Reviewer's report

Title: Quality of caesarean delivery services and documentation in first-line referral facilities in Afghanistan: A chart review

Version: 2 Date: 31 December 2011

Reviewer: Matthews Mathai

Reviewer's report:

Thank you for asking me to review the revised version of this paper. Some but not all issues raised have been satisfactorily addressed.

1. My major concern is related to the sampling method and therefore the generalizability of the results to Afghanistan.

While all facilities designated as comprehensive EmOC facilities should ideally be expected to provide the same basic standard of care, this is not always so. For example, a specialized maternity hospital will have operation room facilities available round the clock for caesarean deliveries unlike a district hospital where the facility may have to be shared with other surgical departments. Blood transfusion facilities should be available in all CEmOC facilities but the amount available in highly variable. The current way of classifying facilities only ascertains if a signal function has been performed in the preceding three months. Moreover the case mix seen at different facilities should be expected to vary. It is highly likely that those referred to central and provincial referral hospitals would have conditions that cannot be safely managed at first referral levels, and therefore are potentially at higher risk of adverse outcomes. Information from three CS consecutive case records from a facility which performs over 3000 CS every year does not provide the same quality of information as a review of three records from a facility which hardly does a CS every month. Also the findings of a convenience sample of 173 case records cannot be generalized to a country where nearly 11000 women reportedly undergo Caesarean delivery. The argument that the chosen method allows for a more balanced assessment of quality measures across facilities and identification of areas for improvement at lower-level facilities with smaller case loads is not substantiated by the analysis which is across all facilities surveyed. It is difficult to identify from the results of this study what are the precise challenges at different types of facilities and what needs to be done to improve services.

Using sampling proportional to case-load and appropriate analysis to study the influences of various variables that influence quality of care and documentation in the different facilities would have generated a potentially more generalizable result.

2. The revised title refers to quality of Caesarean delivery services and documentation in first-line referral facilities in Afghanistan but the study includes
specialized maternity centres and other "higher level" facilities which are not conventionally considered as first-line referral facilities. Quality of Caesarean delivery services in this study includes only some quality related aspects of CS delivery but other important aspects of care such as use of prophylactic antibiotics, postoperative infections, other serious maternal and perinatal morbidity, and length of hospitalization have not been studied. Information on all of these could have been obtained from record reviews.

Other comments:

3. The revised version includes the opinions of medical directors of the facilities about the completeness of labour and delivery registers and OT log books. There is no mention about eliciting views of medical directors in the methods section. Also why did the researchers not verify the completeness of registers during the study.

4. Given the limitations of the study, I would caution against "over-interpretation" of the significance of the findings. For example, the authors suggest that poor decision making also contributes to a low CS rate (pg 16) and note that only 12% of cases were referrals. Also on pg 16, they note that failed induction was not listed as an indication and suggest that lack of equipment, knowledge and/or confidence on the part of the birth attendant may lead them to avoid inductions and move too early to perform Caesarean deliveries. While this may be true, the data presented do not justify such comments.

It is highly likely that women may choose to go to facilities which provide satisfactory services and may thus bypass lower levels of the referral chain. The low proportion of referrals may have nothing to do with decision making of health workers but with other health system problems which have not been studied.

The number of women undergoing induction of labour would also depend on the workload of the facility and on how early or late these women arrive for induction. Also from the list of indications for caesarean section in this report, there are few cases which may have benefited from induction of labour.

Minor comments:

5. The authors should check on the data for anaesthesia (pg 10). Currently 62% reportedly had general anaesthesia, 34% had spinal/epidural and 6% had no information recorded (total 102%)

6. The signal functions for EmOC are described by three UN agencies and AMDD, not the United Nations. The names should be correctly listed as in the citation.

Level of interest: An article of limited interest

Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I declare that I have no competing interests.