

Antenatal Screening for Hepatitis B Virus (HBV)

Guidelines	Level of Evidence	References
Early in pregnancy all women should be given appropriate written information on antenatal hepatitis B testing and be given an opportunity to discuss it with their midwife or doctor.	IV	13
All women should be offered a screening test for hepatitis B virus at their first antenatal visit.	IV	3
There is no evidence to suggest that a repeat test for hepatitis B in late pregnancy will result in increased detection of hepatitis B.	IV	3

Aim

The aim of these guidelines is to assist midwives and doctors to detect hepatitis B virus (HBV) in pregnant women in order to prevent transmission to newborns.

Evidence

Pregnant women who carry the hepatitis B virus can pass the disease to their children. Acute hepatitis B can cause morbidity and mortality. Perinatal infection can be prevented by prompt immunoprophylaxis at birth. The incidence of HBV is becoming less common among infants and adults following the introduction of protocols for handling blood products, combined with immunisation and health promotion strategies¹.

Existing evidence, though all Level IV, supports universal screening of pregnant women for hepatitis B surface antigen by a combined prenatal and perinatal approach^{2,3}. This combined approach is encouraged in Australia, where antenatal hepatitis B screening is accepted practice and the NHMRC recommends that all newborn infants be offered immunisation.

Level IV evidence suggests selective screening fails to identify some carriers when compared to universal screening. UK and American studies demonstrate that selective screening fails to detect cases of HBV due to the difficulty of discussing risk behaviour in a busy antenatal clinic, the possibility of infection by a partner with a risk history and the possibility that many infected women have no recognised risk factors⁴⁻¹⁰.

The optimal time for screening appears to be at the first antenatal visit. There is no evidence to support repeat screening in the third trimester³.

Methods of Search and Appraisal

The following strategy was used to search and appraise evidence relating to the practice of screening for Hepatitis B in pregnancy

I. Search on Defined Questions (December 2000)

A research team from the Department of Perinatal Medicine at the Royal Women's Hospital used the OVID interface to search Medline (January 1980 to December 2000), CINAHL (April 1982 to December 2000) and Best Evidence (January 1991 to December 2000). They also searched the Cochrane Database (2000 Issue 3) and reviewed studies for further citations. The following questions were addressed:

1. In pregnant women does routine testing for HBV result in better detection than selective screening?
2. In pregnant women does a repeat test for hepatitis B in late pregnancy (28 weeks) result in increased detection of hepatitis B?

The search retrieved 67 citations. Fifteen key citations were identified for further appraisal. All corresponded to Level IV evidence. The coordinator searched grey literature and journals for additional evidence published between January and August 2001.

References

1. Australian Immunisation Handbook 2000. Level IV
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4. Anonymous. Chance finding of hepatitis B antigen carriage in pregnant woman highlights need for antenatal screening, and vaccination of health care workers. *Communicable Disease Report: CDR Weekly* 1999;9(21):183,186. Level IV
5. Boxall EH. Antenatal Screening for Carriers of hepatitis B virus. [editorial; comment] [see comments] *BMJ* 1995;311(7014):1178-9. Level IV
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7. Newell ML, Thorne C, Pembrey L, Nicoll A, Goldberg D, Peckham C. Antenatal Screening for hepatitis B infection and syphilis in the UK. *BJOG* 1999;106(1):66-71. Level IV
8. Jordan R, Law M. An appraisal of the efficacy and cost-effectiveness of antenatal screening for hepatitis B. [see comments] [Review] [90 Refs] *J Med Screening* 1997;4(3):117-27. Level IV
9. Britton WJ, Parsons C, Gallagher ND, Cossart Y, Burnett L. Risk factors associated with hepatitis B infection in antenatal patients. *ANZJOG* 1985;15(5): 641-4. Level IV
10. Paul C, Thomas M. Screening for hepatitis B carriers: a perspective from New Zealand. [Review] [66 refs] *ANZJOG* 1997;27(6):698-705. Level IV
11. Lumley, J. *What do women really want? Satisfaction with care in pregnancy, birth and the postnatal hospital stay. A summary of current evidence to April 2000.* Unpublished report commissioned by The Royal Women's Hospital, Melbourne from the Centre for Studies on Mother's and Children's Health, La Trobe University, Melbourne 2000. Level IV