

Hep C factsheets

PCR availability



What is PCR (RNA) testing?

PCR viral detection test

PCR viral load testing

PCR genotype testing

Availability - viral load tests

Availability - genotype tests

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Also see

What is PCR (RNA) testing?

RNA testing refers to an advanced technology that is used to detect, in this case, ribonucleic acid from the hep C virus (also called HCV).

Several types of RNA technologies exist with the most commonly-used version being the Polymerase Chain Reaction (PCR) test. Less commonly used versions include the transcription mediated amplification (TMA) test - which is used as a screening test by Australian blood banks, and the branched chain DNA (bDNA) test which is generally used as a research tool.

The development of RNA testing over the last couple of years and the general availability of PCR testing is now being seen as a major advance in regard to both clinical assessment and treatment of people with hep C.

Unlike the HCV antibody test that looks for signs that the body has at some time mounted an immune response to HCV, the PCR test looks for current presence of the virus.

There are three types of PCR tests:

HCV PCR viral detection test : it looks for the virus, formally called 'qualitative test'

HCV PCR viral load test : it looks for the virus and estimates how many HCV viruses per ml of blood, formally called 'quantitative test'

HCV PCR genotype test : it looks for the virus, and determines the particular genotype of HCV.

PCR viral detection test

The basic PCR viral detection tests are used to confirm the actual presence of HCV. This is especially useful in the case of people who have an inconclusive (unclear) HCV antibody test, or with people who have signs they may have previously cleared their hep C (i.e. their liver function tests are consistently normal and they experience no symptoms of hep C illness).

PCR viral detection tests are also used to confirm HCV status when a person has immunodeficiency (e.g. due to HIV infection) as this condition can be associated with a false negative HCV antibody test result.

PCR viral detection tests are also used at four weeks after a transmission risk incident (e.g. a needlestick injury) to check if a person has contracted hep C.

PCR viral load testing

PCR viral load testing estimates the amount of hep C virus circulating in someone's blood. This test can help in determining the likelihood of response to treatment, particularly in regard to people with genotype 1.

People with genotype 1 and a low viral load have a higher chance of cure (60-65%) than those people with genotype 1 and high viral load (45%).

Cure is defined as having no presence of the virus immediately after therapy, and for six months afterwards.

PCR genotype testing

PCR genotype testing can help determine a person's chances of responding to therapy. With pegylated combination therapy, those people with genotypes 2 and 3 have a higher chance of cure (approx 80%) than those people with genotype 1 (approx 50%).

Cure is defined as having no detectable level of the virus immediately after therapy, and for six months afterwards.

Availability - PCR viral load tests (69442)

Medicare funded viral load testing is made available in the pre-treatment evaluation or the assessment of efficacy of antiviral therapy of a person with chronic hep C - where any request for the test is made by or on the advice of the specialist or consultant physician who manages the treatment of the patient with chronic hep C (including a service in item 69444 or 69445).

NB: not more than two of these tests in a 12 month period.

Availability - PCR genotype tests (69443)

Medicare funded genotype testing is made available if:

- (a) the person is HCV RNA positive and is being evaluated for antiviral therapy of chronic hep C; and
- (b) the request for the test is made by, or on the advice of, the specialist or consultant physician managing the treatment of the person;

NB: not more than one of these tests in a 12 month period

Availability - PCR viral detection test in diagnosis (69444)

Medicare funded RNA basic detection (PCR) testing is made available if at least one of the following criteria is satisfied:

- (a) the person is HCV antibody test positive; or
- (b) the person's HCV status is uncertain after testing; or
- (c) the test is performed for the purpose of:
 - (i) determining the HCV status of an immuno-suppressed or immuno-compromised person; or
 - (ii) the detection of acute hep C (prior to seroconversion) where considered necessary for the clinical management of the person;

NB: not exceeding one test in a 12 month period.

"HCV antibody positive," means two different assays of hep C antibodies are positive.

"HCV antibody status is uncertain," means any result where two different assays of hep C antibodies are inconclusive.

Availability - PCR viral detection test in hep C antiviral therapy (69445)

Medicare funded RNA basic viral detection tests are made available for people undertaking antiviral therapy for chronic hep C (including a service described in item 69444)

NB: not exceeding four tests in a 12 month period

Also see

Hep C Genotypes (factsheet)

PCR & Transmission (factsheet)

Preparing For Testing (booklet)

What You Need To Know (booklet)

- This factsheet was developed by the Hepatitis C Council of NSW. It was reviewed by the Hepatitis C Council of NSW Medical and Research Advisory Panel.