

# Hepatitis C infection in children for health professionals

## Hepatitis C virus infection in children

The natural history of the Hepatitis C Virus (HCV) in children is not well understood, but significant liver disease including chronic hepatitis, cirrhosis and hepatocellular carcinoma is reported in adolescence.<sup>1</sup>

Approximately 7% of infants born to mothers who are HCV RNA positive will acquire the infection. A conservative estimate is 125-250 new paediatric cases each year in Australia.<sup>2,3</sup>

The majority of these children remain undiagnosed in the community, and therefore do not receive the available specialist paediatric follow-up.

Some studies suggest that approximately 40-45% of children spontaneously clear the Hepatitis C Virus.<sup>4</sup>

## Why is it important for a child to be receiving follow-up?

Chronic HCV is typically asymptomatic in young children, but significant progressive liver damage may occur.

Early diagnosis, monitoring and regular assessment is essential to provide optimal care for these children. This will:

1. identify children at risk of developing significant liver disease
2. identify children who would benefit from HCV treatment
3. help prevent chronic liver disease and its sequelae in adulthood.

## Which children should be tested for HCV?

- Infant born to mothers with HCV
- Children with parents at risk of, or known to have, HCV
- Children exposed to blood or blood products before February 1990
- Intravenous drug users who have shared needles
- Children with hepatitis or unexplained abnormal liver tests

## Treatment options

Recent trials in Europe and the United States have shown encouraging results in treating children for HCV, using Pegylated (PEG) interferon and ribavirin treatment as for adults.

Therapy based on compassionate grounds has enabled the treatment of children with HCV at the Children's Hospital, Westmead (CHW).

## What can you do as a health professional?

Contact the Paediatric Viral Hepatitis Network – Janine Sawyer on 02 98453989.

1. Recommend appropriate screening for all infants of mothers who have HCV:
  - HCV RNA PCR from 2 months of age if HCV antibody positive (to distinguish maternal transfer of antibody versus infection)
  - HCV antibody at 18 months of age or older

These can be linked in with the child's immunisation visits.

2. Discuss the availability of specialist follow-up with the child's parents or guardians in those children found to be HCV positive.

## Further reading

For further details, see the article on ***Chronic hepatitis B and C infection in children in New South Wales*** at: [http://www.mja.com.au/public/issues/190\\_12\\_150609/nig11218\\_fm.html](http://www.mja.com.au/public/issues/190_12_150609/nig11218_fm.html)

## Who can you contact for more information?

### Janine Sawyer

Clinical Nurse Specialist

Paediatric Viral Hepatitis Clinic

Children's Hospital at Westmead.

98453989 or 98450000 page 6233

[janines1@chw.edu.au](mailto:janines1@chw.edu.au)

## References

1. Nightingale, S., Stormon, M.O., Day, A.S., Webber, M.T., Ward, K.A. and O'Loughlin, E.V. Chronic Hepatitis B and C infection in children in New South Wales. Medical Journal of Australia, 2009; 190:670-673.
2. Hardikar, W., Elliot, E.J. and Jones, C.A. The silent infection: should we be testing for perinatal hepatitis C and if so how? Medical Journal of Australia, 2006; 184(2): 54-55.
3. Kesson, A.M. Diagnosis and management of paediatric hepatitis C virus infection. Journal of Paediatrics and Child Health, 2002; 38(2): 213-218.
4. Wong, W. and Terrault, N. Update on Chronic Hepatitis C. Clinical Gastroenterology and Hepatology, 2005;3:507-520