



GUIDELINE

Hepatitis C Virus (HCV): Care of the Infant Born to HCV Positive Women

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, KEMH PNW, NETS WA

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Aim

To provide guidance on identifying, testing, and managing infants born to Hepatitis C Virus (HCV)-positive mothers, ensuring early detection, minimising missed testing opportunities, and promoting timely referral to appropriate specialists for intervention and management of HCV in infants.

Risk

Failure to follow this policy may result in delayed diagnoses, and missed opportunities for early intervention, potentially leading to long-term health complications for HCV infected infants.

Background

Hepatitis C Virus (HCV) is an RNA virus affecting millions globally, with high prevalence rates in the Eastern Mediterranean, Southeast Asia, and Europe who are chronically infected¹. HCV infects the liver and circulates in the bloodstream. In children exposed to the virus, an acute hepatitis episode may occur, though severe cases are uncommon.

In Australia, perinatal transmission is the most common mode of HCV transmission for children³. Infants born to HCV RNA-positive mothers have a 5-9% risk of acquiring hepatitis C, which increases to 10.8% if the mother is co-infected with HIV^{4,5}.

The risk of transmission to infants born to mothers who are HCV antibody positive but HCV RNA-negative (consistent with past cleared infection, successfully treated infection or a false positive HCV antibody result) is minimal, especially where there are no ongoing maternal risk factors for HCV acquisition during the current pregnancy.

For information regarding HCV acquisition risk factors in adults, see: [Decision Making In Hepatitis C | ASHM Health](#)

While the natural history of hepatitis C virus (HCV) infection in adults has been established, less is known about its course in children⁶. About 25-50% of infected infants spontaneously resolve HCV infection by 4 years of age^{2,6}. Those who do not clear it and have chronic HCV face an increased risk of developing cirrhosis, liver failure, or liver cancer in early adulthood due to ongoing progressive fibrosis⁷. Although there is no vaccine for HCV, effective antiviral treatments are now available, including safe options for children².

Key Points

- All HCV-infected mothers should be counselled and offered testing of their infant to determine their infant's HCV status for HCV. For infants born to HCV RNA-positive women, early testing for the detection of HCV RNA, starting from as early as 3-4 months of age, is recommended to ensure timely diagnosis and referral to paediatric gastroenterology or infectious diseases services, reducing the risk of loss to follow-up².
- Follow QRG [OPA referral and infant testing algorithm based on maternal test results and risk factors](#).
- For infants born to women with evidence of past HCV infection (HCV antibody positive and HCV RNA-negative), the risk of perinatal HCV transmission is minimal. A single HCV antibody test (HCV serology) is recommended for these infants at approximately 18 months of age.
- Standard precautions are sufficient for newborn care in the nursery, as no special precautions are needed. There is no risk of virus transmission through urine or stool. Please refer to [CAHS IPC Transmissible Diseases Index Guideline](#) for further information.
- Confirm that the mother has been tested for other bloodborne viruses, particularly HIV and Hepatitis B.
- Breastfeeding is generally safe; however, mothers should be advised of the increased risk of transmission if they have cracked nipples, engorgement, mastitis, or other inflammatory conditions. During these times, mothers should avoid breastfeeding, feed the infant with formula, and express and discard breast milk until the condition resolves^{2,6}.
- It is unnecessary to test cord blood or perform immediate testing of the neonate after birth².

Definitions

Acute HCV infection	A recent hepatitis C virus (HCV) infection, typically occurring within the first six months after exposure.
Chronic HCV infection	An HCV infection that persists for more than six months.
Past HCV infection	Evidence of a resolved HCV infection, where HCV antibodies are present, but no detectable HCV RNA. This indicates that the person was previously infected but has cleared the virus, either spontaneously or through treatment.
HCV positive women	Women are classified as HCV-positive if they test positive for HCV antibodies and have detectable HCV RNA in their blood at any point during pregnancy, regardless of whether they are undergoing treatment for HCV during pregnancy.
HCV Antibody	The presence of HCV antibodies indicates exposure to the virus but does not confirm an active infection.
HCV RNA	Detection of HCV RNA in blood indicates an active infection, as it confirms the presence of the virus in the body.
HCV Viral load	The quantity of HCV RNA in the blood, measured as copies per millilitre.
Blood borne viruses	Viruses that can be transmitted through exposure to infected blood or bodily fluids. Common BBVs include hepatitis B (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV).

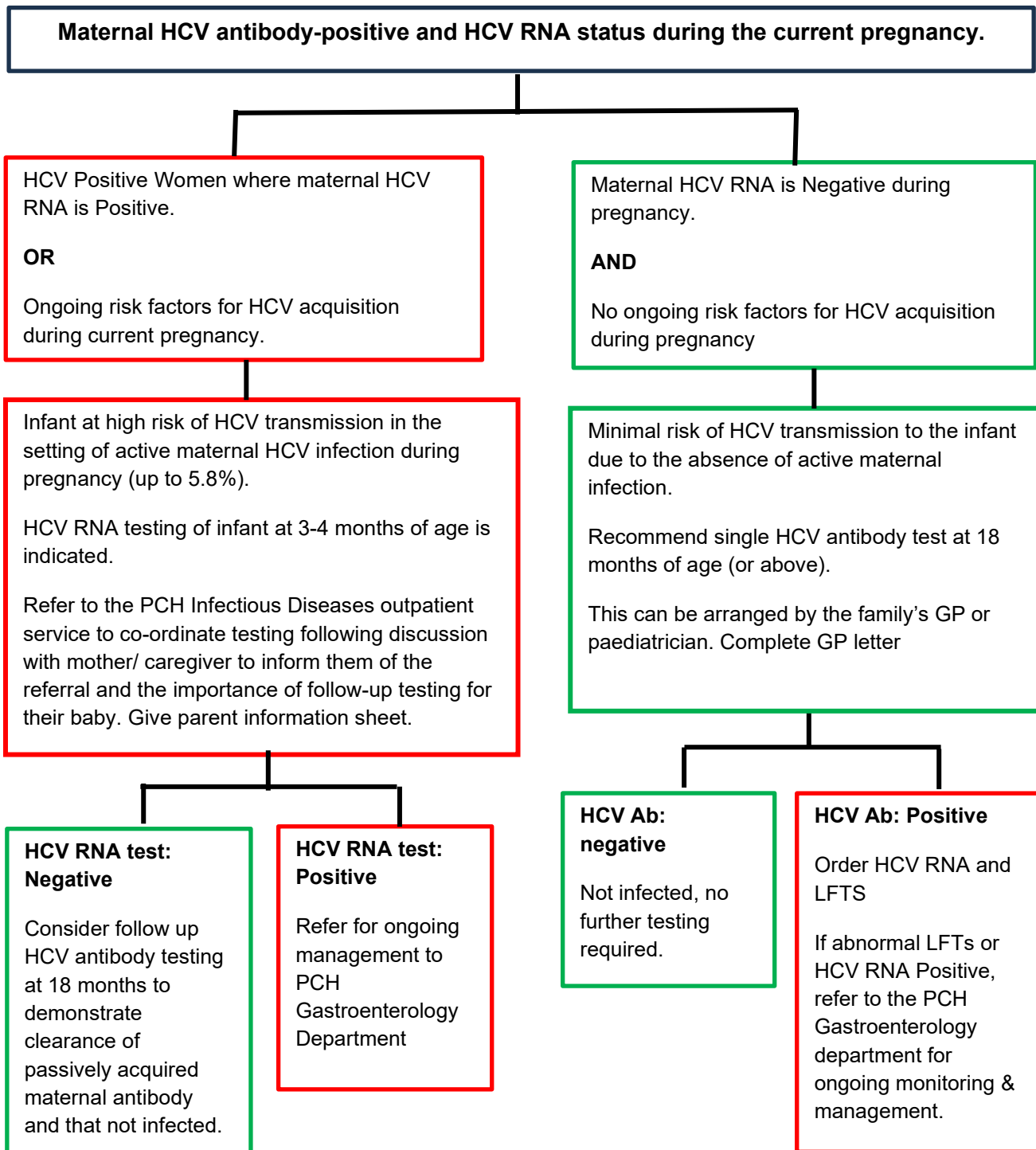
Transmission and Prevention in Neonates

The risk of perinatal transmission is increased by premature rupture of membranes and invasive foetal monitoring rather than by delivery mode. To reduce transmission risk, obstetric management should focus on limiting foetal exposure to maternal fluids and blood by avoiding invasive procedures whenever possible⁸.

Breastfeeding Guidance

Although HCV RNA has been detected in breast milk from mothers with very high viral loads, levels are typically much lower than in blood. Breastfeeding is generally not a significant route for HCV transmission. Breastfeeding is not contraindicated for HCV-positive women, however, mothers with cracked nipples or, engorgement or mastitis should temporarily avoid breastfeeding until these issues resolve⁸. Refer to the [Hepatitis C and breastfeeding \(healthywa.wa.gov.au\)](http://healthywa.wa.gov.au)

Recommended outpatient referral and infant testing algorithm based on maternal test results and risk factors².



- Arrange testing via e-Referral to the PCH Infectious Diseases outpatient service.
- Typically, early diagnosis does not necessitate medical intervention.
- Infected infants should receive the Hepatitis A and Hepatitis B vaccines due to a higher risk of severe infection.
- Refer confirmed positive HCV RNA infants to the PCH Gastroenterology outpatient service.

Treatment

Treating infants with liver disease and HCV requires specialist expertise from a Paediatric Gastroenterologist. Safe, well tolerated and effective therapies are available for children with chronic HCV.

Parental advice for HCV Positive mothers

The parent information sheet (to follow) is specifically applicable to parents of higher-risk infants in relation to HCV. For further support, the Hepatitis Info Line is available across Australia, offering confidential, free, and localized information and services related to viral hepatitis. Contact 1800 437 222 (1800 HEP ABC).

Related CAHS internal policies, procedures and guidelines

[WNHS Infections in Obstetrics: Hepatitis C \(O & G Clinical Guidelines\)](#)

[CAHS.IC.Transmissible Diseases Index \(health.wa.gov.au\)](http://health.wa.gov.au)

References and related external legislation, policies, and guidelines

1. World Health Organisation, 2024, Hepatitis C, accessed 8 November 2024, available at: [Hepatitis C \(who.int\)](http://who.int)
2. ASHM, 2024, HCV In Children: Australian Commentary On AASLD-IDSA Guidance.
3. ASHM, 2024, Decision Making – Hepatitis C In Children.
4. Benova, L., Mohamoud, Y.A., Calvert, C. and Abu-Raddad, L.J., 2014. Vertical transmission of hepatitis C virus: systematic review and meta-analysis. *Clinical infectious diseases*, 59(6), pp.765-773.
5. Quek, J.W.E., Loo, J.H., Lim, E.Q., Chung, A.H.L., Othman, A.B.B., Tan, J.J.R., Barnett, S., Nguyen, M.H. and Wong, Y.J., 2024. Global epidemiology, natural history, maternal-to-child transmission, and treatment with DAA of pregnant women with HCV: a systematic review and meta-analysis. *Eclinicalmedicine*, 74.
6. Musto, F., Stracuzzi, M., Crivellaro, E., Rubinacci, V., Cibarelli, A., Porro, C., Ghidoni, E., Zuccotti, G.V. and Giacomet, V., 2024. Natural History and Management of Hepatitis C in Children: 25 Years Experience of a Reference Center in Northern Italy. *The Pediatric Infectious Disease Journal*, pp.10-1097.
7. Modin, L., Arshad, A., Wilkes, B., Benselin, J., Lloyd, C., Irving, W.L. and Kelly, D.A., 2019. Epidemiology and natural history of hepatitis C virus infection among children and young people. *Journal of hepatology*, 70(3), pp.371-378.
8. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 2020, Management of Hepatitis C in pregnancy

Useful resources

[Hepatitis C and breastfeeding \(healthywa.wa.gov.au\)](#)


[Neonatology referral - GP Referral Letter](#)

[HepatitisWA](#)

HCV Testing Requirements (Type/Minimum Volume) [PathWest Laboratory Medicine WA](#)

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This document can be made available in alternative formats on request.

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