# General Practitioners and Hepatitis C

## Introduction

Over the past decade the hepatitis C virus (HCV) has been Australia's most commonly notified infectious disease. In 2004, it was estimated that approximately 194,260 people living in Australia had been exposed to the virus and that 13,028 new diagnoses were reported in 2004.[1] The virus can cause long-term liver problems, including cirrhosis and hepatocellular carcinoma (HCC). However, there is still widespread misunderstanding about HCV – how it is transmitted, infectivity, who is at risk, management of the condition and prognosis.

Before hepatitis C testing was developed in 1989, it became apparent that some people receiving blood transfusions and blood products were contracting hepatitis, despite the fact that blood products were screened for hepatitis B. The majority of these cases, known as non-A non-B hepatitis or post-transfusion hepatitis, have since been identified as hepatitis C.

### The virus

Hepatitis C is a ribonucleic acid (RNA) virus, belonging to the flavivirus family.[2] Genetically distinct viral groups have evolved, with nine different genotypes of hepatitis C identified[3] and approximately 40 different subtypes. There are many predictive factors associated with the effectiveness of antiviral treatment. The hepatitis C genotype is the most significant factor.

### Transmission

Hepatitis C transmission occurs predominantly through blood-to-blood contact.[4] The most common mode of transmission in Australia is injecting drug use (IDU), which is responsible for approximately 73% of the estimated 194,260 prevalent cases nationally and 90% of the estimated 13,000 annual incident cases.

Injecting drug users must be encouraged to never share any injecting equipment and to use sterile water, needles and syringes, as well as clean injecting equipment (such as spoons, filters and tourniquets) each time they inject, to reduce the risk of infection.

The risk of transmission of HCV may be increased in developing countries where health-care infrastructure cannot support the implementation of standard universal precautions and safe disposal of contaminated waste[5,6], or where mass vaccinations programs have occurred.[7]

Investigations of sexual transmission of HCV are limited, giving little attention to sexual practices where blood-to-blood contact may occur or the presence of other significant HCV risk factors. Little or no transmission of HCV has been reported in heterosexual, serodiscordant monogamous relationships. Similar findings have been reported in studies of women having sex with women (WSW)[8] and in gay men[9], with HCV prevalence comparable to the general community. The risk of transmitting HCV sexually is reportedly greater from HCV/HIV coinfected individuals, although the degree of risk is not well defined.

The role of sexual transmission, if any, is still controversial. Further research is needed. The evidence at this time suggests a very low rate of transmission.[10]

The risk of vertical transmission of HCV varies from 0 to 11%.[11] Coinfection with HIV has been reported to increase the rate of transmission twofold.[12] To date, the National Health and Medical Research Council has not recommended changes to obstetric practice during antenatal care, delivery and puerperal care or in management of the neonate.

### How is hepatitis C different from hepatitis A and B?

**Hepatitis A (HAV)** is usually a mild disease that does not become chronic. It is passed on orally via food and/or water contaminated with faecal particles from an infected person or occasionally via oral/anal sexual contact and rarely through blood-to-blood contact. There is no specific treatment for hepatitis A.

**Hepatitis B (HBV)** can be mild, severe, acute or chronic. About 5% of adult HBV infections become chronic. Most cases of chronic HBV infection worldwide occur through mother-to-child transmission. In Australia, most new cases of HBV are acquired through sexual contact with an infected person. Hepatitis B can also be transmitted through infected blood, including contaminated injecting equipment. Antiviral drugs, post-exposure prophylaxis and vaccination are available for hepatitis B.

*To prevent complications of coinfection it is recommended that people with hepatitis C are vaccinated against hepatitis A and B.*

Currently there is no indication for elective caesarean section in HCV-positive mothers.[13] However, the use of fetal scalp sampling and/or electrodes for monitoring is best avoided.[14] Despite HCV RNA being detectable in breast milk, breastfeeding has not been directly linked to transmission of HCV.[15] Australian guidelines recommend breastfeeding should not be discouraged. There are many advantages to breastfeeding for the mother and baby, and the choice to breastfeed or not should be left up to parents. Breastfeeding mothers should check their nipples before each feed and avoid breastfeeding if they are cracked or bleeding.[14]

# Management of hepatitis C in the medical setting

## Pre- and post-test counselling

General practitioners and other primary health care professionals play an important role in providing pre- and post-test counselling as part of diagnostic testing for hepatitis C. Provision of thorough test counselling in a primary health care setting utilises a valuable educational opportunity to prevent hepatitis C transmission in the community. Test counselling requires the practitioner to assess past and current risk of infection, give information regarding risk of transmission, gain informed consent and provide follow-up care or referral as required.[16] Hepatitis C infection remains highly stigmatised due to its association with injecting drug use.

During pre-test counselling, practitioners are obliged to provide patients with clear, appropriate information about hepatitis C, including transmission prevention and harm-reduction measures, such as using new injecting equipment. Patients must be allowed time to ask questions and be given clear answers. As waiting for test results can cause patients anxiety, further emotional support may be required during this time.

### Pre-test counselling

- Inform patient of confidentiality to alleviate his/her anxiety
- Enquire about patient motivation/reason for requesting test
- Provide clear, appropriate information about hepatitis C, including natural history and modes of transmission
- Educate about transmission prevention and harm-reduction measures
- Explain the process and implications of testing, including the window period and possibility of indeterminate results
- Discuss benefits of early detection and allow informed decision-making about testing
- Assess patient's ability to cope with the test and check availability of social supports
- Help patient prepare for the possibility of a positive result
- Supply easily accessible written material about hepatitis C

Post-test counselling aims to minimise the trauma of hepatitis testing and to reinforce patient education about reducing the risk of transmission.[17] Listen and respond to the patient's immediate needs and if possible, enlist an available support person.

***For all test results, reinforce transmission prevention messages and lifestyle issues such as drug and alcohol use.***

### Post-test counselling

- Always give test results in person, not over the phone or in writing
- Establish rapport and assess the patient's readiness to receive results
- To avoid confusion, state the result clearly and factually
- Explain the meaning of the result and discuss immediate implications for the patient
- Avoid overloading the patient with information
- Provide emotional support, especially with a positive result
- For all results, reinforce education about transmission prevention and harm reduction
- Advise on aspects of positive status disclosure
- Allow adequate time to answer the patient's questions
- Arrange any further tests and offer follow-up care as required
- Supply written material and contact details for relevant support services such as local Hepatitis C Councils

## Testing

When assessing someone with possible HCV infection, an HCV antibody test should be performed. A positive test usually indicates exposure to HCV, but does not prove active infection. However, the presence of a positive antibody test and an elevated ALT (alanine aminotransferase) level, particularly in the setting of risk factors for transmission, may be sufficient to diagnose HCV infection, and further testing may not be required. In individuals with persistently normal ALT levels, a NAT (Nucleic Acid Test)/PCR (polymerase chain reaction) test[18] should be carried out to detect viraemia, as many people in this situation might have cleared the infection. A liver biopsy may be performed to determine the severity of inflammation and fibrosis and guide treatment decisions in those with evidence of active infection.

## Initial assessment

A detailed history should include an estimation of the duration of exposure, age at infection and whether there are important contributing factors to hepatic fibrosis. These factors might include a history of significant alcohol consumption and obesity. The patient should be evaluated for ongoing risks, such as injecting drug use and ongoing excessive alcohol consumption. Initial assessment of a patient with hepatitis C should address whether or not the patient has active disease, inactive disease or has cleared infection. Patients found to have elevation of serum ALT levels should have liver function monitored every 2 to 3 months for 9 to 12 months to establish whether there is a persistent elevation of ALT. If persistent ALT elevation is identified, patients should be evaluated to determine the severity of disease. If ALT levels and other enzymes are normal, patients should be assessed for the presence of viraemia by a PCR.

Patients found to have no detectable HCV RNA should be reassured that while they have probably been exposed to HCV in the past, they have apparently cleared infection. Patients with normal liver function and no detectable HCV RNA should have their liver enzymes checked one year after initial evaluation and a PCR test should be done again to verify that the HCV RNA remains undetectable.

If, at the 12-month follow-up, the HCV RNA remains negative and liver enzymes are normal, no further follow-up is necessary, unless there is a history of possible re-exposure to hepatitis C.

***Patients should be advised that antibodies against hepatitis C do not protect against re-infection.***

Patients with normal ALT levels who are HCV RNA positive should be followed on an annual basis, as flares of activity may be observed.

## Monitoring of patients with chronic HCV

The aims of follow-up in patients with chronic hepatitis C are to:

- Reinforce lifestyle changes (such as drug and alcohol use)
- Educate against behaviours that risk re-infection and transmission
- Decide which patients are appropriate for antiviral therapy
- Determine appropriate timing of referral to a specialist
- Monitor patients with cirrhosis for complications such as hepatic decompensation or HCC.
- Determine their need for support services, such as drug users services, counselling, housing or dental care
- Evaluate and recommend shared-care responsibility (e.g. psychosocial, specialist or nursing support)
- Assess the patient's desire for treatment

For patients with chronic hepatitis C, ongoing monitoring is recommended every six months, unless there are specific reasons for more frequent monitoring (e.g. encouraging behaviour change).

### Factors which may progress liver damage[19]:

- Age at infection
- Alcohol intake (>50 g/day)
- Duration of infection
- Genotype
- Gender
- Coinfection with HIV or HBV
- ALT level
- Fibrosis rate
- Obesity

## Assessment for antiviral therapy

Antiviral therapy is funded through the Pharmaceutical Benefits Scheme (PBS) for patients at highest risk of histological progression who are most likely to benefit from viral eradication. Only appropriately authorised doctors, including some GPs, can prescribe antiretroviral treatment for HCV.[20] The aim of treatment of chronic hepatitis C is sustained virological response (SVR). SVR is negative HCV RNA and normal ALT levels six months after completion of 24 or 48 weeks of therapy. The patient should understand the likelihood of SVR, potential duration of therapy, side-effects, the need for compliance with regular blood tests and quality-of-life aspects of treatment.[21]

An elevated ALT indicates the presence of necroinflammatory activity, but is not predictive of cirrhosis or significant fibrosis. Thrombocytopenia, prolonged international normalised ratio (INR) or hypo-albuminaemia all suggest the presence of cirrhosis with some degree of hepatic decompensation and portal hypertension. Patients who should be assessed for treatment may have: elevated ALT levels for six months, detectable serum HCV RNA, compensated liver disease and significant inflammation and/or fibrosis on liver biopsy. Patients with well-compensated cirrhosis due to hepatitis C may have a completely normal platelet count, INR and serum albumin level for many years. Hepatic ultrasound may show features of cirrhosis or fatty infiltration, but is commonly normal.

When assessing a patient for antiviral therapy, a liver biopsy may be recommended. Liver biopsy is a definitive way to document the degree of hepatic inflammation and fibrosis. Non-invasive measures such as the FibroTest/APRI (AST to platelet ratio index) or other tests may be used in the future as a surrogate for liver biopsy.[22]

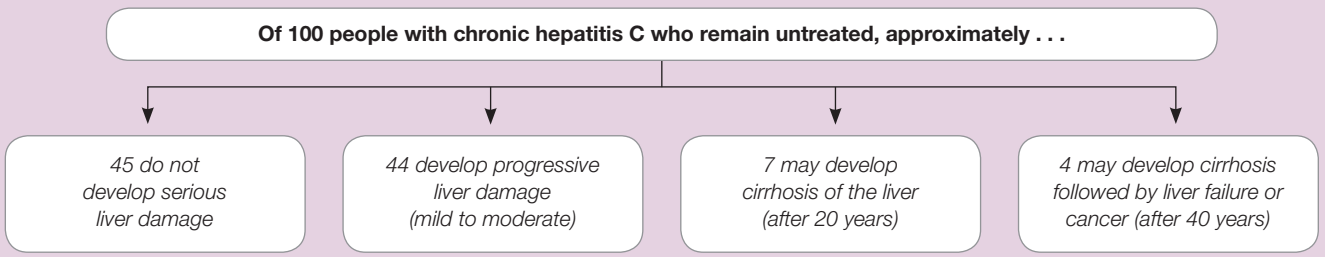
Liver biopsy is a relatively safe procedure. It is usually performed as a day procedure, under ultrasound guidance using local anaesthetic only. Patients commonly experience some minor abdominal discomfort and right shoulder tip pain, but severe pain is unusual. There is a small risk of significant bleeding (1:300) and mortality range from 0 to 3.3/1000.[23]

Several systems are in use for recording the degree of fibrosis in a liver biopsy. Most of these use a scoring system ranging from 0 (no fibrosis) to 4 (definite cirrhosis). Patients with stage 1 fibrosis may be offered antiviral therapy if there is associated moderate to severe inflammation, while patients with stage 2 to 4 fibrosis should be offered antiviral therapy, provided no contraindications are present.

## Chronic hepatitis C illness natural history

*Adapted from HCCNSW February 2003*

This chart depicts the estimated illness burden of Australia's hepatitis C epidemic. It does not aim to show individual outcome (prognosis). Personal factors such as alcohol intake, age when HCV was acquired and current level of liver inflammation may influence a person's prognosis and individuals are advised to seek medical advice regarding their own situation. On average, one of every four people who contract HCV will clear their infection naturally within the first 12 months. Three of every four people experience a chronic (ongoing) hepatitis C infection. Hepatitis C outcome is a concern only for those people with chronic hepatitis C.



**Tests to be conducted may include:**

- Liver function tests ( LFTs)
- Full blood examination (FBE)
- Prothrombin time or INR
- Hepatic ultrasound (in patients with cirrhosis)
- Liver biopsy (if treatment is being considered)
- HAV/HBV/HIV serology
- Thyroid function tests
- Genotype
- NAT/PCR
- Pregnancy tests (ribavirin is a teratogen)

*The Medicare Benefits Schedule funds most tests, but may have limitations, such as number of tests per year.* [24]

Viral genotype influences length of treatment and likely response. Genotype testing may assist the patient in making the decision to start treatment. Alternatively, genotype testing may be delayed until the patient sees a hepatologist.

***In determining whether a patient is appropriate for antiviral treatment, the primary care clinician may also consider the patient's social support, desire for treatment and the likelihood of adherence to treatment.***

## Antiviral therapy

The major aim of treatment is to achieve viral eradication. In hepatitis C, viral eradication is defined by the achievement of a sustained virological response (SVR), that is, negative HCV RNA and normal ALT levels six months after the completion of 24 or 48 weeks of therapy.

The most effective therapy for hepatitis C currently is a combination of subcutaneously administered pegylated interferon plus oral ribavirin which produces an overall SVR of approximately 50–60%. Such treatment is available in Australia under Section 100 of the PBS. Few patients (10–20%) achieve an SVR after 24 or 48 weeks treatment with interferon monotherapy and an even lower response rate occurs in those who are cirrhotic.

The likelihood of response is much higher in patients infected with genotype 2 or 3 (70–80% SVR rate after 24 weeks of combination therapy) than genotype 1 or 4 (40–50% SVR rate after 48 weeks of therapy). Other predictors of SVR include low viral load, minimal hepatic fibrosis, female gender and age (younger than 40 years). The benefits of achieving an SVR include a reduced risk of progression for patients at all stages of disease and a lower incidence of HCC among patients with cirrhosis.

In addition, there have been reports of significant regression of fibrosis, even in cirrhotic patients. Patients who relapse after initially responding to monotherapy should be offered treatment with combination pegylated interferon and ribavirin, as response rates in this group are equivalent to those seen in untreated patients. Patients who have failed to respond to either interferon monotherapy or combination therapy are not eligible for further treatment under current Section 100 guidelines. Therapy may be for 24 or 48 weeks duration, depending on HCV genotype.

When discussing the benefits and risks of treatment, a GP can request genotype testing. Medicare funding covers genotype testing. Patients with genotype 2 or 3 can be counselled that they have a high chance of eradicating the virus with 24 weeks of treatment. Patients with genotype 1 infection can also be informed of their likelihood of eradicating infection.

A significant number of patients with hepatitis C respond poorly to therapies or have contraindications to therapy. The specialist makes decisions about therapy for these individuals on a case-by-case basis. These include patients with hepatitis C/hepatitis B coinfection, hepatitis C/HIV coinfection, chronic renal failure, cryoglobulinaemia and with HCV recurrence after liver transplantation.

Future treatments may include proteases and other potential antiviral agents (amantadine, rimantadine) and strategies to target the pathogenesis of the infection, but more evaluation and research is needed into the benefits of these new agents.[25]

## Side-effects

Side-effects are common but do not usually require discontinuation of treatment. Patients do require significant support and encouragement throughout treatment, and counselling should be encouraged if appropriate. Adverse effects of therapy may include flu-like symptoms, irritability, weight loss, insomnia, decreased libido, vomiting, depression and anxiety, mild hair loss, rash, cough, myelosuppression and induction of autoimmunity, particularly thyroid disease.[26] Less common side-effects may include depression because of serotonin depletion caused by interferon, and selective serotonin reuptake inhibitors (SSRIs) may be considered for management or prophylaxis.

Ribavirin treatment always induces a degree of intravascular haemolysis, which results in a fall in haemoglobin in most patients. This anaemia may result in tiredness, shortness of breath and precipitation of myocardial ischaemia in at-risk patients.

***Ribavirin is also a teratogen. Patients and their partners must avoid pregnancy during therapy and for six months after cessation of treatment due to the possibility of birth defects. Two forms of contraception must be used to safeguard against conception.***

Given the wide range and potential seriousness of side-effects, patients must be closely monitored during therapy. Currently, most treatment is provided through public hospitals, and patients have ready access to nurse support to advise them through therapy. In general, patients on therapy are seen once a week for the first month, and then each month until the end of treatment, with blood counts and biochemistry evaluated at each visit. Dose modification guidelines are followed when side-effects or laboratory changes require intervention.

## Shared care and referral

The primary care clinician has an important role in assessing which patients with chronic hepatitis C should be referred for specialist review. Such patients include those with persistently elevated ALT levels who may be appropriate for antiviral therapy, those with clinical or laboratory features suggestive of cirrhosis, and those who request specialist evaluation. Referral to a liver clinic or hepatologist is necessary for liver biopsy and specialist pretreatment assessment. Primary care clinicians and specialists in a shared care setting may conduct ongoing support and management of the patient on treatment.

***People with viral hepatitis should drink alcohol infrequently or at low levels (<70 g/week)***

## Monitoring for HCV-associated cirrhosis

Patients with HCV-associated cirrhosis should be monitored more frequently for deteriorating liver function and for the development of hepatocellular carcinoma. Often a specialist is involved in the care of a patient with cirrhosis but frequently the patient will attend his/her GP when new symptoms develop.

Concerning features include:

- Falling serum albumin levels
- Increased bilirubin
- Prolongation of prothrombin time
- Development of jaundice
- Development of other clinical signs (e.g. peripheral oedema, ascites, muscle wasting)

Patients with these features should be considered for referral to a liver specialist or clinic. Hepatocellular carcinoma is becoming a major clinical problem in patients with HCV-associated cirrhosis. The current recommendations about screening for hepatocellular carcinoma include ultrasound and alpha fetoprotein levels every six months, to detect small lesions amenable to curative treatment. If decompensation continues, the liver consultant/specialist may refer the patient to a transplant unit.

## Vaccination

Coinfection with more than one hepatitis virus may be associated with more severe liver disease. Super infection with hepatitis A infection in a patient with chronic hepatitis B or C, or acute hepatitis B in a patient with chronic hepatitis C may precipitate the development of acute liver failure. In the long term, patients with HBV and HCV coinfection tend to be more likely to progress to cirrhosis and to develop hepatocellular carcinoma.

***HAV and HBV vaccination should be offered to all patients with chronic hepatitis C, and HAV vaccination should be offered to chronic hepatitis B patients.***

# General management for patients

## Lifestyle issues

The possibility of lifestyle modification needs to be discussed with the patient, particularly in relation to alcohol consumption and drug use.

Alcohol intake should be minimal. Excessive alcohol consumption (>50 g/day) may lead to disease progression and a poorer response to treatment of chronic HCV. Australian Alcohol Guidelines recommend that people with viral hepatitis should drink alcohol infrequently or at low levels (<70 g/week), and should consider not drinking at all. Individuals with cirrhosis should be encouraged to stop drinking alcohol.[27]

Individuals who continue to inject drugs require more attention, in terms of treatment and care. GPs can offer support services and lifestyle advice, such as harm minimisation. Harm minimisation is a public health approach to reducing the negative consequences of drug use, rather than eliminating drug use or ensuring abstinence. Examples are needle exchange programs, methadone programs, education and outreach programs, and law enforcement policies. Among the agencies that serve these communities are Needle and Syringe Programs (NSPs), methadone prescribers, and injecting drug users' organisations.

## Nutrition

For most people with hepatitis C, dietary recommendations are the same as for the general population. These include encouraging:

- Grilled rather than fried food
- Lean meats and fish
- Reduced-fat products
- Wholemeal bread and pasta
- Vegetables and fruit
- Minimisation of fat for spreading and cooking

Overweight or obese patients should be advised of a gradual weight-reduction program, particularly as there is increasing evidence of interaction between HCV, obesity and type 2 diabetes in accelerating progression to fibrosis. Those who may have fatty liver need to avoid a precipitous fall in weight as this can induce deterioration in liver function.

## Fatigue and other symptoms

People with chronic hepatitis C may report fatigue, malaise, headache, rash, and aching muscles and joints. Consideration should be given to specific food and drinks that may be triggering symptoms, as well as work, family or other commitments, which may exacerbate stress and fatigue. Patients may benefit from planning rest periods during the day or incorporating light to moderate exercise into their routines to reduce fatigue.

## Complementary therapies

There is little evidence that herbal medicines have a profound antiviral effect despite many patients reporting some symptomatic improvement and the ability of some agents to induce a fall in ALT. Most preparations are safe but some have reported hepatotoxicity and should be avoided (e.g. mistletoe, valerian, heliotropium, kombucha tea and Kava kava). Close monitoring of liver biochemistry is recommended at the commencement of any herbal medicine. Hepatitis Councils have further information regarding complementary therapies.

***Primary care management of HCV includes education, counselling, psychosocial support and lifestyle advice. It also involves monitoring the disease process and identifying if and when referral to a specialist is required.***

## HCV and HIV

HCV is found in 10% of people living with HIV/AIDS, which means hepatitis C is a significant cause of co-morbidity in HIV. On the other hand, only about 1% of people living with hepatitis C have HIV. The viruses are, however, very different. Hepatitis C is an RNA virus, while HIV is a retrovirus, which affects reverse transcriptase. In Australia, the majority of HIV infections are among homosexually active and bisexual men, while the majority of hepatitis C is among current and past IDUs. It is important for GPs to understand these differences so they can advise their patients appropriately. Patients often confuse the viruses and this can lead to undue concern, risk-taking and uncertainty.

## HIV/HCV coinfection

HIV/HCV coinfection is associated with higher HCV viral load and an accelerated rate of liver disease progression.[28] There is no fundamental difference in the management of HCV in the presence of HIV. Patients with HIV/HCV coinfection who have stable CD4 cell counts on antiretroviral therapy, with ongoing evidence of active HCV, may be considered for combination pegylated interferon plus ribavirin. Such management is difficult, particularly in patients already taking multiple medications, as side-effects, drug interactions, toxicity and poor tolerability are common.[29]

## Prevention and Infection Control

Hepatitis C is transmitted by blood-to-blood contact and is a notifiable disease. The risk of sexual transmission (including oral sex) is extremely low. People with hepatitis C should be advised not to share household items which may carry traces of blood, such as razors and toothbrushes, and not to reuse injecting or snorting equipment.

***The presence of antibodies to hepatitis C does not indicate infectivity, and mandatory testing to detect the presence of antibodies to hepatitis C is not considered desirable, useful or cost-effective.***

All patients and clients should be treated as potentially infected with hepatitis C. To prevent exposure to hepatitis C, people who live or work with people with hepatitis C infection should adhere to standard precautions to prevent percutaneous, mucosal or nosocomial transmission of hepatitis C infection. All blood and body fluids should be considered potentially infectious, so wearing gloves for procedures, including venepuncture, is mandatory. Precautions are used to avoid circumstances where a positive person may feel coerced into disclosing in order to protect the health worker.

People are not obliged by law to disclose their hepatitis C status, even to health care workers. Negative reactions from health care workers when people have disclosed may discourage further disclosure.

## Needlestick injury

The risk of hepatitis C transmission through a needlestick injury is between 2% and 7% in health care settings. Risk depends on viral load of the source patient, first aid administered and the instrument involved (for example, a hollow bore needle confers greater risk than a surface scratch with a sharp instrument). In the event of a needlestick or other blood accident, the National Health and Medical Research Council recommends establishing the hepatitis C status of the source patient involved, after gaining informed consent. It should be noted, however, that the source patient could be in the window period and therefore their results may be inconclusive. It is also important that, if the source patient is to be tested, they receive adequate pre-test information. A risk assessment should be carried out and management needs assessed, based on the severity of the injury, looking at factors such as the type of instrument, the procedure being carried out (e.g. aspirating blood or administering medicine) and whether gloves were being used.

The recipient of the injury may have liver function tests (LFTs) and HCV PCR testing 4 weeks after exposure, and anti-HCV testing at 3 and 6 months post exposure. The person should also have LFTs and an HCV antibody test on the day of the exposure or shortly thereafter, to act as a baseline with which to compare future results and to rule out existing infection.

**At the time of a needlestick injury or other exposure:**

**Skin:** wash with soap and water. Alcohol-based hand rinses (70% alcohol) should be used when water is not available

**Mouth, nose and eyes:** rinse well with water or saline

***If you need further assistance with the management of a needlestick injury, contact your local infection-control officer/coordinator. It is useful to develop a workplace procedure for dealing with all needlestick and workplace exposures. All staff should be made aware of how to respond.***

## Health care workers with hepatitis C

Health care workers who perform exposure-prone procedures have an ongoing responsibility to know their hepatitis C status, and should not perform such procedures if there is evidence of current/active HCV infection. Routine screening for HCV antibodies to determine infectivity is not recommended for patients or staff.

**Reducing the risk of needlestick injury may be promoted by:**

- Educating the health care worker about needlestick injuries
- Health management and follow-up systems in place for staff
- Having available sharps-disposal containers
- Ensuring health care workers are vaccinated[30]

# Discrimination

Australian Commonwealth law prohibits discrimination against someone with an infectious disease, unless the discrimination can be shown to be necessary to protect public health. In addition, most states and territories have laws in the same terms as the Commonwealth law.

Hepatitis C is a highly stigmatised condition and many people living with the disease experience discrimination. The Anti-Discrimination Board of NSW found that discrimination in health care settings may take many forms and results in unfair treatment of patients.[31]

Discriminatory behaviours in this setting may include:

- Refusal of care or treatment
- Lack of pre- and post-test counselling
- Giving a lower standard of treatment

Behaviours which reflect stigmatisation towards a patient can also reduce the standard of health care received and lower the quality of life for people with hepatitis C and should be avoided.

Such behaviours include:[31]

- Breaches of confidentiality and disclosure related to hepatitis C, even among health care workers
- Assumptions about how people acquired hepatitis C
- Assumptions about people's past or present drug use

## Avoiding discrimination

Health care workers should respect the rights of people with hepatitis C regardless of how they were infected. Everyone living with hepatitis C should have access to care and services regardless of transmission route, gender, race, culture, sexual orientation or lifestyle issues (such as drug use).

### Discrimination and stigmatising behaviours can be avoided by[31]:

- Ongoing health care worker education and continuing medical education
- Ensuring standard infection control procedures are followed, thus reducing the need for disclosure or differential treatment
- Ensuring people's privacy and confidentiality are protected

As stated in *A Model of Care for the Management of Hepatitis C Infection in Adults*, the suggested items below may limit and prevent discrimination[32]:

- Take a holistic approach, such as treating the client as a whole person with many potential interacting aspects rather than a person with one disease
- Be non-judgmental and have a respectful attitude towards the client's needs, treatment preferences and lifestyle
- Provide advice and information on the full range of medical and non-medical approaches to managing hepatitis C
- Empower clients with sufficient information to make informed decisions that best suit their lifestyle, occupational and social responsibilities, personal needs and preferences
- Develop rapport and mutual trust

### The National Hepatitis C Project

The National Hepatitis C Project is an Australian Government funded, 18-month initiative based with the Multicultural HIV/AIDS and Hepatitis C Service (MHAHS).

The Project aims to address identified gaps in relation to hepatitis C in Culturally and Linguistically Diverse (CALD) communities. The priority target groups for the Project are the general community, young people and injecting drug users. A written resource – *Hepatitis C is Everybody's Business* – has been produced in 15 languages, including English.

For more information and/or regular Project updates, contact the Project Officer at MHAHS on (02) 9515 5030.

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# Contacts

**Hepatitis C and related organisations/groups can be contacted for further resources and support information**

**AUSTRALIA – HCV**
**Australian Hepatitis Council (AHC)**

**National**

Tel: 02 6232 4257
Fax: 02 6232 4318
Email: info@hepatitisaustralia.com
Website: www.hepatitisaustralia.com

**Australian Capital Territory**

Tel: 02 6257 2911
Fax: 02 6257 1611
Email: info@acthepc.org
Web: www.acthepc.org

**New South Wales**

Tel: 02 9332 1599
1800 803 990 (NSW country)
Fax: 02 9332 1730
Email: hccnsw@hepatitisc.org.au
Web: www.hepatitisc.org.au

**Northern Territory**

NT AIDS and Hepatitis Council
Tel: 08 8941 1711
Fax: 08 8941 2590
Email: info@ntahc.org.au
Web: www.ntahc.org.au
1800 880 899 (free call line)

**Queensland**

Tel: 07 3236 0610
1800 648 491 (Qld country)
Fax: 07 3236 0614
Email: admin@hepatitisc.asn.au
Web: www.hepatitisc.asn.au

**South Australia**

Tel: 08 8362 8443
1800 021 133 (SA country)
Fax: 08 8362 8559
Email: admin@hepccouncilsa.asn.au
Web: www.hepccouncilsa.asn.au

**Tasmanian Council on AIDS, Hepatitis and Related Diseases**

Tel: 03 6234 1242
1800 005 900 (TAS country)
Fax: 03 6234 1630
Email: mail@tascahrd.org.au
Web: www.tascahrd.org.au

**Victoria**

Tel: 03 9380 4644
1800 703 003 (Vic country)
Fax: 03 9380 4688
Email: info@hepvic.org.au
Web: www.hepcvic.org.au

**Western Australia**

Information Line: 08 9328 8538
Tel: 08 9227 9800
1800 800 070 (WA country)
Web: www.hepatitiswa.com.au

**NEW ZEALAND – HCV**

**Hepatitis C Support**

Tel: 64 9 377 8500

**The Hepatitis Foundation**

Tel: 64 7 307 1259
Freecall 0800 332 010 (in NZ)
Email: hepteam@hepfoundation.org.nz
Web: www.hepfoundation.org.nz

For additional copies of this resource contact:

**Australasian Society for HIV Medicine Inc (ASHM)**

LMB 5057 Darlinghurst NSW 1300
Tel: 61 2 8204 0700
Fax: 61 2 9212 2382
ABN: 48 264 545 457

**AUSTRALIA – RELATED**

**Australasian Society for HIV Medicine (ASHM)**

Tel: 02 8204 0700
Email: ashm@ashm.org.au
Web: www.ashm.org.au

**Australian Injecting and Illicit Drug Users League (AIVL)**

Tel: 02 6279 1600
Fax: 02 6279 1610
Email: info@aivl.org.au
Web: www.aivl.org.au

**Australian Drug Foundation**

Tel: 03 9278 8100
1300 858584 (drug info line)
Email: adf@adf.org.au
Web: www.adf.org.au

**Gastroenterological Society of Australia**

Tel: 02 9256 5454
Email: gesa@gesa.org.au
Web: www.gesa.org.au

**National Centre for Education and Training on Addictions**

Tel: 08 8201 7535
Email: nceta@flinders.edu.au
Web: www.nceta.flinders.edu.au

**Other ASHM resources, including the following hepatitis C-related publications, are available from the ASHM website: www.ashm.org.au**

**Journal Supplements**

- *Ambulance Officers and Hepatitis C*
- *Dental Health and Hepatitis C*
- *Nurses and Hepatitis C*

**Factsheet**

- *Hepatitis C in brief – a factsheet*

**Monographs**

- *Coinfection: HIV & Viral Hepatitis – a guide for clinical management*
- *HIV and viral hepatitis C: policy, discrimination, legal and ethical issue*
- *HIV Management in Australasia: a guide for clinical care*
- *HIV/Viral Hepatitis: a guide for primary care*

**Distance-learning kit**

- *'Talking Together' Contemporary issues in Aboriginal and Torres Strait Islander health: HIV, hepatitis and sexual health*

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