Hepatitis C in pregnancy - diagnosis and management guideline (GL852)

Approval

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<tr>
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Change History

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Overview: The aim of the service is to follow Department of health\(^{(1)}\) recommendations to increase the diagnosis of individuals infected with hepatitis C. The three objectives of diagnosis are:

- Increasing the opportunity for those chronically infected with hepatitis C to access treatment with a specialist treatment service.
- Those diagnosed will have the opportunity to access advice on how to maintain optimal health.
- Diagnosis will give those infected the opportunity to avoid spread of infection to others.

In pregnancy this also applies to the early diagnosis and referral to specialist paediatric centre, of infants infected via vertical transmission.

Introduction

Hepatitis C is a viral infection of the liver. The acute infection is usually mild and undiagnosed and many people remain unaware of their condition. Around 20% of those infected will spontaneously clear the virus remaining antibody positive. It is important to remember that the presence of HCV antibodies offers no protection from future infection and there is no vaccine currently available. The remaining chronically infected individuals have a significantly higher risk of developing liver cirrhosis, liver failure and hepatocellular carcinoma. While the majority of infections acquired in the UK are result of injecting drug use nevertheless iatrogenic transmission is responsible for high HCV prevalence in populations migrating to the UK. There is currently no licensed anti-HCV drug for use in pregnancy.

Currently neither the National Screening Committee \(^{(2)}\) nor the National Institute for Clinical Excellence \(^{(3)}\) supports universal screening of the whole pregnant population as prevalence of infection in England vary from 0.4- 0.8\(^{(4)}\) although there are wide regional variations. One study in the nearest comparable area suggests a prevalence of around 0.2% in the pregnant population among women choosing to deliver at this Trust \(^{(6)}\) Nevertheless there is a significant community that represent a higher prevalence.

Risk factors to consider are as follows:

- Born in Central Asian republics particularly Pakistan, Afghanistan, the Russian Federation, Mongolia, Egypt and West Africa (particularly Nigeria).
- H/O intravenous or intra-nasal drug use
- H/o body modification, circumcision, tattooing, scarification in unregulated setting
- H/O long term haemodialysis
- H/O transfusion or transplant in UK pre 1992
- History of incarceration
• Co-infection with HIV and/or HBV

The rate of vertical transmission is:
• HCV seropositive non-viremic; very rare
• HCV seropositive viremic: 5.8%
• HCV seropositive, HIV positive: 13.1%

1. Identifying women with risk factors for Hepatitis C infection
1.1 The initial booking interview by a midwife
• All women with current substance misuse problems or a history of injection drug use should be referred to Miss Jane Siddall, consultant obstetrician. These women will be counselled regarding screening for Hepatitis C following the guidance for care (RBFT guideline Caring for women who misuse substances GL921).
• All women diagnosed with HIV infection in pregnancy are referred to Miss Sunetra Sengupta Consultant obstetrician.
• If the woman volunteers information about other risk factors for hepatitis C infection she should be counselled regarding screening and her wishes documented.
• Any woman with no identifiable risk factors requesting screening for hepatitis C must be referred to their GP. Request for screening of family and household members must also be referred to their GP.

2. Screening for hepatitis C and the giving of results
2.1 Women with risk factors for hepatitis C should be counselled regarding the pros and cons of being screened and of the implications of a diagnosis of chronic infection. If the mother is under GP/MW care but the community midwife does not feel able to counsel the woman, she can be referred to Jane Siddall’s clinic. The community midwife must discuss these referrals or any women she organises Hepatitis C screening for, with the specialist midwife substance misuse to ensure the women are captured in audit.

2.2 Results of an antibody screen are usually available within the week and positive results will be given to the antenatal and newborn screening co-ordinators who will notify the named midwife. Ideally results should be given by the person who organises the test. If the antibody result is positive if possible this should be face to face.

All women under GP/MW care who test positive for Hepatitis C should be referred to Jane Siddall. A second blood sample must be taken to confirm the results of the first one. Further screening for detectable virus levels (PCR test) often takes just over two weeks. If this is negative the woman can be advised regarding health...
promotion and harm reduction and given written information to back up verbal advice. The consultant team can also assess if there is any risk of the negative PCR/viral screen being due to the window period of the infection and retesting being advisable later in the pregnancy. To ensure no infants at potential risk are missed, follow up screening is likely to be offered when a mother is antibody positive. All women PCR positive for HCV to be additionally referred to the Viral Hepatitis Clinic.

2.3 Women who continue to inject in pregnancy or who recently stopped are at highest risk of becoming infected. They should be offered screening at booking, at 28 weeks and at 36 weeks or the immediate post natal period ideally, regardless of previous negative tests. They should also be offered advice on minimizing harm and maintaining health (12).

2.4 Women infected with HIV should be offered screening for hepatitis C. When the immune system is compromised by HIV infection the antibody response to HCV infection may be reduced or delayed but a hepatitis C viral load (PCR) will be positive. The specialist team for these women will decide if PCR test is indicated when antibodies are not detected.

3. Actions when chronic hepatitis C infection is diagnosed

3.1 Post-test counselling should provide more detail on the referral to a specialist gastroenterology team to discuss treatment options. At the RBH this will be the Virus Hepatitis Clinic. Those women who deliver at RBH but access general health care elsewhere can be referred to their local hospital. Staff should also discuss her plan of care in pregnancy and labour and vertical transmission risks.

3.2 The obstetrician will write to the GP specifying whether the woman wants:
- To be referred to -Viral Hepatitis Clinic Dr Alex Evans consultant hepatologist and Dean Linzey Nurse Consultant viral Hepatitis
- To discuss her options with the GP prior to making a decision about referral to a specialist and advice about screening partners, family and household members.
- Has declined referral to a specialist but wishes to discuss screening of those close to her.
- Has declined referral to a specialist and does not wish to discuss screening of anyone else.
- The woman’s wishes regarding postnatal vaccination against hepatitis A and B.

The Health Protection Agency (7) advice clarity about roles and responsibilities when Hepatitis C is diagnosed in the antenatal period.

The Health Protection Agency also require clinicians to notify their local (Thames Valley) unit of any newly diagnosed cases of hepatitis C and receive a copy of the results of any
newly diagnosed hepatitis C infection in a pregnant woman. They may wish to be involved in the discussion of the above points.

The woman should be given advice and written information on how to reduce the risk of passing Hepatitis C to others and how to maintain her own health (14).

3.3 The obstetrician must inform the specialist midwife substance misuse of any woman diagnosed with chronic hepatitis C infection. With the woman's permission she will write to the Clinical Nurse Hepatology in the RBFT with the woman’s details and a brief summary of her wishes.

4. Antenatal care
4.1 A recent review (16) found few studies had investigated the risk of transmission of the hepatitis C virus via amniocentesis and therefore could not find evidence of a significant risk. Ensure the woman is advised of and understands the theoretical risks of viral transmission with the procedure to enable her to make her choice. Note HCV positive pregnant women have a higher incidence of intrahepatic cholestasis of pregnancy (Wijarnpreecha 2017 (19)).

5. Intrapartum care
5.1 A systematic review (16) concluded there was no evidence to support elective caesarean Section to prevent vertical transmission of hepatitis C. There is some evidence for pre-labour C/S in women with very high viral load.

5.2 There are no studies evaluating the risks of invasive procedures in labour. If possible avoid any procedure that may increase the risk of transmission of the virus such as fetal scalp electrodes, perineal tears, episiotomies, etc.

6. Postnatal care
6.1 The RCM (17) recommend midwives support women’s wishes to breast feed when chronically infected with hepatitis C. No studies have found transmission of the virus via breastfeeding. There is a theoretical risk that if women have broken skin on their nipples from incorrect positioning the virus could be transmitted via micro abrasions in the infant's mouth. In this situation women can be referred to the breastfeeding clinic. They have the option of expressing until their skin heals and discarding the milk. They should not be advised to discontinue breastfeeding. If mother’s nipples crack and bleed baby should not be breastfed until nipples have healed. Breast feeding would be contraindicated is Mother is co-infected with HIV and presents a detectable HIV viral load.
6.2 Parents should be given advice about Hepatitis B immunisation for their infant, and
the baby immunised as per RBFT protocol (CG487)\(^{(18)}\).

6.3 The paediatricians must organise follow up screening for the infant at the baby clinic
at 3 months of age and repeat at 12 months of age. In the future research may
indicate changing the age for screening. Early screening has a reasonable degree
of accuracy and reduces the risk of infants being lost to follow up. Any infant
positive for vertical transmission of hepatitis C must be referred to the local
specialist paediatric centre.

7. References


2. NHS Infectious Diseases In Pregnancy Screening Handbook 2017


Hepatitis C Screening Pathway flowchart

- No risk factors
  - No risk factors for Hepatitis C, but requesting screening
  - Risk factors for Hepatitis C infection other than injection drug use identified
  - If there is current substance misuse or a history of injection drug use, the woman must be referred to Jane Siddall for Consultant care & Specialist MM for Substance misuse

- Any requests at any time in pregnancy to screen family or household members for HCV

- Antibody negative
  - Inform woman
  - Ensure no ongoing risk factors indicating serial screen and harm reduction advice
  - Consent for second sample for RNA test
  - Arrange when to give results

- RNA Negative
  - If no current risk factors give Harm reduction advice
  - If current injection user must be offered screening at 28-40 and 36-40 or postnatally
  - Discuss neonatal plan

- RNA Positive
  - Results face to face if possible
  - Obstetrician to write to GP re the woman’s wishes regarding referral to Viral Hepatitis Clinic, screening those close to her and having HAV+HBV vaccinations
  - Obs document Intrapartum plan
  - Give HP advice & breastfeeding support plus advice on theoretical risk of VT
  - Give written information on Chronic HCV and avoiding household spread
  - Discuss neonatal plan

- Neonatal plan
  - Offer HBV vaccination
  - Baby clinic to screen for HCV at 3/12 and 12/12

- Antibody positive
  - Inform the woman and reiterate implications of positive RNA test
  - Consent for second sample for RNA test declined

- Screening declined
  - Document and no further action

- Screening accepted
  - Refer to Miss Jane Siddall for Consultant care
  - Community MM confident to counsel woman prior to screening
  - Inform Specialist MM for Substance misuse to capture in audit
  - Contact Specialist MM for Substance misuse to capture in audit and discuss Consultant referral

- Counsel woman pros & cons of screening and implications of a positive result.
- Take samples and document risk factor on pathology request form
- Arrange when to give results
Appendix 2 – GP letter antibody positive PCR negative

[INSERT DATE]

Dear Dr

Re:

Instructions to doctor or midwife, please delete below as necessary
A hepatitis C antibody screening test taken on: has been found to be positive.

AND a follow up hepatitis C PCR viral screening test has been ☐ accepted
☐ declined

OR The hepatitis C PCR viral screening test on ........ has been found to be negative.

Repeat hepatitis C viral screening ☐ is not advised
☐ is advised because risk factors are recent or ongoing.

Screening her infant for hepatitis C will be offered at 3 months and 12 months of age.

Yours sincerely
Appendix 3 – GP letter PCR positive result

[INSERT DATE]

Dear Dr

Re:

A hepatitis C antibody screening test taken on: has been found to be positive.

A follow up hepatitis C PCR viral screening test on the: has been found to be positive.

Today her decisions regarding her own health are:

☐ She would like her GP to refer her to Viral Hepatitis Clinic (Dr Alex Evans consultant Hepatologist and Dean Linzey Nurse Consultant Viral Hepatitis) to discuss her options for treatment after delivery.
☐ She would like to discuss her options with you before making a referral to the Specialist Gastroenterologist.
☐ She does not wish to be referred to a specialist at the moment.
☐ She would like to be offered vaccination against hepatitis A and B at the surgery
☐ She does not wish to have hepatitis A or B vaccinations.
☐ She has already received Hepatitis A and Hepatitis B vaccinations.

Her decisions regarding family, friends and household members:

☐ She would like to see her GP to discuss screening those close to her.
☐ She does not want to discuss screening for any other persons.

Screening her infant for hepatitis C will be offered at 3 months and 12 months of age by the Paediatric team at the baby clinic.

Yours sincerely