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COMMENTARY

The National Institute of Clinical Excellence (NICE) guidelines for caesarean sections: implications for the anaesthetist

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INTRODUCTION

The National Institute for Clinical Excellence (NICE) is part of the National Health Service (NHS) in the UK. It was established in 1999 as an independent organisation to promote clinical excellence by providing guidance on treatments and care based on the best available evidence and effective use of resources. NICE has under its wing the Confidential Enquiries into Maternal and Child Health (CEMACH). In April 2004, NICE published caesarean section guidelines;

the aim of this review is to highlight aspects of these guidelines that may have implications for anaesthetists.

Several versions of the guidelines are available and can be downloaded from the web:

i. the full document
www.nice.org.uk/pdf/CG013fullguideline.pdf
ii. evidence tables
www.nice.org.uk/pdf/CG013evidencetables.pdf
iii. an algorithm
www.nice.org.uk/pdf/CG013algorithm.pdf
iv. recommendations for the NHS
www.nice.org.uk/pdf/CG013NICEguideline.pdf
v. the quick reference guide
www.nice.org.uk/pdf/CG013quickrefguide.pdf
vi. information for the public
www.nice.org.uk/pdf/CG013publicinfoenglish.pdf
(very large print)

The bodies involved

The National Collaborating Centre for Women's and Children's Health (NCC-WCH) was commissioned by NICE to produce the guidelines. NICE and 60 registered stakeholders including the Royal College of Anaesthetists (RCA) and Obstetric Anaesthetists' Association (OAA) were involved in their development. An independent Guideline Review Panel and Patient Involvement Unit then reviewed the draft guidelines.

The NCC-WCH established the Guideline Development Group (GDG) comprising a general practitioner who chaired the group, two obstetricians, two midwives, a neonatologist, an anaesthetist and two consumers. Other members of the GDG included the director of the NCC-WCH, chair of CEMACH, informatics specialist, health economist and several research fellows. The anaesthetic representative was selected from nominations submitted by the RCA and the OAA and consulted widely during development of the guidelines on issues of anaesthetic interest from obstetric anaesthetist experts within the UK.

Background

The National Sentinel Caesarean Section Audit (NSCSA) reported that in England and Wales, caesarean section rates increased from 9% of deliveries in 1980 to 21% in 2001, with similar increases in many developed countries.[1] The average age of women giving birth has increased and caesarean section rates increase with maternal age. The caesarean section rate for women in their first pregnancy is now 24% and for women who have had a previous caesarean section, it is markedly increased (67%). The caesarean section rate also varied in the UK according to ethnicity, with higher rates reported in black African and Caribbean ethnic groups.

The five major indications for caesarean section in the UK are fetal compromise (22%), 'failure to progress' in labour (20%), repeat caesarean section (14%), breech presentation (11%) and maternal request (7%).[1] The first indication is influenced by the use of continuous electronic fetal monitoring, which may be associated with increased caesarean section rate unless it is used in conjunction with fetal blood sampling to assess fetal acid-base balance before a decision is made for caesarean section.

Aims of the guidelines

The guidelines aim to provide evidence-based information in the following areas:

- Risks and benefits of caesarean section
- Certain specific indications for caesarean section
- Effective management strategies to avoid caesarean section
- Anaesthetic and surgical aspects of care
- Interventions to reduce morbidity from caesarean section and
- Aspects of organisation and environment that affect caesarean section rates.

This does not cover all the clinical decisions and care pathways that may lead to caesarean section. For example, it omits advice on the risks and benefits of caesarean section in specific conditions such as preeclampsia or gestational diabetes or in rare diseases.

As well as clinical effectiveness, the guidelines were concerned with cost-effectiveness of caesarean section compared to vaginal birth.

Evidence and grading of recommendations

Evidence from studies that were least subject to bias and published systematic reviews or meta-analyses were used where available (Table 1). Data are presented as absolute risks, relative risks or odds ratios where relevant. Where data are statistically significant they are also presented as numbers needed to treat for beneficial outcomes or numbers needed to harm for adverse effects as relevant. Recommendations are graded according to the strength of the evidence that supports them (Table 2).

SUMMARY OF RECOMMENDATIONS AFFECTING ANAESTHETIC PRACTICE

Bullet-points below quote from, summarise or paraphrase recommendations from the guidelines; the letter following denotes their grading (Table 2).