

50. Gestational age recorded at delivery versus estimations using antenatal care data from the electronic maternal and child health registry in the West Bank: a comparative analysis

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Background

The estimated date of delivery has important consequences for clinical decisions during pregnancy and labour. The electronic maternal and child health registry (MCH e-Registry) in Palestine consists of antenatal care data linked with birth data from hospitals. Our objective was to compare the gestational age at delivery computed using the best estimates of gestational ages from antenatal care, with the gestational ages recorded by care providers at hospitals in delivery units.

Methods

Data of pregnant women in the West Bank registered in the MCH e-Registry during January - March 2017 (n=1924) were used. In the e-Registry, the best estimate of the gestational age is automated and based on a standard pregnancy duration of 280 days, using ultrasound-based pregnancy dating prior to 20 weeks of gestation, or if lacking, the woman's last menstrual period date. We calculated proportions of very preterm (24-32 weeks), preterm (33-37 weeks) and post-term (>42 weeks) deliveries using two sets of data: 1) the best estimate from the e-Registry; and 2) gestational ages reported by care providers in delivery units.

Results

Care providers in delivery units reported gestational ages only as round numbers in weeks. Median gestational age at delivery was 39 weeks (IQR= 38 - 40 weeks) using data from delivery units, and 39 weeks and 5 days (IQR= 38 weeks, 1 day - 40 weeks, 5 days) from the e-Registry estimates. Proportions of preterm and post-term deliveries were higher using the e-Registry estimates compared to using gestational ages documented by care providers in delivery units (very preterm: 2.9%, 95% CI 2.2-3.8 vs. 1.7%, 1.1-2.3; preterm: 12.3%, 10.8-13.8 vs. 11.0%, 9.6-12.5; post-term: 5.6%, 4.6-6.7 vs. 1.2%, 0.7-1.7).

Interpretation

In addition to clinical care, the proportions of pre- and post-term births can have implications for public health monitoring. Care providers in delivery units reported a higher proportion of deliveries within the normal range of term gestation, compared to the e-Registry proportions. Extending access to information from antenatal care in the MCH e-Registry to care providers in delivery units at hospitals can provide continuity of data and better care for pregnant women.

Funding

European Research Council and Research Council of Norway.

Contributions

MI carried out data analysis, carried out data management, and wrote the abstract. MV interpreted the data and wrote the abstract. EA, KAK, TA, MB, BG, TH revised the abstract. RW analysed and interpreted data. RS and AR provided administrative support for data management and revised the abstract. JFF conceptualized data collections and data management, interpreted data, and revised the abstract. All authors have seen and approved the final version of the abstract for publication.

Acknowledgements

We would like to express our gratitude to the Palestinian Ministry of Health for their cooperation and support of data management procedures of the MCH eRegistry.

Declaration of interests

We declare that we have no conflicts of interest.