies showed reductions in duration of inpatient stays in the ERAS groups compared with more traditional care as well as reductions in morbidity and mortality rates

CONCLUSIONS: Reviewing the data reveals that ERAS protocols have a role in reducing post-operative morbidity and result in an accelerated recovery following colorectal surgery. Similarly, both primary and overall hospital stays are reduced significantly. However, the available evidence suggests that ERAS protocols do not reduce hospital readmissions or mortality. These findings help to confirm that ERAS protocols should now be implemented as the standard approach for peri-operative care in colorectal surgery

Varadhan KK, Neal KR, Dejong CH, Fearon KC, Ljungqvist O, Lobo DN. The enhanced recovery after surgery (ERAS) pathway for patients undergoing major elective open colorectal surgery: A meta-analysis of randomized controlled trials. Clin Nutr 2010;29(4):434-40.

ABSTRACT:

SUMMARY: BACKGROUND & AIMS: The aim of the Enhanced Recovery After Surgery (ERAS) pathway is to attenuate the stress response to surgery and enable rapid recovery. The objective of this meta-analysis was to study the differences in outcomes in patients undergoing major elective open colorectal surgery within an ERAS pathway and those treated with conventional perioperative care.

METHODS: Medline, Embase and Cochrane database searches were performed for relevant studies published between January 1966 and November 2009. All randomized controlled trials comparing ERAS with conventional perioperative care were selected. The outcome measures studied were length of hospital stay, complication rates, readmission rates and mortality.

RESULTS: Six randomized controlled trials with 452 patients were included. The number of individual ERAS elements used ranged from 4 to 12, with a mean of 9. The length of hospital stay [weighted mean difference (95% confidence interval): GêÆ2.55 (GêÆ3.24, GêÆ1.85)] and complication rates [relative risk (95% confidence interval): 0.53 (0.44, 0.64)] were significantly reduced in the enhanced recovery group. There was no statistically significant difference in readmission and mortality rates. Conclusion: ERAS pathways appear to reduce the length of stay and complication rates after major elective open colorectal surgery without compromising patient safety

Walter CJ, Collin J, Dumville JC, Drew PJ, Monson JR. Enhanced recovery in colorectal resections: a systematic review and meta-analysis. [Review] [19 refs][Erratum appears in Colorectal Dis. 2010 Jul;12(7):728]. Colorectal Disease 2009;11(4):344-53.

ABSTRACT:

OBJECTIVE: The study aimed to produce a comprehensive up-to-date meta-analysis exploring the safety and efficacy of enhanced recovery (ER) programmes after colorectal resection

METHOD: Key-word and MESH-heading searches of MEDLINE, EMBASE and the Cochrane Databases from 1966 to February 2007 were used to identify all available randomized and clinical controlled studies. Two independent reviewers assessed studies for inclusion and exclusion based on methodological quality criteria prior to undertaking data extraction. Summary estimates of treatment effects using a fixed effect model were produced with RevMan 1.0.2, using weighted means for length-of-stay data and relative risks of morbidity, mortality and readmission rates

RESULTS: Analysis of four papers including 376 patients demonstrated primary and total length-of-stays (primary + readmission length-of-stay) to be significantly reduced ($P < 0.001$) with ER programmes [weighted mean differences of -3.64 days (95% confidence interval, 95% CI -4.98 to -2.29) and -3.75 days (95% CI-5.11 to -2.40)]. Analysis of controlled clinical trial data showed morbidity rates to be reduced and readmission rates increased. These trends were not seen amongst the randomized controlled trial data. There were no differences in mortality rates

CONCLUSION: Enhanced recovery programmes after colorectal resections reduce length-of-stay and may reduce

30 days morbidity and increase 30 days readmission without increasing mortality. [References: 19]

Ypsilantis E, Hamouda A, Abdulaal Y, Nisar A, Ali H. Enhanced recovery pathways after surgery for oesophageal cancer: Promising results, limited evidence and the absence of minimally invasive surgery. Surgical Endoscopy and Other Interventional Techniques Conference: 20th International Congress of the European Association for Endoscopic Surgery, EAES 2012 Brussels Belgium Conference Start: 20120620 Conference End: 20120623 Conference Publication: (v 2013;27(pp S144):April.

ABSTRACT:

BACKGROUND: The Enhanced Recovery After Surgery (ERAS) programme represents a multimodal approach that aims to restore the functional capacity of surgical patients to their pre-morbid state more effectively and faster than conventional peri-operative regimes. Aims: To evaluate the feasibility of enhanced recovery (ER) protocols in patients undergoing surgery for oesophageal cancer and assess their effect on the outcomes of this complicated procedure that has historically been associated with high rates of morbidity and mortality.

METHODS: A systematic review of the relevant literature published in MEDLINE, EMBASE, CINAHL and The Cochrane Collaboration Library in English language during the last 20 years.

RESULTS: Six studies were identified, four of which were retrospective case-series and two prospective comparative ones with historical controls (Level of evidence 3). The median length of hospital stay (LOS) for patients in the ER groups in all studies varied between 7-10 days (range 5-98 days) with median mortality rate 0.65% (range 0%-4.4%) and median overall complication rate 26% (range 18%-45%). The readmission rate, reported in two studies only, was in the order of 4%. Between the two comparative studies, the earliest one did not demonstrate any difference in LOS, morbidity or mortality rates between the ER group and control, whereas the most recent study showed statistically significant benefit in all above outcomes in favour of the ER group. The role of minimally invasive approach was not evaluated because patients in all studies were operated via open approaches.

CONCLUSIONS: The evidence underpinning the use of ER protocols in oesophageal surgery is currently limited and of low quality. The preliminary results are promising, indicating that implementation of ER for these patients is feasible and can achieve short hospital stay with acceptable morbidity and mortality. More robust evidence, in the form of randomised controlled trials, is required, including, in particular, the role of minimally invasive oesophagectomy

Zhuang CL, Ye XZ, Zhang XD, Chen BC, Yu Z. Enhanced recovery after surgery programs versus traditional care for colorectal surgery: a meta-analysis of randomized controlled trials. [Review]. Diseases of the Colon & Rectum 2013;56(5):667-78.

ABSTRACT:

BACKGROUND: Enhanced recovery after surgery programs in colorectal surgery aim to attenuate the surgical stress response, reduce complications and shorten hospital stay

OBJECTIVE: This study aimed to assess the safety and efficacy of enhanced recovery after surgery programs in colorectal surgery in comparison with traditional care

DATA SOURCES: PubMed, Embase, and Cochrane databases were electronically searched (date range, January 1966 to July 2012)

STUDY SELECTION: Randomized controlled trials were selected that compared enhanced recovery after surgery programs with traditional care in elective colorectal surgery

INTERVENTION: Articles were reviewed independently by 2 reviewers, who extracted the data and assessed the quality of the included studies. The outcome measures were analyzed, and the quality of evidence for each outcome was assessed by using the Grading of Recommendations Assessment, Development, and Evaluation system

MAIN OUTCOME MEASURES: The primary outcome measures were primary and total postoperative hospital stay, readmission rates, total postoperative complications (including general and surgical complications), and mortality

RESULTS: Thirteen studies (total, 1910 patients) were included in the meta-analysis. In comparison with traditional care, enhanced recovery after surgery programs were associated with significantly decreased primary hospital stay (weighted mean difference, -2.44 days; 95% CI, -3.06 to -1.83 days; $p < 0.00001$), total hospital stay (weighted mean difference, -2.39 days; 95% CI, -3.70 to -1.09 days; $p = 0.0003$), total complications (relative risk, 0.71; 95% CI, 0.58-0.86; $p = 0.0006$), and general complications (relative risk, 0.68; 95% CI, 0.56-0.82; $p < 0.0001$). No significant differences were found for readmission rates, surgical complications, and mortality

LIMITATIONS: This study was limited by the risk of bias in most included studies

CONCLUSIONS: Enhanced recovery after surgery programs are safe and effective, and increased implementation is justified for perioperative care in colorectal surgery. Future studies may examine the benefits of enhanced recov-

ery after surgery programs in elderly patients and in other GI surgery

Intervensjoner om organisering av personell (2)

Baich L, Wilson D, Cummings GG. Enterostomal therapy nursing in the Canadian home care sector: what is its value? Journal of Wound, Ostomy & Continence Nursing 2010;37(1):53-64.

ABSTRACT:

Approximately one-third of all home care patients have wound care needs. Home care patients tend to be older and have multiple chronic diseases rendering them at risk for developing wounds and impairing their ability to heal wounds. Enterostomal therapy (ET) nurses have expertise in wound, ostomy, and continence care, and were recently recognized by the Canadian Nurses Association as a specialty practice. We completed a systematic review in order to identify and synthesize evidence about the value of ET nurses in the Canadian home care sector, focusing on wound care. A literature search was conducted, using 9 computerized library databases. Eight articles were identified for review; each was analyzed using qualitative content analysis. Two themes emerged from our analysis: (1) assessing the outcomes of ET nurse involvement in client care and (2) methods for using ET nurses' expertise. Within these themes, the benefits of ET nurses working in home care were identified: (1) a decreased number of visits, (2) reduced wound-healing times, (3) successful healing, (4) reduced cost of wound care, (5) greater support for nurses and families, (6) fewer emergency department visits, (7) fewer hospital readmissions, (8) increased interest in education in wound care among other nurses, and (9) standardized protocols for wound care. Although only 8 studies were located for this review, their findings provide evidence that ET nurses' contributions to wound care are not only positive but also necessary in the home care sector

Pintar PA. An intrepreneurial innovative role: integration of the clinical nurse specialist and infection prevention professional. Clin Nurse Spec 2013;27(3):123-7.

ABSTRACT:

PURPOSE: Hospital quality and financial sustainability rely on reducing healthcare-associated events/infections, length of stay, and readmissions. This project focused on designing an integrated role for the clinical nurse specialist (CNS) and the infection prevention professional (IPP) to proactively manage the delivery of evidence-based practice to high-risk surgical patients

BACKGROUND: The healthcare industry is in the midst of a paradigm shift driven by changing health policy focusing on quality indicators, patient satisfaction, and lowering costs. Coupled with these indicators is the expectation and responsibility to provide evidence-based practice at all levels of the healthcare continuum. This paradigm shift places healthcare facilities in a very competitive atmosphere as they rally for the revenue of a fixed payer mix

DESCRIPTION: A literature search using CINHAL, PubMed, and the CNS national listserve databases was completed to identify if there was any previously written information available on an integrated role of the CNS/IPP. An online business plan template was used to communicate the significance, implications, and return on organizational investment to practice with establishing this role. Chronic health conditions such as diabetes, hypertension, congestive heart failure, and colonization with multidrug-resistant organisms can place patients at an increased risk for developing a surgical site infection or complications. The CNS/IPP will proactively manage these risk factors, including the patient and family in a preventive care model to manage the acute inpatient high-risk surgical patient. Care management will include coordinated, collaborative, and consultative follow-up by the CNS/IPP in the acute care, long-term care facilities, and home settings

INNOVATION: The infection prevention skill set brings a level of clinical expertise that makes a unique CNS. The IPP is immersed in using epidemiological principles that examine the impact of comorbidities and the added risk that can contribute to developing a surgical site infection. This CNS/IPP incorporates the CNS Spheres of Influence Model and the Association of Professionals in Infection Prevention Competency Model. This combination advanced practice nurse uses a nurse-managed model of care focused on patient/family education, prevention, and self-care management. Therefore, this specific and specialized practice will bring value to the organization by improving financial outcomes through reducing infections, readmission rates, and length of stay

OUTCOME: By providing this level of focused care, patient satisfaction will improve and system financial stability will be supported by decreasing hospital readmissions, length of stay, and other hospital-acquired conditions that the surgical candidate is prone to developing

CONCLUSION: The critical juncture in healthcare is providing opportunities for innovation by examining the CNS role and considering the feasibility of pairing it with the infection preventionist skills. This pairing provides an unprecedented opportunity to improve patient outcomes across the continuum of care. This provider has the ability to influence the Centers for Medicare and Medicaid Services quality indicators in a positive way by using implementation science to partner with system/organization stakeholders that focuses on prevention rather than reactive care processes

IMPLICATIONS: The dynamic trends in healthcare continue to drive "intrepreneurial," innovative, and creative ways of thinking; provide clinical practice that has the ability to perform nimbly; and maintain a proactive vision to provide quality care to a diverse patient population. This CNS/IPP role meets the dynamic proactive planning that will shift with patient, system, and nursing needs to deliver cost-effective managed care to improve the health of our patients

Intervensjoner knyttet til tidsramme for behandling (14)

Cosse C, Brehant O, Regimbeau J-M. Day case appendectomy in adults: A systematic review. European Surgical Research Conference: 2012 European Society for Surgical Research, ESSR Congress Lille France Conference Start: 20120606 Conference End: 20120609 Conference Publication: (var pagings) 2013;50(2 SUPPL.#4):June.

ABSTRACT:

INTRODUCTION: Day Case appendectomy (DCA) was proposed as an alternative of traditional appendectomy in order to improve appendicitis management. Data about DCA are available in Children but in Adults this management is not accepted by all surgeons. Objectives: The aim of this review was to discuss the feasibility of Day Case Appendectomy (DCA) in adults. Materiel/Patients and

METHODS: Three reviewers independently searched in the Medline and Embase databases to identify prospective, retrospective or case-control articles getting onto day case appendectomy for appendicitis. Were considered as criteria applied to surgical procedure (mean operative time, conversion rate to open surgery, the severity of appendicitis); Day Case Surgery (unexpected consultation, hospital readmission rates, reoperation, mean LOS), mean lost time injury and mean delay before coming back to work. Patient satisfaction was recorded too.

RESULTS: Between 1993 and 2011, 11 studies were dealing with DCA (retrospective (n = 6), prospective (n = 4) or case-control study (n = 1). 814 adults were subjected to Day Case appendectomy. 129 (15.8%) were discharged within 12 hours, 459 (56.4%) within 24 hours and 226 (27.8%) within 72 hours. The surgical technique was considered as feasible for any approach i.e. laparoscopic one or open one. The conversion rate to open surgery was 5.37%, mean operative time was 46.14 minutes. The characteristics of DCA are unexpected consultation rate of 3.16%, hospital readmission rate of 2.01% and reoperation's rate of 0.63%. The mortality rate was null, overall morbidity was 4.17%., and patients satisfaction 91.2%. Mean lost time injury was 3 days whereas mean delay before coming back to work was 8.

CONCLUSION: The few data reported in these 11 articles, mainly from retrospective studies, suggest that Day Case appendectomy may be feasible but the absence of clear definition about delay before discharge avoid concluding. To propose Day Case appendectomy to the general population, large prospective studies are needed

Dabare GDV, Patel VM, Zacharakis E. Fast track upper gastrointestinal surgery-a systematic review. Surgical Endoscopy and Other Interventional Techniques Conference: 20th International Congress of the European Association for Endoscopic Surgery, EAES 2012 Brussels Belgium Conference Start: 20120620 Conference End: 20120623 Conference Publication: (v 2013;27(pp S146):April.

ABSTRACT:

AIMS: Fast-track surgery has become ubiquitous in colorectal surgery and is gaining acceptance in several other surgical specialities. The aim of this systematic review was to evaluate the feasibility, effectiveness and safety of fasttrack gastric, hepatic, oesophageal and pancreatic surgery.

METHODS: A systematic review was performed by searching EMBASE, Medline, PsycINFO and Cochrane Library between 1950 and November 2011. The search strategy included the keywords: fast track, enhanced recovery, multimodal rehabilitation, multimodal optimization and multimodal perioperative care. We included all original studies and classified them according to the 17 evidence-based fast-track interventions proposed by the Enhanced Recovery After Surgery Group. The primary endpoints were the number of implemented interventions, median length of hospital stay (LOS), readmissions, morbidity and mortality.

RESULTS: 13 studies reporting on a total of 1621 patients were found; 2 randomised control trials and a case-series in gastric surgery, 2 case-control studies and a case-series in hepatic surgery, 2 case-series in oesophageal surgery and 2 case-control studies and 3 case-series in pancreatic surgery. The highest number of fast track interventions trialled in gastric, hepatic, oesophageal and pancreatic surgery were 13, 15.5 and 12 respectively. In all types of upper gastrointestinal surgery studies demonstrated a reduction in median length of stay ranging from 2-6 days. The studies did not show an increase in readmission rate, morbidity and mortality with fast-track care.

CONCLUSIONS: Initial studies show that fast-track surgery is feasible in upper gastrointestinal surgery, and may reduce length of stay. However, high quality studies are required to determine the safety of fast-track programmes in upper gastrointestinal surgery

Gouvas N, Tan E, Windsor A, Xynos E, Tekkis PP. Fast-track vs standard care in colorectal surgery: a meta-analysis update. Int J Colorectal Dis 2009;24(10):1119-31.

ABSTRACT:

BACKGROUND: Fast-track (FT) protocols accelerate patient's recovery and shorten hospital stay as a result of the optimization of the perioperative care they offer. The aim of this review is to examine the latest evidence for fast-track protocols when compared with standard care in elective colorectal surgery involving segmental colonic and/or rectal resection

MATERIALS AND METHODS: All randomized controlled trials and controlled clinical trials on FT colorectal surgery were reviewed systematically. The main end points were short-term morbidity, length of primary postoperative hospital stay, length of total postoperative stay, readmission rate, and mortality. Quality assessment and data extraction were performed independently by two observers

RESULTS: Eleven studies were eligible for analysis (four randomized controlled trials (RCTs) and seven controlled clinical trials (CCT)), including 1,021 patients. Primary hospital stay (weighted mean difference -2.35 days, 95% confidence interval (CI) -3.24 to -1.46 days, $P < 0.00001$) and total hospital stay (weighted mean difference -2.46 days, 95% CI -3.43 to -1.48 days, $P < 0.00001$) were significantly lower for FT programs. Morbidity was also lower in the FT group. Readmission rates were not significantly different. No increase in mortality was found

CONCLUSIONS: FT protocols show high-level evidence on reducing primary and total hospital stay without compromising patients' safety offering lower morbidity and the same readmission rates. Enhanced recovery programs should become a mainstay of elective colorectal surgery

Gurusamy K, Junnarkar S, Farouk M, Davidson BR. Meta-analysis of randomized controlled trials on the safety and effectiveness of day-case laparoscopic cholecystectomy. The British journal of surgery 2008;95(2):Feb.

ABSTRACT:

BACKGROUND: Although day-case laparoscopic cholecystectomy can save bed costs, its safety has to be established. The aim of this meta-analysis is to assess the advantages and disadvantages of day-case surgery compared with overnight stay in patients undergoing elective laparoscopic cholecystectomy.

METHODS: Randomized clinical trials addressing the above issue were identified from The Cochrane Library trials register, Medline, Embase, Science Citation Index Expanded and reference lists. Data were extracted from these trials by two independent reviewers. For each outcome the relative risk, weighted mean difference or standardized mean difference was calculated with 95 per cent confidence intervals based on available case analysis.

RESULTS: Five trials with 215 patients randomized to the day-case group and 214 to the overnight-stay group were included in the review. Four of the five trials were of low risk of bias. The trials recruited 49.1 per cent of patients presenting for cholecystectomy. There was no significant difference between day case and overnight stay with respect to morbidity, prolongation of hospital stay, readmission rates, pain, quality of life, patient satisfaction, and return to normal activity and work. In the day-case group 80.5 per cent of patients were discharged on the day of surgery.

CONCLUSION: Day-case laparoscopic cholecystectomy is a safe and effective treatment for symptomatic gallstones. 2008 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd

Gurusamy KS, Junnarkar S, Farouk M, Davidson BR. Day-case versus overnight stay in laparoscopic cholecystectomy. [Review] [43 refs][Update in Cochrane Database Syst Rev. 2008;(3):CD006798; PMID: 18677781]. Cochrane Database of Systematic Reviews (1):CD006798, 2008 2008;(1):CD006798.

ABSTRACT:

BACKGROUND: Although day-case elective laparoscopic cholecystectomy can save bed costs, its safety remains to be established

OBJECTIVES: To assess the safety and benefits of day-case surgery compared to overnight stay in patients undergoing elective laparoscopic cholecystectomy

SEARCH STRATEGY: We searched The Cochrane Hepato-Biliary Group Controlled Trials Register, the Cochrane Central Register of Controlled Trials (CENTRAL) in The Cochrane Library, MEDLINE, EMBASE, and Science Citation Index Expanded until February 2007 for identifying randomised trials using search strategies

SELECTION CRITERIA: Only randomised clinical trials, irrespective of language, blinding, or publication status, comparing day-case and overnight stay in elective laparoscopic cholecystectomy were considered for the review

DATA COLLECTION AND ANALYSIS: We collected the data on the characteristics of the trial, methodological quality of the trials, morbidity, prolonged hospitalisation, re-admissions, pain and quality of life from each trial. We analysed the data with both the fixed-effect and the random-effects models using RevMan Analysis. For each outcome we calculated the relative risk, weighted mean difference, or standardised mean difference with 95% confidence intervals (CI) based on available case-analysis

MAIN RESULTS: Five trials with 429 patients randomised to the day-case group (215) and overnight stay group (214) were included in the review. Four of the five trials were of low risk of bias regarding randomisation and follow up, but all lacked blinding. The trials recruited 49% of patients undergoing cholecystectomy. The selection criteria varied, but most included only patients without other diseases. The patients were living in easy reach of the hospital and with a responsible adult to take care of them. On the day of surgery, 81% of day-case patients were discharged. The drop-out rate after randomisation varied from 6.5% to 12.7%. There was no significant difference between day-case and overnight stay group as regards to morbidity, prolongation of hospital stay, re-admission rates, pain, quality of life, patient satisfaction and return to normal activity and work

AUTHORS' CONCLUSIONS: Day-case elective laparoscopic cholecystectomy seems to be a safe and effective intervention in selected patients (with no or minimal systemic disease and within easy reach of the hospital) with symptomatic gallstones. Because of the decreased hospital stay, it is likely to save costs. [References: 43]

Heiying J, Leng Q, Gong W. A systematic review and meta-analysis of the safety profile of fast-track surgery for colorectal surgery. Central European Journal of Medicine 2013;8(4):August.

ABSTRACT:

BACKGROUND: The aim of this study was to evaluate the safety profile of fast-track surgery (FTS) compared to standard care in elective colorectal surgery involving segmental colonic and/or rectal resection.

METHODS: All of the randomized controlled trials (RCTs) and non-randomized controlled clinical trials (CCTs) on FTS for colorectal surgery were analyzed with the Cochrane systematic review. Database retrievals of Medline, Embase and Cochrane was were conducted, together with two published FTS meta-analyses. Two reviewers independently assessed the quality of the studies, extracted the relevant data and performed a cross-check. A metaanalysis was performed with RevMan 5 software.

RESULTS: A total of 15 studies were reviewed in this study, including 13 articles in English and 2 articles in Chinese, of which 7 were RCTs and 8 were CCTs. The overall rates of morbidity and readmission in the FTS group were lower compared to patients who underwent the conventional treatments (conventional treatment group or control group) in the RCTs but tended to increase in the CCTs. There were no statistically significant differences between the FTS group and the control group regarding ileus, anastomotic leakage, abdominal distention, nausea and vomiting, urinary retention and infection of the incisional wound.

CONCLUSION: The overall rates of morbidity and readmission in the FTS group were similar or even lower compared to the control group in RCTs, with an increasing trend in the CCTs. Further discussion is needed as to why the results of the RCTs were not repeated in the CCTs, especially with regard to the causes of readmission. It should also be determined whether an early discharge might cause a delay in the diagnosis of some complications, and thereby the occurrence of serious complications. If a number of severe complications occurred due to an early discharge, the value of FTS would be in question. 2012 Versita Warsaw and Springer-Verlag Berlin Heidelberg

Spanjersberg WR, Reurings J, Keus F, van Laarhoven CJ. Fast track surgery versus conventional recovery strategies for colorectal surgery. [Review]. Cochrane Database of Systematic Reviews (2):CD007635, 2011 2011;(2):CD007635.

ABSTRACT:

BACKGROUND: In recent years the Enhanced Recovery after Surgery (ERAS) postoperative pathway in (ileo-)colorectal surgery, aiming at improving perioperative care and decreasing postoperative complications, has become more common

OBJECTIVES: We investigated the effectiveness and safety of the ERAS multimodal strategy, compared to conventional care after (ileo-)colorectal surgery. The primary research question was whether ERAS protocols lead to less morbidity and secondary whether length of stay was reduced

SEARCH STRATEGY: To answer the research question we entered search strings containing keywords like "fast track", "colorectal and surgery" and "enhanced recovery" into major databases. We also hand searched references in identified reviews concerning ERAS

SELECTION CRITERIA: We included published randomised clinical trials, in any language, comparing ERAS to conventional treatment in patients with (ileo-) colorectal disease requiring a resection. RCT's including at least 7 ERAS items in the ERAS group and no more than 2 in the conventional arm were included

DATA COLLECTION AND ANALYSIS: Data of included trials were independently extracted by the reviewers. Analyses were performed using "REVMAN 5.0.22". Data were pooled and rate differences as well as weighted mean

differences with their 95% confidence intervals were calculated using either fixed or random effects models, depending on heterogeneity (I(2))

MAIN RESULTS: 4 RCTs were included and analysed. methodological quality of included studies was considered low, when scored according to GRADE methodology. Total numbers of inclusion were limited. The trials included in primary analysis reported 237 patients, (119 ERAS vs 118 conventional). Baseline characteristics were comparable. The primary outcome measure, complications, showed a significant risk reduction for all complications (RR 0.50; 95% CI 0.35 to 0.72). This difference was not due to reduction in major complications. Length of hospital stay was significantly reduced in the ERAS group (MD -2.94 days; 95% CI -3.69 to -2.19), and readmission rates were equal in both groups. Other outcome parameters were unsuitable for meta-analysis, but seemed to favour ERAS

AUTHORS' CONCLUSIONS: The quantity and especially quality of data are low. Analysis shows a reduction in overall complications, but major complications were not reduced. Length of stay was reduced significantly. We state that ERAS seems safe, but the quality of trials and lack of sufficient other outcome parameters do not justify implementation of ERAS as the standard of care. Within ERAS protocols included, no answer regarding the role for minimally invasive surgery (i.e. laparoscopy) was found. Furthermore, protocol compliance within ERAS programs has not been investigated, while this seems a known problem in the field. Therefore, more specific and large RCT's are needed

Spelt L, Ansari D, Sturesson C, Tingstedt B, Andersson R. Fast-track programmes for hepatopancreatic resections: where do we stand?. [Review]. HPB 2011;13(12):833-8

ABSTRACT:

BACKGROUND: Fast-track (FT) programmes represent a series of multimodal concepts that may reduce surgical stress and speed up convalescence after surgery. The aim of this systematic review was to evaluate FT programmes for patients undergoing hepatopancreatic surgery

METHODS: PubMed, Embase and the Cochrane Library databases were searched for studies of FT vs. conventional recovery strategies for liver and pancreatic resections

RESULTS: For liver surgery, three cohort studies were included. Primary hospital stay was significantly reduced after FT care in two of the three studies. There were no significant differences in rates of readmission, morbidity and mortality. For pancreatic surgery, three cohort studies and one case-control study were included. Primary hospital stay was significantly shorter after FT care in three out of the four studies. One study reported a significantly decreased readmission rate (7% vs. 25%; P= 0.027), and another study showed lower morbidity (47.2% vs. 58.7%; P < 0.01) in favour of the FT group. There was no difference in mortality between the FT and control groups

CONCLUSIONS: FT rehabilitation for liver and pancreatic surgical patients is feasible. Future investigation should focus on optimizing individual elements of the FT programme within the context of liver and pancreatic surgery. 2011 International Hepato-Pancreato-Biliary Association

Tenconi SM, Boni L, Colombo EM, Dionigi G, Rovera F, Cassinotti E. Laparoscopic cholecystectomy as day-surgery procedure: current indications and patients' selection. [Review] [9 refs]. International Journal Of Surgery 2008;6:Suppl-8.

ABSTRACT:

AIM OF THE STUDY: To review the current indications, to establish predictive factors of success and the safety of LC as a day-surgery procedure

METHODS: Randomized clinical trials were searched on PubMed between January 2000 and June 2008 using "laparoscopic cholecystectomy", "day-surgery" as keywords

RESULTS: A total of 20 trials was identified and analyzed. The indications for LC in day-surgery unit were symptomatic and chronic cholelitiasis without evidence of common bile duct stones; acute cholecystitis and pancreatitis cases were excluded. The trials considered as inclusion criteria: ASA score, BMI, social aspect and the preoperative workout included: abdominal US, liver function tests and routine preoperative tests, while the results considered the reasons for hospital stays and for readmission and measured patient satisfaction; some trials included analyze of costs of LC as day-surgery procedure the role of the surgeon's experience

DISCUSSION: The present study confirms that day-surgery LC is safe and feasibility in selected patients; serious complications are rare and most frequently prolonged hospital stay and the readmission are connected with minor and more easily controlled complications or social reasons. Outpatient surgery requires careful planning and preparation in order to reach acceptable patients' satisfaction: preoperative workout is extremely imports allowing to reduce errors selection. Considering surgical training, it has been demonstrated that in the centres in which the trainees are involved in day-surgery LC there not significant difference in terms of number of complications, patient outcomes, prolonged stay and readmission. The adequate control of pain, nausea or vomiting is essential component in day-case LC service and it is possible at home after LC

CONCLUSION: Day-case laparoscopic cholecystectomy is feasible with an acceptable discharge rate and level of

patient satisfaction. The success depends on appropriate patient selection and on well-trained staff and skilful operative technique together with safe anaesthesia. [References: 9]

Thomas H, Agrawal S. Systematic review of day-case laparoscopic fundoplication. Journal of Laparoendoscopic and Advanced Surgical Techniques 2011;21(9):01.

ABSTRACT:

BACKGROUND: The aim of the current study is to review published literature on day-case laparoscopic fundoplication in adults. Data Sources: Medline, Embase, and Cochrane library was searched by using the medical subjects headings "ambulatory surgical procedures" and "fundoplication" with further free text search and cross references. All articles on planned day-case laparoscopic fundoplication that described patient selection criteria, same-day discharge, complications, and readmissions were reviewed.

CONCLUSIONS: Thirteen cohort studies were included in this review. Ten were on planned same-day discharge with a 93% (739 out of 792) success, 4% (34) complication, and 5% (39) readmission rate. Three studies were on planned 23 hour discharge with a 98% (571 out of 583) success, 4% (25) complications, and 1% (5) re-admission rate. Nausea, pain, fatigue, and pneumothorax were the commonest causes for overnight admission. Dysphagia and pain were the main reasons for readmission. Most patients were satisfied with day-case laparoscopic fundoplication. Copyright 2011, Mary Ann Liebert, Inc. 2011

Thomas H, Agrawal S. Systematic review of same-day laparoscopic adjustable gastric band surgery. Obes Surg 2011;21(6):June.

ABSTRACT:

Laparoscopic adjustable gastric band (LAGB) is the commonest bariatric procedure worldwide. The safety and feasibility of same-day discharge after LAGB has not been reviewed before. The aim of this study is to review the published literature on same-day LAGB. Systematic search was performed in Medline, Embase and Cochrane library using the medical subjects headings terms "ambulatory surgical procedures" and "bariatric surgery" with further free-text search and cross-references. All articles on same-day LAGB which described patient selection criteria, same-day discharge and complications were reviewed. Data were extracted by two independent reviewers. One randomized controlled trial and five cohort studies were included in this review. The patients' age ranged from 18 to 73 years, body mass index ranged from 32.7 to 79 and ASA grade ranged from 1 to 3; 2,534 out of 2,549 (99.41%) patients could be discharged on the same day. Pain, nausea and dysphagia were the commonest causes for overnight admission. Two out of the six studies reported that 1,982 out of 1,984 (99.9%) could be discharged within 23 h; 34 out of 2,549 (1.33%) patients developed early complications. No deaths have been reported in these studies. Five out of the six studies mentioned that 12 out of 2,181 patients (0.55%) were readmitted. Dysphagia was the main reason for re-admission. LAGB is safe and feasible as a same-day procedure in selected patients. Early complications and re-admissions are infrequent. 2011 Springer Science + Business Media, LLC

Vaughan J, Gurusamy KS, Davidson BR. Day-surgery versus overnight stay surgery for laparoscopic cholecystectomy. Cochrane Database of Systematic Reviews 2013;7:CD006798.

ABSTRACT:

BACKGROUND: Laparoscopic cholecystectomy is used to manage symptomatic gallstones. There is considerable controversy regarding whether it should be done as day-surgery or as an overnight stay surgery with regards to patient safety

OBJECTIVES: To assess the impact of day-surgery versus overnight stay laparoscopic cholecystectomy on patient-oriented outcomes such as mortality, severe adverse events, and quality of life

SEARCH METHODS: We searched the Cochrane Hepato-Biliary Group Controlled Trials Register and the Cochrane Central Register of Controlled Trials (CENTRAL) in The Cochrane Library, MEDLINE, EMBASE, Science Citation Index Expanded, and mRCT until September 2012

SELECTION CRITERIA: We included randomised clinical trials comparing day-surgery versus overnight stay surgery for laparoscopic cholecystectomy, irrespective of language or publication status

DATA COLLECTION AND ANALYSIS: Two authors independently assessed trials for inclusion and independently extracted the data. We analysed the data with both the fixed-effect and the random-effects models using Review Manager 5 analysis. We calculated the risk ratio (RR), mean difference (MD), or standardised mean difference (SMD) with 95% confidence intervals (CI) based on intention-to-treat or available case analysis

MAIN RESULTS: We identified a total of six trials at high risk of bias involving 492 participants undergoing day-case laparoscopic cholecystectomy (n = 239) versus overnight stay laparoscopic cholecystectomy (n = 253) for symptomatic gallstones. The number of participants in each trial ranged from 28 to 150. The proportion of women in the trials varied between 74% and 84%. The mean or median age in the trials varied between 40 and 47 years.With regards to primary outcomes, only one trial reported short-term mortality. However, the trial stated that there were

no deaths in either of the groups. We inferred from the other outcomes that there was no short-term mortality in the remaining trials. Long-term mortality was not reported in any of the trials. There was no significant difference in the rate of serious adverse events between the two groups (4 trials; 391 participants; 7/191 (weighted rate 1.6%) in the day-surgery group versus 1/200 (0.5%) in the overnight stay surgery group; rate ratio 3.24; 95% CI 0.74 to 14.09). There was no significant difference in quality of life between the two groups (4 trials; 333 participants; SMD -0.11; 95% CI -0.33 to 0.10).There was no significant difference between the two groups regarding the secondary outcomes of our review: pain (3 trials; 175 participants; MD 0.02 cm visual analogue scale score; 95% CI -0.69 to 0.73); time to return to activity (2 trials, 217 participants; MD -0.55 days; 95% CI -2.18 to 1.08); and return to work (1 trial, 74 participants; MD -2.00 days; 95% CI -10.34 to 6.34). No significant difference was seen in hospital readmission rate (5 trials; 464 participants; 6/225 (weighted rate 0.5%) in the day-surgery group versus 5/239 (2.1%) in the overnight stay surgery group (rate ratio 1.25; 95% CI 0.43 to 3.63) or in the proportion of people requiring hospital readmissions (3 trials; 290 participants; 5/136 (weighted proportion 3.5%) in the day-surgery group versus 5/154 (3.2%) in the overnight stay surgery group; RR 1.09; 95% CI 0.33 to 3.60). No significant difference was seen in the proportion of failed discharge (failure to be discharged as planned) between the two groups (5 trials; 419 participants; 42/205 (weighted proportion 19.3%) in the day-surgery group versus 43/214 (20.1%) in the overnight stay surgery group; RR 0.96; 95% CI 0.65 to 1.41). For all outcomes except pain, the accrued information was far less than the diversity-adjusted required information size to exclude random errors

AUTHORS' CONCLUSIONS: Day-surgery appears just as safe as overnight stay surgery in laparoscopic cholecystectomy. Day-surgery does not seem to result in improvement in any patient-oriented outcomes such as return to normal activity or earlier return to work. The randomised clinical trials backing these statements are weakened by risks of systematic errors (bias) and risks of random errors (play of chance). More randomised clinical trials are needed to assess the impact of day-surgery laparoscopic cholecystectomy on the quality of life as well as other outcomes of patients

Wind J, Polle SW, Fung Kon Jin PHP, Dejong CHC, von Meyenfeldt MF, Ubbink DT, et al. Systematic review of enhanced recovery programmes in colonic surgery. Br J Surg 2006;93(7):July.

ABSTRACT:

BACKGROUND: Fast track (FT) programmes optimize perioperative care in an attempt to accelerate recovery, reduce morbidity and shorten hospital stay. The aim of this review was to assess FT programmes for elective segmental colonic resections.

METHODS: A systematic review was performed of all randomized controlled trials and controlled clinical trials on FT colonic surgery. The main endpoints were number of applied FT elements, hospital stay, readmission rate, morbidity and mortality. Quality assessment and data extraction were performed independently by three observers.

RESULTS: Six papers were eligible for analysis (three randomized controlled and three controlled clinical trials), including 512 patients. FT programmes contained a mean of nine (range four to 12) of the 17 FT elements as denned in the literature. Primary hospital stay (weighted mean difference - 1.56 days, 95 per cent confidence interval (c.i.) - 2.61 to - 0.50 days) and morbidity (relative risk 0.54, 95 per cent c.i. 0.42 to 0.69) were significantly lower for FT programmes. Readmission rates were not significantly different (relative risk 1.17, 95 per cent c.i. 0.73 to 1.86). No increase in mortality was found.

CONCLUSIONS: FT appears to be safe and shortens hospital stay after elective colorectal surgery. However, as the evidence is limited, a multicentre randomized trial seems justified. Copyright 2006 British Journal of Surgery Society Ltd

Ypsilantis E, Praseedom RK. Current status of fast-track recovery pathways in pancreatic surgery. Journal of the Pancreas 2009;10(6):November

ABSTRACT:

CONTEXT: Pancreatic surgery is often associated with significant morbidity, thus requiring high level of perioperative care and long hospital stay. Multi-modal "enhanced recovery" or "fast-track" pathways have recently been introduced, aiming to expedite patient recovery.

OBJECTIVE: To evaluate the evidence underpinning the use of fast-track pathways in the peri-operative care of patients undergoing pancreatic cancer surgery.

RESULTS: The available evidence is limited, consisting of three retrospective studies that report median length of hospital stay between 7 and 13 days. No significant difference has been noted in re-admission or 30-day mortality rates between fast-track patients and historical controls, but there is a trend for higher overall complication rate for the fast-track groups.

CONCLUSION: Implementation of an enhanced recovery pathway is feasible and can achieve shorter hospital stay and reduced costs, with no increase in re-admission or peri-operative mortality rates. There is, however, conflicting evidence on the physiological mechanisms that contribute to accelerated patient recovery. Certain safety issues associated with post-operative morbidity warrant rigorous evaluation in further prospective studies

Psykiatriske pasienter (31)

Flere eller uspesifiserte intervensjoner (4)

Lien L. Are readmission rates influenced by how psychiatric services are organized?. [Review] [43 refs]. Nordic Journal of Psychiatry 2002;56(1):23-8.

ABSTRACT:

A transition is taking place in the organization of psychiatric services. The length of stay in hospitals is reduced and partly replaced by treatment and care in the community. The readmission rate is proposed as one indicator to analyse the effectiveness of this transition. A comprehensive literature review was conducted to ascertain whether readmission rates differ with different service systems. The search yielded 77 articles, of which 28 were selected on the basis of aims and objectives of the articles. The results show that approximately 50% of all patients admitted to psychiatric hospitals are previously admitted patients. Longer length of stay, appropriate discharge planning, and follow-up visits after discharge predicted fewer readmissions, whereas the quantity and quality of community care did not seem to have any impact on readmission rates. On the basis of the analysis of the literature review it is concluded that readmission rates are not a suitable indicator of quality of care in psychiatric hospitals. Readmission rates may, however, be an important tool in the planning of mental health services. [References: 43]

Penn DL, Waldheter EJ, Perkins DO, Mueser KT, Lieberman JA. Psychosocial treatment for first-episode psychosis: A research update. Am J Psychiatry 2005;162(12):December.

ABSTRACT:

OBJECTIVE: This article reviews research on psychosocial treatment for first-episode psychosis.

METHOD: PsycINFO and MEDLINE were systematically searched for studies that evaluated psychosocial interventions for first-episode psychosis.

RESULTS: Comprehensive (i.e., multielement) treatment approaches show promise in reducing symptoms and hospital readmissions, as well as improving functional outcomes, although few rigorously controlled trials have been conducted. Individual cognitive behavior therapy has shown modest efficacy in reducing symptoms, assisting individuals in adjusting to their illness, and improving subjective quality of life, but it has shown minimal efficacy in reducing relapse. Some controlled research supports the benefits of family interventions, while less controlled research has evaluated group interventions.

CONCLUSIONS: Adjunctive psychosocial interventions early in psychosis may be beneficial across a variety of domains and can assist with symptomatic and functional recovery. More randomized, controlled trials are needed to evaluate the effectiveness of these interventions, particularly for multielement, group, and family treatments

Peterson KA, Swindle RW, Phibbs CS, Recine B, Moos RH. Determinants of readmission following inpatient substance abuse treatment: a national study of VA programs. Med Care 1994;32(6):535-50.

ABSTRACT:

This study examines program determinants of one aspect of VA inpatient substance abuse treatment program performance. Performance was measured by the ratio of a program's readmission rate to the expected rate for programs with similar patients. Six-month readmission rates in 101 VA treatment programs were analyzed. Preliminary analyses indicated that patient differences across programs accounted for 36% of the variance in readmission rates. Program differences accounted for 47% of the variance in case-mix-adjusted readmission rate. Among program factors selected through a literature review, better than expected readmission performance was associated with having fewer early discharges, a longer intended treatment duration, more patient participation in aftercare, more family or friend assessment interviews, and treating more patients on a compulsory basis. Performance was not related to stress management training, patient attendance at more self-help meetings during treatment, staff characteristics, or average staff costs per patient day. The findings indicate that treatment retention, duration, and increased aftercare may be targeted to reduce high readmission rates. Last, there were only small differences in the model over 30, 60, 90, and 365 day follow-up intervals, suggesting substantial stability of the findings

Vigod SN, Kurdyak PA, Dennis C-L, Leszcz T, Taylor VH, Blumberger DM, et al. Transitional interventions to reduce early psychiatric readmissions in adults: Systematic review. Br J Psychiatry 2013;202(3):March.

ABSTRACT:

BACKGROUND: Up to 13% of psychiatric patients are readmitted shortly after discharge. Interventions that ensure successful transitions to community care may play a key role in preventing early readmission.

AIMS: To describe and evaluate interventions applied during the transition from in-patient to out-patient care in preventing early psychiatric readmission.

METHOD: Systematic review of transitional interventions among adults admitted to hospital with mental illness where the study outcome was psychiatric readmission.

RESULTS: The review included 15 studies with 15 non-overlapping intervention components. Absolute risk reductions of 13.6 to 37.0% were observed in statistically significant studies. Effective intervention components were: pre- and postdischarge patient psychoeducation, structured needs assessments, medication reconciliation/education, transition managers and in-patient/out-patient provider communication. Key limitations were small sample size and risk of bias.

CONCLUSIONS: Many effective transitional intervention components are feasible and likely to be cost-effective. Future research can provide direction about the specific components necessary and/or sufficient for preventing early psychiatric readmission. Copyright BJP 2013

Intervensjoner på sykehus om tilrettelegging for behandling under og etter opphold (9)

Swartz MS, Burns BJ, Hiday VA, George LK, Swanson J, Wagner HR. New directions in research on involuntary outpatient commitment. [Review] [42 refs]. Psychiatr Serv 1995;46(4):381-5.

ABSTRACT:

OBJECTIVE: Involuntary outpatient commitment has been used as a method of improving tenure in community programs for individuals with severe and persistent mental illness. This paper reviews literature on research about involuntary outpatient commitment and suggests questions and methods for future research

METHODS: Literature describing research studies of involuntary outpatient commitment, located by searching MEDLINE and following up references cited in relevant articles, was reviewed with attention to patient characteristics and diagnostic, treatment, and outcomes measures

RESULTS: Involuntary outpatient commitment appears to provide limited but improved outcomes in rates of rehospitalization and lengths of hospital stay. Variability in community treatment makes interpretation of other types of outcome difficult. Few studies specifically identify results among patients with severe and persistent mental illness

CONCLUSIONS: No studies have examined the extent to which outpatient commitment affects compliance and treatment when essential community services such as case management are consistently and aggressively provided, nor have studies controlled for potentially confounding factors such as treatment and nontreatment effects, including informal coercion. A randomized trial of involuntary outpatient commitment should be useful in evaluating the effectiveness of this type of intervention. [References: 42]

Rosen A, Bond GR, Teesson M. Review: intensive case management for severe mental illness reduces rehospitalisation when previous hospital use has been high. Evidence Based Mental Health 2008;11(2):45.

ABSTRACT:

QUESTION: What factors affect the efficacy of intensive case management in reducing rates of hospital readmission for people with severe mental health illness?

OUTCOMES:Time in hospital (mean days per month)

METHODS Design: Systematic review of randomised controlled trials (with meta-analysis and meta-regression)

Data sources: MEDLINE, EMBASE, PsychINFO, and CINAHL from inception to January 2007

STUDY SELECTION AND ANALYSIS: Randomised controlled trials (RCTs) comparing intensive case management (allocated case manager with caseload of 20 people) to standard care (community mental health team or outpatients) or low intensity management (caseload of >/= 20 people), for community dwelling people with severe mental

health illness (schizophrenia or other similar disorder, depression with psychosis, or bipolar disorder). Exclusions: trials with acute crisis team intervention or control condition involving hospital-based care. A random effects meta-regression was used to examine the relation between hospital stay and covariates. Covariates included: trial size, year of study, country of study, baseline hospital use, similarity of the intervention to assertive community treatment (assessed using "team membership" and "team structure" subscales on the Index of Fidelity of the Intervention to Assertive Community Treatment), degree of case management in control group. Analyses were conducted initially without consideration of baseline hospital use as a covariate, and then repeated in only those trials where baseline hospital use was available. Mean hospital use in the control group was also used as an alternative covariate to baseline use

MAIN RESULTS: Twenty nine trials were found which assessed mean hospital stay per month. Overall, intensive case management significantly reduced mean days in hospital per month (pooled effect:-0.46; 95% CI-0.84 to-0.08; p = 0.019), however there was significant heterogeneity between centres and trials. Intensive case management was most effective in trials when there was a high level of hospitalisation at baseline (regression coefficient:-0.23; 95% CI-0.36 to-0.09), or when hospital use was high in the control group (regression coefficient:-0.31; 95% CI-0.59 to-0.03) Organisation of intensive case teams more closely to the assertive community treatment model also affected the success of intensive interventions, with each one point increase in team organisation associated with fewer days in hospital per month (regression coefficient:-0.44; 95% CI-0.72 to-0.17; p = 0.002)

CONCLUSIONS Intensive case management is most effective for reducing hospital stay per month in people with severe mental illness when they have previously required a high amount of hospital care. The benefits are less when hospital use has previously been low. Team organisation is the most important factor of assertive team management model

Durbin J, Lin E, Layne C, Teed M. Is readmission a valid indicator of the quality of inpatient psychiatric care? J Behav Health Serv Res 2007;34(2):April.

ABSTRACT:

Early return to hospital is a frequently measured outcome in mental health system performance monitoring yet its validity for evaluating quality of inpatient care is unclear. This study reviewed research conducted in the last decade on predictors of early readmission (within 30 to 90 days of discharge) to assess the association between this indicator and quality of inpatient psychiatric care. Only 13 studies met inclusion criteria. RESULTS indicated that risk is greatest in the 30-day period immediately after discharge. There was modest support that attending to stability of clinical condition and preparing patients for discharge can protect against early readmission. A history of repeated admission increases risk, suggesting that special efforts are required to break the revolving door cycle. The authors identified a need for more standardization in measurement of client status at discharge and related care processes, more intervention studies on discharge practices, and studies of the effect of community care on early readmission. 2007 National Council for Community Behavioral Healthcare

Steffen S, Kosters M, Becker T, Puschner B. Discharge planning in mental health care: a systematic review of the recent literature. [Review] [44 refs]. Acta Psychiatr Scand 2009;120(1):1-9

ABSTRACT:

OBJECTIVE: To determine and estimate the efficacy of discharge planning interventions in mental health care from in-patient to out-patient treatment on improving patient outcome, ensuring community tenure, and saving costs

METHOD: A systematic review and meta-analysis identified studies through an electronic search on the basis of defined inclusion and exclusion criteria and extracted data

RESULTS: Of eleven studies included, six were randomised controlled trials, three were controlled clinical trials, and two were cohort studies. The discharge planning strategies used varied widely, most were limited to preparation of discharge during in-patient treatment. Pooled risk ratios were 0.66 (95% CI = 0.51 to 0.84; P < 0.001) for hospital readmission rate, and 1.25 (1.07 to 1.47; P < 0.001) for adherence to out-patient treatment. Effect sizes (Hedge's g) were -0.25 (-0.45 to -0.05; P = 0.02) for mental health outcome, and 0.11(-0.05 to 0.28; NS) for quality of life

CONCLUSION: Discharge planning interventions are effective in reducing rehospitalisation and in improving adherence to aftercare among people with mental disorders. [References: 44]

Grawe RW, Ruud T, Bjorngaard JH. [Alternative emergency interventions in adult mental health care]. [Review] [30 refs] [Norwegian]. Tidsskr Nor Laegeforen 2005;125(23):3265-8.

ABSTRACT:

BACKGROUND: The objectives of this study were to review the literature on alternatives to traditional treatment of acute mental disorders and to describe the effects of these interventions. The main emphasis is on crisis resolution teams (CRT) because there are governmental plans to implement these in all Norwegian community mental health centres

MATERIAL AND METHODS: The reviewed literature is based on a search for randomized controlled studies that compare the effect of standard emergency treatment with alternative emergency services. Quasi-experimental studies of crisis resolution teams were also included

RESULTS AND INTERPRETATION: The identified alternative interventions were: emergency residential/domestic care, emergency day centres, and crisis resolution teams (or assertive/out-reach/mobile crisis teams). Studies of acute day hospitals showed that this treatment is associated with reduced hospitalisation, faster recovery and reduced costs compared with treatment in traditional hospital acute wards. Because of insufficient research, it was not possible to draw

CONCLUSIONS on the effects of residential or domestic care. We identified six randomized controlled studies and four quasiexperimental studies of Crisis Resolution Teams. These studies indicate that Crisis Resolution Teams or other forms of assertive homebased mobile/outreach treatment, is an acceptable alternative to hospitalization for many patients. The clinical effect of such treatment seems to be comparable with traditional treatment, and are associated with reduced hospitalizations and rehospitalizations, and with reduced costs. None of the reviewed treatment can replace traditional acute hospital treatment. Although studies of alternatives to acute hospitalization have congruent results, there are few studies and methodological weaknesses make it difficult to draw firm scientific

CONCLUSIONS about the effect of such interventions. [References: 30]

Marshall M, Crowther R, Sledge WH, Rathbone J, Soares-Weiser K. Day hospital versus admission for acute psychiatric disorders. Cochrane Database of Systematic Reviews 2011;(12):CD004026.

ABSTRACT:

BACKGROUND: Inpatient treatment is an expensive way of caring for people with acute psychiatric disorders. It has been proposed that many of those currently treated as inpatients could be cared for in acute psychiatric day hospitals.Objectives: To assess the effects of day hospital versus inpatient care for people with acute psychiatric disorders.Search

METHODS: We searched the Cochrane Schizophrenia Group Trials Register (June 2010) which is based on regular searches of MEDLINE, EMBASE, CINAHL and PsycINFO. We approached trialists to identify unpublished studies.Selection criteria: Randomised controlled trials of day hospital versus inpatient care, for people with acute psychiatric disorders. Studies were ineligible if a majority of participants were under 18 or over 65, or had a primary diagnosis of substance abuse or organic brain disorder.Data collection and analysis: Two review authors independently extracted and cross-checked data. We calculated risk ratios (RR) and 95% confidence intervals (CI) for dichotomous data. We calculated weighted or standardised means for continuous data. Day hospital trials tend to present similar outcomes in slightly different formats, making it difficult to synthesise data. We therefore sought individual patient data so that we could re-analyse outcomes in a common format.

MAIN RESULTS: Ten trials (involving 2685 people) met the inclusion criteria. We obtained individual patient data for four trials (involving 646 people). We found no difference in the number lost to follow-up by one year between day hospital care and inpatient care (5 RCTs, n = 1694, RR 0.94 CI 0.82 to 1.08). There is moderate evidence that the duration of index admission is longer for patients in day hospital care than inpatient care (4 RCTs, n = 1582, WMD 27.47 CI 3.96 to 50.98). There is very low evidence that the duration of day patient care (adjusted days/month) is longer for patients in day hospital care than inpatient care (3 RCTs, n = 265, WMD 2.34 days/month CI 1.97 to 2.70). There is no difference between day hospital care and inpatient care for the being readmitted to in/day patient care after discharge (5 RCTs, n = 667, RR 0.91 CI 0.72 to 1.15). It is likely that there is no difference between day hospital care and inpatient care for being unemployed at the end of the study (1 RCT, n = 179, RR 0.88 CI 0.66 to 1.19), for quality of life (1 RCT, n = 1117, MD 0.01 CI -0.13 to 0.15) or for treatment satisfaction (1 RCT, n = 1117, MD 0.06 CI -0.18 to 0.30).

AUTHORS' CONCLUSIONS: Caring for people in acute day hospitals is as effective as inpatient care in treating acutely ill psychiatric patients. However, further data are still needed on the cost effectiveness of day hospitals

Nordentoft M, Jeppesen P, Petersen L, Bertelsen M, Thorup A. The rationale for early intervention in schizophrenia and related disorders. Early Intervention in Psychiatry 2009;3(SUPPL.#1):2009.

ABSTRACT:

AIM: To examine the rationale and evidence supporting an early intervention approach in schizophrenia.

METHODS: A selective literature review was conducted.

RESULTS: During the onset of schizophrenia, there is often a significant delay between the emergence of psychotic symptoms and the initiation of treatment. The average duration of untreated psychosis is around 1-2 years. During this period, brain function may continue to deteriorate and social networks can be irreversibly damaged. Studies have consistently linked longer duration of untreated psychosis with poorer outcomes and this relationship holds even after controlling for the potential confounding variable of premorbid functioning. In Norway, the early Treatment and Intervention in PSychosis study demonstrated that duration of untreated psychosis is amenable to intervention with the combination of educational campaigns and specialized early detection units substantially decreasing the

period from onset of symptoms to treatment initiation. Furthermore, recent evidence from the randomized controlled OPUS and the Lambeth Early Onset trial studies have linked phase-specific early interventions to improved outcomes spanning symptoms, adherence to treatment, comorbid drug abuse, relapse and readmission. Some benefits persist after cessation of the intervention.

CONCLUSIONS: Early intervention in schizophrenia is justified to reduce the negative personal and social impact of prolonged periods of untreated symptoms. Furthermore, phase-specific interventions are associated with improved outcomes, at least in the short term. Further research is needed to establish the optimum duration of such programmes. Journal compilation 2009 Blackwell Publishing Asia Pty Ltd

Alwan NA, Johnstone P, Zolese G. Length of hospitalisation for people with severe mental illness. [Review] [47 refs][Update of Cochrane Database Syst Rev. 2000;(2):CD000384; PMID: 10796354]. Cochrane Database of Systematic Reviews (1):CD000384, 2008 2008;(1):CD000384

ABSTRACT:

BACKGROUND: In high income countries, over the last three decades, the length of hospital stays for people with serious mental illness has reduced drastically. Some argue that this reduction has led to revolving door admissions and worsening mental health outcomes despite apparent cost savings, whilst others suggest longer stays may be more harmful by institutionalising people to hospital care

OBJECTIVES: To determine the clinical and service outcomes of planned short stay admission policies versus a long or standard stay for people with serious mental illnesses

SEARCH STRATEGY: We searched the Cochrane Schizophrenia Group's register of trials (July 2007)

SELECTION CRITERIA: We included all randomised trials comparing planned short with long/standard hospital stays for people with serious mental illnesses

DATA COLLECTION AND ANALYSIS: We extracted data independently. For dichotomous data we calculated relative risks (RR) and their 95% confidence intervals (CI) on an intention-to-treat basis based on a fixed effects model. We calculated numbers needed to treat/harm (NNT/NNH) where appropriate. For continuous data, we calculated fixed effects weighted mean differences (WMD)

MAIN RESULTS: We included six relevant trials. We found no significant difference in hospital readmissions between planned short stays and standard care at one year (n=651, 4 RCTs, RR 1.26 CI 1.0 to 1.6). Short hospital stay did not confer any benefit in terms of 'loss to follow up compared with standard care (n=453, 3 RCTs, RR 0.87 CI 0.7 to 1.1). There were no significant differences for the outcome of 'leaving hospital prematurely' (n=229, 2 RCTs, RR 0.77 CI 0.3 to 1.8). More post-discharge day care was given to participants in the short stay group (n=247, 1 RCT, RR 4.52 CI 2.7 to 7.5, NNH 3 CI 2 to 6) and people from the short stay groups were more likely to be employed at two years (n=330, 2 RCTs, RR 0.61 CI 0.5 to 0.8, NNT 5 CI 4 to 8). Economic data were few but, once discharged, costs may be more for those allocated to an initial short stay

AUTHORS' CONCLUSIONS: The effects of hospital care and the length of stay is important for mental health policy. We found limited data, although outcomes do suggest that a planned short stay policy does not encourage a 'revolving door' pattern of admission and disjointed care for people with serious mental illness. More large, well-designed and reported trials are justified. [References: 47]

Nath SB. Review: Short stay hospitalisation does not increase readmissions compared with long stay. Evidence Based Mental Health 2008;11(4):124

ABSTRACT:

QUESTION: How effective is planned short stay hospitalisation compared with long stay (standard) hospitalisation for people with severe mental illness?

OUTCOMES: Death, service outcomes (including hospital readmission), global and mental function

METHODS: DESIGN: Systematic review with meta-analysis

DATA SOURCES: The Cochrane Schizophrenia group trial register was searched in July 2007. In addition, reference lists of relevant papers were hand searched, papers citing included studies were identified using SciSearch, and authors of the main studies were contacted to identify unpublished research

STUDY SELECTION AND ANALYSIS: RCTs comparing planned short-term versus long-term/standard hospitalisation for people with schizophrenia, related disorders or any "severe/chronic mental disorders/illnesses" were included. RCTs randomising all acute psychiatric admissions were not included in the meta-analyses. Studies where more than 50% of participants were lost to follow-up were excluded from analyses. In intention-to-treat analyses people leaving studies early were assumed to have had a negative outcome, except for in the mortality analyses. Two re-

viewers appraised search

RESULTS, judged study quality and extracted data. Statistical heterogeneity was assessed visually, and using chi squared tests and the I2 statistic

MAIN RESULTS Six RCTs met inclusion criteria, including a total of 2030 participants. Four studies were carried out in the US and 2 in the UK, and all 6 RCTs were carried out before 1980. Follow-up period was 12-26 months. Average duration of long and short stays varied between studies, with short stays ranging from 10.8 to 25 days, and long stays ranging from 28 to 94 days. There was no significant difference in deaths from all causes between groups (1 RCT, n = 175; RR 0.42, 95% CI 0.1 to 1.8). Results for mental state could not be pooled because standard deviations were not reported. One study assessed mental state on two different scales in a subset of participants, and found no difference in the proportion of people whose mental state had not improved on either scale. There was also no significant difference between short and long stay in hospital readmissions at one or two year follow up (one year: 4 RCTs, n = 651; RR 1.26, 95% CI 1.0 to 1.6, I2 = 62.4%; two years: 2 RCTs, n = 229; RR 1.03, 95% CI 0.8 to 1.4, I2 = 62.4%). Short stay significantly reduced delayed discharges compared with long stay (3 RCTs, n = 404; RR 0.54, 95% CI 0.3 to 0.9; I2 = 0%). Patients who had short stays received more post-discharge day care (1 RCT, n = 247; RR 4.52, 95% CI 2.7 to 7.5). Short stay reduced the proportion of people who were unemployed, of unknown employment status, or unable to housekeep at two years compared to long stay (2 RCTs, n = 330; RR 0.61, 95% CI 0.5 to 0.8; NNT 5, 95% CI 4 to 8)

CONCLUSIONS Few studies addressing the relative efficacy of short and long stay admissions for serious mental illness were identified. The evidence did not suggest that a short stay policy increased readmissions

Intervensjoner om pasientopplæring (12)

Bustillo JR, Lauriello J, Horan WP, Keith SJ. The psychosocial treatment of schizophrenia: An update. Am J Psychiatry 2001;158(2):2001.

ABSTRACT:

OBJECTIVE: The authors sought to update the randomized controlled trial literature of psychosocial treatments for schizophrenia.

METHOD: Computerized literature searches were conducted to identify randomized controlled trials of various psychosocial interventions, with emphasis on studies published since a previous review of psychosocial treatments for schizophrenia in 1996.

RESULTS: Family therapy and assertive community treatment have clear effects on the prevention of psychotic relapse and rehospitalization. However, these treatments have no consistent effects on other outcome measures (e.g., pervasive positive and negative symptoms, overall social functioning, and ability to obtain competitive employment). Social skills training improves social skills but has no clear effects on relapse prevention, psychopathology, or employment status. Supportive employment programs that use the place-and-train vocational model have important effects on obtaining competitive employment. Some studies have shown improvements in delusions and hallucinations following cognitive behavior therapy. Preliminary research indicates that personal therapy may improve social functioning.

CONCLUSIONS: Relatively simple, long-term psychoeducational family therapy should be available to the majority of persons suffering from schizophrenia. Assertive community training programs ought to be offered to patients with frequent relapses and hospitalizations, especially if they have limited family support. Patients with schizophrenia can clearly improve their social competence with social skills training, which may translate into a more adaptive functioning in the community. For patients interested in working, rapid placement with ongoing support offers the best opportunity for maintaining a regular job in the community. Cognitive behavior therapy may benefit the large number of patients who continue to experience disabling psychotic symptoms despite optimal pharmacological treatment

Duncan E, Best C, Hagen S. Shared decision making interventions for people with mental health conditions. Cochrane database of systematic reviews (Online) (1) (pp CD007297), 2010 Date of Publication: 2010 2010;(Online):2010.

ABSTRACT:

BACKGROUND: One person in every four will suffer from a diagnosable mental health condition during their life course. Such conditions can have a devastating impact on the lives of the individual, their family and society. Increasingly partnership models of mental health care have been advocated and enshrined in international healthcare policy. Shared decision making is one such partnership approach. Shared decision making is a form of patient-provider communication where both parties are acknowledged to bring expertise to the process and work in partnership to make a decision. This is advocated on the basis that patients have a right to self-determination and also

in the expectation that it will increase treatment adherence.

OBJECTIVES: To assess the effects of provider-, consumer- or carer-directed shared decision making interventions for people of all ages with mental health conditions, on a range of outcomes including: patient satisfaction, clinical outcomes, and health service outcomes.

SEARCH STRATEGY: We searched: the Cochrane Central Register of Controlled Trials (CENTRAL, The Cochrane Library 2008, Issue 4), MEDLINE (1950 to November 2008), EMBASE (1980 to November 2008), PsycINFO (1967 to November 2008), CINAHL (1982 to November 2008), British Nursing Index and Archive (1985 to November 2008) and SIGLE (1890 to September 2005 (database end date)). We also searched online trial registers and the bibliographies of relevant papers, and contacted authors of included studies. SELECTION CRITERIA: Randomised controlled trials (RCTs), quasi-randomised controlled trials (q-RCTs), controlled before-and-after studies (CBAs); and interrupted time series (ITS) studies of interventions to increase shared decision making in people with mental health conditions (by DSM or ICD-10 criteria). DATA COLLECTION AND ANALYSIS: Data on recruitment

METHODS, eligibility criteria, sample characteristics, interventions, outcome measures, participant flow and outcome data from each study were extracted by one author and checked by another. Data are presented in a narrative synthesis.

MAIN RESULTS: We included two separate German studies involving a total of 518 participants. One study was undertaken in the inpatient treatment of schizophrenia and the other in the treatment of people newly diagnosed with depression in primary care. Regarding the primary outcomes, one study reported statistically significant increases in patient satisfaction, the other study did not. There was no evidence of effect on clinical outcomes or hospital readmission rates in either study. Regarding secondary outcomes, there was an indication that interventions to increase shared decision making increased doctor facilitation of patient involvement in decision making, and did not increase consultation times. Nor did the interventions increase patient compliance with treatment plans. Neither study reported any harms of the intervention. Definite conclusions cannot be drawn, however, on the basis of these two studies.

AUTHORS' CONCLUSIONS: No firm conclusions can be drawn at present about the effects of shared decision making interventions for people with mental health conditions. There is no evidence of harm, but there is an urgent need for further research in this area

Glynn SM, Cohen AN, Niv N. New challenges in family interventions for schizophrenia. Expert Review of Neurotherapeutics 2007;7(1):January.

ABSTRACT:

This review first outlines the rationale and research base supporting the development of family interventions for schizophrenia. The over-riding principles guiding effective family interventions for schizophrenia are then presented, along with the key components (engagement, assessment, education, communication skills training and problem-solving) shared by most family programs in schizophrenia. Meta-analyses demonstrating the efficacy of family interventions in reducing relapse and rehospitalization in schizophrenia are then discussed, along with issues regarding minimal duration of effective treatment, differential benefits of single and multiple family modalities and mixed evidence for the maintenance of treatment effects after termination. The benefits of participation in family-organized, nonprofessional support and education programs are then described. Finally, three issues meriting further study are outlined. 2007 Future Drugs Ltd

Leucht S. Psychoeducation and shared decision making as a way to reduce non-compliance in mental disorders. European Neuropsychopharmacology Conference: 11th ECNP Regional Meeting St Petersburg Russian Federation Conference Start: 20110414 Conference End: 20110416 Conference Publication: (var pagings) 2011;21(pp S109-S110):01.

ABSTRACT:

Non-compliance is a very important issue in the pharmacological treatment of schizophrenia. This is not a ''yes or no'' phenomenon. We often think in a dichotomous way about compliance in the sense that patients are either adherent or not, but probably com-pliance is rather a continuum. Some patients are fully adherent and others refuse medication in general, but most patients are probably somewhere in the middle, they are partially compliant, i.e. they sometimes forget to take the medication or they take 'drug holidays'. Studies based on medication refills have, however, shown that even small gaps in taking medication are associated with increased rates of hospitalisation. In one of these trials even a small medication gap between 1 and 10 days doubled the number of patients hospitalised. It also seems that the introduction of the atypical antipsychotics has not dramatically changed the problem of non-compliance. In another large pharmacy-based study, in the atypical group patients did not have medication available because they did not even go to the pharmacy for an average of 110 days per year. This number of days was only slightly higher in the typical antipsychotic group (125 days per year). There are a number of factors that contribute to noncompliance, reduced cognitive capabilities, substance abuse, denial of the illness, side-effects etc. Importantly, doctors play animportant role in patients non-adherence, as well, a phenomenon that has been called ''doctors' non compliance''. In a study from approximately 15 years ago psychiatrists in German state hospitals were asked about how long patients with several episodes of schizophrenia should receive maintenance treatment with an antipsychotic. Surprisingly, there was little consensus either between the different hospitals or within the same hospital, because even in the same hospital doctors had very different opinions about this issue. As this study was carried out at a time when guideline recommendations were just being made available, a recent study from our

group tried to replicate the findings using a slightly different design. 50 doctors and 100 of their patients were asked about the guideline recommendation on duration of aintenance treatment. The theoretical knowledge on the duration of mainte-nance treatment was clearly improved. For 75% of their patients the doctors knew the guideline recommendation. However, they communicated the correct recommendation to only 33% of their patients and when the patients were asked about what the doctors had recommended to them, the answer was correct in only 11% of the patients. When it comes to patient non-compliance depot medication is an obviously useful tool to enhance adherence, because medication intake is assured and because the doctor immediately knows when the patient stops taking the medication. But there are also a number of psychotherapeutic interventions that have been investigated. The first one is compliance therapy, a method based on motivational interviewing combined with cognitive behavioural components. Unfortunately, after the promising results of an initial RCT, subsequent RCTs could not confirm the adherence improving effects of this strategy. The second important option is psychoeducation. Psychoeducation-usually performed by means of a few group sessions-can be provided for both patients and their relatives. The effects of this intervention have been demonstrated in various studies and meta-analyses. Nevertheless, there is a problem of resources. A survey in all German speaking countries showed that only 21% of patients and only 6% of relatives took part in psychoeducation in 2003 (1). One of the reasons is that although psychoeducation is relatively easy to apply, busy doctors and nurses do not have the time to establish their own programme. Therefore, novel approaches try to establish 'peer-to-peer' psychoeducation. Here, psychoeducation is provided by patients for other patients or by relatives for relatives of other patients. This may help to increase the available resources. Furthermore, pilot studies have shown that one of the major advantages is the credibility of the peer moderators. If another patient or a family member runs the sessions, their recommendations can be more credible for the participants than if the sessions are run by health professionals. Finally, the concept of ''shared decision making'' has recently been introduced. Shared decision making lies somewhere between the standard ''paternalistic model'' and so-called ''informed choice''. The ''paternalistic model'' assumes that the doctor knows what is best for the patient and he makes a recommendation. The role of the patient is to adhere to the recommendation, while the doctor is fully responsible. In some countries ''informed choice'' is for example used for vaccination recommendations before travels to tropical countries. All the necessary information is provided to the travellers who must decide himself whether they want to be vaccinated or not. Shared decision is somewhere in the middle: patients are well informed about the available options so that they are able to participate in a ''decision talk'' with the doctor. Both share the responsibility for the decision. A first cluster-randomised trial has been carried out in Germany and found in the acutephase that participants in the shared decision making group felt significantly more involved (2). At long-term follow-up there was a trend of fewer rehospitalisations (3). These data suggest that shared decision making is a promising concept in schizophrenia that should be further developed and investigated. Disclosure statement: Stefan Leucht received speaker/ consultancy/advisory board honoraria from SanofiAventis, BMS, Actelion, EliLilly, Essex Pharma, AstraZeneca, GlaxoSmithKline, Janssen/Johnson and Johnson, Lundbeck and Pfizer. SanofiAventis and EliLilly supported research projects by SL

Lincoln T. Effectiveness of psychoeducation for schizophrenia is family inclusion necessary? Schizophrenia Research Conference: 2nd Schizophrenia International Research Society Conference, SIRS 2010 Florence Italy Conference Start: 20100410 Conference End: 20100414 Conference Publication: (var pagings) 2010;117(2-3):April.

ABSTRACT:

BACKGROUND: Psychoeducation (PE) for schizophrenia is a widely adopted but insufficiently evaluated intervention for patients with schizophrenia. So far, meta-analytic data has demonstrated efficacy for PE as part of a broader family intervention and for PE-focused interventions that include family members. Whether PE directed solely at patients is also effective remains unclear.

METHODS: We conducted a meta-analysis to evaluate short- and long-term efficacy of PE-focused interventions with and without inclusion of families with regard to relapse, symptom-reduction, knowledge, medication adherence, and functioning. We included randomized controlled trials comparing PE to standard care or non-specific interventions. Among the 2952 publications identified by a keyword procedure in relevant scientific data-bases, 18 studies met our inclusion criteria. These studies were coded with regard to methodology, participants, interventions and validity. Effect sizes were integrated using the fixed effects model for homogeneous effects and the random effects model for heterogeneous effects.

RESULTS: Independent of treatment modality, PE produced a medium effect at post-treatment for relapse and a small effect size for knowledge. PE had no effect on symptoms, functioning and medication adherence. Effect sizes for relapse and rehospitalization remained significant for 12 months after treatment but failed significance for longer follow-up periods. Interventions that included families were more effective in reducing symptoms by the end of treatment and in preventing relapse at 7-12 month follow-up. Effects achieved for PE directed at patients alone were not significant.

CONCLUSIONS: It is concluded that the additional effort of integrating families in PE is worthwhile and the potential mechanisms by which treatment benefits from family-inclusion are discussed

Lincoln TM, Wilhelm K, Nestoriuc Y. Effectiveness of psychoeducation for relapse, symptoms, knowledge, adherence and functioning in psychotic disorders: a meta-analysis. Schizophr Res 2007;96(1-3):232-45.

ABSTRACT:

Psychoeducation (PE) for schizophrenia and other psychotic disorders is widely adopted but insufficiently evaluated. So far, meta-analytic data has demonstrated efficacy for PE when interventions include family members.

Whether PE directed solely at patients is also effective remains unclear. The current meta-analysis evaluates short- and long-term efficacy of PE with and without inclusion of families with regard to relapse, symptom-reduction, knowledge, medication adherence, and functioning. Randomized controlled trials comparing PE to standard care or non-specific interventions were included. A literature search in the Cochrane Library, PsycINFO and Medline retrieved 199 studies for closer examination, of which 18 studies, reporting on 19 comparisons, met the inclusion criteria. These studies were coded with regard to methodology, participants, interventions and validity. Effect sizes were integrated using the fixed effects model for homogeneous effects and the random effects model for heterogeneous effects. Independent of treatment modality, PE produced a medium effect at post-treatment for relapse and a small effect size for knowledge. PE had no effect on symptoms, functioning and medication adherence. Effect sizes for relapse and rehospitalization remained significant for 12 months after treatment but failed significance for longer follow-up periods. Interventions that included families were more effective in reducing symptoms by the end of treatment and preventing relapse at 7-12 month follow-up. Effects achieved for PE directed at patients alone were not significant. It is concluded that the additional effort of integrating families in PE is worthwhile, while patient-focused interventions alone need further improvement and research

Morriss R, Vinjamuri I, Faizal MA, Bolton CA, McCarthy JP. Training to recognise the early signs of recurrence in schizophrenia. Cochrane database of systematic reviews (Online) 2013;2(pp CD005147):2013.

ABSTRACT:

Schizophrenia has a lifetime prevalence of less than one per cent. Studies have indicated that early symptoms that are idiosyncratic to the person with schizophrenia (early warning signs) often precede acute psychotic relapse. Early warning signs interventions propose that learning to detect and manage early warning signs of impending relapse might prevent or delay acute psychotic relapse. To compare the effectiveness of early warning signs interventions plus treatment as usual involving and not involving a psychological therapy on time to relapse, hospitalisation, functioning, negative and positive symptomatology. Search databases included the Cochrane Schizophrenia Group Trials Register (July 2007 and May 2012) which is based on regular searches of BIOSIS, CENTRAL, CINAHL, EMBASE, MEDLINE and PsycINFO. References of all identified studies were reviewed for inclusion. We inspected the UK National Research Registe and contacted relevant pharmaceutical companies and authors of trials for additional information. We included all randomised clinical trials (RCTs) comparing early warning signs interventions plus treatment as usual to treatment as usual for people with schizophrenia or other non-affective psychosis We assessed included studies for quality and extracted data. If more than 50% of participants were lost to follow-up, the study was excluded. For binary outcomes, we calculated standard estimates of risk ratio (RR) and the corresponding 95% confidence intervals (CI), for continuous outcomes, we calculated mean differences (MD) with standard errors estimated, and for time to event outcomes we calculated Cox proportional hazards ratios (HRs) and associated 95 % CI. We assessed risk of bias for included studies and assessed overall study quality using the GRADE approach. Thirty-two RCTs and two cluster-RCTs that randomised 3554 people satisfied criteria for inclusion. Only one study examined the effects of early warning signs interventions without additional psychological interventions, and many of the outcomes for this review were not reported or poorly-reported. Significantly fewer people relapsed with early warning signs interventions than with usual care (23% versus 43%; RR 0.53, 95% CI 0.36 to 0.79; 15 RCTs, 1502 participants; very low quality evidence). Time to relapse did not significantly differ between intervention groups (6 RCTs, 550 participants; very low quality evidence). Risk of re-hospitalisation was significantly lower with early warning signs interventions compared to usual care (19% versus 39%; RR 0.48, 95% CI 0.35 to 0.66; 15 RCTS, 1457 participants; very low quality evidence). Time to re-hospitalisation did not significantly differ between intervention groups (6 RCTs; 1149 participants; very low quality evidence). Participants' satisfaction with care and economic costs were inconclusive because of a lack of evidence. This review indicates that early warning signs interventions may have a positive effect on the proportions of people re-hospitalised and on rates of relapse, but not on time to recurrence. However, the overall quality of the evidence was very low, indicating that we do not know if early warning signs interventions will have similar effects outside trials and that it is very likely that further research will alter these estimates. Moreover, the early warning signs interventions were used along side other psychological interventions, and we do not know if they would be effective on their own. They may be cost-effective due to reduced hospitalisation and relapse rates, but before mental health services consider routinely providing psychological interventions involving the early recognition and prompt management of early warning signs to adults with schizophrenia, further research is required to provide evidence of high or moderate quality regarding the efficacy of early warning signs interventions added to usual care without additional psychological interventions, or to clarify the kinds of additional psychological interventions that might aid its efficacy. Future RCTs should be adequately-powered, and designed to minimise the risk of bias and be transparently reported. They should also systematically evaluate resource costs and resource use, alongside efficacy outcomes and other outcomes that are important to people with serious mental illness and their carers

Pitschel-Walz G, Leucht S, Bauml J, Kissling W, Engel RR. The effect of family interventions on relapse and rehospitalization in schizophrenia--a meta-analysis. Schizophr Bull 2001;27(1):73-92.

ABSTRACT:

Twenty-five intervention studies were meta-analytically examined regarding the effect of including relatives in schizophrenia treatment. The studies investigated family intervention programs to educate relatives and help them cope better with the patient's illness. The patient's relapse rate, measured by either a significant worsening of symptoms or rehospitalization in the first years after hospitalization, served as the main study criterion. The main result of the meta-analysis was that the relapse rate can be reduced by 20 percent if relatives of schizophrenia patients are included in the treatment. If family interventions continued for longer than 3 months, the effect was particularly marked. Furthermore, different types of comprehensive family interventions have similar

RESULTS. The bifocal approach, which offers psychosocial support to relatives and schizophrenia patients in addi-

tion to medical treatment, was clearly superior to the medication-only standard treatment. The effects of family interventions and comprehensive patient interventions were comparable, but the combination did not yield significantly better results than did a treatment approach, which focused on either the patient or the family. This meta-analysis indicates that psychoeducational interventions are essential to schizophrenia treatment

Pitschel-Walz G. Family psychoeducation. Schizophrenia Research Conference: 2nd Schizophrenia International Research Society Conference, SIRS 2010 Florence Italy Conference Start: 20100410 Conference End: 20100414 Conference Publication: (var pagings) 2010;117(2-3):April.

ABSTRACT:

Meta-analyses have shown that family interventions are effective in reducing the rehospitalization rates in patients with schizophrenia. Besides medication, family interventions are considered an important part of the state-of-the-art treatment in modern treatment guidelines for schizophrenia. Most of the family intervention programmes studied can be classified as psychoeducational with cognitive behavioral therapy as

BACKGROUND. Family psychoeducation should provide carers with information and therapeutic support to better cope with their relative's mental illness and with their own illness-related problems. In a meta-analysis on the effectiveness of psychoeducation for schizophrenia Tania Lincoln found that only psychoeducational interventions that included families and were not focussed on the patients alone achieved significant

RESULTS. On consideration of the evidence base for family psychoeducation in schizophrenia, there still exists an enormous gap between scientific findings and clinical reality. Fewer than 10% of family carers of patients with schizophrenia receive any support or family psychoeducation. Therefore psychiatric practitioners should put in a variety of efforts to provide these effective and much appreciated interventions. New studies investigate the challenges of dissemination, effects of various family intervention programmes in different cultural settings, peer-to-peer programmes or interventions for special target groups like families of patients with co-occurring substance abuse

Rummel-Kluge C, Kissling W. Psychoeducation in schizophrenia: new developments and approaches in the field. Current Opinion in Psychiatry 2008;21(2):168-72.

ABSTRACT:

PURPOSE OF REVIEW: The aim of this review is to summarize the literature on psychoeducation in schizophrenia published during the past year; this literature shows that pragmatic approaches and new adaptations have been developed.

RECENT FINDINGS: The current literature indicates that studies on psychoeducation in schizophrenia in real-world settings show results comparable to those in experimental settings; brief psychoeducational interventions may have long-term effects on relapse and rehospitalization rates; and combining diagnoses may be helpful for new, short psychoeducational formats, but also for smaller hospitals with too few patients with the same diagnosis for group psychoeducation. Peer-to-peer education programs for families and patients have been developed, and culturally sensitive topics, the patients' perspective, quality-of-life issues and sex aspects were integrated into psychoeducation. A new meta-analysis on psychoeducation shows that there is a medium effect size for relapse and rehospitalization reduction if both the patient and the family participate.

SUMMARY: Up to the present, patient-directed approaches are much more frequent in clinical practice than bifocal psychoeducation. Therefore, future research must focus on patient-directed psychoeducation and, here especially, on integrating the more stable outpatients, who appear to profit more from psychoeducation than do symptomatic inpatients

Witte F. Schizophrenia: Psychoeducation lowers the rehospitalization rate. [German]. Fortschritte der Neurologie Psychiatrie 2006;74(9):September.

Zou H, Li Z, Nolan M, Arthur D, Wang H, Hu L. Self-management education interventions for persons with schizophrenia: A meta-analysis. International Journal of Mental Health Nursing 2013;22(3):256-71.

ABSTRACT:

Although self-management education programs for persons with schizophrenia are being developed and advocated, uncertainty about their overall effectiveness remains. The purpose of this meta-analysis was to examine outcomes of self-management education interventions in persons with schizophrenia. Six electronic databases were searched. Manual searches were conducted of the reference lists of the identified studies and major psychiatric journals. Randomized controlled trials of self-management education interventions aimed at reducing relapse and hospital readmissions, as well as improving symptoms, psychosocial functioning, and adherence to medication treatment were identified. Data were extracted and the quality of included studies were rated by two authors independently. Finally, 13 studies with 1404 patients were included. Self-management education interventions were associated with a significant reduction of relapse events and re-hospitalizations. Patients who received self-management education were more likely to improve adherence to medication and symptoms compared to patients receiving other care. However,

a benefit on psychosocial functioning was not confirmed in the current meta-analysis. The study concludes that self-management education intervention is a feasible and effective method for persons with schizophrenia and should be routinely offered to all persons with schizophrenia

Depotbehandling vs daglig inntak (6)

Bhanji NH, Chouinard G, Margolese HC. A review of compliance, depot intramuscular antipsychotics and the new long-acting injectable atypical antipsychotic risperidone in schizophrenia. [Review] [45 refs]. Eur Neuropsychopharmacol 2004;14(2):87-92.

ABSTRACT:

BACKGROUND: Several oral atypical antipsychotics are available for schizophrenia management. Besides positive and negative symptom control, they may improve cognition. Due to their limited availability as oral agents only, benefits are limited by noncompliance

METHODS: Using Medline and PsycINFO databases, literature was reviewed to address: (1) factors underlying medication noncompliance; (2) available evidence on efficacy of depot intramuscular (IM) typical antipsychotics; and (3) current knowledge of long-acting atypical

RESULTS: Noncompliance remains high due to illness-, treatment-, and clinician-related factors. Compared to oral typicals, atypicals may improve compliance, even though noncompliance remains high. Depot IM typicals are efficacious (reduced relapses and rehospitalizations), but extrapyramidal symptoms are problematic. Available data on long-acting atypical risperidone suggest that it is safe and efficacious

CONCLUSION: Development of long-acting injectable atypical agents is warranted since noncompliance remains high. Future long-acting IM atypical trials should include outpatient functioning, and preferably be of longer duration to address cost-effectiveness. [References: 45]

Kishimoto T, Nitta M, Borenstein M, Kane JM, Correll CU. Long-acting injectable vs. oral antipsychotics in schizophrenia: A systematic review and meta-analysis of mirror-image and cohort studies. European Neuropsychopharmacology Conference: 25th European College of Neuropsychopharmacology, ECNP Congress Vienna Australia Conference Start: 20121013 Conference End: 20121017 Conference Publication: (var pagings) 2012;22(pp S335-S336):October.

ABSTRACT:

BACKGROUND: As psychopathology and social functioning can worsen with repeated psychotic episodes in patients with schizophrenia, relapse prevention is critical. High non-adherence rates in this population can limit the efficacy of pharmacotherapy, therefore, the use of long-acting injectable antipsychotics (LAIs) is considered to be an important treatment option. However, new, large, controlled trials showed no benefit of LAIs [1]. Moreover our latest meta-analysis on randomized controlled trials (RCTs) showed no superiority of LAIs over oral antipsychotics (OAPs) (N = 21, n = 4,905, RR = 0.93, 95% CI: 0.80-1.08, p = 0.35) [2]. Since multiple naturalistic studies have shown that LAIs were superior to OAPs, we aimed to meta-analyze all available nonrandomized mirror image and cohort studies, which may more accurately reflect the patient population that is most likely prescribed LAIs in clinical practice.

METHODS: Systematic review/meta-analysis was conducted on non-RCTs lasting >=6 months, comparing LAIs and OAPs. Naturalistic cohort studies and mirror image studies (where the data before and after initiation of LAIs were compared) were both included in the analyses but synthesized separately. Primary outcome was re-hospitalization (if not reported, the closest relapserelated outcome was utilized); secondary outcomes included number of hospitalizations, number of inpatient-days and all cause discontinuation. Pooled relative risk (RR) or standard mean difference (SMD), together with their 95% confidence intervals (CIs) were calculated, using random-effects model. Number-needed-totreat (NNT) was calculated where appropriate. We used visual inspection of the forest plots to investigate the possibility of statistical heterogeneity, together with the I2-statistic, with an I2 >=50% indicating significant heterogeneity.

RESULTS: Based on a near-complete systematic review of relevant data bases, we identified a total of 36 studies (mirror image studies: N= 22, n = 4,754, naturalistic cohort studies: N= 14, n = 26,602). Across mirror image studies, LAIs significantly prevented hospitalization compared to OAPs, expressed as rehospitalization rate (N = 14, n = 3,695, RR: 0.46, 95% CI: 0.31- 0.69, p = 0.0001, NNT= 3) and mean number of hospitalizations (N = 9, n = 3,592, SMD: 0.49, 95% CI: 0.26-0.76, p<0.00001). This strong superiority of LAIs over OAPs did not change when we excluded studies which conducted completer's analysis. On the other hand, across naturalistic cohort studies, LAIs were similar to OAPs regarding re-hospitalization rate (N = 13, n = 26,614, RR: 0.91, 95% CI: 0.67-1.23, p = 0.53). The result was highly heterogeneous (I2>80%). When we re-analyzed only studies based on large health care data bases, LAIs showed trend level superiority over OAPs (RR: 0.83, 95% CI: 0.68-1.01 N= 7, n = 9,413, I2 = 56%, p = 0.07). Conclusion: Given the possible biases in non-randomized open studies; i.e., expectation bias, time effect, etc., a careful interpretation of these data is required. Nevertheless, results of mirror image studies indicated strong superiority of LAIs over OAPs in preventing relapse. The results are in contrast with metaanalysis on RCTs, which

showed non-superiority of LAIs. On the other hand, the results of naturalistic cohort studies that also did not show superiority of LAIs were highly heterogeneous, probably due to the different target populations, or treatment settings. Given that the cohort study results were in favor of LAIs when the data were based on real world clinical settings, future RCTs may benefit from matching more closely routine clinical settings

Koola MM, Wehring HJ, Kelly DL. The potential role of long-acting injectable antipsychotics in people with schizophrenia and comorbid substance use. Journal of Dual Diagnosis 2012;8(1):01.

ABSTRACT:

OBJECTIVE: Treatment of schizophrenia in patients with comorbid substance use (alcohol/illicit drug use, abuse, or dependence) presents challenges for public health systems. Substance use in people with schizophrenia is up to four times greater than the general population and is associated with medication nonadherence and poor outcomes. Therefore, continuous antipsychotic treatment in this population may pose more of a challenge than for those with schizophrenia alone. Many clinical trials and treatment recommendations in schizophrenia do not take into consideration substance use, as people with comorbid substance use have typically been excluded from most antipsychotic trials. Nonetheless, antipsychotic treatment appears to be as efficacious in this population, although treatment discontinuation remains high. The objective of this review was to highlight the importance and utility of considering long-acting injectable antipsychotics for patients with schizophrenia and comorbid substance use.

METHODS: We did a literature search using PubMed with keywords schizophrenia and substance use/abuse/dependence, nonadherence, antipsychotics, long-acting injectables, relapse, and psychosocial interventions. We limited our search to human studies published in English and 4,971 articles were identified. We focused on clinical trials, case reports, case series, reviews, and meta-analyses, resulting in 125 articles from 1975 to 2011.

RESULTS: Our review suggests the potential role of long-acting injectables for people with comorbid substance use and schizophrenia in leading to improvements in psychopathology, relapse prevention, fewer rehospitalizations, and better outcomes.

CONCLUSIONS: While more research is needed, long-acting antipsychotics should be considered an important option in the management of cases of schizophrenia and comorbid substance use. 2012 Copyright Taylor and Francis Group, LLC

Leucht C, Heres S, Kane JM, Kissling W, Davis JM, Leucht S. Oral versus depot antipsychotic drugs for schizophrenia--a critical systematic review and meta-analysis of randomised long-term trials. [Review]. Schizophr Res 2011;127(1-3):83-92

ABSTRACT:

OBJECTIVE: Non-adherence is a major problem in the treatment of schizophrenia. Depot antipsychotic drugs are thought to reduce relapse rates by improving adherence, but a systematic review of long-term studies in outpatients is not available

METHOD: We searched the Cochrane Schizophrenia Group's register, ClinicalTrials.gov, Cochrane reviews on depot medication, and the reference sections of included studies for randomised controlled trials lasting at least 12 months in outpatients that compared depot with oral antipsychotics in schizophrenia. Data on relapse (primary outcome), rehospitalisation, non-adherence, and dropout due to any reason, inefficacy of treatment and adverse events were summarised in a meta-analysis using a random-effects model. Study quality was assessed with the Cochrane collaboration's risk of bias tool, and publication bias with funnel plots

RESULTS: Ten studies with 1700 participants met the inclusion criteria. Depot formulations significantly reduced relapses with relative and absolute risk reductions of 30% and 10%, respectively (RR 0.70, CI 0.57-0.87, NNT 10, CI 6-25, P=0.0009), and dropout due to inefficacy (RR 0.71, CI 0.57-0.89). Limited data on non-adherence, rehospitalisation and dropout due to any reason and adverse events revealed no significant differences. There were several potential sources of bias such as limited information on randomisation

METHODS, problems of blinding and different medications in the depot and oral groups. Other studies reduced a potential superiority of depot by excluding non-adherent patients

DISCUSSION: Depot antipsychotic drugs significantly reduced relapse. Due to a number of methodological problems in the single trials the evidence is, nonetheless, subject to possible bias. Copyright 2010 Elsevier B.V. All rights reserved

Mohr P, Volavka J. Adherence and depot formulations of antipsychotics in schizophrenia. [Czech]. Psychiatrie 2011;15(2):2011.

ABSTRACT:

Nonadherence to antipsychotics poses a major problem in the long-term management of schizophrenia. Subjective measures of adherence (self-reports, provider reports) are unreliable, more objective methods (e.g., electronic mon-

itoring, plasma levels) are neither available in clinical practice, nor are they infallible. Risk factors include history of nonadherence, substance use, limited insight, treatment with antidepressants, medication-induced cognitive impairment, hostility, and violent behavior. Nonadherence results in partial or no response to antipsychotic treatment with many adverse consequences, including higher mortality. A recent meta-analysis somewhat surprisingly failed to prove higher adherence to depot formulations than to oral antipsychotics. However, unexpectedly high adherence in the reviewed trials suggests selection bias. This is further supported indirectly by the findings from two large observational studies from Finland. They showed that depot formulations, as compared to oral formulations of the same drugs, were associated with a significantly lower risk of rehospitalization and drug discontinuation. Prescription data from the Czech Republic indicate that depot antipsychotics are underutilized. Contrary to traditional assumptions, patients with previous exposure to depot medication appraised them favorably and frequently preferred them in the long-term treatment. Depot formulations may be considered not only for nonadherent, relapsing or difficult-to-manage patients, but also for actively participating, well-informed patients with insight

Mohr P, Volavka J. Adherence and long-acting injectable antipsychotics in schizophrenia: An update. Dusunen Adam 2012;25(4):2012.

ABSTRACT:

Adherence and long-acting injectable antipsychotics in schizophrenia: an update Nonadherence to antipsychotics poses a major problem in the long-term management of schizophrenia. Subjective measures of adherence (self-reports, provider reports) are unreliable, more objective methods (e.g., electronic monitoring, plasma levels) are neither available in clinical practice, nor are they infallible. Risk factors include history of nonadherence, substance use, limited insight, treatment with antidepressants, medication-induced cognitive impairment, hostility, and violent behavior. Nonadherence results in partial or no response to antipsychotic treatment with many adverse consequences, including higher mortality. A recent meta-analysis somewhat surprisingly failed to prove higher adherence to long-acting injectable antipsychotics (LAI) than to oral antipsychotics. However, unexpectedly high adherence in the reviewed trials suggests selection bias. This is further supported indirectly by the findings from two large observational studies from Finland. They showed that LAI, as compared to oral formulations of the same drugs, were associated with a significantly lower risk of rehospitalization and drug discontinuation. Prescription data from the Czech Republic indicate that LAI are underutilized. Contrary to traditional assumptions, patients with previous exposure to LAI appraised them favorably and frequently preferred them in the long-term treatment. LAI may be considered not only for nonadherent, relapsing or difficult-to-manage patients, but also for actively participating, well-informed patients with insight

Flere diagnosegrupper eller uspesifisert diagnose (58)

Flere eller uspesifiserte intervensjoner (14)

2012 Annual Meeting of the Society of Hospital Medicine, SHM 2012. Journal of Hospital Medicine Conference: 2012 Annual Meeting of the Society of Hospital Medicine, SHM 2012 San Diego, CA United States Conference Start: 20120401 Conference End: 20120404 Conference Publication: (var pagings) 2012;7

ABSTRACT:

The proceedings contain 521 papers. The topics discussed include: the cost of hospitalist handoffs; characteristics of isolated and serial rehospitalizations suggest a need for different types of improvement strategies; use of restriction care plans to decrease medically unnecessary admissions and emergency department visits; factors associated with medication warning acceptance; the relationship between ICU bed availability and cardiac arrest on the general wards; hospitalist staffing and patient satisfaction in the national medicare population; reducing unnecessary utilization in acute bronchiolitis care: Results from the value in inpatient pediatrics network; is current statin use associated with decreased mortality after pneumonia: a systematic review and meta-analysis; and the readmission risk flag: using the electronic health record to automatically identify patients at risk for 30-day readmission

Benbassat J, Taragin MI. The effect of clinical interventions on hospital readmissions: a meta-review of published meta-analyses. Israel Journal of Health Policy Research 2013;2(1):1.

ABSTRACT:

BACKGROUND: The economic impact and ease of measurement of all-cause hospital readmission rates (HRR) have led to the current debate as to whether they are reducible, and whether they should be used as a publicly reported quality indicators of medical care

OBJECTIVE: To assess the efficacy of broad clinical interventions in preventing HRR of patients with chronic diseases

METHOD: A meta-review of published systematic reviews of randomized controlled trials (RCTs) of clinical interventions that have included HRR among the patients' outcomes of interest

MAIN FINDINGS: Meta-analyses of RCTs have consistently found that, in the community, disease management programs significantly reduced HRR in patients with heart failure, coronary heart disease and bronchial asthma, but not in patients with stroke and in unselected patients with chronic disorders. Inhospital interventions, such as discharge planning, pharmacological consultations and multidisciplinary care, and community interventions in patients with chronic obstructive pulmonary diseases had an inconsistent effect on HRR. MAIN STUDY LIMITATION: Despite their economic impact and ease of measurement, HRR are not the most important outcome of patient care, and efforts aimed at their reduction may compromise patients' health by reducing also justified re-admissions

CONCLUSIONS: The efficacy of inhospital interventions in reducing HRR is in need of further study. In patients with heart diseases and bronchial asthma, HRR may be considered as a publicly reported quality indicator of community care, provided that future research confirms that efforts to reduce HRR do not adversely affect other patients' outcomes, such as mortality, functional capacity and quality of life. Future research should also focus on the reasons for the higher efficacy of community interventions in patients with heart diseases and bronchial asthma than in those with other chronic diseases

Calvillo-King L, Lo M, Eubank K, Yunyonying P, Stieglitz H, Arnold D, et al. A systematic review of social factors on risk of readmission and death after hospitalization with pneumonia or heart failure: Implications for pay for performance. Journal of General Internal Medicine Conference: 34th Annual Meeting of the Society of General Internal Medicine Phoenix, AZ United States Conference Start: 20110504 Conference End: 20110507 Conference Publication: (var pagings) 2011;26(pp S225-S226):May.

ABSTRACT:

BACKGROUND: Rates of readmission and death after hospitalization for community acquired pneumonia (CAP) and heart failure (HF) are publically reported and will be tied to reimbursement. Safety net hospitals will be disproportionately affected if reimbursement policies do not account for important patient-level social determinants that may increase risk of readmission and death. We performed a systematic review to assess the impact of social factors on readmissions or death in CAP and HF.

METHODS: We searched OVID, PubMed and PSYCHINFO for studies published since January 1, 1950. Eligible articles studied CAP or HF, include patient level data, examine >= 1 social factor (e.g., sociodemographics, insurance), and use readmission and/or death as the outcome. Studies were abstracted by two investigators using a structured data form ascertaining

RESULTS [univariate (UV) and multivariate (MV) associations] and methodological quality. Inter-rater discrepancies were resolved by consensus.

RESULTS: For CAP, 24 of 64 candidate articles met inclusion criteria. Readmission was the primary outcome for 4 studies, death for 16, and a composite outcome of readmission or death for 4. For HF, 52 of 170 were included. Readmission was the primary outcome for 26 studies, death for 39, and a composite outcome for 4. Thirty-nine percent of articles used administrative datasets, 23% medical records/ interviews, and 38% both. The overall methodological quality was mixed. Few studies rigorously examined social factors besides age, gender and race. Among CAP studies of readmission, only 5 assessed age effects, with 2/5 finding higher UV risk in the elderly, and 1/5 showing a significant MV age association. Six studies assessed gender effects with 3/4 showing higher UV&MV risk in women. Three examined race with 1/3 showing higher UV&MV readmission risk in non-whites. For death, 7/9 found a UV&MV risk for older age; 5/7 higher UV&MV risk in women; and 3/7 for higher UV risk for non-whites (and 2/6 MV race differences). Similarly, for HF studies of readmission, 28 assessed age effects, with 4/10 finding higher UV risk in the elderly, and 1/4 showing a significant MV association. Twenty-six assessed gender with 3/12 showing higher UV risk and 3/5 higher MV risk for women. Eighteen examined race with 6/9 showing higher UV risk and 3/5 higher MV risk for non-whites. For death, 38 assessed age effects with 5/11 showing higher UV risk and 8/13 higher MV risk for older age. Thirty-six assessed gender with 4/11 showing higher UV risk and 8/12 higher MV risk for women. Twenty-two assessed race effects with 3/7 showing higher UV&MV risk for non-whites. A few studies found significant influences of ethnicity, insurance, education, unemployment, nursing home residence, functional status, mental health, and alcoholism, among others on rates of readmission or death.

CONCLUSION: Most studies of readmission or death after CAP and HF ignored social factors, though those that looked found significant influences of age, gender, and race as well as others. More research is needed to assess the impact of deeper level social variables on risk of post-DC outcomes. Pay-for-Performance policies should adjust for the impact of social determinants of adverse post-hospital outcomes

Craven B, Hermann M, Bishow A, Turse S, Kreisa L, Boling P. Predicting unplanned readmissions at a large, Urban medical center. Journal of Investigative Medicine Conference: American Federation for Medical Research Southern Regional Meeting, AFMR 2011 New Orleans, LA United States Conference Start: 20110217 Conference End: 20110219 Conference Publication: (var pagings) 2011;59(2):February.

ABSTRACT:

PURPOSE OF STUDY: 30-day hospital readmission reflects co-morbidity and care quality, drives costs, and soon will impact payment. At our institution, 30-day readmission rate is a Performance Improvement target for CY2010.

We focused a pilot on two medicine units with combined monthly discharges of 330 patients and a 20% readmission rate. Given resource limitations, we needed to target a group upon admission that is at risk for readmission. Literature review found many variables associated with readmission but few predictive tools, including LACE (CMAJ 2010. DOI:10.1503/cmaj.091117) which includes length of stay and is less useful at time of admission.

METHODS Used: We randomly selected 125 patients discharged in CY2009 from the 2 pilot units who had unplanned readmissions within 30 days (E) and 125 more that did not (C). We performed detailed reviews of electronic health records, recording demographic data (age, sex, race), insurance type, living situation, ADL score, # of emergent admissions in prior 6 months, # of medications, and diagnoses thought to drive readmission (substance abuse, major psychiatric disorder, sickle cell disease, CKD stage 3 or more). We tested published prediction tools including the Charlson Index, LACE score, and LACE without length of stay (LACE-LOS). Using bivariate comparisons between E and C, we identified variables statistically associated with early readmission.

SUMMARY OF RESULTS: Charlson Index, LACE-LOS, # of medications and # of emergent visits were associated with readmission. Emergent care and Charlson Index provided more discrete separation of E and C groups. Pivot tables helped to identify the best pairing of emergent care visits (3 or more) OR Charlson Index (4 or higher). This combination or "RAM-PART" (Re-AdMission Prediction And Risk Assessment Tool) had a sensitivity of 67% and specificity of 42% for 30-day re-admission and retrospectively identified 54% of admitted patients for targeted intervention.

CONCLUSIONS: We describe a prospective identification tool for high-risk patients likely to be readmitted. Sensitivity and specificity are suboptimal but it performs better than other published tools. The tool will be validated and refined in a 3-6 month pilot intervention designed to reduce readmissions

Hansen LO, Young RS, Hinami K, Leung A, Williams MV. Interventions to reduce 30-day rehospitalization: a systematic review. Ann Intern Med 2011;155(8):520-8.

ABSTRACT:

BACKGROUND: About 1 in 5 Medicare fee-for-service patients discharged from the hospital is rehospitalized within 30 days. Beginning in 2013, hospitals with high risk-standardized readmission rates will be subject to a Medicare reimbursement penalty. Purpose: To describe interventions evaluated in studies aimed at reducing rehospitalization within 30 days of discharge.

DATA SOURCES: MEDLINE, EMBASE, Web of Science, and the Cochrane Library were searched for reports published between January 1975 and January 2011. Study Selection: English-language randomized, controlled trials; cohort studies; or noncontrolled before-after studies of interventions to reduce rehospitalization that reported rehospitalization rates within 30 days. Data Extraction: 2 reviewers independently identified candidate articles from the results of the initial search on the basis of title and abstract. Two 2-physician reviewer teams reviewed the full text of candidate articles to identify interventions and assess study quality.

DATA SYNTHESIS: 43 articles were identified, and a taxonomy was developed to categorize interventions into 3 domains that encompassed 12 distinct activities. Predischarge interventions included patient education, medication reconciliation, discharge planning, and scheduling of a follow-up appointment before discharge. Postdischarge interventions included follow-up telephone calls, patient-activated hotlines, timely communication with ambulatory providers, timely ambulatory provider follow-up, and postdischarge home visits. Bridging interventions included transition coaches, physician continuity across the inpatient and outpatient setting, and patient-centered discharge instruction. Limitations: Inadequate description of individual studies' interventions precluded meta-analysis of effects. Many studies identified in the review were single-institution assessments of quality improvement activities rather than those with experimental designs. Several common interventions have not been studied outside of multicomponent "discharge bundles."

CONCLUSION: No single intervention implemented alone was regularly associated with reduced risk for 30-day rehospitalization. Primary Funding Source: None

Hesselink G, Schoonhoven L, Barach P, Spijker A, Gademan P, Kalkman C, et al. Improving patient handovers from hospital to primary care: a systematic review. Ann Intern Med 2012;157(6):417-28

ABSTRACT:

BACKGROUND: Evidence shows that suboptimum handovers at hospital discharge lead to increased rehospitalizations and decreased quality of health care.

PURPOSE: To systematically review interventions that aim to improve patient discharge from hospital to primary care. DATA SOURCES: PubMed, CINAHL, PsycInfo, the Cochrane Library, and EMBASE were searched for studies published between January 1990 and March 2011.

STUDY SELECTION: Randomized, controlled trials of interventions that aimed to improve handovers between hospital and primary care providers at hospital discharge.

DATA EXTRACTION: Two reviewers independently abstracted data on study objectives, setting and design, inter-

vention characteristics, and outcomes. Studies were categorized according to methodological quality, sample size, intervention characteristics, outcome, statistical significance, and direction of effects.

DATA SYNTHESIS: Of the 36 included studies, 25 (69.4%) had statistically significant effects in favor of the intervention group and 34 (94.4%) described multicomponent interventions. Effective interventions included medication reconciliation; electronic tools to facilitate quick, clear, and structured summary generation; discharge planning; shared involvement in follow-up by hospital and community care providers; use of electronic discharge notifications; and Web-based access to discharge information for general practitioners. Statistically significant effects were mostly found in reducing hospital use (for example, rehospitalizations), improvement of continuity of care (for example, accurate discharge information), and improvement of patient status after discharge (for example, satisfaction).

LIMITATIONS: Heterogeneity of the interventions and study characteristics made meta-analysis impossible. Most studies had diffuse aims and poor descriptions of the specific intervention components.

CONCLUSION: Many interventions have positive effects on patient care. However, given the complexity of interventions and outcome measures, the literature does not permit firm cpmcøisopms about which interventions have these effects.

PRIMARY FUNDING SOURCE: The European Union, the Framework Programme of the European Commission

Lavenberg JG, Williams K. Reducing AMI readmissions.: Center for Evidence-based Practice (CEP); 2012.

Leas B, Umscheid CA. Risk factors for hospital readmission.: Center for Evidence-based Practice (CEP); 2011.

Scott IA. Public hospital bed crisis: Too few or too misused? Aust Health Rev 2010;34(3):2010.

ABSTRACT:

*Increasing demand on public hospital beds has led to what many see as a hospital bed crisis requiring substantial increases in bed numbers. By 2050, if current bed use trends persist and as the numbers of frail older patients rise exponentially, a 62% increase in hospital beds will be required to meet expected demand, at a cost almost equal to the entire current Australian healthcare budget. *This article provides an overview of the effectiveness of different strategies for reducing hospital demand that may be viewed as primarily (although not exclusively) targeting the hospital sector increasing capacity and throughput and reducing readmissions or the non-hospital sector facilitating early discharge or reducing presentations and admissions to hospital. Evidence of effectiveness was retrieved from a literature search of randomised trials and observational studies using broad search terms. *The principal findings were as follows: (1) within the hospital sector, throughput could be substantially improved by outsourcing public hospital clinical services to the private sector, undertaking whole-of-hospital reform of care processes and patient flow that address both access and exit block, separating acute from elective beds and services, increasing rates of day-only or short stay admissions, and curtailing ineffective or marginally effective clinical interventions; (2) in regards to the non-hospital sector, potentially the biggest gains in reducing hospital demand will come from improved access to residential care, rehabilitation services, and domiciliary support as patients awaiting such services currently account for 70% of acute hospital bed-days. More widespread use of acute care and advance care planning within residential care facilities and population-based chronic disease management programs can also assist. *This overview concludes that, in reducing hospital bed demand, clinical process redesign within hospitals and capacity enhancement of non-hospital care services and chronic disease management programs are effective strategies that should be considered before investing heavily in creating additional hospital beds devoid of any critical reappraisal of current models of care. What is known about the topic There is a growing demand for inpatient care in Australia, with presentations to public hospital emergency departments increasing by 4.9% per year over the last 5 years and admission numbers increasing by 3.6% per year. Increasing numbers of hospital beds may give only short-term reprieve in lowering bed occupancy rates if little attention is giving to improving hospital efficiency by internal process redesign or by decreasing demand for acute hospital beds by improving capacity of the non-hospital sector to manage sub-acute illness and chronic disease. What does this paper add This article provides a narrative meta-review of the evidence of effectiveness of various reform strategies. The key findings are that, within the hospital sector, patient throughput could be substantially improved by: outsourcing public hospital clinical services to the private sector where appropriate; implementing whole-of-hospital reforms, which that facilitate more flexible and dynamic bed management (especially where it relates to systems of care for acutely ill patients); separating acute from elective beds and services; increasing the numbers of day-only admissions; and curtailing ineffective or marginally effective clinical interventions. However, the potentially biggest gains in hospital productivity will come from improved access to residential care, rehabilitation services and domiciliary support for hospitalised patients who no longer require acute inpatient care, combined with decreased need for hospitalisation as a result of population-based chronic disease management programs led by primary care agencies, and acute care and advance care planning within residential care facilities. What are the implications for practitioners A public debate must start now on how the healthcare system and the role within it of hospitals should be re-configured in managing future population healthcare needs in a sustainable way. In the meantime, all hospitals must consider implementing reforms with potential to improve their productivity and reduce access block for those who really need acute hospital care. 2010 AHHA

Shoeb M, Rennke S, Nguyen O, Yimdriuska M, Ranji S. Interventions to prevent adverse events and read-

missions after hospital discharge: A systematic review. Journal of Hospital Medicine Conference: 2012 Annual Meeting of the Society of Hospital Medicine, SHM 2012 San Diego, CA United States Conference Start: 20120401 Conference End: 20120404 Conference Publication: (var pagings) 2012;7(pp S13-S14):March.

ABSTRACT:

BACKGROUND: Hospitalists are charged with addressing the gaps in transitional care, which manifest as adverse events (AEs) and readmissions after discharge. The Centers for Medicare & Medicaid Services plan to lower reimbursement to hospitals with excessive 30-day readmission rates. However, there is a lack of evidence-based strategies for improving transitional care. We conducted a systematic review of interventions to improve safety after hospital discharge, focusing on studies with a hospital-based intervention component.

METHODS: We searched CINAHL, MEDLINE, the Cochrane Database of Systematic Reviews, and EMBASE from 1991 to 2011. We included randomized controlled trials (RCTs) and nonrandomized controlled trials (CCTs) that evaluated interventions to prevent AEs or readmissions in general medical patient populations, utilized at least one intervention prior to discharge, and reported rates of emergency department visits, readmissions, or AEs after discharge. Titles and abstracts were screened and potentially relevant articles underwent full-text evaluation by two independent reviewers who extracted data on intervention characteristics, study methodological quality, and outcomes. We devised a taxonomy of interventions (Table); studies were further classified as using a "bridging" intervention (predischarge and postdischarge components) or a predischarge intervention only.

RESULTS: We identified 15,905 citations, of which 454 underwent full-text review. Forty-six studies met all inclusion criteria, including 25 RCTs, 18 CCTs, and 3 implementation studies. Studies used a median of four interventions (range 1- 8); a bridging intervention was used in 31 studies (21 RCTs) and 12 used a predischarge only intervention (three RCTs). All but one study reported readmission or ED visit rates, including 16 studies (11 RCTs) that reported these outcomes at 30 days after discharge. Only 10 studies reported AE rates after discharge (five of which measured postdischarge adverse drug events). We identified five studies (four RCTs) that reported significant reductions in 30- day ED visit or readmission rates; all of these studies used a bridging strategy with >=5 separate interventions. Only one study achieved a significant reduction in adverse drug events.

CONCLUSIONS: Despite pressure to improve transitional care, only a small number of resource-intensive interventions involving both predischarge and postdischarge components have successfully reduced 30-day readmissions. There is a notable lack of studies targeting and documenting improvement in specific AEs after discharge. (Table presented)

Soeken KL, Prescott PA, Herron DG, Creasia J. Predictors of hospital readmission. A meta-analysis. Evaluation & the Health Professions 1991;14(3):262-81.

ABSTRACT:

Summarizing the results of research related to identifying potential predictors of hospital readmissions has been difficult because of conflicting results across studies. Using the techniques of meta-analysis, the results from 44 studies were examined in the present study. Overall, the mean readmission rate was 27%, with significant differences based on patient diagnosis. Although diagnosis, age, initial length of hospital stay, and prior use of hospital resources were related to readmission, the strength of the relationship is trivial. Combining data from 12 intervention studies designed to reduce readmission indicated that the overall treatment effect was not significant. Further research is needed to determine demographic, clinical, and social predictors of readmission if strategies are to be developed to reduce readmission and the resulting health care costs

Vest JR, Gamm LD, Oxford BA, Gonzalez MI, Slawson KM. Determinants of preventable readmissions in the United States: a systematic review. Implementation Science 2010;5:88.

ABSTRACT:

BACKGROUND: Hospital readmissions are a leading topic of healthcare policy and practice reform because they are common, costly, and potentially avoidable events. Hospitals face the prospect of reduced or eliminated reimbursement for an increasing number of preventable readmissions under nationwide cost savings and quality improvement efforts. To meet the current changes and future expectations, organizations are looking for potential strategies to reduce readmissions. We undertook a systematic review of the literature to determine what factors are associated with preventable readmissions

METHODS: We conducted a review of the English language medicine, health, and health services research literature (2000 to 2009) for research studies dealing with unplanned, avoidable, preventable, or early readmissions. Each of these modifying terms was included in keyword searches of readmissions or rehospitalizations in Medline, ISI, CINAHL, The Cochrane Library, ProQuest Health Management, and PAIS International. results were limited to US adult populations

RESULTS: The review included 37 studies with significant variation in index conditions, readmitting conditions, timeframe, and terminology. Studies of cardiovascular-related readmissions were most common, followed by all cause readmissions, other surgical procedures, and other specific-conditions. Patient-level indicators of general ill health or complexity were the commonly identified risk factors. While more than one study demonstrated preventa-

ble readmissions vary by hospital, identification of many specific organizational level characteristics was lacking

CONCLUSIONS: The current literature on preventable readmissions in the US contains evidence from a variety of patient populations, geographical locations, healthcare settings, study designs, clinical and theoretical perspectives, and conditions. However, definitional variations, clear gaps, and methodological challenges limit translation of this literature into guidance for the operation and management of healthcare organizations. We recommend that those organizations that propose to reward reductions in preventable readmissions invest in additional research across multiple hospitals in order to fill this serious gap in knowledge of great potential value to payers, providers, and patients

Wong FK, Chan MF, Chow S, Chang K, Chung L, Lee WM, et al. What accounts for hospital readmission? J Clin Nurs 2010;19(23-24):3334-46.

ABSTRACT:

AIMS: This study was launched to address the knowledge gap regarding factors leading to readmission to hospital

BACKGROUND: Repeated hospital admission is an issue of concern for health care service providers. Research findings reveal that multiple factors can contribute to the phenomenon, but no study has examined the direct and indirect effects of these variables on hospital readmission

DESIGN: A survey conducted during the period from 2003-2005 in three hospitals in Hong Kong

METHODS: Patients who were readmitted to the same hospital within 28days during the study periods were included. Data were collected using structured interviews. A structural equation model was employed to examine what factors will contribute to hospital readmission

RESULTS: The final model showed that subjective health outcome was the only significant variable that had a direct effect on readmission, and it had indirect effects on readmission mediating through the variables of age, income and satisfaction with care

CONCLUSIONS: A literature review reveals that none of the studies has recognised patients' subjective appraisal of their health condition as a significant variable to predict hospital readmission. Results did not find an association between evaluated and perceived need. In other words, patients who felt a higher need for hospital care were not necessarily sicker. It is possible that if patients can be empowered to manage their own health condition and make a fair appraisal of their well-being, unnecessary use of hospital services can be reduced

RELEVANCE TO CLINICAL PRACTICE: This study provides evidence to support the notion that an effective transitional care programme needs to incorporate patients' own subjective assessment of health in the intervention and measurement of the outcome. We cannot solely use providers' judgment to measure health outcomes, for patients are active agents in seeking health care, and the use of services is to an extent self-selective. 2010 Blackwell Publishing Ltd

Yam CH, Wong EL, Chan FW, Wong FY, Leung MC, Yeoh EK. Measuring and preventing potentially avoidable hospital readmissions: a review of the literature. [Review]. Hong Kong Medical Journal 2010;16(5):383-9.

ABSTRACT:

OBJECTIVE: To review literature identifying key components for measuring avoidable readmissions, their prevalence, risk factors, and interventions that can reduce potentially avoidable readmissions

DATA SOURCES AND EXTRACTION: Literature search using Medline, PubMed and the Cochrane Library up to June 2010, using the terms "avoidable", "preventable", "unplanned", "unnecessary", "readmission", and "rehospitalization"

STUDY SELECTION: A total of 48 original papers and review articles were selected for inclusion in this review

DATA SYNTHESIS: Although hospital readmission seemed to be a term commonly used as an outcome indicator in many studies, it is difficult to make valid comparison of results from different studies. This is because the definitions of terms, Methods of data collection, and approaches to data analysis differ greatly. The following criteria for studying hospital readmissions have been recommended: (a) identify hospital admissions and define relevant terms, (b) establish a clinical diagnosis for a readmission; (c) establish the purpose for a readmission, (d) set a discharge-to-readmission timeframe, and (e) identify the sources of information for assessing readmissions. Studies to identify avoidable readmissions usually involve medical records and chart reviews by clinicians using the classification scheme developed by the authors. The proportion of all readmissions assessed as preventable varies from 9 to 59% depending on the population of patients studied, duration of follow-up, type and methodology of the study and case-mix-related factors. A number of studies classified risk factors for readmission into four categories: patient, social, clinical, and system factors. Home-based interventions, intensive education/counselling, multidisciplinary care approaches, and telephone follow-up were the main types of interventions to address potentially avoidable readmissions

CONCLUSIONS: A standard instrument to identify avoidable readmission is important in enabling valid comparisons within the system and at different timelines, so as to permit robust evaluation of interventions. The assessment of preventable risk factors for readmissions also provides a basis for designing and implementing intervention programmes

Intervensjoner i pasientens hjem (11)

Anderson MA, Clarke MM, Helms LB, Foreman MD. Hospital readmission from home health care before and after prospective payment. Journal of Nursing Scholarship 2005;37(1):73-9.

ABSTRACT:

PURPOSE: To describe and compare clients who were readmitted to the hospital during an episode of home health care, before and after the inception of the prospective payment system (PPS)

DESIGN: A longitudinal mixed design was used to replicate a study conducted 9 years previously (pre-PPS) in the same home care agency in the central part of the United States

METHODS: Seventy-six closed-case medical records from a not-for-profit hospital-affiliated home care agency were retrospectively reviewed and compared to pre-PPS data. The same data collection tool, the Hospital Readmission Inventory, was used for both pre- and post-PPS studies. Nurse administrators at the data collection agency were interviewed concerning comparative results

FINDINGS: Currently readmitted clients were sicker than were those in the previous research report, they were readmitted sooner for a different diagnosis, and they had less continuity of services

CONCLUSIONS: The home health care industry has undergone a dramatic change in payment for services, from fee-for-service to PPS. Of particular concern is the adverse patient outcome of an unplanned hospital readmission. Prior studies have characterized such patients in home health care, but no comparative reports were found in a literature search since the inception of PPS. Findings from this study indicated that an increased emphasis on cost containment and higher-risk clients appear to have changed patterns of care delivery

Barras S. A systematic and critical review of the literature: the effectiveness of Occupational Therapy Home Assessment on a range of outcome measures. Australian Occupational Therapy Journal 2005;52(4):326-36.

ABSTRACT:

AIM: To identify, collate and assess the findings of the available literature regarding discharge planning involving occupational therapy home assessments and the identified outcome measures. A systematic critical review of 31 studies of home assessment was completed

METHODS: A comprehensive computer-aided search was conducted of 10 databases. Any searches identifying literature on home assessment and occupational therapy were retained. The McMaster critical appraisal tools were used to determine methodological quality, the McMaster (qualitative and quantitative). Summaries were made of the key features of each study to enable comparison

RESULTS: Two systematic reviews, eight randomised controlled trials, 16 descriptive and five anecdotal studies were found. Twelve papers relating directly to occupational therapy were identified. A wide variety of outcome measures were identified, covering seven major categories of: personnel present, cost, frequency and when a home assessment was completed, readmission to hospital, stakeholder perspective and use of standardised assessments. There was minimal consistency in measuring outcomes. The McMaster critical review format was used to evaluate each paper and denote a score out of 15 for quantitative and 27 for qualitative papers. These forms are written in basic terms that can be understood by researchers as well as clinicians and students

CONCLUSION: Low numbers of high level (levels 1, 2) or high quality publications directly relevant to the effectiveness of occupational therapy home assessment and discharge planning were identified. It is apparent from the paucity of quality and quantity of studies identified in this current review that considerably more high-quality research is required prior to definitive recommendations being made regarding the use of occupational therapy home assessments in discharge planning

Caplan GA, Sulaiman NS, Mangin DA, Aimonino RN, Wilson AD, Barclay L. A meta-analysis of "hospital in the home". Med J Aust 2012;197(9):512-9.

ABSTRACT: OBJECTIVE: To assess the effect of "hospital in the home" (HITH) services that significantly substitute

for inhospital time on mortality, readmission rates, patient and carer satisfaction, and costs

DATA SOURCES: MEDLINE, Embase, Social Sciences Citation Index, CINAHL, EconLit, PsycINFO and the Cochrane Database of Systematic Reviews, from the earliest date in each database to 1 February 2012

STUDY SELECTION: Randomised controlled trials (RCTs) comparing HITH care with inhospital treatment for patients aged > 16 years

DATA EXTRACTION: Potentially relevant studies were reviewed independently by two assessors, and data were extracted using a collection template and checklist

DATA SYNTHESIS: 61 RCTs met the inclusion criteria. HITH care led to reduced mortality (odds ratio [OR], 0.81; 95% CI, 0.69 to 0.95; P = 0.008; 42 RCTs with 6992 patients), readmission rates (OR, 0.75; 95% CI, 0.59 to 0.95; P = 0.02; 41 RCTs with 5372 patients) and cost (mean difference, -1567.11; 95% CI, -2069.53 to -1064.69; P < 0.001; 11 RCTs with 1215 patients). The number needed to treat at home to prevent one death was 50. No heterogeneity was observed for mortality data, but heterogeneity was observed for data relating to readmission rates and cost. Patient satisfaction was higher in HITH in 21 of 22 studies, and carer satisfaction was higher in and six of eight studies; carer burden was lower in eight of 11 studies, although not significantly (mean difference, 0.00; 95% CI, -0.19 to 0.19)

CONCLUSION: HITH is associated with reductions in mortality, readmission rates and cost, and increases in patient and carer satisfaction, but no change in carer burden

Iliffe S, Shepperd S. What do we know about hospital at home? Lessons from international experience. Applied health economics and health policy 2002;1(3):2002.

ABSTRACT:

Hospital in the home' or 'hospital at home' services have become popular solutions to the apparent problems of conventional hospital care in many countries. Until recently their evaluation has been limited, and little has been known about their costs and benefits. A systematic review of randomised controlled trials of such services has failed to detect a difference in mortality and readmission rates of patients using hospital in the home, but does suggest that these services are acceptable to patients, although not necessarily to their carers. Important questions about professional roles and workloads in hospital at home services need further investigation. Overall it does not appear that such services produce cost savings, although this may depend greatly on local circumstances. This discussion paper uses the findings of a systematic review of the literature evaluating hospital at home and hospital in the home services to answer questions surrounding the supplementary or substitution status of these services

Messecar D. Review: Admission-avoidance hospital-at-home decreases mortality at 6 months but does not differ from inpatient care for readmission. Evidence Based Nursing 2009;12(3):82.

ABSTRACT:

QUESTION: How does admission-avoidance hospital-at-home (HAH) compare with inpatient hospital care for various outcomes?

REVIEW SCOPE Included studies compared admission-avoidance HAH (time-limited active treatment by healthcare professionals for acute conditions in patients' homes, without which patients would be admitted to an acute care hospital ward) with acute inpatient hospital care in patients 18 years of age. Studies of obstetric, paediatric, mental health, and long-term care services; services in outpatient settings or after hospital discharge; or patient self-care at home were excluded. Outcomes included mortality, hospital readmission, functional ability, cognitive ability, quality of life, and patient satisfaction

REVIEW METHODS:Medline, CINAHL, EMBASE/Excerpta Medica, EconLit, Cochrane Effective Practice and Organisation of Care Group register, and reference lists were searched to January 2008 for randomised controlled trials (RCTs); researchers were contacted. 10 RCTs (n = 1333) met the selection criteria

MAIN RESULTS Meta-analysis showed that admission-avoidance HAH decreased mortality at 6 months compared with inpatient care (table). Groups did not differ for mortality at 3 months, hospital readmission (table), functional ability, cognitive ability, or quality of life. Patients who received admission-avoidance HAH reported greater satisfaction than those who received inpatient care (4 RCTs, p<0.001)

CONCLUSION Hospital-at-home to avoid admission decreases mortality at 6 months but does not differ from inpatient hospital care for mortality at 3 months, hospital readmission, or quality of life

Shepperd S, Doll H, Angus RM, Clarke MJ, Iliffe S, Kalra L, et al. Hospital at home admission avoidance. Cochrane Database of Systematic Reviews 2008;(4):CD007491.

ABSTRACT:

BACKGROUND: Admission avoidance hospital at home is a service that provides active treatment by health care professionals in the patient's home for a condition that otherwise would require acute hospital in-patient care, and always for a limited time period. In particular, hospital at home has to offer a specific service to patients in their home requiring health care professionals to take an active part in the patients' care. If hospital at home were not available then the patient would be admitted to an acute hospital ward. Many countries are adopting this type of care in an attempt to reduce the demand for acute hospital admission.Objectives: To determine, in the context of a systematic review and meta analysis, the effectiveness and cost of managing patients with admission avoidance hospital at home compared with in-patient hospital care.Search

METHODS: The following databases were searched through to January 2008: MEDLINE, EMBASE, CINAHL, EconLit and the Cochrane Effective Practice and Organisation of Care Group (EPOC) register. We checked the reference lists of articles identified electronically for evaluations of hospital at home and obtained potentially relevant articles. Unpublished studies were sought by contacting providers and researchers who were known to be involved in this field.Selection criteria: Randomised controlled trials recruiting patients aged 18 years and over. Studies comparing admission avoidance hospital at home with acute hospital in-patient care. The admission avoidance hospital at home interventions may admit patients directly from the community thereby avoiding physical contact with the hospital, or may admit from the emergency room.Data collection and analysis: Two authors independently extracted data and assessed study quality. Our statistical analyses sought to include all randomised patients and were done on an intention to treat basis. We requested individual patient data (IPD) from trialists, and relied on published data when we did not receive trial data sets or the IPD did not include the relevant outcomes. When combining outcome data was not possible because of differences in the reporting of outcomes we have presented the data in narrative summary tables.For the IPD meta-analysis, where at least one event was reported in both study groups in a trial, Cox regression models were used to calculate the log hazard ratio and its standard error for mortality and readmission separately for each data set (where both outcomes were available). We included randomisation group (admission avoidance hospital at home versus control), age (above or below the median), and gender in the models. The calculated log hazard ratios were combined using fixed effects inverse variance meta analysis. If there were no events in one group we used the Peto odds ratio method to calculate a log odds ratio from the sum of the log-rank test 'O-E' statistics from a Kaplan Meier survival analysis. Statistical significance throughout was taken at the two-sided 5% level ($p<0.05$) and data are presented as the estimated effect with 95% confidence intervals. For each comparison using published data for dichotomous outcomes we calculated risk ratios using a fixed effects model to combine data.

MAIN RESULTS: We included 10 RCTs (n=1333), seven of which were eligible for the IPD. Five out of these seven trials contributed to the IPD meta-analysis (n=850/975; 87%). There was a non significant reduction in mortality at three months for the admission avoidance hospital at home group (adjusted HR 0.77, 95% CI 0.54 to 1.09; p=0.15), which reached significance at six months follow-up (adjusted HR 0.62, 95% CI 0.45 to 0.87; p=0.005). A non significant increase in admissions was observed for patients allocated to hospital at home (adjusted HR 1.49, 95% CI 0.96 to 2.33; p=0.08). Few differences were reported for functional ability, quality of life or cognitive ability. Patients reported increased satisfaction with admission avoidance hospital at home. Two trials conducted a full economic analysis, when the costs of informal care were excluded admission avoidance hospital at home was less expensive than admission to an acute hospital ward.

AUTHORS' CONCLUSIONS: We performed meta-analyses where there was sufficient similarity among the trials and where common outcomes had been measured. There is no evidence from the analysis to suggest that admission avoidance hospital at home leads to outcomes that differ from inpatient hospital care

Shepperd S, Doll H, Broad J, Gladman J, Iliffe S, Langhorne P, et al. Hospital at home early discharge. Cochrane Database of Systematic Reviews 2009;(1)

ABSTRACT:

BACKGROUND:'Early discharge hospital at home' is a service that provides active treatment by health care professionals in the patient's home for a condition that otherwise would require acute hospital in-patient care. If hospital at home were not available then the patient would remain in an acute hospital ward

OBJECTIVES:To determine, in the context of a systematic review and meta-analysis, the effectiveness and cost of managing patients with early discharge hospital at home compared with in-patient hospital care

SEARCH STRATEGY:We searched the Cochrane Effective Practice and Organisation of Care (EPOC) Group Register , MEDLINE (1950 to 2008), EMBASE (1980 to 2008), CINAHL (1982 to 2008) and EconLit through to January 2008. We checked the reference lists of articles identified for potentially relevant articles

SELECTION CRITERIA: Randomised controlled trials recruiting patients aged 18 years and over. Studies comparing early discharge hospital at home with acute hospital in-patient care. Evaluations of obstetric, paediatric and mental health hospital at home schemes are excluded from this review

DATA COLLECTION AND ANALYSIS:Two authors independently extracted data and assessed study quality. Our statistical analyses were done on an intention-to-treat basis. We requested individual patient data (IPD) from trialists, and relied on published data when we did not receive trial data sets or the IPD did not include the relevant outcomes. For the IPD meta-analysis, where at least one event was reported in both study groups in a trial, Cox regression models were used to calculate the log hazard ratio and its standard error for mortality and readmission separately for each data set. The calculated log hazard ratios were combined using fixed-effect inverse variance

meta-analysis

MAIN RESULTS:Twenty-six trials were included in this review [n = 3967]; 21 were eligible for the IPD meta-analysis and 13 of the 21 trials contributed data [1899/2872; 66%]. For patients recovering from a stroke and elderly patients with a mix of conditions there was insufficient evidence of a difference in mortality between groups (adjusted HR 0.79, 95% CI 0.32 to 1.91; N = 494; and adjusted HR 1.06, 95% CI 0.69 to 1.61; N = 978).Readmission rates were significantly increased for elderly patients with a mix of conditions allocated to hospital at home (adjusted HR 1.57; 95% CI 1.10 to 2.24; N = 705). For patients recovering from a stroke and elderly patients with a mix of conditions respectively, significantly fewer people allocated to hospital at home were in residential care at follow-up (RR 0.63; 95% CI 0.40 to 0.98; N = 4 trials; RR 0.69, 95% CI 0.48 to 0.99; N =3 trials). Patients reported increased satisfaction with early discharge hospital at home. There was insufficient evidence of a difference for readmission between groups in trials recruiting patients recovering from surgery. Evidence on cost savings was mixed

AUTHORS' CONCLUSIONS:Despite increasing interest in the potential of early discharge hospital at home services as a cheaper alternative to in-patient care, this review provides insufficient objective evidence of economic benefit or improved health outcomes[CINAHL Note: The Cochrane Collaboration systematic reviews contain interactive software that allows various calculations in the MetaView.]

Shepperd S, Doll H, Broad J, Gladman J, Iliffe S, Langhorne P, et al. Early discharge hospital at home. Cochrane Database of Systematic Reviews (1) , 2009 Article Number: CD000356 Date of Publication: 2009 2009;(1):CD000356.

ABSTRACT:

BACKGROUND: 'Early discharge hospital at home' is a service that provides active treatment by health care professionals in the patient's home for a condition that otherwise would require acute hospital in-patient care. If hospital at home were not available then the patient would remain in an acute hospital ward. Objectives: To determine, in the context of a systematic review and meta-analysis, the effectiveness and cost of managing patients with early discharge hospital at home compared with in-patient hospital care.

SEARCH STRATEGY: We searched theCochrane Effective Practice andOrganisation of Care (EPOC)Group Register ,MEDLINE (1950 to 2008), EMBASE (1980 to 2008), CINAHL (1982 to 2008) and EconLit through to January 2008. We checked the reference lists of articles identified for potentially relevant articles. Selection criteria: Randomised controlled trials recruiting patients aged 18 years and over. Studies comparing early discharge hospital at home with acute hospital in-patient care. Evaluations of obstetric, paediatric and mental health hospital at home schemes are excluded from this review. Data collection and analysis: Two authors independently extracted data and assessed study quality. Our statistical analyses were done on an intention-to-treat basis. We requested individual patient data (IPD) from trialists, and relied on published data when we did not receive trial data sets or the IPD did not include the relevant outcomes. For the IPD meta-analysis, where at least one event was reported in both study groups in a trial, Cox regression models were used to calculate the log hazard ratio and its standard error for mortality and readmission separately for each data set. The calculated log hazard ratios were combined using fixed-effect inverse variance meta-analysis.

MAIN RESULTS: Twenty-six trials were included in this review [n = 3967]; 21 were eligible for the IPD meta-analysis and 13 of the 21 trials contributed data [1899/2872; 66%]. For patients recovering from a stroke and elderly patients with a mix of conditions there was insufficient evidence of a difference in mortality between groups (adjusted HR 0.79, 95% CI 0.32 to 1.91; N = 494; and adjusted HR 1.06, 95% CI 0.69 to 1.61; N = 978). Readmission rates were significantly increased for elderly patients with a mix of conditions allocated to hospital at home (adjusted HR 1.57; 95% CI 1.10 to 2.24; N = 705). For patients recovering from a stroke and elderly patients with a mix of conditions respectively, significantly fewer people allocated to hospital at home were in residential care at follow up (RR 0.63; 95% CI 0.40 to 0.98; N = 4 trials; RR 0.69, 95% CI 0.48 to 0.99; N =3 trials). Patients reported increased satisfaction with early discharge hospital at home. There was insufficient evidence of a difference for readmission between groups in trials recruiting patients recovering from surgery. Evidence on cost savings was mixed.

AUTHORS' CONCLUSIONS: Despite increasing interest in the potential of early discharge hospital at home services as a cheaper alternative to in-patient care, this review provides insufficient objective evidence of economic benefit or improved health outcomes. Copyright 2009 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd

Shepperd S, Iliffe S. Hospital at home versus in-patient hospital care. [Review] [66 refs][Update in Cochrane Database Syst Rev. 2009;(1):CD000356; PMID: 19160179], [Update of Cochrane Database Syst Rev. 2001;(3):CD000356; PMID: 11686958]. Cochrane Database of Systematic Reviews (3):CD000356, 2005 2005;(3):CD000356

ABSTRACT:

BACKGROUND: Hospital at home is defined as a service that provides active treatment by health care professionals, in the patient's home, of a condition that otherwise would require acute hospital in-patient care, always for a limited period

OBJECTIVES: To assess the effects of hospital at home compared with in-patient hospital care

SEARCH STRATEGY: We searched the Cochrane Effective Practice and Organisation of Care Group (EPOC) specialised register (November 2004), MEDLINE (1966 to 1996), EMBASE (1980 to 1995), Social Science Citation Index (1992 to 1995), Cinahl (1982 to 1996), EconLit (1969 to 1996), PsycLit (1987 to 1996), Sigle (1980 to 1995) and the Medical Care supplement on economic literature (1970 to 1990)

SELECTION CRITERIA: Randomised trials of hospital at home care compared with acute hospital in-patient care. The participants were patients aged 18 years and over

DATA COLLECTION AND ANALYSIS: Two reviewers independently extracted data and assessed study quality

MAIN RESULTS: Twenty two trials are included in this update of the review. Among trials evaluating early discharge hospital at home schemes we found an odds ratio (OR) for mortality of 1.79 95% CI 0.85 to 3.76 for elderly medical patients (age 65 years and over) (n = 3 trials); OR 0.58; 95% CI 0.29 to 1.17 for patients with chronic obstructive pulmonary disease (COPD) (n = 5 trials); and OR 0.78; 95%CI 0.52 to 1.19 for patients recovering from a stroke (n = 4 trials). Two trials evaluating the early discharge of patients recovering from surgery reported an OR 0.43 (95% CI 0.02 to 10.89) for patients recovering from a hip replacement and an OR 1.01 (95% CI 0.37 to 2.81) for patients with a mix of conditions at three months follow-up. For readmission to hospital we found an OR 1.76; 95% CI 0.78 to 3.99 at 3 months follow-up for elderly medical patients (n = 2 trials); OR 0.81; 95% CI 0.55 to 1.19 for patients with COPD (n = 5 trials); and OR 0.96; 95% CI 0.63 to 1.45 for patients recovering from a stroke (n = 3 trials). No significant heterogeneity was observed. One trial recruiting patients following surgery for hernia or varicose veins reported 0/117 versus 2/121 patients were re admitted (Ruckley 1978); another that 2/37 (5%) versus 1/49 (2%) (difference 3%, 95% CI -5% to 12%) of patients recovering from a hip replacement, 4/47 (9%) versus 1/39 (3%) (difference 6%, 95% CI -3% to 15%) of patients recovering from a knee replacement, and 7/114 (6%) versus 13/124 (10%) (difference -4% 95% CI -11% to 3%) of patients recovering from a hysterectomy were readmitted. A third trial analysing surgical and medical patients together reported that 42/159 versus 17/81 patients were readmitted at 3 months (OR 1.34 95% CI 0.66 to 2.20). Allocation to hospital at home resulted in a small reduction in hospital length of stay, but hospital at home increased overall length of care. Patients allocated to hospital at home expressed greater satisfaction with care than those in hospital, while the view of carers was mixed

AUTHORS' CONCLUSIONS: Despite increasing interest in the potential of hospital at home services as a cheaper alternative to in-patient care, this review provides insufficient objective evidence of economic benefit. Early discharge schemes for patients recovering from elective surgery and elderly patients with a medical condition may have a place in reducing the pressure on acute hospital beds, providing the views of the carers are taken into account. For these clinical groups hospital length of stay is reduced, although this is offset by the provision of hospital at home. Future primary research should focus on rigorous evaluations of admission avoidance schemes and standards for original research should aim at assisting future meta-analyses of individual patient data from these and future trials. [References: 66]

Intervensjoner i regi av kommunehelsetjenesten (1)

Geurts MME, Talsma J, Brouwers JRBJ, de Gier JJ. Medication review and reconciliation with cooperation between pharmacist and general practitioner and the benefit for the patient: A systematic review. Br J Clin Pharmacol 2012;74(1):July.

ABSTRACT:

This article systematically reviews the literature on the impact of collaboration between pharmacists and general practitioners and describes its effect on patients' health. A systematic literature search provided 1041 articles. After first review of title and abstract, 152 articles remained. After review of the full text, 83 articles were included. All included articles are presented according to the following variables: (i) reference; (ii) design and setting of the study; (iii) inclusion criteria for patients; (iv) description of the intervention; (v) whether a patient interview was performed to involve patients' experiences with their medicine-taking behaviour; (vi) outcome; (vii) whether healthcare professionals received additional training; and (viii) whether healthcare professionals received financial reimbursement. Many different interventions are described where pharmacists and general practitioners work together to improve patients' health. Only nine studies reported hard outcomes, such as hospital (re)admissions; however, these studies had different results, not all of which were statistically significant. Randomized controlled trials should be able to describe hard outcomes, but large patient groups will be needed to perform such studies. Patient involvement is important for long-term success. 2012 The Authors. British Journal of Clinical Pharmacology 2012 The British Pharmacological Society

Intervensjoner på sykehus, elektronisk oppfølging og monitorering (4)

Baillie C, Van ZC, Tait G, Behta M, Leas B, Hanish A, et al. Oral abstracts innovations the readmission risk flag: Using the electronic health record to automatically identify patients at risk for 30-day readmission. Journal of Hospital Medicine Conference: 2012 Annual Meeting of the Society of Hospital Medicine, SHM

2012 San Diego, CA United States Conference Start: 20120401 Conference End: 20120404 Conference Publication: (var pagings) 2012;7(pp S6-S7):March.

ABSTRACT:

BACKGROUND: Preventing unplanned readmissions within 30 days of hospital discharge is a major focus of quality improvement and payment reform. Identification of patients at high risk for 30-day readmissions is an important step towards improving care and reducing readmissions. The growing adoption of electronic health records (EHR) may prove to be an important component of strategies designed to risk stratify patients and introduce targeted interventions.

PURPOSE: To develop and implement an automated predictive model integrated into our hospital's EHR that identifies on admission patients at high risk for readmission within 30 days of discharge.

DESCRIPTION: We first performed a systematic literature review to identify risk factors for 30-day readmissions. We then examined the data available from our hospital EHR at admission for those factors identified in our review, identified three variables that were consistently accurate, and then developed and tested 30 candidate prediction rules using a combination of these variables, including >0 and >1 prior admissions in the last 6 and 12 months, >0 and >1 prior ED visits in the last 6 and 12 months, and prior 30 day readmissions in the last 6 and 12 months. Rules were tested on 24 months of historic data with a baseline 30-day readmission rate of 5%. A single risk factor, >1 inpatient admissions in the past 12 months, was found to have the best balance of sensitivity (25%), positive predictive value (20%), and proportion of patients flagged (7%). An automated readmission risk flag was then integrated into the hospital's EHR, such that patients with this risk factor are flagged in the EHR on admission (Fig. 1). The flag can be double- clicked to display information relevant to discharge planning including inpatient and ED visits in the prior 12 months, as well as information about the primary team, length of stay, and admitting problem for those admissions. In the 30-day period after risk flag implementation, 13% of inpatients were flagged, and of those 21% were readmitted to our institution. The distribution of flags across hospital units corresponds closely with the distribution of readmissions as expected.

CONCLUSIONS: An automated prediction rule was easily and effectively integrated into an existing EHR and identified patients on admission who are at risk for readmission within 30 days of discharge. Future work will further prospectively evaluate the flags performance, gather qualitative data on how providers and care teams use the information provided by the flag, and examine the impact of the flag on readmission rates

Crocker JB, Crocker JT, Greenwald JL. Telephone follow-up as a primary care intervention for postdischarge outcomes improvement: A systematic review. Am J Med 2012;125(9):September.

ABSTRACT:

OBJECTIVE: Postdischarge telephone follow-up plays an integral part in transitional care efforts in many regions. We systematically reviewed the literature to evaluate the evidence regarding the impact of primary care-based telephone follow-up on postdischarge emergency department visits and hospital readmissions.

METHODS: We performed an electronic database search for relevant telephone follow-up studies originating in adult primary care settings.

RESULTS: Only 3 studies (N = 1765) met entry criteria for this review. None of the studies demonstrated evidence of reduced admissions or emergency department visits from primary care-based telephone follow-ups. All 3 studies reported improved primary care office contact as a result of telephone follow-up intervention.

CONCLUSIONS: Despite the growing use of primary care-based telephone follow-up in the postdischarge period, there are no high-quality studies demonstrating its benefit. However, its positive impact on patient engagement holds potentially meaningful implications. In light of recent national health care legislation, the primary care field is ripe for high-quality studies to evaluate the effectiveness of telephone follow-up for patients in the postdischarge period. Particular areas of research focus are discussed. 2012 Elsevier Inc

Lavenberg JG, Williams K, Behta M, Vanzandbergen C, Norris A. Post-discharge telephone calls to reduce hospital readmissions.: Center for Evidence-based Practice (CEP); 2012.

Motamedi SM, Posadas-Calleja J, Straus S, Bates DW, Lorenzetti DL, Baylis B, et al. The efficacy of computer-enabled discharge communication interventions: A systematic review. BMJ Quality and Safety 2011;20(5):May.

ABSTRACT:

CONTEXT: Traditional manual/dictated discharge summaries are inaccurate, inconsistent and untimely. Computer-enabled discharge communications may improve information transfer by providing a standardised document that immediately links acute and community healthcare providers.

OBJECTIVE: To conduct a systematic review evaluating the efficacy of computer-enabled discharge communication

compared with traditional communication for patients discharged from acute care hospitals.

DATA SOURCES: MEDLINE, EMBASE, Cochrane CENTRAL Register of Controlled Trials and MEDLINE In-Process. Keywords from three themes were combined: discharge communication, electronic/online/web-based and controlled interventional studies.

STUDY SELECTION: Study types included: clinical trials, quasiexperimental studies with concurrent controls and controlled before - after studies. Interventions included: (1) automatic population of a discharge document by computer database(s); (2) transmission of discharge information via computer technology; or (3) computer technology providing a 'platform' for dynamic discharge communication. Controls included: no intervention or traditional manual/dictated discharge summaries. Primary outcomes included: mortality, readmission and adverse events/near misses. Secondary outcomes included: timeliness, accuracy, quality/completeness and physician/patient satisfaction.

DATA EXTRACTION: Description of interventions and study outcomes were extracted by two independent reviewers.

RESULTS: 12 unique studies were identified: eight randomised controlled trials and four quasi-experimental studies. Pooling/meta-analysis was not possible, given the heterogeneity of measures and outcomes reported. The primary outcomes of mortality and readmission were inconsistently reported. There was no significant difference in mortality, and one study reported reduced long-term readmission. Intervention groups experienced reductions in perceived medical errors/adverse events, and improvements in timeliness and physician/patient satisfaction.

CONCLUSIONS: Computer-enabled discharge communications appear beneficial with respect to a number of important secondary outcomes. Primary outcomes of mortality and readmission are less commonly reported in this literature and require further study

Intervensjoner på sykehus, medisinforskrivning (4)

Campo M, V, MartÂnez. Efficacy of medication reconciliation in the prevention of adverse events [Spanish]. Metas de Enfermeria 2011;14(1):28-32.

ABSTRACT:

Recent studies support medication reconciliation (MR) as an imegral step in the process ofcare andas an importam initiativefor the patient's safety. Despite this, these results have not been sufficiently evaluated. Objective: to determine whether the reconciliation procedure is effective in the prevention ofmedication errors audlor to improve the outcome ofhealth care. Metodology: searchers were carried out in differem electronic databases (MEDLINE, EMBASE, Scielo, Cochrane) and grey literature bases. Controlled and Randomised Clinical Trials (CCTs and CRTs) were selected and in their absence, other research designs (non randomised clinical trials or quasi-experimental studies) were selected. The participants were subjectsfrom all age groups, Thefollowing resultsa were included: rehospitalisations, visits to the ER, adverse events to drugs and mortality. Two foreign reviewers extracted the data and independently evaluated the quality ofthe studies using the Jadad scale.

RESULTS: 163 articles were located audfour were included to conduct the meta-analysis. The total number ofpatients was 1259. MR significamly reduced the number ofvisits to the ER: (odds ratio 0,66; 95% C1: 0,480,90) and rehospitalisation rates: (odds ratio 0,87; 95% 0: 0,63-1,19).

CONCLUSIONS: MR is effective in reducing the rate ofadverse events caused by medication errors and the rate ofvisits to the ER and hospitaUsations

Lesprit P, Landelle C, Brun-Buisson C. Clinical impact of unsolicited post-prescription antibiotic review in surgical and medical wards: a randomized controlled trial. Clinical Microbiology & Infection 2013;19(2):E91-E97.

ABSTRACT:

This study aimed to determine the clinical course of patients and the quality of antibiotic use using a systematic and unsolicited post-prescription antibiotic review. Seven hundred and fifty-three adult patients receiving antibiotic therapy for 3-5 days were randomized to receive either a post-prescription review by the infectious disease physician (IDP), followed by a recommendation to the attending physician to modify the prescription when appropriate, or no systematic review of the prescription. In the intervention group, 63.3% of prescriptions prompted IDP recommendations, which were mostly followed by ward physicians (90.3%). Early antibiotic modifications were more frequent in the intervention group (57.1% vs. 25.7%, p <0.0001), including stopping therapy, shortening duration and de-escalating broad-spectrum antibiotics. IDP intervention led to a significant reduction of the median [IQR] duration of antibiotic therapy (6 [4-9] vs. 7 days [5-9], p <0.0001). In-hospital mortality, ICU admission and new course of antibiotic therapy rates did not differ between the two groups. Fewer patients in the intervention group were readmitted for relapsing infection (3.4% vs. 7.9%, p 0.01). There was a trend for a shorter length of hospital stay in patients

suffering from community-acquired infections in the intervention group (5 days [3-10] vs. 6 days [3-14], p 0.06). This study provides clinical evidence that a post-prescription antibiotic review followed by unsolicited IDP advice is effective in reducing antibiotic exposure of patients and increasing the quality of antibiotic use, and may reduce hospital stay and relapsing infection rates, with no adverse effects on other patient outcomes. 2012 The Authors Clinical Microbiology and Infection 2012 European Society of Clinical Microbiology and Infectious Diseases

Naz K. Domiciliary medicines use review (MUR) bridging the interface between secondary and primary care. Pharmacoepidemiology and Drug Safety Conference: Prescribing and Research in Medicines Management (UK and Ireland) Conference 2012 London United Kingdom Conference Start: 20120209 Conference End: 20120209 Conference Publication: (var pagings) 2012;21(7):July.

ABSTRACT:

INTRODUCTION: The transfer of medicines from secondary care to primary care and vice versa can lead to incorrect transmission of information, un intended changes in medication as well as continuation of medication that should have been discontinued. Previous work has centred on whether home based medication reviews by pharmacists actually led to an increase of hospital re-admissions compared to a control group 1, although underlying reasons for this may be related to recognition of adverse incidents by pharmacists in an already at risk group. Following discharge, adverse drug reactions are not uncommon and can be prevented or attenuated using interventions and advice 2.A further systematic review and metaanalysis suggested that for older people (60 years +), pharmacist led medication review and associated interventions do not have any effect on reducing mortality or re-admissions, but may improve medicine knowledge and compliance with medication to take as intended 3. This abstract highlights a service development that utilises pharmacists as part of a strategy to reduce hospital readmissions using domiciliary MURs. Project: The domiciliary MUR service is run simultaneously as an advanced and a locally commissioned enhanced service, initiated in 2009 at the Littleton Ward Intermediate Care Unit, Cannock Chase hospital in South Staffordshire PCT. The aim of the service is to tackle hospital admissions, re-admissions and delayed discharges of the elderly. Patient's discharged from intermediate care beds received a domiciliary MUR within 7 days of discharge, as part of a wider remit examining Functional Independence Measure Scores (FIM), small numbers of admissions to and E and re-admissions within 28 days of discharge.

RESULTS: From April 2009 to March 2010, 69 domiciliary visits were claimed for by community pharmacists, of which 63 were paid for as part of the enhanced service. The Littleton Unit annual report for 2009/2010 details a net health saving of 413,819 by using the community beds as step up and step down for admissions. Good FIM scores, small numbers of admission to A&E and re-admissions of patients within 28 days of discharge have been demonstrated by the service (81% improvement of FIM score on discharge), of which the domiciliary MUR service is part of. There has also been a reduction in delayed discharges. Further analysis of re-admissions within 28 days after discharge from the Littleton Ward, via case notes show that of the 39 readmissions in 2009-2010, 5 were unrelated (e.g. clinical deterioration of condition), 32 were unavoidable (e.g. acute or unstable condition) and 2 were related or a regular occurrence.

CONCLUSION AND NEXT STEPS: This project has furthered medication review by pharmacists as project outcomes show that community beds and intermediate care are part of the discharge process, rather than being compartmentalized. Further work is required to investigate the impact of the domiciliary MURs specifically e.g. community pharmacist perspective, specific patient satisfaction survey etc. as well as analysis of interventions and recommendations made

Simoens S, Spinewine A, Foulon V, Paulus D. Review of the cost-effectiveness of interventions to improve seamless care focusing on medication. International Journal of Clinical Pharmacy 2011;33(6):December.

ABSTRACT: Aim of the review This review of the international literature aims to assess the evidence and its methodological quality relating to the cost-effectiveness of interventions to improve seamless care focusing on medication.

METHOD Studies were identified by searching Medline, EMBASE, Centre for Reviews and Dissemination databases, Cochrane Database of Systematic Reviews, and EconLit up to March 2011 using search terms related to health economics and to seamless care. To be included, economic evaluations had to explore the costs and consequences of an intervention to improve seamless care focusing on medication as compared with usual care. Methodological quality of studies was assessed by considering perspective; design; source of clinical and economic data; cost and consequence measures; allowance for uncertainty; and incremental analysis. Costs were actualized to 2007 values.

RESULTS Eight studies on medication interventions for hospitalized patients in the transition between ambulatory and hospital care were included in the review. A variety of types of medication interventions and target populations have been assessed, but the evidence is limited to one economic evaluation for each particular intervention type and each specific target population. Most studies demonstrated an impact of interventions on compliance and (re)hospitalization rates and costs. The studies did not find an impact on quality of life or symptoms. Economic evaluations suffered from methodological limitations related to the narrow perspective; restriction to health care costs only; exclusion of costs of the intervention; use of intermediate consequence measures; no allowance for uncertainty; and absence of incremental analysis.

CONCLUSION In light of the small number of economic evaluations and their methodological limitations, it is not possible to recommend a specific intervention to improve seamless care focusing on medication on health econom-

ic grounds. Springer Science+Business Media B.V. 2011

Intervensjoner på sykehus om tilrettelegging av behandling under og etter opphold (10)

Harris R. Review: hospital based case management does not reduce length of hospital stay or readmissions in adults. Evidence Based Nursing 2006;9(2):54.

ABSTRACT:

Does hospital based case management reduce length of hospital stay and readmissions in adults?

METHODS Data sources: Medline (1996-2003), CINAHL (1982-2003), HealthSTAR (1975-2003), bibliographies of relevant reviews, and content experts

STUDY SELECTION AND ASSESSMENT: randomised controlled trials (RCTs) that assessed the effects of hospital based case management on length of stay or readmission rate in inpatients >/=18 years of age. Studies of patients with mental illness, outpatient services, or hospital-to-community based or community based case management were exduded. Methodological quality of individual studies was assessed using the 5 point Jadad scale; intervention qualify was assessed based on the presence of 6 components: comprehensive assessment, education/consultation, collaboration, discharge planning, linkage with community, and monitoring/follow up

OUTCOMES: length of stay and readmission

MAIN RESULTS 12 RCTs (2876 patients, mean age 72 y) met the selection criteria. 11 studies assessed a nurse led intervention, and 1 assessed a physician led intervention; in all studies, the control group received usual care. 6 of the 12 studies had high quality scores (>/=8 out of 11), and 6 had moderate quality scores (4-7 out of 11). Meta-analysis using a random effects model showed no difference between case management and usual care for length of stay (10 studies, n = 2666; pooled effect size 0.094, 95% CI -0.032 to 0.220) or readmissions (10 studies, n = 2603; odds ratio 0.87, CI 0.69 to 1.04). Sensitivity analyses showed that the effects of case management on length of stay did not differ based on study quality or number of intervention components. However, effectiveness did vary by patient diagnosis: case management reduced length of stay in patients with heart failure (pooled effect size 0.241, CI 0.012 to 0.470) but not in patients with stroke (pooled effect size -0.226, CI -0.542 to 0.089) or frail elderly people (pooled effect size 0.126, CI -0.073 to 0.324). Sensitivity analyses showed that the effects of case management on readmissions did not differ by study quality, number of intervention components, or patient diagnosis

CONCLUSION Hospital based case management did not reduce length of hospital stay or readmissions in adult inpatients

Jacob L, Poletick EB. Systematic review: predictors of successful transition to community-based care for adults with chronic care needs. Care Management Journals 2008;9(4):154-65.

ABSTRACT:

Difficult transition from acute hospital back to the community can be challenging. Problems encountered during this process can lead to unplanned readmission and emergency department visits. It is important for care managers to be able to identify patients susceptible to difficult transition and to understand strategies to reduce risk of unplanned hospital readmission. This qualitative systematic review of 10 studies of discharge interventions and patient characteristics finds little evidence that enhanced discharge support is related to improved physical status at home, but there is mixed support for its role in preventing or delaying hospital readmissions in certain discharge diagnoses, specifi cally heart failure and stroke. Additionally, those with adequate social support and confi dence in their self-care ability tend to experience fewer readmissions than do those living alone and those who perceive themselves as not ready to return home

Kim Y, Soeken KL. A meta-analysis of the effect of hospital-based case management on hospital length-of-stay and readmission. Nurs Res 2005;54(4):255-64.

ABSTRACT:

BACKGROUND: Although many hospital-based case management (CM) interventions have been studied, there is little work summarizing the effectiveness of these studies. OBJECTIVES: The purpose of this study was to investigate the effect of hospital-based CM compared with usual care on length of hospital stay and readmission rate.

METHOD: A meta-analytic method was employed to analyze the effect sizes of CM intervention on outcomes. Eligible studies were retrieved using computerized database searches, footnote chasing, and contact with content ex-

perts. The authors reviewed the final 12 studies, and the effect size, 95% confidence interval (CI), sensitivity, homogeneity, and publication bias were analyzed.

RESULTS: The overall average weighted effect size on length of stay (LOS) was 0.094 with a 95% CI of -0.032 to 0.220. The overall odds ratio for readmission was 0.87 with a 95% CI of 0.69 to 1.04. Overall, hospital-based CM interventions were not significantly effective in reducing LOS and readmissions. However, CM for patients with heart failure (effect size of 0.241 with a 95% CI of 0.012 to 0.470) was significantly effective in reducing LOS, although it was not effective for stroke patients (effect size of -0.226 with a 95% CI of -0.542 to 0.089) and frail elders (effect size of 0.126 with a 95% CI of -0.073 to 0.324). Analysis indicated that in this meta-analysis publication bias was unlikely. DISCUSSION: The findings of this meta-analysis demonstrate a 6% decrease in readmission rate for patients who received hospital-based CM interventions. Further meta-analytic studies are needed to investigate the effectiveness of CM on other outcomes

Nagarajan A, Ramsaroop S, Siegler E, Reid C. Interventions designed to improve transitional care of patients discharged from hospital to home: A systematic review. Journal of the American Geriatrics Society Conference: 2010 Annual Scientific Meeting of the American Geriatrics Society Orlando, FL United States Conference Start: 20100512 Conference End: 20100515 Conference Publication: (var pagings) 2010;58(pp S224):April.

ABSTRACT:

BACKGROUND: Poor transitions from hospital to home are associated with significant morbidity and mortality, as well as increased healthcare costs.Although a variety of interventions have been developed to improve transitional care outcomes, a formal review of the interventions has not been previously conducted. Purpose:To conduct a systematic review of intervention studies that sought to improve transitional care outcomes and that focused specifically on the transition from hospital to home.

METHODS:We searched PUBMED and OVID databases (1/70- 7/09) to identify English language articles that reported one or more efficacy outcomes associated with an intervention designed to improve the hospital to home discharge process. Two reviewers independently reviewed all abstracts and employed a standardized abstraction tool to collect data from retained articles including target population, specific type and intensity of intervention(s), as well as study outcomes.

RESULTS:The search produced 1,675 citations, and 35 articles met eligibility criteria and were retained for review.The mean study population size and age were 286 (range = 32-1001) and 68.8 (49.6-84.0), respectively. Most studies (71%) employed a randomized control trial design, 14% used a quasi-experimental design, and 11% were cohort studies. Interventions were most often delivered by nurses (77%), followed by multidisciplinary teams (11%) and other groups (12%). Types of outcomes varied widely: 66% assessed readmission rates, 34% examined quality of life and 11% assessed mortality. Of the 23 studies that examined readmission rates, 10 (44%) demonstrated significant results in favor of treatment: median proportionate reduction in readmission = 11.2% (-10.4% to 14.7%). Of the 12 studies that examined quality of life, 7 (58%) reported significant treatment effects for mental health: median improvement = 14.2% (2.6% to 54.1%), whereas 3 (25%) reported significant improvements in physical health: median improvement = 11.9% (-2.2% to 29.8%).

CONCLUSIONS: This study documents variation in person(s) delivering the intervention, and types of outcomes studied. Modest reductions in readmission rates with corresponding improvements in mental and physical quality of life were found. These results support efforts to standardize outcome appraisals in future research and to identify more efficacious interventions

Naylor M, Aiken L, Kurtzman E, Olds D, Hirschman K. The Importance Of Transitional Care In Achieving Health Reform. Health Aff (Millwood) 2011;30(4):746-54.

ABSTRACT:

Under the Affordable Care Act of 2010, a variety of transitional care programs and services have been established to improve quality and reduce costs. These programs help hospitalized patients with complex chronic conditions-often the most vulnerable-transfer in a safe and timely manner from one level of care to another or from one type of care setting to another. We conducted a systematic review of the research literature and summarized twenty-one randomized clinical trials of transitional care interventions targeting chronically ill adults. We identified nine interventions that demonstrated positive effects on measures related to hospital readmissions-a key focus of health reform. Most of the interventions led to reductions in readmissions through at least thirty days after discharge. Many of the successful interventions shared similar features, such as assigning a nurse as the clinical manager or leader of care and including in-person home visits to discharged patients. Based on these findings, we recommend several strategies to guide the implementation of transitional care under the Affordable Care Act, such as encouraging the adoption of the most effective interventions through such programs as the Community-Based Care Transitions Program and Medicare shared savings and payment bundling experiments

Parkes J, Shepperd S. Discharge planning from hospital to home. Cochrane database of systematic reviews (Online) (4) (pp CD000313), 2000 Date of Publication: 2000 2000;(Online):2000.

ABSTRACT:

BACKGROUND: Discharge planning is the development of an individualised discharge plan for the patient prior to leaving hospital for home, with the aim of containing costs and improving patient outcomes. It has been suggested that discharge planning can reduce unplanned readmission to hospital.

OBJECTIVES: To assess the effects of discharge planning for patients moving from hospital to home.

SEARCH STRATEGY: We searched the Cochrane Effective Practice and Organisation of Care Group specialised register, the Cochrane Controlled Trials Register, MEDLINE (1966 to 1996), EMBASE (1980 to 1996), Sigle (1980 to 1996), Bioethics (1985 to 1996), Health Plan (all available years), PsycLit (1974 to 1996), Cinahl (1982 to 1996), EconLit (1969 to 1996), Social Science Citation Index (1992 to 1996), and reference lists of articles.

SELECTION CRITERIA: Randomised trials and controlled trials comparing discharge planning with routine discharge for hospital patients. The outcomes were mortality, clinical complications, hospital length of stay, readmissions, discharge destination, general and disease specific health status, functional status, psychological well-being, patient satisfaction, carer satisfaction, carer burden, cost to the health service, patient and family, general practice, and community services.

DATA COLLECTION AND ANALYSIS: Two reviewers independently extracted data and assessed study quality.

MAIN RESULTS: Eight studies were included involving 4837 patients. Four studies recruited patients with a medical condition; four recruited patients with a mix of medical and surgical conditions, and one of these recruited medical and surgical patients as separate groups. There was a small reduction in hospital length of stay for elderly medical patients allocated to discharge planning (weighted mean difference -1.01, 95% CI -2.06 to 0.05). The effects of discharge planning on readmission rates were mixed. No statistically significant differences were detected for patient health outcomes. Patients with medical conditions allocated to discharge planning reported increased satisfaction compared with those receiving routine discharge. No statistically significant differences were reported for overall health care costs, although one study reported a significant reduction in readmission costs for medical patients allocated to discharge planning.

REVIEWER'S CONCLUSIONS: The studies showed mixed results, which may reflect the different study populations and the different ways the intervention was implemented. There is some evidence that discharge planning may lead to reduced hospital length of stay, and in some cases reduced readmission to hospital. There is also some evidence that discharge planning increased patient satisfaction. There was no evidence that discharge planning reduced health care costs; however few studies conducted a formal economic analysis

Rennke S, Nguyen O, Shoeb M, Magan Y, Wachter R, Ranji S. Hospital-initiated transitional care interventions as a patient safety strategy: a systematic review. Ann Intern Med 2013;158(5 Pt 2):433-40.

ABSTRACT:

Hospitals now have the responsibility to implement strategies to prevent adverse outcomes after discharge. This systematic review addressed the effectiveness of hospital-initiated care transition strategies aimed at preventing clinical adverse events (AEs), emergency department (ED) visits, and readmissions after discharge in general medical patients. MEDLINE, CINAHL, EMBASE, and Cochrane Database of Clinical Trials (January 1990 to September 2012) were searched, and 47 controlled studies of fair methodological quality were identified. Forty-six studies reported readmission rates, 26 reported ED visit rates, and 9 reported AE rates. A "bridging" strategy (incorporating both predischarge and postdischarge interventions) with a dedicated transition provider reduced readmission or ED visit rates in 10 studies, but the overall strength of evidence for this strategy was low. Because of scant evidence, no conclusions could be reached on methods to prevent postdischarge AEs. Most studies did not report intervention context, implementation, or cost. The strategies hospitals should implement to improve patient safety at hospital discharge remain unclear

Scott IA. Preventing the rebound: Improving care transition in hospital discharge processes. Aust Health Rev 2010;34(4):2010.

ABSTRACT:

BACKGROUND. Unplanned readmissions of recently discharged patients impose a significant burden on hospitals with limited bed capacity. Deficiencies in discharge processes contribute to such readmissions, which have prompted experimentation with multiple types of peridischarge interventions.

OBJECTIVE. To determine the relative efficacy of peridischarge interventions categorised into two groups: (1) single component interventions (sole or predominant) implemented either before or after discharge; and (2) integrated multicomponent interventions which have pre- and postdischarge elements.

DESIGN. Systematic metareview of controlled trials. Data collection. Search of four electronic databases for controlled trials or systematic reviews of trials published between January 1990 and April 2009 that reported effects on readmissions.

DATA SYNTHESIS. Among single-component interventions, only four (intense self-management and transition coaching of high-risk patients and nurse home visits and telephone support of patients with heart failure) were effective in reducing readmissions. Multicomponent interventions that featured early assessment of discharge needs, enhanced patient (and caregiver) education and counselling, and early postdischarge follow-up of high-risk patients were associated with evidence of benefit, especially in populations of older patients and those with heart failure.

CONCLUSION. Peridischarge interventions are highly heterogenous and reported outcomes show considerable variation. However, multicomponent interventions targeted at high-risk populations that include pre- and postdischarge elements seem to be more effective in reducing readmissions than most single-component interventions, which do not span the hospitalcommunity interface. AHHA 2010

Shepperd S, Lannin NA, Clemson LM, McCluskey A, Cameron ID, Barras SL. Discharge planning from hospital to home. [Review][Update of Cochrane Database Syst Rev. 2010;(1):CD000313; PMID: 20091507]. Cochrane Database of Systematic Reviews 2013;1:CD000313.

ABSTRACT:

BACKGROUND: Discharge planning is a routine feature of health systems in many countries. The aim of discharge planning is to reduce hospital length of stay and unplanned readmission to hospital, and improve the co-ordination of services following discharge from hospital

OBJECTIVES: To determine the effectiveness of planning the discharge of individual patients moving from hospital

SEARCH METHODS: We updated the review using the Cochrane EPOC Group Trials Register, MEDLINE, EMBASE and the Social Science Citation Index (last searched in March 2012)

SELECTION CRITERIA: Randomised controlled trials (RCTs) that compared an individualised discharge plan with routine discharge care that was not tailored to the individual patient. Participants were hospital inpatients

DATA COLLECTION AND ANALYSIS: Two authors independently undertook data analysis and quality assessment using a pre designed data extraction sheet. Studies are grouped according to patient group (elderly medical patients, patients recovering from surgery and those with a mix of conditions) and by outcome. Our statistical analysis was done on an intention to treat basis, we calculated risk ratios for dichotomous outcomes and mean differences for continuous data using fixed-effect meta-analysis. When combining outcome data was not possible, because of differences in the reporting of outcomes, we have presented the data in narrative summary tables

MAIN RESULTS: We included twenty-four RCTs (8098 patients); three RCTS were identified in this update. Sixteen studies recruited older patients with a medical condition, four recruited patients with a mix of medical and surgical conditions, one recruited patients from a psychiatric hospital, one from both a psychiatric hospital and from a general hospital, and two trials patients admitted to hospital following a fall (110 patients). Hospital length of stay and readmissions to hospital were statistically significantly reduced for patients admitted to hospital with a medical diagnosis and who were allocated to discharge planning (mean difference length of stay -0.91, 95% CI -1.55 to -0.27, 10 trials; readmission rates RR 0.82, 95% CI 0.73 to 0.92, 12 trials). For elderly patients with a medical condition there was no statistically significant difference between groups for mortality (RR 0.99, 95% CI 0.78 to 1.25, five trials) or being discharged from hospital to home (RR 1.03, 95% CI 0.93 to 1.14, two trials). This was also the case for trials recruiting patients recovering from surgery and a mix of medical and surgical conditions. In three trials, patients allocated to discharge planning reported increased satisfaction. There was little evidence on overall healthcare costs

AUTHORS' CONCLUSIONS: The evidence suggests that a discharge plan tailored to the individual patient probably brings about reductions in hospital length of stay and readmission rates for older people admitted to hospital with a medical condition. The impact of discharge planning on mortality, health outcomes and cost remains uncertain

Stubenrauch JM. More data: Transitional care reduces readmissions. Am J Nurs 2011;111(9):September.

ABSTRACT:

A systematic review suggests prototypes for success

Intervensjoner på sykehus om bruk av behandlingslinjer og retningslinjer (5)

El BN, Middel B, Van Dijk JP, Oosterhof A, Boonstra PW, Reijneveld SA. Are the outcomes of clinical pathways evidence-based? A critical appraisal of clinical pathway evaluation research. J Eval Clin Pract

2007;13(6):December.

ABSTRACT:

AIM AND OBJECTIVE: To evaluate the validity of study outcomes of published papers that report the effects of clinical pathways (CP).

METHOD: Systematic review based on two search strategies, including searching Medline, CINAHL, Embase, Psychinfo and Picarta from 1995 till 2005 and ISI Web of Knowledge ^{SM}. We included randomized controlled or quasi-experimental studies evaluating the efficacy of clinical pathway application. Assessment of the methodological quality of the studies included randomization, power analysis, selection bias, validity of outcome indicators, appropriateness of statistical tests, direct (matching) and indirect (statistical) control for confounders. Outcomes included length of stay, costs, readmission rate and complications. Two reviewers independently assessed the methodological quality of the selected papers and recorded the findings with an evaluation tool developed from a set of items for quality assessment derived from the Cochrane Library and other publications.

RESULTS: The study sample comprised of 115 publications. A total of 91.3% of the studies comprised of retrospective studies and 8.7% were randomized controlled studies. Using a quality-scoring assessment tool, 33% of the papers were classified as of good quality, whereas 67% were classified as of low quality. Of the studies, 10.4% controlled for confounding by matching and 59.1% adopted parametric statistical tests without testing variables on normal distribution. Differences in outcomes were not always statistically tested. Conclusion: Readers should be cautious when interpreting the results of clinical pathway evaluation studies because of the confounding factors and sources of contamination affecting the evidence-based validity of the outcomes. 2007 The Authors

Flynn D, Knoedler MA, Hess EP, Murad MH, Erwin PJ, Montori VM, et al. Engaging patients in health care decisions in the emergency department through shared decision-making: a systematic review. [Review]. Acad Emerg Med 2012;19(8):959-67.

ABSTRACT:

BACKGROUND: Many decisions in the emergency department (ED) may benefit from patient involvement, even though this setting has been considered least conducive to shared decision-making (SDM)

OBJECTIVES: The objective was to conduct a systematic review to evaluate the approaches, methods, and tools used to engage patients or their surrogates in SDM in the ED

METHODS: Five electronic databases were searched in conjunction with contacting content experts, reviewing selected bibliographies, and conducting citation searches using the Web of Knowledge database. Two reviewers independently selected eligible studies that addressed patient involvement and engagement in decision-making in the ED setting via the use of decision support interventions (DSIs), defined as decision aids or decision support designed to communicate probabilistic information on the risks and benefits of treatment options to patients as part of an SDM process. Eligible studies described and assessed at least one of the following outcomes: patient knowledge, experiences and perspectives on participating in treatment or management decisions, clinician or patient satisfaction, preference for involvement and/or degree of engagement in decision-making and treatment preferences, and clinical outcomes (e.g., rates of hospital admission/readmission, rates of medical or surgical interventions). Two reviewers extracted data on study characteristics, methodologic quality, and outcomes. The authors also assessed the extent to which SDM interventions adhered to good practice for the presentation of information on outcome probabilities (eight probability items from the International Patient Decision Aid Standards Instrument [IPDASi]) and had comprehensive development processes

RESULTS: Five studies met inclusion criteria and were synthesized using a narrative approach. Each study was of satisfactory methodologic quality and used a DSI to engage patients or their surrogates in decision-making in the ED across four domains: 1) management options for children with small lacerations; 2) options for rehydrating children presenting with vomiting or diarrhea or both; 3) risk of bacteremia (and associated complications), tests, and treatment options for febrile children; and 4) short-term risk of acute coronary syndrome (ACS) in adults with low-risk nontraumatic chest pain. Three studies had poor IPDASi probabilities and development process scores and lacked development informed by theory or involvement of clinicians and patients in development and usability testing. Overall, DSIs were associated with improvements in patients' knowledge and satisfaction with the explanation of their care, preferences for involvement, and engagement in decision-making and demonstrated utility for eliciting patients' preferences and values about management and treatment options. Two computerized DSIs (designed to predict risk of ACS in adults presenting to the ED with chest pain) were shown to reduce health care use without evidence of harm. None of the studies reported lack of feasibility of SDM in the ED

CONCLUSIONS: Early investigation of SDM in the ED suggests that patients may benefit from involvement in decision-making and offers no empirical evidence to suggest that SDM is not feasible. Future work is needed to develop and test additional SDM interventions in the ED and to identify contextual barriers and facilitators to implementation in practice. 2012 by the Society for Academic Emergency Medicine

Gooch S. Review: nursing care driven by guidelines improves some process measures and patient outcomes [commentary on Thomas L, Cullum N, McColl E, et al. Clinical guidelines in nursing, midwifery and other professions allied to medicine. (Cochrane Review, latest version 24 Nov 1998) In: Cochrane Library. Oxford: Update Software and Thomas LH, McColl E, Cullum N, et al. Effect of clinical guidelines in nursing,

midwifery, and the therapies: a systematic review of evaluations. QUAL HEALTH CARE 1998 Dec;7(4):183-91]. Evidence Based Nursing 1999;2(3):87.

ABSTRACT:

QUESTION: For the disciplines of nursing, midwifery, health visiting, chiropody, speech and language therapy, physiotherapy, occupational therapy, dietetics, clinical psychology, pharmacy, and radiography, do dissemination and implementation of clinical practice guidelines improve professional practice, cost effectiveness, and patient outcomes?

DATA SOURCES: Studies were identified using 9 bibliographic databases and the trials register of the Cochrane Effective Practice and Organisation of Care Group. Experts and libraries of professional organisations were contacted, internet sites were searched, bibliographies were scanned, and 1 journal was handsearched.

STUDY SELECTION: Randomised controlled trials (RCTs), controlled before and after studies, or interrupted time series designs were selected if the professions of nursing or allied health were studied and if the dissemination or implementation of a clinical practice guideline was evaluated for changes in clinician behaviour or patient outcomes. Data extraction: Data were extracted on study design, participants, clinical area, study comparisons, and process and patient outcomes.

MAIN RESULTS: 18 studies (13 RCTs) met the inclusion criteria. Guidelines were targeted at nurses only (12 studies), nurses and physicians (5 studies), dietitians only (1 study), and a multidisciplinary lipid team that included nurses (1 study). 3 RCTs evaluated guideline dissemination or implementation: 1 of a nurse protocol found positive changes in process (offer of vaccines) and 1 found improved catheter practices; and 1 that measured patient outcomes found more patients in the intervention group declining influenza vaccinations ($p < 0.001$) and pneumococcal vaccinations ($p < 0.001$). 4 RCTs compared a guideline with no guideline: 1 of 2 found some improvements in care process (labour and delivery). All 4 showed improvements in patient outcomes (quality of life and exercise in patients with diabetes, multiple labour and delivery outcomes, decreased hospital readmission after surgery, and improved lipid values). There were 6 RCTs of skills substitution (nurses taking on tasks conventionally done by a physician). In all 6 studies, nurses showed at least equivalent care processes. 5 studies assessed patient outcomes: 1 study showed no difference in management of dysuria, frequency, and vaginal discharge, and 1 showed no difference in hypertension outcomes; 1 study showed greater satisfaction with nursing care, no difference in symptom relief or complications, but more patients returned with back problems within 3 months; 1 study showed improvement in satisfaction in 6 of 9 elements of headache relief; and 1 study showed improved activated partial thromboplastin time. Methodological quality and data were often limited. Only 1 RCT (of dietitians) included a formal economic evaluation and found a cost efficiency in favour of the control group for 1 outcome (glycated haemoglobin), but no difference in blood glucose concentrations.

CONCLUSION: Nursing care driven by guidelines may offer improvement in some process measures and patient outcomes. [Original article accession number: 1999038473 (research, systematic review, tables/charts)]

Rotter T, Kinsman L, James E, Machotta A, Gothe H, Willis J, et al. Clinical pathways: effects on professional practice, patient outcomes, length of stay and hospital costs. [Review] [302 refs]. Cochrane Database of Systematic Reviews (3):CD006632, 2010 2010;(3):CD006632.

ABSTRACT:

BACKGROUND: Clinical pathways are structured multidisciplinary care plans used by health services to detail essential steps in the care of patients with a specific clinical problem. They aim to link evidence to practice and optimise clinical outcomes whilst maximising clinical efficiency

OBJECTIVES: To assess the effect of clinical pathways on professional practice, patient outcomes, length of stay and hospital costs

SEARCH STRATEGY: We searched the Database of abstracts of Reviews of Effectiveness (DARE), the Effective Practice and Organisation of Care (EPOC) Register, the Cochrane Central Register of Controlled Trials (CENTRAL) and bibliographic databases including MEDLINE, EMBASE, CINAHL, NHS EED and Global Health. We also searched the reference lists of relevant articles and contacted relevant professional organizations

SELECTION CRITERIA: Randomised controlled trials, controlled clinical trials, controlled before and after studies and interrupted time series studies comparing stand alone clinical pathways with usual care as well as clinical pathways as part of a multifaceted intervention with usual care

DATA COLLECTION AND ANALYSIS: Two review authors independently screened all titles to assess eligibility and methodological quality. Studies were grouped into those comparing clinical pathways with usual care and those comparing clinical pathways as part of a multifaceted intervention with usual care

MAIN RESULTS: Twenty-seven studies involving 11,398 participants met the eligibility and study quality criteria for inclusion. Twenty studies compared stand alone clinical pathways with usual care. These studies indicated a reduction in in-hospital complications (odds ratio (OR) 0.58; 95% confidence interval (CI) 0.36 to 0.94) and improved documentation (OR 13.65: 95%CI 5.38 to 34.64). There was no evidence of differences in readmission to hospital or in-hospital mortality. Length of stay was the most commonly employed outcome measure with most studies reporting significant reductions. A decrease in hospital costs/ charges was also observed, ranging from WMD +261

US$ favouring usual care to WMD -4919 US$ favouring clinical pathways (in US$ dollar standardized to the year 2000). Considerable heterogeneity prevented meta-analysis of length of stay and hospital cost

RESULTS. An assessment of whether lower hospital costs contributed to cost shifting to another health sector was not undertaken.Seven studies compared clinical pathways as part of a multifaceted intervention with usual care. No evidence of differences were found between intervention and control groups

AUTHORS' CONCLUSIONS: Clinical pathways are associated with reduced in-hospital complications and improved documentation without negatively impacting on length of stay and hospital costs. [References: 302]

Seehusen DA. Clinical pathways: Effects on practice, outcomes, and costs. Am Fam Physician 2010;82(11): December.

ABSTRACT:

BACKGROUND: Clinical pathways are structured multidisciplinary care plans used by health services to detail essential steps in the care of patients with a specific clinical problem. They aim to link evidence to practice and optimize clinical outcomes while maximizing clinical efficiency.

OBJECTIVES: To assess the effect of clinical pathways on professional practice, patient outcomes, length of stay, and hospital costs.

SEARCH STRATEGY: The authors searched the Database of abstracts of Reviews of Effectiveness (DARE), the Effective Practice and Organization of Care (EPOC) Register, the Cochrane Central Register of Controlled Trials (CENTRAL), and bibliographic databases including Medline, EMBASE, CINAHL, NHS EED, and Global Health. They also searched the reference lists of relevant articles and contacted relevant professional organizations.

SELECTION CRITERIA: Randomized controlled trials, controlled clinical trials, controlled before-and-after studies, and interrupted time series studies comparing stand-alone clinical pathways with usual care as well as clinical pathways as part of a multifaceted intervention with usual care.

DATA COLLECTION AND ANALYSIS: Two review authors independently screened all trials to assess eligibility and methodologic quality. Studies were grouped into those comparing clinical pathways with usual care and those comparing clinical pathways as part of a multifaceted intervention with usual care.

MAIN RESULTS: Twenty-seven studies involving 11,398 participants met the eligibility and study quality criteria for inclusion. Twenty studies compared stand-alone clinical pathways with usual care. These studies indicated a reduction in in-hospital complications (odds ratio = 0.58; 95% confidence interval, 0.36 to 0.94) and improved documentation (odds ratio = 11.95; 95% confidence interval, 4.72 to 30.30). There was no evidence of differences in readmission to hospital or in-hospital mortality. Length of stay was the most commonly reported outcome measure, with most studies reporting significant reductions. Decreases in hospital costs and charges (measured in U.S. dollars standardized to the year 2000) were also observed, ranging from weighted mean differences of +$261 favoring usual care to -$4,919 favoring clinical pathways. Considerable heterogeneity prevented meta-analysis of length-of-stay and hospital cost

RESULTS. An assessment of whether lower hospital costs contributed cost shifting to another health sector was not undertaken. Seven studies compared clinical pathways as part of a multifaceted intervention with usual care. No evidence of differences was found between intervention and control groups.

AUTHORS' CONCLUSIONS: Clinical pathways are associated with reduced in-hospital complications and improved documentation without negatively affecting length of stay and hospital costs. Copyright 2010 American Academy of Family Physicians

Intervensjoner på sykehus om organisering av personell og opphold (9)

Banks DE, Shi R, Timm DF, Christopher KA, Duggar DC, Comegys M, et al. Decreased hospital length of stay associated with presentation of cases at morning report with librarian support. Journal of the Medical Library Association 2007;95(4):October.

ABSTRACT:

OBJECTIVE: The research sought to determine whether case discussion at residents' morning report (MR), accompanied by a computerized literature search and librarian support, affects hospital charges, length of stay (LOS), and thirty-day readmission rate.

METHODS: This case-control study, conducted from August 2004 to March 2005, compared outcomes for 105 cases presented at MR within 24 hours of admission to 19,210 potential matches, including cases presented at MR

and cases not presented at MR. With matching criteria of patient age (+/- 5 years), identical primary diagnosis, and secondary diagnoses (within 3 additional diagnoses) using International Classification of Diseases (ICD-9) codes, 55 cases were matched to 136 controls. Statistical analyses included Student's t tests, chi-squared tests, and non-parametric methods.

RESULTS: LOS differed significantly between matched MR cases and controls (3 days vs. 5 days, P < 0.024). Median total hospital charges were $7,045 for the MR group and $10,663 for the control group. There was no difference in 30-day readmission rate between the 2 groups.

DISCUSSION/CONCLUSION: Presentation of a case at MR, followed by the timely dissemination of the results of an online literature review, resulted in a shortened LOS and lower hospital charges compared with controls. MR, in association with a computerized literature search guided by the librarians, was an effective means for introducing evidence-based medicine into patient care practices

Butler M, Collins R, Drennan J, Halligan P, O'Mathúna DP, Schultz TJ, et al. Hospital nurse staffing models and patient and staff-related outcomes. Cochrane Database of Systematic Reviews 2011;(7):CD007019.

ABSTRACT:

BACKGROUND: Nurse staffing interventions have been introduced across countries in recent years in response to changing patient requirements, developments in patient care, and shortages of qualified nursing staff. These include changes in skill mix, grade mix or qualification mix, staffing levels, nursing shifts or nurses' work patterns. Nurse staffing has been closely linked to patient outcomes, organisational outcomes such as costs, and staff-related outcomes.Objectives: Our aim was to explore the effect of hospital nurse staffing models on patient and staff-related outcomes.

SEARCH METHODS: We searched the following databases from inception through to May 2009: Cochrane/EPOC resources (DARE, CENTRAL, the EPOC Specialised Register), PubMed, EMBASE, CINAHL Plus, CAB Health, Virginia Henderson International Nursing Library, the Joanna Briggs Institute database, the British Library, international theses databases, as well as generic search engines.Selection criteria: Randomised control trials, controlled clinical trials, controlled before and after studies and interrupted time series analyses of interventions relating to hospital nurse staffing models. Participants were patients and nursing staff working in hospital settings. We included any objective measure of patient or staff-related outcome.Data collection and analysis: Seven reviewers working in pairs independently extracted data from each potentially relevant study and assessed risk of bias.

MAIN RESULTS: We identified 6,202 studies that were potentially relevant to our review. Following detailed examination of each study, we included 15 studies in the review. Despite the number of studies conducted on this topic, the quality of evidence overall was very limited. We found no evidence that the addition of specialist nurses to nursing staff reduces patient death rates, attendance at the emergency department, or readmission rates, but it is likely to result in shorter patient hospital stays, and reductions in pressure ulcers. The evidence in relation to the impact of replacing Registered Nurses with unqualified nursing assistants on patient outcomes is very limited. However, it is suggested that specialist support staff, such as dietary assistants, may have an important impact on patient outcomes. Self-scheduling and primary nursing may reduce staff turnover. The introduction of team midwifery (versus standard care) may reduce medical procedures in labour and result in a shorter length of stay without compromising maternal or perinatal safety. We found no eligible studies of educational interventions, grade mix interventions, or staffing levels and therefore we are unable to draw conclusions in relation to these interventions.

AUTHORS' CONCLUSIONS: The findings suggest interventions relating to hospital nurse staffing models may improve some patient outcomes, particularly the addition of specialist nursing and specialist support roles to the nursing workforce. Interventions relating to hospital nurse staffing models may also improve staff-related outcomes, particularly the introduction of primary nursing and self-scheduling. However, these findings should be treated with extreme caution due to the limited evidence available from the research conducted to date

Carpenter J. Lost in transition: Palliative care after hospitalization (S713). Journal of Pain and Symptom Management Conference: Annual Assembly of the American Academy of Hospice and Palliative Medicine and the Hospice and Palliative Nurses Association, AAHPN/NPNA 2013 New Orleans, LA United States Conference Start: 20130313 Con 2013;45(2):February.

ABSTRACT:

OBJECTIVES 1. Describe how palliative care teams are reporting transitions for adult patients. 2. Articulate discharge disposition location of patients seen by inpatient palliative care teams.

BACKGROUND. Palliative care clinical practice guidelines and accrediting agencies emphasize the importance of care coordination and managing transitions while implementing effective palliative care. However, it is unclear how hospitalbased teams are easing transitions for patients who receive inpatient palliative care services without hospice upon hospital discharge. Aim. The purpose of this synthesis is to review hospital based palliative care team discharge planning and specifically the process of palliative care coordination from hospitals to nursing homes. A systematic review of US literature published between 1990 and 2012 was performed using PubMed, CINAHL, and AgeLine databases. Search terms included palliative care, hospital, and discharge. Articles reflective of discharge planning or disposition and post-acute palliative care transition as a primary outcome were included. Pediatrics was

excluded.

METHODS/Session Descriptions. Five peer-reviewed, original research articles were identified from 65

RESULTS. Amanual search of the reference lists did not result in additional articles. Research methods varied with one qualitative and four quantitative studies. Findings include that the most palliative care patients seen in the hospital are discharged alive. Selected articles measured survival, readmission rate, location of death, number of participants referred to hospice after discharge, and costs. Nursing home placement ranged from 3% to 20%. Only one study described healthcare experiences of patients and families after hospital discharge. None of the studies examined follow through of palliative care recommendations after discharge.

CONCLUSION. This literature review documents a lack of research describing the continuity (or lack thereof) of care following inpatient palliative care services. Future studies are needed to describe and enhance patient and family experiences and outcomes of hospital-based palliative care services post-discharge, with a focus on care coordination and continuity

Griffiths P, Edwards M, Forbes A, Harris R. Post-acute intermediate care in nursing-led units: a systematic review of effectiveness. Int J Nurs Stud 2005;42(1):107-16.

ABSTRACT:

OBJECTIVE: In order to determine whether post-acute intermediate care in nursing-led inpatient units (NLUs) is effective in preparing patients for discharge from hospital we conducted a systematic review of the evidence.

REVIEW METHODS: The Cochrane Library, Effective Practice and Organisation of Care specialist register, Medline, Cinahl, Embase, British Nursing Index and the HMIC databases were searched for all available dates up to mid-2003. The science and social science citation indices were searched for papers that cited key works. Authors of papers were asked to identify additional research. Randomised controlled trials, controlled clinical trials, controlled before and after studies and interrupted time-series designs that compared the NLU to usual post-acute inpatient care for adults were included in the review. Studies were assessed for quality. Statistical meta-analysis on the results of controlled trials was performed. Sensitivity analyses were conducted to determine the impact of methodological quality on conclusions. Outcomes: Outcomes considered were mortality, institutionalisation after discharge, functional status early readmission, length of inpatient stay and cost.

RESULTS: Nine random or quasi-random controlled trials involving 1669 patients were reviewed. Quality was variable. The mean age of patients in all studies was over 70 years. There was no statistically significant difference in inpatient mortality between NLU and usual inpatient care (OR 1.10, 95% CI 0.56-2.16). The NLU was associated with reduced odds of discharge to institutional care (OR 0.44 95% CI 0.22-0.89), better functional status at discharge (SMD 0.37, 95% CI 0.20-0.54) and reduced odds of early readmission (OR 0.52 95% CI 0.34-0.80). Length of stay until discharge home was increased by 5.13 days (WMD) (95% CI-0.5-10.76 days). At longest follow up (3-6 months) there was no statistically significant difference in the proportion of patients in institutional care (OR 0.97, 95% CI 0.60-1.58). The results were not generally sensitive to study quality.

CONCLUSIONS: The NLU successfully functions as a form of intermediate care, so far there is no evidence of adverse outcome from the lower level of routine medical care. However, more research is required to confirm safety. Patients discharged from NLUs have higher levels of function although it is unclear if the benefit is simply a product of an increased stay. There is no evidence of benefit over the longer term

Griffiths P, Wilson-Barnett J. The effectiveness of 'nursing beds': a review of the literature. J Adv Nurs 1998;27(6):Jun.

ABSTRACT:

A literature search was conducted to identify 'nursing led in-patient units' where the nurse is the designated leader of the clinical team. The review concentrates on studies which have attempted to measure the impact of nursing-led in-patient units and reviews both the methodology and outcomes. Three major bodies of work were identified. Lydia Hall's evaluation of the Loeb Center for Nursing and Rehabilitation (USA) is reviewed in some detail. This work was the model for 'nursing beds' at the two Oxfordshire Nursing Development Units (UK) in the 1980s. Studies evaluating these centres are reviewed and reports of similar UK units discussed. A third body of work evaluates a nurse-managed critical care environment. Common features include a case mix based on nursing need with nurses having authority to admit and discharge patients. While results are generally favourable, with improved patient independence, fewer readmissions, lower mortality and cost savings reported in some or all of the studies, all studies reviewed demonstrate the difficulties of applying an experimental model to real life clinical services. methodological limitations render firm conclusions difficult. Techniques adopted from studies in field settings, the so-called 'quasi-experiment', are advocated as a remedy, as is further study of the process of care in investigating this model of care delivery

Griffiths PD, Edwards MH, Forbes A, Harris RL, Ritchie G. Effectiveness of intermediate care in nursing-led in-patient units. [Review] [45 refs][Update of Cochrane Database Syst Rev. 2004;(4):CD002214; PMID:

15495030]. Cochrane Database of Systematic Reviews (2):CD002214, 2007 2007;(2):CD002214.

ABSTRACT:

BACKGROUND: The Nursing led inpatient Unit (NLU) is one of a range of services that have been considered in order to manage more successfully the transition between hospital and home for patients with extended recovery times. This is an update of an earlier review published in The Cochrane Library in Issue 3, 2004

OBJECTIVES: To determine whether nursing-led inpatient units are effective in preparing patients for discharge from hospital compared to usual inpatient care

SEARCH STRATEGY: We searched The Cochrane Library, the Specialized Register of the Cochrane Effective Practice and Organisation of Care (EPOC) group, MEDLINE, CINAHL, EMBASE, BNI and HMIC databases. Citation searches were undertaken on the science and social science citation indices. Authors were contacted to identify additional data. The initial search was done in January 2001. The register search was updated in October 2006, the other database searches were updated in November 2006 and the citation search was run in January 2007

SELECTION CRITERIA: Controlled trials and interrupted time series designs that compared the NLU to usual inpatient care managed by doctors. Patients over 18 years of age following an acute hospital admission for a physical health condition

DATA COLLECTION AND ANALYSIS: Two reviewers independently extracted data and assessed study quality

MAIN RESULTS: Ten random or quasi-random controlled trials reported on a total of 1896 patients. There was no statistically significant effect on inpatient mortality (OR 1.10, 95% CI 0.56 to 2.16) or mortality to longest follow up (OR 0.92, 95% CI 0.65 to 1.29) but higher quality studies showed a larger non-significant increase in inpatient mortality (OR 1.52, 95% CI 0.86 to 2.68). Discharge to institutional care was reduced for the NLU (OR 0.44 95% CI 0.22 to 0.89) and functional status at discharge increased (SMD 0.37, 95% CI 0.20 to 0.54) but there was a near significant increase in inpatient stay (WMD 5.13 days 95% CI -0.5 days to 10.76 days). Early readmissions were reduced (OR 0.52 95% CI 0.34 to 0.80). One study compared a NLU for the chronically critically ill with ICU care. Mortality (OR 0.62 95% CI 0.35 to 1.10) and length of inpatient stay differ did not differ (WMD 2 days, 95% CI 10.96 to -6.96 days). Early readmissions were reduced (OR 0.33 95% CI 0.12 to 0.94). Costs of care on the NLU were higher for UK studies but lower for US based studies

AUTHORS' CONCLUSIONS: There is some evidence that patients discharged from a NLU are better prepared for discharge but it is unclear if this is simply a product of an increased length of inpatient stay. No statistically significant adverse effects were noted but the possibility of increased early mortality cannot be discounted. More research is needed. [References: 45]

Latour CHM, van der Windt DAWM, de JP, Riphagen II, de VR, Huyse FJ, et al. Nurse-led case management for ambulatory complex patients in general health care: A systematic review. J Psychosom Res 2007;62(3):March.

ABSTRACT: Objective: The aim of this study was to summarize the available literature on the effectiveness of ambulatory nurse-led case management for complex patients in general health care.

METHOD: We searched MEDLINE, EMBASE, the Cochrane Controlled Trials Register, and Cinahl. We included randomized controlled trials, controlled clinical trials, controlled before/after study, and time series studies; identified references were screened by two reviewers. Two reviewers rated the quality of each article. Data extracted from the selected publications included design, characteristics of the participants, the intervention, type of outcome measures, and results.

RESULTS: We identified 10 relevant publications. Nine studies used readmission rate as primary outcome. Fewer studies investigated duration of hospital readmissions, emergency department (ED) visits, functional status, quality of life, or patient satisfaction. In general, results with regard to the effectiveness of case management were conflicting.

CONCLUSION: There is moderate evidence that case management has a positive effect on patient satisfaction and no effect on ED visits. It was not possible to draw firm conclusions on the other outcomes.

Mistiaen P, Francke AL, Poot E. Interventions aimed at reducing problems in adult patients discharged from hospital to home: a systematic meta-review. BMC Health Services Research 2007;7(pp 47):2007.

ABSTRACT:

BACKGROUND: Many patients encounter a variety of problems after discharge from hospital and many discharge (planning and support) interventions have been developed and studied. These primary studies have already been synthesized in several literature reviews with conflicting conclusions. We therefore set out a systematic review of the reviews examining discharge interventions. The objective was to synthesize the evidence presented in literature on the effectiveness of interventions aimed to reduce post-discharge problems in adults discharged home from an

acute general care hospital.

METHODS: A comprehensive search of seventeen literature databases and twenty-five websites was performed for the period 1994-2004 to find relevant reviews. A three-stage inclusion process consisting of initial sifting, checking full-text papers on inclusion criteria, and methodological assessment, was performed independently by two reviewers. Data on effects were synthesized by use of narrative and tabular methods.

RESULTS: Fifteen systematic reviews met our inclusion criteria. All reviews had to deal with considerable heterogeneity in interventions, populations and outcomes, making synthesizing and pooling difficult.Although a statistical significant effect was occasionally found, most review authors reached no firm conclusions that the discharge interventions they studied were effective. We found limited evidence that some interventions may improve knowledge of patients, may help in keeping patients at home or may reduce readmissions to hospital. Interventions that combine discharge planning and discharge support tend to lead to the greatest effects. There is little evidence that discharge interventions have an impact on length of stay, discharge destination or dependency at discharge. We found no evidence that discharge interventions have a positive impact on the physical status of patients after discharge, on health care use after discharge, or on costs.

CONCLUSION: Based on fifteen high quality systematic reviews, there is some evidence that some interventions may have a positive impact, particularly those with educational components and those that combine pre-discharge and post-discharge interventions. However, on the whole there is only limited summarized evidence that discharge planning and discharge support interventions have a positive impact on patient status at hospital discharge, on patient functioning after discharge, on health care use after discharge, or on costs

Quinn K, Mourad M, Rennke S. Increasing readmissions awareness: What will you do differently? Journal of Hospital Medicine Conference: 2012 Annual Meeting of the Society of Hospital Medicine, SHM 2012 San Diego, CA United States Conference Start: 20120401 Conference End: 20120404 Conference Publication: (var pagings) 2012;7(pp S103):March

ABSTRACT:

BACKGROUND: Patients with a prior hospitalization in the last 6 months are at increased risk of readmission. However, given our current system of care, providers may be unaware that a patient was previously admitted to the hospital. Increasing awareness of readmissions can allow providers to focus on known strategies for reducing preventable readmissions.

PURPOSE: (1) To understand attending, resident and nurse awareness of readmissions (2) To test simple strategies to increase awareness of readmitted patients, and (3) To determine the effects of increasing awareness on safe discharge processes and outcomes.

DESCRIPTION: Baseline audits on readmission awareness were performed on the Medicine Service at a 600-bed academic teaching hospital participating in Project BOOST. All residents received an introductory lecture on the importance of discharge safety in reducing readmissions. Over a two 2-month period, 23 attendings, 20 residents, and 47 nurses were asked to identify patients under their care who had an admission to our hospital in the last 30 days. Attendings correctly identified 21/40 (53%) readmitted patients, residents 15/35 (43%), and nurses 10/ 22 (47%) of readmitted patients. To increase awareness of readmitted patients and to encourage discussion of risk factors at daily multidisciplinary rounds (MDR), we began by identifying patients readmitted to the hospital within 30 days through an administrative database. A large orange "R" sticker was placed on their paper chart on hospital day 1. During MDR, nurses were responsible for alerting attendees of readmitted patients. Starting in December 2011, serial audits of residents, attendings and nurses will identify any changes in awareness, and audits of PCP communication, timely follow up, change in discharge disposition and readmission rates will look for process and outcome changes. In March 2012, a second intervention will be implemented. The previous discharging team and the current admitting team will receive an email notifying them of a patient's readmission status. This email will encourage them to discuss the reasons for readmission and strategies to prevent future readmission with the previous team and care coordination staff, as well as reminding them of the recorded process measures. AttendingsAttending on service will receive an educational module that they can complete with their team around one of their team's readmissions. This educational module will review the literature and best practices around preventing readmissions. Subsequent audits of readmission awareness, process and outcome measures will be performed through June 2012.

CONCLUSIONS: When asked to identify readmissions, care providers were unaware of half of their readmitted patients. Our intervention will determine which strategies are effective in increasing provider awareness of readmissions, and if that awareness translates into improved discharge processes and outcomes

Andre diagnoser (15)

Barn (7)

Cooper C, Wheeler DM, Woolfenden SR, Boss T, Piper S. Specialist home-based nursing services for children with acute and chronic illnesses. Cochrane Database of Systematic Reviews (4) , 2006 Article Number: CD004383 Date of Publication: 2006 2006;(4):CD004383.

ABSTRACT:

BACKGROUND: Specialist paediatric home-based nursing services have been proposed as a cost-effective means of reducing trauma resulting from hospital admissions, while enhancing primary care and reducing length of hospital stay.

OBJECTIVES: To evaluate specialist home-based nursing services for children with acute and chronic illnesses.

SEARCH STRATEGY: Electronic searches were made of CENTRAL (Cochrane Central Register of Controlled Trials) 2005 (Issue 2); MEDLINE (1966 to August 2005); EMBASE (1980 to August 2005); PsycINFO (1887 to August 2005); CINAHL (1982 to August 2005); Sociological abstracts (1963 to August 2005). Optimally sensitive search strategies for randomised controlled trials (RCTs) were combined with medical subject headings and text words specific for ambulatory paediatrics, nursing outreach and 'hospital in the home', and no language restrictions were applied.

SELECTION CRITIERIA: RCTs of children aged 0-18 with acute or chronic illnesses allocated to specialist home-based nursing services compared with conventional medical care. Outcomes included utilisation of health care, physical and mental health, satisfaction, adverse health outcomes and costs.

DATA COLLECTION AND ANALYSIS: Meta-analysis was not appropriate because of the clinical diversity and lack of common outcomes measures

MAIN RESULTS: 1655 titles yielded 5 RCTs with a total of 771 participants. Participants, interventions and outcomes were diverse. No significant differences were reported in health outcomes; two studies reported improvements in child and parental anxiety; one study reported no significant difference in readmissions; two studies reported significantly fewer bed days; increased satisfaction was reported ; home care was more costly for service providers, but less expensive for parents.

AUTHORS' CONCLUSIONS: While current research does not provide definitive support for specialist home-based nursing services in reducing access to hospital services or length of stay, preliminary results show no adverse impact on physical health outcomes and a number of papers reported improved satisfaction with home-based care. Further trials are required, measuring health, satisfaction, service utilisation and long-term costs. Copyright 2006 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd

Grullon KE, Grimes DA. The safety of early postpartum discharge: a review and critique. Obstetrics & Gynecology 1997;90(5):860-5.

ABSTRACT:

OBJECTIVE: To determine the effect of early postpartum discharge (less than 48 hours after vaginal birth or 96 hours after cesarean delivery) on maternal and neonatal complications, maternal concerns, patient satisfaction, and cost saving

DATA SOURCES: We performed a MEDLINE search of English-language journals for pertinent articles published from 1966 through January 1997. We also reviewed reference lists in all the articles retrieved in the search as well as those of major obstetric texts

METHODS OF STUDY SELECTION: We included all studies describing early postpartum discharge

TABULATION, INTEGRATION, AND RESULTS: Studies included five randomized controlled trials, ten cohort studies, one case-control study, and 12 case-series reports. We classified the data using the rating system of the U.S. Preventive Services Task Force. We calculated relative risks and 95% confidence intervals for maternal and neonatal readmission and outpatient treatment after early postpartum discharge. Most studies did not show an increase in maternal or neonatal morbidity after early discharge. The five randomized controlled studies did not meet criteria for properly designed trials. Most evidence consists of cohort studies and case-series (class II-2 and III evidence) of highly selected patients with extensive supplemental antepartum and postpartum care and education

CONCLUSION: The current data do not support or condemn widespread use of early postpartum discharge in the general population (class C recommendation). Early postpartum discharge appears safe for carefully selected, consenting patients. Whether these data can be extrapolated to the general population of pregnant women remains un-

known

Jonguitud-Aguilar A, Tomasso G, Cafferatta ML. [Early post-partum discharge : systematic review of the literature]. [Review] [15 refs] [Spanish]. Ginecol Obstet Mex 2003;71:143-51.

ABSTRACT:

BACKGROUND: Hospital stays after vaginal delivery and cesarean birth have shortened over the past 30 years, that practice have contributed to the controversy about the safety of this policy for mother and infants

OBJECTIVE: To carry out a systematic review of the literature to determine the actual evidence of the effect of early post-partum and post-cesarean discharge on maternal and neonatal readmissions, breast feeding, maternal satisfaction with medical care and post-partum depression

METHODOLOGY: We included all randomized controlled trials that evaluate different institutional policies evaluating early vs. prolonged length of post-partum hospitalization in low risk patients with vaginal or cesarean delivery, with full-term newborns, weighting more or equal 2,500 g. The methodology of the studies was evaluated with the Cochrane Handbook criteria

RESULTS: We included five randomized clinical trials, but they have methodological flaws. These include selection bias, limited power and exclusions of patients after randomization. We initially planned to perform a formal meta-analysis of this randomized controlled trials, but the methodological limitations prevent aggregation and quantification in a meta-analysis

CONCLUSIONS: The existing evidence in randomized controlled trials is insufficient to judge the safety of early post-partum discharge. Published reports concluded showing that this practice is safety, had a limited significance. [References: 15]

Lain SJ, Algert CS, Nassar N, Bowen JR, Roberts CL. Incidence of severe adverse neonatal outcomes: use of a composite indicator in a population cohort. Maternal & Child Health Journal 2012;16(3):600-8.

ABSTRACT:

The aim was to develop a composite outcome indicator to identify infants with severe adverse outcomes in routinely collected population health datasets, and assess the indicator's association with readmission and infant mortality rates. A comprehensive list of diagnoses and procedures indicative of serious neonatal morbidity was compiled based on literature review, validation studies and expert consultation. Relevant diagnoses and procedures indicative of severe morbidity that are reliably reported were analysed and reviewed, and the neonatal adverse outcome indicator (NAOI) was refined. Data were obtained from linked birth and hospital data for 516,843 liveborn infants >=24weeks gestation, in New South Wales, Australia from 2001 to 2006. Face validity of the indicator was examined by calculating the relative risks (and 95% CI) of hospital readmission or death in the first year of life of those infants identified by the NAOI. Overall 4.6% of all infants had one or more conditions included in the NAOI; 35.4% of preterm infants and 2.4% of term infants. Infants identified by the composite indicator were 10times more likely to die in the first year of life and twice as likely to be readmitted to hospital in the first year of life compared to infants not identified by the NAOI. The NAOI can reliably identify infants with a severe adverse neonatal outcome and can be used to monitor trends, assess obstetric and neonatal interventions and the quality of perinatal care in a uniform and cost-effective way

Margolis LH. A critical review of studies of newborn discharge timing. Clin Pediatr (Phila) 1995;34(12):626-34

ABSTRACT:

The duration of hospitalization for newborns has declined dramatically, driven by efforts to control health-care costs as well as by efforts to demedicalize childbirth. In order to determine the clinical basis for this practice, the quality of the published literature on discharge timing was analyzed. Thirteen experimental or quasi-experimental studies were retrieved through a computer search. Seven characteristics that influenced the quality of these studies were reviewed: research design; measures of effect; sample descriptions; statistical methods; reliability measures; sample size; and the definition of early discharge, including the use of any related interventions. Although all 13 studies suggest that there are no differences between infants discharged early and their compeers, these studies have three limitations. First, with one exception, these reports are from hospitals where well-defined assessment and follow-up protocols have been established, potentially limiting their wide applicability. Second, these studies lack statistical power to assess the likelihood of rare events such as readmission. Third, few studies report outcomes other than readmission and medical conditions diagnosed within 1 to 6 weeks. Early discharge as the standard of care for well newborns has not been well established by empirical studies. Pediatricians and local public health officials have a responsibility to assure that the health objectives of hospitalization are met whether this occurs in the hospital or through other mechanisms, such as routine home visiting

Mussman GM, Conway PH. Pediatric hospitalist systems versus traditional models of care: Effect on quality

and cost outcomes. Journal of Hospital Medicine 2012;7(4):April.

ABSTRACT:

BACKGROUND: Pediatric hospitalist systems are increasing in popularity, but data regarding the effects of hospitalist systems on the quality of care has been sparse, in part because rigorous metrics for analysis have not yet been established. We conducted a literature review of studies comparing the performance of pediatric hospitalists and traditional attendings. Objective: To determine the effect of pediatric hospitalists on quality and outcome metrics such as length of stay, cost, patient satisfaction, mortality, readmission rates, and use of evidence-based medicine during care.

RESULTS: A Medline literature search identified 11 studies that met criteria for inclusion. Five previously reviewed studies reported lengths of stay between 6% and 14% shorter for hospitalists. Five of the new studies evaluated lengths of stay, with 1 showing significantly lower length of stay and cost for a faculty model, 1 showing lower length of stay for hospitalists for all conditions, 1 for certain conditions only, and 2 showing no statistical difference. Six studies reported on readmission rate, with 4 showing no difference, 1 showing decreased readmissions for hospitalists, and 1 showing decreased readmissions for a traditional faculty service. Hospitalists self-report higher use of evidence-based guidelines. Few differences in patient satisfaction were reported. Mortality on the pediatrics wards is rare, and no studies were adequately powered to evaluate mortality rate.

CONCLUSION: Hospitalists can improve the quality and efficiency of inpatient care in the pediatric population, but the effect is not universal, and mechanisms underlying demonstrated improvements are poorly understood. We propose 4 components to improve quality and value in hospital medicine systems: investment in comparative effectiveness research involving delivery system interventions, development and implementation of pediatric quality measures, better understanding of improvement mechanisms for hospital medicine systems, and increased focus on quality and value delivered by hospital medicine groups and individuals. 2011 Society of Hospital Medicine

Parab CS, Cooper C, Woolfenden S, Piper SM. Specialist home-based nursing services for children with acute and chronic illnesses. Cochrane Database of Systematic Reviews 2013;(6)

ABSTRACT:

BACKGROUND: Specialist paediatric home-based nursing services have been proposed as a cost-effective means of reducing distress resulting from hospital admissions, while enhancing primary care and reducing length of hospital stay. This review is an update of our original review, which was published in 2006. OBJECTIVES: To evaluate specialist home-based nursing services for children with acute and chronic illnesses.

SEARCH METHODS: We searched the following databases in February 2012: the Cochrane Central Register of Controlled Trials (CENTRAL) in The Cochrane Library 2012 Issue 2, Ovid MEDLINE, EMBASE, PsycINFO, CINAHL and Sociological abstracts. We also searched ClinicalTrials.gov and the WHO International Clinical Trials Registry Platform. No language restrictions were applied.

SELECTION CRITERIA: Randomised controlled trials (RCTs) of children from birth to age 18 years with acute or chronic illnesses allocated to specialist home-based nursing services compared with conventional health care. Outcomes included utilisation of health care, physical and mental health, satisfaction, adverse health outcomes and costs.

DATA COLLECTION AND ANALYSIS: Two review authors extracted data from the studies independently and resolved any discrepancies by recourse to a third author. Meta-analysis was not appropriate because of the clinical diversity of the studies and the lack of common outcome measures.

MAIN RESULTS: We screened 4226 titles to yield seven RCTs with a total of 840 participants. Participants, interventions and outcomes were diverse. No significant differences were reported in health outcomes; two studies reported a reduction in the hospital stay with no difference in the hospital readmission rates. Three studies reported a reduction in parental anxiety and improvement in child behaviours was reported in three studies. Overall increased parental satisfaction was reported in three studies. Also, better parental coping and family functioning was reported in one study. By contrast, one study each reported no impact on parental burden of care or on functional status of children. Home care was reported as more costly for service providers with substantial cost savings for the family in two studies, while one study revealed no significant cost benefits for the family.

AUTHORS' CONCLUSIONS: Current research does not provide supporting evidence for a reduction in access to hospital services or a reduction in hospital readmission rate for children with acute and chronic illnesses using specialist home-based nursing services; however, the only summary finding across a few studies was that there is a significant decrease in length of hospitalisation. The preliminary results show no adverse impact on physical health outcomes and a number of papers reported improved satisfaction with home-based care. Further trials are required, measuring health, satisfaction, service utilisation and long-term costs [CINAHL Note: The Cochrane Collaboration systematic reviews contain interactive software that allows various calculations in the MetaView.]

Vendittelli F, Boulvain M. [Early postpartum discharge in the postpartum]. [French]. J Gynecol Obstet Biol Reprod (Paris) 1997;26(7):679-86.

ABSTRACT:

OBJECTIVE: To assess a policy of early discharge from hospital after a vaginal birth

DATA SOURCES: Reports of studies on this topic were identified in Medline and Cochrane Collaboration database (from 1985 to the beginning of 1995, in english or latin publications). This search was supplemented by referenced studies in book chapters and in other published bibliographies. Key words were: early discharge or ambulatory care and mother or infant or post-partum or obstetrics

STUDY SELECTION: One hundred and ten articles have been retrieved. We have included in the meta-analyse the randomized clinical trials comparing a group of women discharged early (less than 48-72 hours after delivery) with a control group leaving hospital after an usual stay (more than 48-72 hours). Quality of the studies was analysed through the Chalmers et al. recommendations

DATA EXTRACTION: Data were retrieved independently by two authors, and results were compared. Selected outcomes were: hyperbilirubinemia, infant feeding problems and skin rashes; breast feeding; maternal satisfaction on the hospital stay; readmission and non-routine clinics for both the mother and her child

DATA SYNTHESIS: Data from five included studies were pooled by the Peto method. There are no significant modifications of the risks of re-admission to hospital. The frequency of non-routine clinics and the risk of skin rash are not different in the two groups. The risk of hyperbilirubinemia and infant food problems are not different. The frequency of breastfeeding one month after delivery was higher in the early discharge group (OR = 1.88; 95% CI: 1.09-3.23), but this difference decreased over time. Women satisfaction on hospital stay was lower in case of early discharge (OR = 0.56; 95% IC: 0.44-0.72)

CONCLUSION: The meta-analysis suggests an advantage of early discharge policy on breastfeeding at one month after the delivery, but mothers seem to prefer longer hospital stays. These results must be cautiously interpreted as included studies are of small sample size or rather old. This policy remains to be evaluated more thoroughly before recommendations could be made

Hoftebrudd (2)

Halbert J, Crotty M, Whitehead C, Cameron I, Kurrle S, Graham S, et al. Multi-disciplinary rehabilitation after hip fracture is associated with improved outcome: a systematic review. Journal of Rehabilitation Medicine (Stiftelsen Rehabiliteringsinformation) 2007;39(7):507-12.

ABSTRACT:

BACKGROUND: While hip fractures are an important cause of disability, dependency and death in older adults, the benefit of multi-disciplinary rehabilitation for people who have sustained hip fracture has not been demonstrated.

METHODS: Systematic review of randomized controlled trials which compare co-ordinated multi-disciplinary rehabilitation with usual orthopaedic care in older people who had sustained a hip fracture. Outcome measures included: mortality, return home, "poor outcome", total length of hospital stay, readmissions and level of function.

RESULTS: We identified 11 trials including 2177 patients. Patients who received multi-disciplinary rehabilitation were at a lower risk (Risk Ratio 0.84, 95% CI 0.73-0.96) of a "poor outcome" - that is dying or admission to a nursing home at discharge from the programme, and showed a trend towards higher levels of return home (Risk Ratio 1.07, 95% CI 1.00-1.15). Pooled data for mortality did not demonstrate any difference between multi-disciplinary rehabilitation and usual orthopaedic care.

CONCLUSION: This is the first review of randomized trials to demonstrate a benefit from multi-disciplinary rehabilitation; a 16% reduction in the pooled outcome combining death or admission to a nursing home. This result supports the routine provision of organized care for patients following hip fracture, as is current practice for patients after stroke

Handoll HH, Cameron ID, Mak JC, Finnegan TP. Multidisciplinary rehabilitation for older people with hip fractures. Cochrane database of systematic reviews (Online) (4) (pp CD007125), 2009 Date of Publication: 2009 2009;(Online):2009.

ABSTRACT:

BACKGROUND: Hip fracture is a major cause of morbidity and mortality in older people and its impact on society is substantial.

OBJECTIVES: To examine the effects of multidisciplinary rehabilitation, in either inpatient or ambulatory care settings, for older patients with hip fracture.

SEARCH STRATEGY: We searched the Cochrane Bone, Joint and Muscle Trauma Group Specialised Register (April 2009), The Cochrane Library (2009, Issue 2), MEDLINE and EMBASE (both to April 2009).

SELECTION CRITERIA: Randomised and quasi-randomised trials of post-surgical care using multidisciplinary rehabilitation of older patients (aged 65 years or over) with hip fracture. The primary outcome, 'poor outcome' was a composite of mortality and decline in residential status at long-term (generally one year) follow-up.

DATA COLLECTION AND ANALYSIS: Trial selection was by consensus. Two review authors independently assessed trial quality and extracted data. Data were pooled where appropriate.

MAIN RESULTS: The 13 included trials involved 2498 older, usually female, patients who had undergone hip fracture surgery. Though generally well conducted, some trials were at risk of bias such as from imbalances in key baseline characteristics.There was substantial clinical heterogeneity in the trial interventions and populations. Multidisciplinary rehabilitation was provided primarily in an inpatient setting in 11 trials. Pooled results showed no statistically significant difference between intervention and control groups for poor outcome (risk ratio 0.89; 95% confidence interval 0.78 to 1.01), mortality (risk ratio 0.90, 95% confidence interval 0.76 to 1.07) or hospital readmission. Individual trials found better results, often short-term only, in the intervention group for activities of daily living and mobility. There was considerable heterogeneity in length of stay and cost data. Three trials reporting carer burden showed no evidence of detrimental effect from the intervention. Overall, the evidence indicates that multidisciplinary rehabilitation is not harmful.The trial comparing primarily home-based multidisciplinary rehabilitation with usual inpatient care found marginally improved function and a clinically significantly lower burden for carers in the intervention group. Participants of this group had shorter hospital stays, but longer periods of rehabilitation. One trial found no significant effect from doubling the number of weekly contacts at the patient's home from a multidisciplinary rehabilitation team.

AUTHORS' CONCLUSIONS: While there was a tendency to a better overall result in patients receiving multidisciplinary inpatient rehabilitation, these results were not statistically significant.Future trials of multidisciplinary rehabilitation should aim to establish both effectiveness and cost effectiveness of multidisciplinary rehabilitation overall, rather than evaluate its components

Kreft (2)

Dalby C, Campos SM, Doverspike L, Spinks M, Jacobson JO. Securing discharge follow-up appointments in a women's cancer program. Journal of Clinical Oncology Conference: ASCO's Quality Care Symposium 2012 San Diego, CA United States Conference Start: 20121130 Conference End: 20121201 Conference Publication: (var pagings) 2012;30(34 SUPPL.#1):01.

ABSTRACT:

BACKGROUND: Ensuring patients have a follow-up appointment scheduled prior to discharge is one of several key interventions shown to reduce hospital readmission rates (Hansen L.O., Young R.S., Hinami K., et al. [2011, October]. Interventions to reduce 30-day rehospitalization: a systematic review. Annals of Internal Medicine, 155[8], 520-528). Lack of follow-up diminishes continuity between the inpatient and outpatient setting, can lead to patient dissatisfaction, as well as delays in proposed therapy.

METHODS: A three-month review of discharge data highlighted 49% of Women's Cancer Gynecologic patients at an academic medical center were discharged from the hospital without securing a follow-up appointment. A multidisciplinary team involved in the scheduling process was assembled and determined failure to schedule appointments was attributed to a lack of communication between the inpatient and outpatient services, a complicated scheduling process, as well as ambiguity regarding when patient's should return. Several rapid PDSA cycles were implemented over a three month period of time. The intervention created a standardized electronic template, including the establishment of standard time frames for follow-up appointments post discharge (7 to 10 days). The template details all required scheduling elements such as services requested, required laboratory studies, and patient preferences. Within the electronic template is the ability to directly email essential staff through a centralized email address embedded within the form. Staff engaged through reviewing of data, identification of the importance of securing a follow-up appointment, and weekly huddles.

RESULTS: Post intervention, the rate of compliance of scheduled discharge follow-up appointments rose from 49% to 87%. Staff reported high satisfaction with the new process, highlighting its simplicity and efficiency.

CONCLUSIONS: Securing a follow-up appointment prior to discharge is feasible as evidence by increased compliance from baseline 49% to 87%. Future endeavors will implement this process across other disease programs in hopes of obtaining similar results

Marla S, Stallard S. Systematic review of day surgery for breast cancer. International Journal Of Surgery 2009;7(4):2009.

ABSTRACT:

BACKGROUND: Over the last decade, breast cancer surgery has become less invasive and potentially suitable for day surgery. The aim of this systematic review was to establish the benefits and disadvantages of day surgery for breast cancer.

METHODS: A systematic search of the Cochrane Library, Medline, British Nursing Index, CINAHL, EMBASE and PsycINFO was carried out. All relevant papers were assessed for their methodological quality using a checklist designed to assess both randomised and non-randomised studies with specific questions added to address outcome measures.

RESULTS: No randomised controlled trials were found in literature. Eleven observational studies were included. The rate of discharge after day surgery was universally high with very low acute readmission rates. Intractable vomiting, patient anxiety and pain control were the main reasons for failing discharge. Patient satisfaction with day surgery was high and psychological recovery was quicker, however, majority of the studies did not use validated questionnaires. The hospital costs were lower for day surgery.

CONCLUSIONS: Day surgery for breast cancer is safe, with equivalent complication rates, but there is lack of evidence from randomised controlled trials. Patient satisfaction and psychological well-being is high. Further trials with validated questionnaires are required to confirm this. 2009 Surgical Associates Ltd

Lungebetennelse (3)

Campbell SG, Patrick W, Urquhart DG, Maxwell DM, Ackroyd-Stolarz SA, Murray DD, et al. Patients with community acquired pneumonia discharged from the emergency department according to a clinical practice guideline. Emergency Medicine Journal 2004;21(6):667-9.

ABSTRACT:

OBJECTIVES: To assess the safety of discharging patients with community acquired pneumonia (CAP) according to a clinical practice guideline

METHODS: A systematic retrospective review of medical records of 867 adult patients discharged from an emergency department (ED) with CAP between 3 January 1999 and 3 January 2001. Readmission or death rates within 30 days of discharge were evaluated, using data from all local hospitals and from the provincial coroner

RESULTS: Of 685 patients with pneumonia severity index (PSI) scores of <91, 13 (1.9%) were readmitted and five (0.76%) died within 30 days of the ED visit. Thirty day readmission and death rates for patients with PSI >90 were 7.14% (13 of 182) and 9.34% (17 of 182), respectively

CONCLUSION: Adult patients with CAP discharged from the ED according to the recommendations of a clinical practice guideline based on the PSI have low readmission and death rates, and are generally safely managed as outpatients

Chalmers JD, Akram AR, Hill AT. Increasing outpatient treatment of mild community-acquired pneumonia: systematic review and meta-analysis. [Review]. Eur Respir J 2011;37(4):858-64

ABSTRACT:

In order to identify, synthesise and interpret the evidence relating to strategies to increase the proportion of low-risk patients with community-acquired pneumonia treated in the community, we conducted a systematic review of intervention studies conducted between 1981-2010. Articles were included if they compared strategies to increase outpatient care with usual care. Outcomes were: the proportion of patients treated as outpatients, mortality, hospital readmissions, health related quality of life, return to usual activities and patient satisfaction with care. The main analysis included six studies. The interventions in these studies were generally complex, but all involved the use of a severity score to identify low-risk patients. Overall, a significantly larger numbers of patients were treated in the community with these interventions (OR 2.31, 95% CI 2.03-2.63). The interventions appear safe, with no significant differences in mortality (OR 0.83, 95% CI 0.59-1.17), hospital readmissions (OR 1.08, 95% CI 0.82-1.42) or patient satisfaction with care (OR 1.21, 95% CI 0.97-1.49) between the intervention and control groups. There was insufficient data regarding quality of life or return to usual activities. All studies had significant limitations. The available evidence suggests that interventions to increase the proportion of patients treated in the community are safe, effective and acceptable to patients

Domingo GR, Reyes FC, Thompson FV, Johnson PM, Shortridge-Baggett LM. Effectiveness of structured discharge process in reducing hospital readmission of adult patients with community acquired pneumonia: a systematic review. Database of Abstracts of Reviews of Effects 2012;1086-121.

Hjemløse (1)

Doran K, Ragins K, Gross C, Zerger S. Medical Respite Programs for Homeless Patients: A Systematic Review. Journal of Health Care for the Poor & Underserved 2013;24(2):499-524

ABSTRACT:

Medical respite programs provide care to homeless patients who are too sick to be on the streets or in a traditional shelter, but not sick enough to warrant inpatient hospitalization. They are designed to improve the health of homeless patients while also decreasing costly hospital use. Although there is increasing interest in implementing respite programs, there has been no prior systematic review of their effectiveness. We conducted a comprehensive search for studies of medical respite program outcomes in multiple biomedical and sociological databases, and the grey literature. Thirteen articles met inclusion criteria. The articles were heterogeneous in methods, study quality, inclusion of a comparison group, and outcomes examined. Available evidence showed that medical respite programs reduced future hospital admissions, inpatient days, and hospital readmissions. They also resulted in improved housing outcomes. Results for emergency department use and costs were mixed but promising. Future research utilizing adequate comparison groups is needed

Referanser

1) Lindman, AS, Damgaard, K, Tjomsland, O, Helgeland, J. Reinnleggelser av eldre i Norge. Notat fra Kunnskapssenteret 2012. Oslo: Nasjonalt kunnskapssenter for helsetjensten, 2012

Vedlegg 1

Søkestrategier

Søk i Cochrane

Date Run: 28/08/13 11:46:52.262
Description:

ID	Search	Hits
#1	MeSH descriptor: [Patient Readmission] explode all trees	690
#2	(patient* or hospital) near/3 readmi*:ti,ab,kw (Word variations have been searched)	1116
#3	rehospital*:ti,ab,kw (Word variations have been searched)	524
#4	#1 or #2 or #3	1486

Søk i Embase 1980 to 2013 Week 34

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1	hospital readmission/	14148	Advanced
2	((patient* or hospital) adj3 readmi*).ti,ab.	7393	Advanced
3	rehospital*.ti,ab.	4558	Advanced
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5	"systematic review"/	63434	Advanced
6	meta analysis/	75159	Advanced
7	((systematic or literature) adj2 (review or overview or search*)).ti,ab.	147742	Advanced
8	(medline or pubmed).ti,ab.	89475	Advanced
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10	4 and 9	683	Advanced
11	limit 4 to "reviews (maximizes specificity)"	330	Advanced
12	10 or 11	699	Advanced

Søk i Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present

Searches	Results	Search Type
Patient Readmission/	7743	Advanced
((patient* or hospital) adj3 readmi*).ti,ab.	5326	Advanced
rehospital*.ti,ab.	3463	Advanced
1 or 2 or 3	13284	Advanced
meta-analysis/	50161	Advanced
(meta adj analys*).ti,ab.	60685	Advanced
((systematic or literature) adj2 (review or overview or search*)).ti,ab.	127302	Advanced
(medline or pubmed).ti,ab.	83413	Advanced
5 or 6 or 7 or 8	215984	Advanced
limit 4 to "reviews (maximizes specificity)"	345	Advanced
4 and 9	446	Advanced
10 or 11	446	Advanced

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