

Table 1
Interpretation of hepatitis C virus (HCV) virological test results

Patient age	Born to HCV-infected mother	HCV antibodies	HCV RNA PCR	HCV RNA in liver or PBMCs*	Interpretation	Significance in paediatric patients
≤2 mo	Yes	Present	Not detected		Too early to interpret result because patient may not yet be viremic if transmission occurred at birth.	
2–17 mo	Yes	Present	Not detected		Vertical transmission of HCV did not occur, or the child has cleared HCV	Because the sensitivity of HCV RNA PCR may be <100%, antibodies should be tested at ≥18 months of age. If still present, HCV RNA PCR should be repeated to ensure HCV has been cleared. Children who clear HCV likely have no or very rare sequelae.
≥6 mo	Yes/No	Present	Detectable for >6 mo		Chronic HCV	Usually persists indefinitely in the absence of antiviral therapy, but spontaneous clearance likely more common in children than in adults.
≥18 mo	Yes/No	Present	Not detected	Small studies (15,16) in adults show virus almost always detectable in PBMCs and liver	Clearance of HCV†	Clearance occurs spontaneously with approximately 25% of acute HCV and an undetermined small percentage of chronic HCV, or occurs with successful antiviral therapy.
Any age	Yes	Absent	No need to test		Vertical transmission of HCV did not occur, or the child has cleared HCV	Children who clear HCV likely have no or very rare sequelae.
Any age	Yes/No	Present	Detectable in a child <6 mo of age, or detectable <6 mo after a negative antibody or PCR test		Acute HCV	An estimated 75% will develop chronic HCV and 25% will clear HCV.
Any age	Yes/No	Absent	Present		Seronegative (immunosilent) HCV, or very early acute HCV (infection typically occurred 20 to 60 days prior)	Seronegative HCV mainly described in HIV coinfecting adults and other immunosuppressed patients with the incidence in children not known.
Any age	Yes/No	Absent	Absent	Present	Occult HCV	Described in adults with unexplained elevated transaminase levels (18), with there being no paediatric studies.

*Interpretation assumes the HCV RNA result is not a false-positive, which occurs on rare occasions. *Only available as a research tool; †Some experts label this 'occult HCV' if virus is detectable in peripheral blood mononuclear cells (PBMCs) or in the liver, and transaminases are normal; most reserve the term 'occult HCV' for seronegative patients. Mo Months; PCR Polymerase chain reaction*