

Viral Hepatitis in Children

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Introduction

In 2009, the Paediatric Viral Hepatitis Network (PVHN) was developed, funded by the NSW Ministry of Health, and facilitated by the Agency of Clinical Innovation (ACI). This was following a study, over an eight year period (2000-2007) suggesting a need to develop tertiary services for children with chronic viral hepatitis. Below is a brief summary of the findings of this study.

	No. of children identified to NSW Health ¹	No. children referred to tertiary centre*
Chronic Hepatitis B	930	79 (8%)
Chronic Hepatitis C	777	29 (4%)

* referral to specialist clinics at three tertiary referral children's hospitals in New South Wales [Children's Hospital at Westmead (CHW), John Hunter Children's Hospital (JHH) and Sydney Children's Hospital (SCH)].

The aims of the PVHN are to establish screening, referral and management guidelines so that children with chronic viral hepatitis, and their families, can be identified and receive optimal care.

HBV

Transmission.

Most common mode of transmission - vertical transmission.

When active and passive immunisation is given to the infant at birth the transmission rate is approximately 10% when the mother is HBsAg + with a high viral load.

Who to test?

Any baby or child born to a mother who is HBsAg+. Also consider people from Asia, Africa, Middle East, Indigenous Australians, history of drug use, other high risk groups.

Screening tests.

Children can be screened from 9 months of age to allow for clearance of maternal antibodies.

HBsAg test >9 months of age.

(three months after fourth Hepatitis B vaccination)

Screening should be offered despite administration of both passive and active immunisation to infants



Barriers

- Parental guilt and anxiety
- Stigma
- Lack of knowledge
- Difficult patient demographic
- Lack of education
- Lack of resources

HCV

Transmission.

Most common mode of transmission – vertical transmission.

Transmission rate is approximately 5-7% of births when the mother is HCV RNA+.

Who to test?

Any baby or child born to a mother who is known to be HCV+, also consider children born to mothers from at risk groups.

Screening tests.

Babies can be screened from 8-12 weeks of age with a PCR or from 18 months of age HCV antibody to allow for clearance of maternal antibodies.

HCV RNA PCR from 8-12 weeks of age
OR

Anti HCV >18 months of age.

Conclusions

- Greater awareness of screening for chronic hepatitis in paediatrics is needed
- There are limited services available for children with chronic viral hepatitis
- Treatments are available for children.

At the Children's hospital at Westmead we have treated patients for hepatitis B and hepatitis C. See table below.

HBV	HCV G3	HCV G1
1 child - oral antiviral therapy 2 children - treatment with Peg-Int	11 children - 10 SVR (Peg + Riba) 1 null responder	3 children – 2 SVR (Peg + Riba) 1 triple therapy – null responder