

Measuring the quality of obstetric care: Which indicators should we use?

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Objective:

Measurement of the quality of health care has become increasingly important in The Netherlands. In this study the objective was to develop a set of structure, process, and outcome indicators that measures the quality of obstetric care in Dutch hospitals.

Methods:

The quality indicators were developed by a working group, comprising two epidemiologists and four gynaecologists of the Dutch Society of Obstetrics and Gynaecology (DSOG). Potential quality indicators regarding quality or substandard factors in the obstetric care were identified by a review of the literature, using Medline from 1996 through 2005. Relevant articles were selected and indicators were obtained from these articles. Practice guidelines of the DSOG were reviewed for potential indicators with specific attention for relevance, potential improvement of care and feasibility. Indicators could be related to the structure of the health care facility, the health care process and outcome.

Subsequently, the expert panel selected indicators using a questionnaire. The focus of this questionnaire was on the indicators' relevance for the quality of obstetrical care, the potential to improve the quality of care, the validity and reliability, and the feasibility of registration. Selected indicators were presented to an expert panel consisting of researchers and professionals of the DSOG. Based on consensus in the expert panel, a final selection was made.

Results:

The working group focussed on preeclampsia and delivery, because these were the domains in obstetrics with the highest association with complications of mother and infant. The working group identified 70 feasible indicators from the literature and practice guidelines. In addition to this, the expert panel identified another 39 potential indicators. After review by the expert panel 17 structure, 11 process, and 5 outcome indicators were selected. Reasons for the exclusion of indicators were: the lack of feasibility of the registration, little potential for improvement of care, sensitive to perverse events, low prevalence of a complication, or too much influence of uncontrolled case mix factors.

Structure indicators in the final set comprised the availability of several protocols, periodical audits, education and training of health care workers. Process indicators related to preeclampsia were treatment with antihypertensive medication or magnesium sulphate of patients with severe preeclampsia. Other process indicators related to delivery were peridural analgesia (during the day and during the night), caesarean section, instrumental delivery or blood transfusion. The related outcome indicators were the incidence of eclampsia, proportions of patients receiving induction of labour, the proportion of infants with 5 minute Apgar score below 4 and perinatal mortality.

The intention is to use these indicators primarily for internal assessment within the obstetric profession and for guidance to improve the quality of care and to monitor results of measures for improvement.

Conclusions:

We defined a set of 34 quality indicators for obstetrical care, based on literature search, guidelines and expert opinion. We expect that this set can be used to monitor the quality of obstetric care. The feasibility, validity, and reliability of the set will be evaluated in a pilot study in obstetric units of 13 hospitals in The Netherlands