OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE

Infections in Obstetrics: Hepatitis C

Scope (Staff):	Clinical staff
Scope (Area):	Obstetrics and Gynaecology

This document should be read in conjunction with the Disclaimer.

Contents Page

Aim 1
Background 1
Risk Factors 2
Screening for HCV 2
Interpreting HCV Results 3
Patient Information Regarding HCV 3
Planned Invasive Procedures 4
Intrapartum Management 4
Postpartum Management 5
Neonatal Management 5

Aim

- To offer antenatal screening for the hepatitis C virus (HCV) to all women
- Provide education to women positive for HCV regarding disease management during pregnancy, intrapartum and the postpartum periods
- Provide information to HCV positive women about strategies to prevent transmission of HCV and ensure postnatal follow-up for the mother and the neonate.

Background

For background information, epidemiology and prevalence see the RANZCOG Clinical Statement: Management of Hepatitis C in Pregnancy (C-Obs 51); and Department of Health Australia: Pregnancy Care Guidelines.

Risk Factors

Prevalence is estimated at 0.9% of the Australian population[1], however this level may rise as high as 80% in high-risk behaviour groups.[2] In Australia transmission predominantly occurs in people with a history of injecting drug use and people in prison.[3]

Risk factors for contracting HCV include:

- injecting drugs and sharing of equipment,[1, 3] use of intranasal cocaine[3]
- incarceration[1, 3]
- tattooing or body piercing[1, 3]
- working in environments where there is contact with bodily fluids[3] (e.g. needle stick injuries[1])
- country of origin high-prevalence region (e.g. Africa, central and east Asia,[3] Egypt, Pakistan, Mediterranean and Eastern Europe)[1]
- received blood transfusions or organ transplant[3] (prior to 1990)[1]
- participation in overseas invasive procedures[3]
- sharing of equipment with a person with HCV (e.g. sex toys,[1] razor, toothbrush)
- sexual partners of a HCV infected person (higher risk if partner has sex with men and people with HCV-HIV coinfection)[1] and practicing unsafe sex where blood may be present[1] (although the contribution of sexual transmission in the acquisition of HCV infection is controversial)
- children born to HCV infected mothers[1]
- people infected with HIV or hepatitis B virus (HBV), or evidence of liver disease[1]

Screening for HCV

Pre-pregnancy screening- Consider screening women pre-pregnancy so the woman may make an informed choice regarding treatment prior to planned pregnancy. Existing treatment options for hepatitis C are not recommended during pregnancy or breastfeeding.[2]

Screening during pregnancy

1. All antenatal women should have their HCV status reviewed at the booking visit. Women who have not been screened should be counselled, and the test performed if informed consent is given.[2, 3]
    - There is no intervention to preventing mother to baby transmission of HCV (apart from avoidance of invasive procedures), or recommended treatments during pregnancy, but if the woman is HCV PCR positive, then the woman and neonate will require follow-up. Treatment of the woman post- partum will reduce the risk of HCV in subsequent pregnancies.[3]

2. The initial screening test assesses for the presence of antibodies to HCV. The laboratory then will perform a confirmatory test. It may take 3 months from the time of infection until antibodies are detected.[4] People may naturally clear the virus, however, can still have antibodies present which may persist for life.[1]
    - Should a woman test positive to antibodies for HCV then a blood test for HCV RNA Polymerase Chain Reaction (PCR) should be ordered[2] to detect the presence or absence of the virus in the blood, the viral load, and the genotype.
    - Liver function tests (LFTs) should be performed at the same time when testing for HCV RNA status.[2]
    - All HCV positive patients should be screened for other blood borne viruses which may be co- transmitted (HBV, HIV).[4]
3. All newly diagnosed HCV infections require completion of mandatory Health Department of Western Australia Notification of Infectious Diseases.[4]

Interpreting HCV Results

Test	Result	Interpretation	Additional Information
Anti-HCV (antibodies) - enzyme immunoassay (EIA or ELISA)	Positive	Detects exposure to HCV in the present or the past.	The person may have cleared the virus naturally, or have an ongoing infection. A negative result usually indicates infection is not present, however the 'window-period' should be taken into account especially in high-risk circumstances, and repeat testing in 3 months may be required.[1]
HCV RNA PCR viral detection test	Positive	Confirms a person is currently positive for HCV	HCV is present in 6 months, it is a chronic infection.[1]
	Negative	Infection has cleared	Follow-up in 6-12 months is required to checked sustained clearance.[4]
HCV RNA PCR viral load		Measures the amount of virus in the blood	Useful in determining it a treatment is working.
HCV RNA viral genotype test		Determines genotype for HCV	Seven different genotypes of HCV exist[1] with antiviral treatment responding more effectively with some types than others. Genotype testing need not be delayed until specialist/ hepatology clinic review

Patient Information Regarding HCV

Provide verbal and written information about HCV including:

- The course of the illness
- Mode of transmission of the virus
- Prevention of HCV transmission
- Pregnancy and postnatal management
- Life-style changes e.g. Alcohol use, nutrition, fatigue and management of symptoms[1]
- Management of the neonate including recommended follow-up testing
- Community support services in Western Australia
- Women can be referred to http://www.hepatitiswa.com.au or The Deen Clinic for information
- Explain that effective treatments are now available. For PCR positive women treatment can be accessed post-partum through her GP, the Deen clinic 9227 9805 or a hepatology clinic

Planned Invasive Procedures

- Amniocentesis in women infected with HCV does not appear to significantly increase the risk of vertical transmission but the evidence base is very limited on this issue[3]. Prior to planned amniocentesis or chorionic villus sampling (CVS), a hepatitis RNA test is recommended and if positive, non-invasive options for testing should be offered if suitable[2]

Intrapartum Management

1. Standard precautions are utilised and should be implemented for all women. See KEMH Infection Prevention & Management Manual: Standard and Transmission-Based Precautions
2. Performing an elective caesarean section is not recommended as a way to prevent or reduce the incidence of vertical transmission of HCV.[2]
3. HIV co-infection significantly increases the risk of vertical transmission of HCV.[3]
4. Risk of vertical transmission of HCV increases with prolonged rupture of membranes, use of internal fetal monitoring, invasive procedures, and if the mother has a higher HCV viral load during labour or birth.[2, 3]
5. Where possible avoid procedures that may increase risk of vertical transmission of HCV including:
   - Fetal blood sampling[3]
   - Fetal scalp electrode use[3]
   - Early artificial rupture of membranes
   - If assisted delivery required, use of **soft** cup vacuum extraction (e.g. Kiwi) or forceps is preferred over a metal cup which poses increased risk for scalp injury[5]

- Episiotomy[3]

Postpartum Management

1. Encourage breastfeeding (Hepatitis C and Breastfeeding information available):
    - Breastfeeding is not contra-indicated for women with HCV infection. However, if the nipples are damaged, cracked or bleeding it is recommended the milk is expressed and discarded until the nipples are healed.[2]
2. Educate the mother about:
    - breastfeeding – prevention techniques to avoid nipple damage, checking of nipples following each feed
    - how to express breast milk – in case of damaged or bleeding nipples. See Newborn Feeding and Maternal Lactation Clinical Practice Guideline (Nipple Trauma, Expressing)
    - prevention of transmission of the HCV in the home environment
    - follow-up testing for the neonate
3. Follow-up: For PCR positive mothers, discuss preferences for GP, Deen clinic or Hepatology Clinic follow up.
4. Encourage women with chronic HCV to have immunisations for Hepatitis A and B if non-immune.[1]

Neonatal Management

- The neonate should be bathed to remove maternal body fluids prior to intramuscular (IM) injections e.g. Vit K [2]
- It is recommended that a child at risk of perinatal transmission for HCV should be tested for HCV antibodies after the appropriate time interval has passed.[2]. Refer to CAHS Neonatal Postnatal Ward guidelines: HCV: Care of the Infant Born to HCV Positive Women.
- Postnatal review of the neonate will be conducted by the paediatrician who will generate a letter to the GP indicating appropriate neonatal follow-up testing for HCV. Options for follow up include serology at 18 months, or HepC RNA at 3 months of age.

References and resources

1. Hepatitis C Virus Infection Consensus Statement Working Group. Australian recommendations for the management of hepatitis C virus infection: a consensus statement (June 2020) Melbourne: Gastroenterological Society of Australia 2020. Available from: https://static1.squarespace.com/static/6230538e227fce48f5afc691/t/624abc3cfde58d0c9115be3e/1649065031259/Australian_recommendations_management_hepC.pdf
2. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. C Obs 51: Management of hepatitis C in pregnancy: RANZCOG; 2020. Available from:

References and resources

https://ranzcog.edu.au/wp-content/uploads/2022/05/Management-of-Hepatitis-C-in-Pregnancy-C-Obs-51.pdf

3. Department of Health. Part F: Routine maternal health tests: 35- Hepatitis C. 2024. In: Clinical Practice Guidelines: Pregnancy Care [Internet]. Canberra: Australian Government Department of Health. Available from: https://app.magicapp.org/?language=en#/guideline/jm83RE
4. Sexual Health and Blood-borne Virus Program. Hepatitis C. In: Silver book - A guide for managing sexually transmitted infections and blood-borne viruses [Internet]. Communicable Disease Control Directorate, Department of Health Western Australia. Available from: https://www.health.wa.gov.au/Silver-book
5. O'Mahony F, Hofmeyr GL, Menon V. Choice of instruments for assisted vaginal delivery. The Cochrane Database of Systematic reviews. 2010 (11).

Related policies

CAHS Neonatal Postnatal Ward guidelines: HCV: Care of the Infant Born to HCV Positive Women

Related WNHS procedures and guidelines

KEMH Infection Prevention & Management Manual: Standard and Transmission-Based Precautions

Useful resources (including related forms)

Department of Health website: Hepatitis C and Breastfeeding

Hepatitis Australia: Hepatitis C Guides for GPs and Patients and in other languages

Silver book: Hepatitis C and STI Screening Recommendations for High Risk Populations

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Version History

Version Number	Date	Summary
1.0	September 2008	First version
	January 2015	Revised version
	September 2020	Revised version
	August 2024	Clinical decision by Executive to extend review date by 12 months

The health impact upon Aboriginal people has been considered, and where relevant incorporated and appropriately addressed in the development of this policy.

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