

BACKGROUND

An estimated 1.1% of the adult population in Australia has been infected with HCV1. The majority of infected adults go on to develop to chronic liver disease and some develop liver failure or hepatocellular carcinoma. Thus HCV infection poses a significant public health problem in Australia.

Since blood donor screening was introduced in Australia in 1990, the rate of transfusion acquired HCV infection has dropped to very low rates^{2,3}. However the prevalence of HCV infection in Australian children exposed to blood products before 1990 is unknown.

The major ongoing source of HCV infection in Australian children is through perinatal transmission⁴. Other potential sources of HCV infection in children under 15 years include intrafamilial transmission (through mucosal contact with blood or saliva), percutaneous exposure through needlestick injury⁵ and lifestyle factors such as the child's intravenous drugs use, body piercing or tattooing.

Little is known about the natural history of HCV infection in children⁶, although it would appear that HCV in childhood is a clinically silent infection^{6,7}. In a European study of children with vertically acquired HCV infection diagnosed due to known maternal HCV infection, 90% of the 104 children followed for 6 to 153 months developed chronic infection, although persistent abnormalities on liver function test were uncommon after the second year of life⁶. The infection was asymptomatic in over 95% and hepatomegaly was detected in only 2%. No child in that cohort had growth failure or jaundice. In a longitudinal study of 90 children with transfusion acquired HCV infection after cardiac surgery, 80% of this cohort had evidence of chronic infection 25 years later. Of these adults 40% had abnormal liver function tests⁷.

Hepatitis A Virus (HAV) vaccination is recommended for HCV-infected children older than 2 years of age to reduce the risk of additional liver damage from HAV co-infection. Hepatitis B vaccination is universally recommended for Australian children^{8,9}. Aside from the recommendations regarding immunisation, there are few clear management guidelines for the care of HCV infection in children

STUDY OBJECTIVES

The objectives of this study are to:

1. determine the reported incidence of newly diagnosed HCV infection in Australian children
2. describe the clinical presentation, investigation and management of newly diagnosed HCV infection in Australian children
3. document the presence of known risk factors for HCV infection in an Australian paediatric population
4. determine the prevalence of co-infection with Hepatitis B Virus (HBV) and/or Human Immunodeficiency Virus (HIV) in Australian children with newly diagnosed HCV infection.

CASE DEFINITION

Please report any child <15 years of age with newly diagnosed hepatitis C virus infection defined

as:

- at least one confirmed positive anti-HCV antibody test performed at age greater than or equal to 18 months,

OR

- a positive anti-HCV antibody test on a single occasion AND a positive test for HCV RNA (PCR or RTPCR) on single occasion at any age > 1 month of age,

OR

- a positive HCV RNA test (PCR or RT-PCR) on two separate occasions.

FOLLOW-UP OF REPORTED CASES OF HCV INFECTION IN CHILDREN

A questionnaire requesting further details will be forwarded to clinicians who report a child with Hepatitis C. Virus infection to the APSU. A brief 6-month follow-up questionnaire will also be sent to reporting clinicians.

A copy of the initial and 6 month follow-up questionnaires are enclosed for your information.

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