



Centre for Clinical Effectiveness

ENHANCING PATIENT OUTCOMES THROUGH CLINICAL APPLICATION OF THE BEST AVAILABLE EVIDENCE

EVIDENCE CENTRE CRITICAL APPRAISAL

Observations for normal term neonates

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SUMMARY STATEMENT:

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REQUEST:

What observations should be carried out on normal term neonates after birth?

REQUESTED BY:

Jenny Morgans, AUM, Birth Unit/Women's Health, Dandenong & District Hospital, Dandenong.

METHODOLOGY

Search Strategy

The Centre for Clinical Effectiveness defined the 'best available evidence' as that research we can identify that is least susceptible to bias. We determine this according to pre-defined NHMRC criteria (see Appendix).

First we search for systematic reviews, evidence-based clinical practice guidelines, or health technology assessments, and randomized controlled trials. If we identify sound, relevant material of this type, the search stops. Otherwise, our search strategy broadens to include studies that are more prone to bias, less generalizable, or have other methodologic difficulties. We include case-control and longitudinal cohort studies in our critical appraisal reports. While we cite observational and case series studies, and narrative reviews and consensus statements, in our reports we do not critically appraise them. Some studies can produce accurate results but they are generally too prone to bias to allow determination of their validity beyond their immediate setting.

Details of Evidence Request:

Participants	term neonates, immediately after birth
Interventions	observations and frequency of observations (eg. vital signs, temperature, cord)
Comparisons	no observations
Outcomes	neonatal morbidity, mortality

Search terms

Patient' terms:	Newborn infant, newborn\$, neonat\$, postnatal, perinatal
'Setting' terms	Maternity hospital, delivery room\$, labo?r ward\$, postnatal ward\$, birth room\$
'Intervention' terms	Physical examination, observation\$, examination\$, vital sign\$, perinatal care, postnatal care

\$. ? represent wildcards

Resources Searched

We searched the following databases and Internet websites:

- Cochrane Library CD-ROM, Issue 3, 2000
- OVID Best Evidence (March/April 2000)
- NLM PubMed / OVID Medline (1966-September Week 4, 2000)
- OVID Premedline (August 9, 2000)
- OVID CINAHL (1982-June 2000)
- SUM Search
- Effective Health Care Bulletins
- Health Evidence Bulletins
- National Guideline Clearinghouse
- Scottish Intercollegiate Guideline Network
- Centers for Disease Control (CDC) Prevention Guideline Database
- Bandolier
- The Agency for Health Care Policy and Research, Pediatric Practice Guidelines
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists
- Royal College of Obstetricians and Gynaecologists
- American College of Obstetricians and Gynecologists
- American College of Nurse-Midwives

- Neonatology on the Web
- PedInfo
- Royal College of Paediatrics and Child Health
- American Academy of Pediatrics
- Royal Australasian College of Physicians
- World Health Organisation

Refinements, Searching & Reporting Constraints:

We included items of evidence that were available to us on August 14, 2000. We searched for English language articles published since 1966. Our search did not identify any citations pertaining to routine observations of normal term neonates in the immediate postnatal period, and the first hours and days of life.

Seven citations were identified that discussed care of the newborn in the delivery room. However, as the emphasis of these citations was on resuscitation of the sick newborn, rather than routine care of the well newborn, and the citations were consensus-based guidelines and narrative reviews (Level IV evidence, see Appendix) the articles were excluded from critical appraisal.

EXCLUDED ARTICLES

Anonymous (1978). Physical assessment of the neonate. *Naacog Technical Bulletin*(2): 1-3.

Anonymous (1979). American Academy of Pediatrics. Committee on Fetus and Newborn. Care of the newborn in the delivery room. *Pediatrics* **64**(6): 970.

Contis, G. & Lind, J. (1967). Apgar score and neonatal blood pressure. A comparative study of obstetric methods in Sweden and in the United States. *American Journal of Obstetrics & Gynecology* **97**(8): 1135-1141.

Hamilton, P. (1999). ABC of labour care: care of the newborn in the delivery room. *BMJ* **318**(7195): 1403-1406.

Macagno, F., Bellani, R., Levi, N. *et al.* (1977). Assistance of the newborn in the delivery room. *Contributions to Gynecology & Obstetrics* **3**: 154-161.

Moretti, M. (1977). Risks to the newborn from the routines in the delivery room. *Contributions to Gynecology & Obstetrics* **3**: 145-153.

Scherger, J. E. (1993). Management of normal labor and birth. *Primary Care; Clinics in Office Practice* **20**(3): 713-719.

APPENDIX

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Levels Of Evidence

As Defined By "A Guide To The Development, Implementation And Evaluation Of Clinical Practice Guidelines" (National Health & Medical Research Council, Canberra, 1998):

Level I	Evidence obtained from a systematic review or meta-analysis of all relevant randomised controlled trials.
Level II	Evidence obtained from at least one properly designed randomised controlled trials.
Level III -1	Evidence obtained from well-designed pseudo-randomised controlled trials (alternate allocation or some other method).
-2	Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case control studies or interrupted time series with a control group.
-3	Evidence obtained from comparative studies with historical control, two or more single-arm studies or interrupted time series without a parallel control group.
Level IV	Evidence obtained from case series (either post-test or pre-test and post-test), opinions of respected authorities (narrative reviews), descriptive studies, reports of expert (i.e. consensus) committees, case studies.