Quality as a theme for maternity care research

This journal scan reviews a selection of papers relating to quality issues in the maternity services. A Medline search for English language articles relating to quality of care in pregnancy published from January to July 2000 using “pregnancy” and “quality” as MESH headings produced 17 papers. The journals listed in the Appendix were also hand searched. A total of 42 papers were reviewed; the 11 presented here are a representative selection and were chosen to reflect a range of different aspects of quality initiatives or quality assessment studies in maternity care. The papers have been summarised and critically appraised.


The paper aimed to develop and evaluate a new system for the classification of caesarean sections which could be used nationally in obstetric, anaesthetic, and other data collection systems. The conventional classification of caesarean section categorises planned operations as “elective” with all others being categorised as “emergency”. This classification does not meaningfully reflect the degree of urgency of an “emergency” caesarean section as some are clearly more urgent than others. The continued use of this classification limits the comparability and usefulness of information collected on obstetric and anaesthetic activity at both local and national levels. Initially 90 anaesthetists and obstetricians graded 10 clinical situations according to five different classification methods. The method which used a clinical definition was the most consistent and useful, and this method was then applied prospectively in the hospitals where the study was conducted. There was close agreement about categorisation of the urgency of caesarean section between anaesthetists and obstetricians. The authors suggest that this method should be adopted for maternity data collection.

Comment: This paper addresses a difficult problem in a scientific way and provides justification for the use of the new classification. If this new classification were to be adopted it would facilitate comparison of data within and between units, enable the operation of meaningful risk management strategies for aspects of management such as decision to delivery intervals, and provide an easily understood classification for use in Confidential Enquiries. In these respects this is an important paper.


The study aimed to assess the impact of three different payer systems (Medicaid managed care, Medicaid fee for service and private managed care) on obstetric outcomes. Six maternal obstetric outcomes were chosen. With the exception of perinatal trauma, all other outcomes were rare and life threatening or lethal. The choice of these outcomes could be criticised as they may relate more to the individual’s level of obstetric risk than to the quality of care delivered. Indicators relating to the process of care were not examined. Fetal outcomes were not evaluated and the paper failed to explain why these had not been included.

Comment: Although the authors bemoan the lack of “a broad range of indicators to assess differences in the quality of hospital obstetric care”, it does little to rectify this situation. No new indicators are suggested. Although the sample size is large, the study is too superficial to compare meaningfully the differences in the quality of care delivered to the three groups of women.


This paper compared the rates of obstetric interventions among private and public patients in Australia. In low risk women the rates of obstetric intervention were highest for private patients in private hospitals and lowest for public patients in public hospitals. The higher rates of obstetric intervention in the private sector were due to instrumental deliveries rather than caesarean sections.

Comment: While it is difficult to be prescriptive about what is an appropriate intervention rate, there were no obvious clinical reasons for the differences shown in this study. The authors discuss the limitations of the study—principally, that outcome data are limited and that the findings of this study may not necessarily be applicable to other populations or models of care. However, this is an important paper as private obstetric care is a “real choice” for Australian women with 31% choosing private care. In the discussion the authors discuss satisfaction, choice, and involvement in the decision making process. They comment that women who choose their care based on perceived access to pain relief may not be aware that one of the possible consequences of such a choice may be a higher risk of an instrumental vaginal delivery. If women are to make an informed choice, they should be given all the information. One criticism of the paper would be that the authors tend to overemphasise the role of epidural analgesia, suggesting that it leads to a cascade of intervention. It could
be argued that the whole package of care in the private sector is more medicalised, whilst in the public sector staff attitudes are geared towards supporting women through normal labour. This paper is thought provoking and raises important questions relating to information giving and choice.


The aim of this study was to investigate informed choice in relation to caregiver and location of care within maternity services in Powys. The study used a survey design eliciting both qualitative and quantitative data from respondents. The aims of the research were to evaluate women’s perceptions of quantity and quality of information received to highlight examples of good practice and to identify potential areas of concern. The results demonstrated high levels of satisfaction with the amount of information of antenatal and birth care received by women taking part in the study, midwives being identified as playing a key role in informing women in all antenatal and birth settings. Further, the findings suggest that midwives in midwife-led antenatal clinics and midwife/GP maternity units are more successful in imparting information and enabling women to have a sense of participation in the decision making process. Type of delivery was also identified as a key factor in women’s perceptions of participation in informed decision making, with anticipated intervention in birth being a positive indicator of low levels of satisfaction. Thus it may be that organisational, structural, or experiential factors affect women’s perceptions in having an active role in the decision making process more than the health care personnel involved. The discussion relates the findings of the study to wider debates on informed choice in maternity services, issues of continuity of carer, and effects of cross boundary services. Areas for further research are identified.


This article describes a qualitative study in which midwives’ perceptions of high and low quality interactions between midwives and breastfeeding mothers were elicited. Questionnaires using a critical incident technique were distributed to all the midwives in a maternity service in the North of England. Structured analysis of 16 responses (40%) led to the development of four major themes: communication support by health professionals, inaccuracy/inconsistency of advice, and breastfeeding policy. The case for further education of midwives to improve their self-awareness and communication skills is presented along with recommendations related to resource allocation and policy development.

Comment: The response rate to this survey was surprisingly low, particularly when one considers that this was a small unit with only 40 staff. Even after reminders, only 16 replies were received. One wonders whether this level of apathy is reflected in practice. Despite this, the findings may be useful to those units seeking to introduce a positive approach to supporting breastfeeding. Four main themes are highlighted in the article as being crucial to supporting women who wish to breastfeed—communication including listening skills; comprehension; consistency; and the use of positive non-verbal communication. Support by professionals, if promised, should be delivered. Inaccurate advice should be avoided. The breastfeeding policy was criticised by some midwives as being inflexible and a blanket application of the policy was thought to have affected some women’s success. Where an evidence based approach is used, such as the UNICEF Baby Friendly Initiative, midwives should not feel threatened but be aware that this is a guide to support successful breastfeeding. Differences in policy between two adjacent units were highlighted as being potential sources of problems. This could be minimised if policies were developed at a regional level incorporating evidence based guidelines such as the UNICEF guide to successful breastfeeding.


The objective of this paper was to evaluate the attitudes of, and the influences on decisions made by, obstetricians in Northern Ireland in order to understand the feasibility of applying guidelines to obstetric practice. The paper presents the results of a postal survey and concludes that “generally guidelines appear to be well received”.

Comment: In the current climate this is hardly a surprising conclusion and the study may have been more pertinent 10 years ago. The paper is iterative and could have been presented more concisely. The authors acknowledge the weakness of their methodology, accepting that those doctors with more positive attitudes may have been more likely to reply to the questionnaire. They also accept that the definition of what constitutes a guideline may vary among doctors, and that the opinion expressed in answer to the questionnaire may not reflect practice. No attempt has been made to assess awareness of guidelines, adherence to guidelines, or to evaluate the most effective way of presenting guidelines to clinicians. Perhaps the most glaring omission in the questions posed to the clinicians was “Do you feel that guidelines improve the quality of care provided for women?”. This paper fails to address important issues and is unlikely to have any impact on practice.


The incidence of pressure ulceration is well documented within general adult hospital and community health care populations. However, within maternity units this negative outcome is largely unreported. Indeed, many trusts exclude maternity units from their regular pressure incidence and prevalence monitoring. This article seeks to raise awareness of the potential causes and areas where clinical practices could be reviewed in the light of new evidence of what appears to be a growing problem. The authors suggest that this review takes place under the clinical governance agenda, pointing out that a culture should be fostered where high quality standards are achieved and practice initiatives are shared.
Comment: This article should stimulate readers to examine the incidence of pressure ulceration and to consider current practice within their own units. The paper does not present the answers to halt what appears to be an increasing incidence of pressure ulceration in obstetric cases, but poses the question “why” and examines what is being done about it.


In September 1997 a birthing pool was installed at Raigmore maternity unit. The decision to install the pool was made in response to local demand. This raised a number of professional issues, the most important of which concerned the use of the pool in the labour suite and the demand for water birth. An audit of the first two years of use of the pool indicated variable use, influenced perhaps by obstetricians who do not support water birth. Eighty seven women used the pool in labour. Only two women gave birth to their babies in the pool. The most common reason for women leaving the pool was to obtain further analgesia. Although 82% of the women and 79% of the midwives rated the pool very highly, it appears that it was not used as frequently as had been expected.

Comment: This paper presents a clear example of a quality initiative being introduced in response to a perceived need with inadequate communication, training, and guidelines to support its safe and effective use for women in labour. Midwives appeared unsure and unsettled with regard to their position in relation to water birth. Despite the fact that the use of water in labour was rated very highly by midwives and women, the actual use was very low and operational and communication issues seem to be responsible.


The aim of this study was to document the practice of water births and to compare their outcome and safety with normal vaginal deliveries. A retrospective case control study was conducted over a five year period from 1989 to 1994 at Rochford Hospital, Southend. 301 women electing for water births were compared with the same number of age and parity matched low risk women having conventional vaginal deliveries. Primigravida having water births had shorter first and second stages of labour than controls (p<0.05 and p<0.005, respectively), reducing the total time spent in labour by 90 minutes. All women having water births had reduced analgesia requirements.

Comment: This study suffers from many of the methodological problems inherent in the investigation of uncommon modes of delivery; however, the authors conclude that water birth in low risk women delivered by experienced professionals is as safe as normal vaginal deliveries. The paper describes the introduction of the service for water birth along with the staff preparation and method of imparting information to women. This is in marked contrast to the previous article by Jessiman and Bryers. It then goes on to measure outcomes within this unit against a background of published evidence. This article confirms that water birth is a safe option for women experiencing “normal labour” and suggests that there are measurable benefits to be gained if the practice was more widely spread. The call for further multicentre research should be answered so that the current unsatisfactory situation of lack of confidence by professionals, lack of understanding, irrational fears about outcomes, and non-support of women’s choice in this area of practice can be addressed by the production of reliable evidence effectively to guide policy and support practice in the future.


This is an American population based retrospective study covering more than 95% of all births to primiparous women in the Washington state district between 1987 and 1996. The objective was to assess the risk for maternal rehospitalisation following delivery associated with caesarean or assisted vaginal delivery compared with spontaneous vaginal delivery. Women were more likely to have a normal vaginal delivery if they were younger, unmarried, and covered by Medicaid. This mirrors the findings of other studies comparing outcome within different maternity settings. A total of 1.2% of all women were rehospitalised within 60 days of delivery. In logistical regression analysis, adjusting for maternal age, rehospitalisation was found to be more likely among women with caesarean section delivery or assisted vaginal delivery. Caesarean delivery was associated with readmission for uterine infection, obstetric surgical wound complications, and cardiopulmonary and thromboembolic conditions. Assisted vaginal delivery was associated with readmission for pelvic injury, post partum haemorrhage, and surgical wound complications. Readmission with mental health problems or breast infection was not associated with delivery type.

Comment: Although this is an American study, its findings have important quality implications for care in the UK. As there is an upward trend in caesarean and assisted delivery rates in this country, it is relevant to look at the associated morbidity and increased cost to the NHS that may result from that trend. The paper gives recommendations to reduce the factors associated with increased risk of rehospitalisation, and those recommendations are transferable to the UK health care setting. Reduction in morbidity will occur as a result of raised quality standards and the introduction of risk assessment strategies within the clinical governance agenda, and this paper will provide a good background to the risk assessment process in the UK.


This quality assurance study evaluated access to emergency contraception from clinicians registered with the Emergency Contraception hotline and website in the USA. Two college educated investigators posing as women who had a condom break the previous night called 200 providers to seek help. The same caller made three attempts to contact each provider,
all within 72 hours. Calls were made during standard business hours only and none were made at weekends or holidays. Only 76% of attempts resulted in an appointment or telephone prescription from a hotline provider within 72 hours, 14% were failures, and 11% resulted in referrals to other providers not listed on the hotline or website. As the cost of pills and related services was felt to be a significant determinant of access, particularly for some groups, this was also evaluated. The cost ranged from free to $220.

Comment: This was an interesting paper with a clear focus which was easy to read and understand. The authors plan to feed back the results to the providers who were assessed, which will hopefully result in an improvement in practice.

Conclusions

Many papers in the literature relate to assessing quality of care or improving quality of care. It could be argued that the impact on quality of care should be considered when reading any paper related to clinical management.

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Appendix


LETTER TO THE EDITOR

Adverse events in health care

We welcome Dr Walsh’s review of the study of adverse events. Dr Walsh points out the usefulness of studies of adverse events, but also the need to be cautious when they are used as measures of health care quality. We think that this article underlines the major methodological issue in studies of adverse events—namely, the lack of a standardised definition. Until this point is resolved, the practical applications of the concept of adverse events will be limited. Definitions of this term are frequently grouped into two categories—restrictive and broader. Restrictive descriptions of adverse events are limited to those cases which provoke an evident negative consequence for the patient and controlled. We feel that opening a debate in this direction should be a top priority in the study of adverse events. When all researchers speak the same language, we will be more likely to understand each other and to make progress.

DIARY

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