



## C-Gen 15

# Evidence-based Medicine, Obstetrics and Gynaecology

RANZCOG endorses the principles of Evidence-based medicine and recognises the NHMRC levels of evidence and grades of recommendations<sup>1-3</sup>.

Adverse outcomes in obstetrics, whilst often of very low incidence, still occur at frequencies that may be of clinical importance to some or most women<sup>4</sup>. Where such rare outcomes are the endpoints, the numbers required for meaningful analysis study are necessarily massive. In these situations case-control or population studies may provide more useful evidence than an under-powered randomised controlled trial (RCT) or an RCT that is undermined by sub-optimal trial circumstances that often become necessary in order to achieve the numbers required<sup>5</sup>.

Not all clinical recommendations lend themselves to assessment by randomised controlled trials or even case-control, cohort or population studies. Sometimes the evidence is such that subjecting the matter to direct investigation is inappropriate or unnecessary. Gordon Smith's analogy with "use or non-use of the parachute" has been widely quoted as an example<sup>6</sup>, but the case for some medical treatments may be equally obvious based on only a small number of cases or even a compelling rationale<sup>7</sup>. In management of rare clinical events, case reports, anecdote and an individual's judgement and experience may legitimately influence decision-making and management plans.

With all levels of evidence (I-IV), recommendations are ultimately made by individuals or panels who use their expertise in the field of practice, or in the interpretation of evidence, to make recommendations from that evidence. Such recommendations cannot be regarded as scientific evidence per se. They are inevitably positions reached by consensus in response to the evidence assessed, the priorities and expertise of those involved, and a given clinical context. As a result, it is not surprising that individuals and panels come to contrary recommendations arising from the same body of evidence.

In the application of clinical guidelines, it is important that clinicians retain discretion to adapt guidelines to the specific circumstances of individual patients. No guideline can anticipate all clinical scenarios and every local circumstance. It is imperative that guideline implementation allows the clinician to retain some flexibility in the management recommended to patients.

## References

1. NHMRC. How to use the evidence: assessment and application of scientific evidence. <http://www.nhmrc.gov.au/publications/synopses/ files/cp69.pdf>
2. NHMRC additional levels of evidence and grades for recommendations. <http://www.nhmrc.gov.au/guidelines/ files/Stage Consultation Levels and Grades.pdf>
3. Jonathan C Craig, Les M Irwig and Martin R Stockler. Evidence-based medicine: useful tools for decision making. MJA 2001; 174: 248-253

4. Walker SP, McCarthy EA, Ugoni A, Lee A, Lim S, Permezel M. Cesarean delivery or vaginal birth: a survey of patient and clinician thresholds. *Obstet Gynecol.* 2007 Jan;109(1):67-72.
5. Glezerman M. Five years to the term breech trial: the rise and fall of a randomized controlled trial. *Am J Obstet Gynecol.* 2006 Jan;194(1):20-5.
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7. Diaz M, Neuhauser D. Heroes and martyrs of quality and safety. Pasteur and parachutes: when statistical process control is better than a randomized controlled trial. *Quality and Safety in Health Care* 2005;14:140-143; doi:10.1136/qshc.2005.013763.

**Disclaimer**

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The statement has been prepared having regard to general circumstances. It is the responsibility of each Practitioner to have regard to the particular circumstances of each case, and the application of this statement in each case. In particular, clinical management must always be responsive to the needs of the individual patient and the particular circumstances of each case.

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