Guideline for the management of babies born to mothers with Hepatitis C infection

The World health organisation (WHO) estimates that 170 million people worldwide are chronically infected with the Hepatitis C virus (HCV). Chronic infection with the virus occurs in over 80% of cases and can lead to cirrhosis and hepatocellular carcinoma.

HCV infection is not screened for in the antenatal population unless there are specific maternal risk factors. This is because there is no strategy whereby the risk of perinatal transmission of the virus can be reduced and because the natural progression of vertically transmitted HCV infection and treatment options and timings are not clear. The United Kingdom is considered a low prevalence country for HCV with approximately 0.4% of the population chronic carriers of the virus. Maternal HCV infection leads to perinatal transmission in 5-6% of cases. Maternal co-infection with HIV increases this risk to 14-17%. The presence of maternal viraemia as evidenced by detectable HCV RNA around the time of delivery is the only factor that has been consistently associated with mother to baby transmission. At the present time there appears to be no advantage in delivery by elective caesarean section as a strategy to reduce transmission rates. The presence of maternal HCV infection is not a contraindication to breast feeding.

Management:

- All babies born to Hepatitis C positive mothers should be discussed with the Neonatal Consultant.
- Hepatitis B vaccination is strongly advised (see separate guideline)
- Infants born to mothers with documented Hepatitis C infection should have a blood test for the presence of anti HCV after 12 months of age.
- Earlier diagnosis is achievable with the use of Hepatitis C RNA RT-PCR. In Cardiff & Vale NHS trust PCR testing is limited to babies born to mothers with detectable or unknown viraemia during their pregnancy. In this case the baby should have Hepatitis C RNA PCR at 6 weeks and 3 months of age with appropriate Neonatal clinic follow up. Anti HCV status should then be checked at 18 months of age.
- If the mother has undetectable viraemia it is appropriate to check the baby’s anti HCV status at 18 months of age via the GP or through neonatal follow up.
- Infants who have evidence of persisting anti HCV after 18 months of age or who have viraemia detected at an earlier stage need to be referred to a Paediatric Gastroenterologist (Dr Huw Jenkins or Dr Ieuan Davies)

References:
2. http://www.cdc.gov/mmwr/preview/mmwrhtml/00055154.htm
3. Management of Perinatal infections (ASID 2002); ISBN 1 74018 222 7

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Date for Review: February 2010
GUIDELINE for management of babies born to mothers with Hepatitis C

Hepatitis C antibody positive mother → Strongly advise HBV vaccination of baby

RNA detected in mother’s blood → Check HCV RNA PCR at 6 weeks and 3 months of age

- Any Positive is highly predictive for infection in baby – consider repeat to confirm single positive

- Perform RNA and antibody test on baby at 18 months

  - Positive = baby has HCV infection. Refer to Paediatric Gastroenterologist
  - Negative RNA + HCV antibody = baby not infected

RNA not detected: Very low risk of transmission → Consider

- HCV RNA PCR < 4 months of age

  - Negative High predictive value for baby NOT being infected

  - Test baby at 18 months for HCV antibody to ensure loss of maternal antibody

  - Positive
  - Negative baby not infected