

Nurses and Hepatitis C

Hepatitis C (HCV) is a significant public health issue in Australia and presents as a salient challenge for health services.

This supplement presents an update on hepatitis C and the National Hepatitis C Testing Policy.

Introduction

Over the past decade the hepatitis C virus (HCV) has been one of Australia's most commonly notified infectious disease. By the end of 2006, it was estimated that 271,000 people living in Australia had been exposed to the virus, of whom 202,400 were living with chronic HCV infection. The number of new HCV infections in 2006 was estimated at 12,526.¹ The virus can cause long-term liver problems, including cirrhosis and hepatocellular carcinoma (HCC). However, there is still widespread misunderstanding about HCV including how it is transmitted, infectivity, who is at risk, management 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 (HBV) and hepatitis A (HAV). The majority of these cases, known as non-A non-B hepatitis or post-transfusion hepatitis, have since been identified as hepatitis C (HCV).

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 and approximately 40 different subtypes. There are many predictive factors associated with the effectiveness of antiviral treatment. The HCV genotype is the most significant factor.

Natural History

HCV affects different people in different ways. The vast majority of people with HCV are asymptomatic during the initial (acute) phase of infection. However, for those who are symptomatic, common symptoms include fatigue, nausea, headaches, depression, upper abdominal pain and intolerance to fatty foods and alcohol. During the acute phase, levels of the virus in the blood rise dramatically until the body's immune response starts producing antibodies. Table 1 illustrates the natural history of hepatitis C infection.

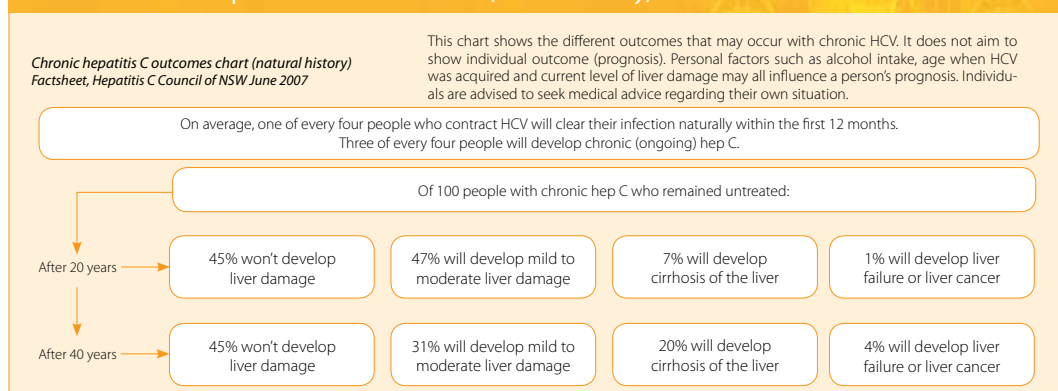
Transmission

HCV transmission occurs predominantly through blood-to-blood contact.³ The most common mode of transmission in Australia is injecting drug use (IDU). HCV can be spread unknowingly, as many people do not know they are infected with the virus.

The provision of needle and syringe programs to injecting drug users is vital. While the largest risk for HCV transmission is associated with the sharing of needles or syringes, there appears to be some evidence for transmission from other shared injecting equipment, such as spoons, filters and tourniquets.

The role of sexual transmission, if any, is still controversial. The evidence at this time suggests a very low rate of transmission through sexual contact.⁴ Transmission may still occur if there is blood to blood contact during sexual activity. There is also evidence transmission rates may be higher if the patient is co-infected with HIV or other STIs⁵.

Table 1: Chronic hepatitis C outcomes chart (natural history)



The risk of perinatal transmission of HCV varies from 0 to 11%.⁶ Coinfection with HIV increases the risk two-fold.⁷ To date, the National Health and Medical Research Council has not recommended changes to obstetric practice during antenatal care, delivery and post partum care or in management of the neonate. Currently, there is no indication for elective caesarean section in HCV-positive mothers.⁸ Despite HCV RNA being detectable in breast milk, breastfeeding has not been directly linked to transmission of HCV.⁹ Australian guidelines recommend breastfeeding and should not be discouraged.

Household transmission (e.g. via razors or toothbrushes) is considered rare. Nevertheless, where the possibility of blood contact exists, these items should not be shared.

There is no risk of viral transmission of HCV via cups, plates and hugging.

Hepatitis C Testing

Pre- and post-test discussion

Nurses and other primary health care professionals play an important role in providing pre- and post-test discussion as part of diagnostic testing for HCV. Provision of thorough test discussion in a primary health care setting utilises a valuable educational opportunity to help minimise HCV transmission in the community.

Pre-test discussion (10)

This discussion should include:

- risk assessment and discussion of the reason for testing;
- how to reduce the risk of becoming infected or infecting others—for example information about safer injecting when this is relevant;
- possible need for other BBV testing and/or STI testing;
- information about confidentiality and privacy;
- information about the testing process including how results are to be provided, and the window period;
- information about what happens to test results (ie the notification process);
- seeking informed consent for the test to be conducted;
- assessment of the person's preparedness to be tested;
- information about what a negative and positive result means including basic printed information about HCV; and
- assessment of support mechanisms while waiting for the test result and/or if the result is positive.

HCV test results should always be given in person.

If the test result is positive, discussion should include (at appropriate time intervals), issues such as:

- immediate needs and support including written referral information;
- safer behaviours – education, information and support including needle and syringe programs if appropriate;
- legal requirements for disclosure and how to disclose to family and friends;
- managing or understanding strong emotions, feelings, reactions and changes;
- options in drug treatments and medical management;
- ongoing counselling or therapy if required;
- complementary/alternative management options;
- ways to deal with loss and grief, depression, anger and anxiety;
- strategies for managing HCV which are flexible and appropriate to the person's needs; and
- legislative requirements (notification, contact tracing, storage and coding).

Patients may benefit from the supply of written material and contact details for support services when receiving a positive test result. The Hep C in Brief patient fact sheet is available for download from the ASHM website (available in eight community languages) at <http://www.ashm.org.au/hepc-factsheet/>.

If the result is negative, the discussion should reinforce harm reduction strategies, education and information messages about safer behaviours (also refer to Prevention and the Contact sections of this booklet).

Initial assessment

When assessing someone with possible HCV infection, an HCV antibody test should be performed. A positive test indicates **exposure** to HCV, but **does not prove active infection**. A HCV RNA test, such as a PCR (polymerase chain reaction) test, documents viraemia, and thus active infection. HCV PCR tests can either be qualitative (result being positive or negative) or quantitative (result providing viral load). The presence of a positive antibody test and an elevated ALT (alanine aminotransferase) level, particularly in the setting of risk factors for transmission, is highly suggestive of active HCV infection.

HCV Ab test	If positive, shows evidence of previous exposure to the virus. Importantly, does NOT provide immunity against reinfection with the HCV virus. Remains positive following successful treatment
HCV PCR test	If positive, shows active infection (i.e. viraemia)
ALT	If elevated in the context of HCV Ab, generally shows some level of liver disease from HCV virus. High levels are associated with disease progression.

Cleared infection

Approximately 25% of people with acute HCV infection spontaneously clear the infection without treatment, generally within 3-6 months. Qualitative HCV RNA testing should be a standard component of the diagnostic work-up of all individuals who are anti-HCV reactive.¹¹

A qualitative HCV PCR test in these conditions is rebatable under Medicare. People found to be HCV RNA negative should be reassured that while they have been exposed to HCV in the past, they have cleared the infection.

It is recommended that people with normal liver function and no detectable HCV RNA have repeat PCR testing for detection of HCV reinfection on an annual basis if there is ongoing risk behaviour such as injecting drug use. Repeated antibody testing will not reveal a new infection in this group of patients, as their existing HCV antibody will remain positive, despite having cleared infection. Neither does their positive antibody confer any protection towards subsequent infection with hepatitis C. Although there are no specific guidelines for screening in this setting, an annual qualitative PCR test, regardless of ALT level, should be performed to detect any subsequent HCV infection.

Chronic infection

Approximately 75% of people exposed to HCV progress to have chronic HCV infection.

A patient can be considered to have chronic HCV infection if they have documented active infection for more than six months. This means a positive PCR test 6 months or more after initial infection.

After 20 years of infection, on average about 7% of people with chronic HCV infection will have developed liver cirrhosis, with this figure increasing to 20% after 40 years. After 40 years of infection, about 4% will have developed liver failure or liver cancer.

Monitoring someone with chronic HCV

It is recommended that a person with chronic HCV is seen every 6 to 12 months. The main aims for seeing a patient in this setting are to:

- Educate against behaviours that risk re-infection and transmission to others;
- Identify and address any modifiable risk factors (e.g. excessive alcohol consumption);
- Identify those most at risk of chronic HCV complications (see below) and decide which individuals are appropriate for antiviral therapy;
- Educate about treatment and assess the patient's desire for treatment;
- Ensure referral to a specialist for HCV treatment assessment is made at an appropriate time;
- Ensure monitoring for cirrhosis and advanced liver disease complications (such as liver failure, liver cancer) occurs where appropriate;
- Determine their need for support services;
- Evaluate and recommend shared-care responsibility.

Identifying those most at risk

One of the most important things to establish in monitoring a person with chronic HCV infection is whether or not they are likely to develop any serious liver damage. The following factors must be documented; as there is very good evidence that they are associated with higher risk of cirrhosis:

- Heavy alcohol intake (more than 4 standard drinks/day);
- Duration of infection (over 20 years);
- Coinfection with HIV or HBV;
- Stage of fibrosis on biopsy, where performed;
- Obesity/insulin resistance

NB: Most people over 40 years of age with chronic HCV infection in Australia are likely to have been infected for more than 15 or 20 years. They should be more strongly considered for HCV treatment assessment.

Liver biopsy

A liver biopsy may be performed to determine the severity of inflammation and fibrosis, and guide treatment decisions in those with evidence of chronic HCV infection. There are several systems in use for recording the degree of fibrosis in a liver biopsy. Most of these systems use a scoring system ranging from 0 (no fibrosis) to 4 (definite cirrhosis). Liver biopsy remains a very useful procedure for confirming or excluding significant fibrosis, but is not required to access government-funded antiviral treatment. A number of non-invasive fibrosis tests are currently under evaluation and may eventually replace liver biopsy in the majority of patients.

Antiviral treatment for HCV

Previously in Australia, antiviral therapy was funded only for people with significant liver fibrosis. However, with increasing data to support the efficacy of antiviral therapy, it is now available free of charge to any previously untreated persons 18 years or older with chronic HCV infection and compensated liver disease and agrees to effective contraception.

The major aim of treatment is to achieve viral eradication. In HCV, viral eradication is defined by the achievement of a sustained virological response (SVR); that is, negative HCV RNA by a sensitive qualitative test six months after the completion of therapy.

A liver biopsy is no longer a specific requirement for treatment. Active IDU is no longer an exclusion criterion.

Antiviral therapy is available in Australia under Section 100 of the Pharmaceutical Benefits Scheme (PBS) for any patient who fulfils all the following criteria:

- 18 years or older
- Has documented chronic HCV infection (repeatedly positive HCV Ab and HCV PCR positive)
- Has compensated liver disease ;
- Has had no prior treatment with interferon alpha or pegylated interferon alfa;
- Agrees to effective contraception

The most effective therapy for HCV is a combination of once-weekly subcutaneously administered pegylated interferon plus twice-daily oral ribavirin. The combination of pegylated interferon and ribavirin produces an overall sustained virological response of greater than 50%.^{12,13} This is a significant improvement over the SVR rates achieved with interferon monotherapy (10%) or standard interferon (given three times a week) plus ribavirin (40%).

The likelihood of response is much higher in people with HCV genotype 2 or 3 (70% SVR rate after six months of combination pegylated interferon and ribavirin) than genotype 1 or 4 (50% SVR rate after 12 months of therapy). While HCV genotype is the most powerful predictor of response, other predictors of SVR include low viral load, minimal hepatic fibrosis, female gender and age (younger than 40 years). Recently, the rapidity of on-treatment response has emerged as a major factor in predicting sustained virological response.

By monitoring on-treatment response, people can be counselled as to their likelihood of a sustained virological response (SVR). Those who have a greater than 2 log (100-fold) reduction in viral load by week 12 (termed an early virological response) have an approximately 70% chance of sustained virological response.¹⁴ Conversely, those who fail to achieve a greater than 2 log drop in viral load at week 12 should have their treatment ceased as there is a negligible (1-2%) chance of SVR. Additionally, those with genotype 1 who achieve undetectable HCV RNA at week 4 of therapy (termed a rapid virological response) have a 80 - 90% chance of viral eradication and may be able to shorten their treatment duration.¹⁵

There is currently a significant effort being directed at determining whether measurement of early on treatment virological responses may allow some patients to have treatment duration shortened and whether other patients may benefit from longer duration of therapy.

The benefits of achieving an SVR include a reduced risk of liver disease progression for people at all stages of disease. In addition, there have been reports of significant regression of fibrosis, even in

people with cirrhosis. People who have failed to respond to either interferon monotherapy or combination interferon plus ribavirin may soon be eligible for further treatment under current Section 100 guidelines and currently there is some access to treatment through compassionate-use protocols. Therapy may be for six or 12 months duration, depending on HCV genotype.¹⁵

Table : HCV genotype, treatment duration and likely outcomes

Genotype	Duration of treatment	Likely success rate of treatment
1	48 weeks	~50%
2	24 weeks	~70 - 80%
3	24 weeks	~70 - 80%
4	48 weeks	~50 - 60%

Not all people will be appropriate for treatment or will be interested in treatment. For these people, regular clinical monitoring must continue, with a focus on those most at risk of progression.

In any treatment for HCV, good nursing support can be crucial. Management of side-effects, advice and education are key elements of this support and can make a substantial difference in outcomes for a person with hepatitis C.

Side effects of treatment

Side effects are common but, importantly, **do not usually require discontinuation of treatment**. However, people on treatment do require significant support and encouragement throughout treatment. Adverse effects of therapy include flu-like symptoms, irritability, weight loss, insomnia, vomiting, depression and anxiety, mild hair loss, rash, cough, myelosuppression and the development of certain autoimmune conditions, most notably thyroid disease.

Ribavirin treatment always induces a degree of intravascular haemolysis, which results in a fall in haemoglobin in many people. This anaemia may result in tiredness, shortness of breath and precipitation of myocardial ischaemia in those at risk. Ribavirin dosage may be reduced, depending on degree of haemolysis, or erythropoietin prescribed.

Interferon causes serotonin depletion which may result in depression and Selective Serotonin Reuptake Inhibitors (SSRIs) may be considered for management or prophylaxis. It is the interferon which also commonly causes flu like symptoms, which tend to peak early in the course of treatment. Interferon may also lower platelet count (a concern among people injecting) and white blood cell count

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 specialists to advise and support 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.

The majority of people DO complete a full course of treatment for HCV once they have begun. Only a small minority actually cease their treatment early because of side effects.

Contraindications to treatment

The major contraindications to therapy include:

- Decompensated liver disease;
- Major psychiatric conditions, particularly severe depression;
- Autoimmune disease;
- Significant cardiac disease;
- Pregnancy (ribavirin is 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**).

Although interferon is contraindicated in people with depression, it may be used safely in patients with controlled depression and anxiety disorders or controlled seizure disorders. If the patient is being treated by a psychiatrist or neurologist, discussion with the specialist is recommended before the initiation of interferon therapy.

General management

Vaccination

Coinfection with more than one hepatitis virus may be associated with more severe liver disease. Super infection with hepatitis A infection in a person with chronic HBV or HCV, or acute HBV in a person with chronic HCV may precipitate the development of acute liver failure. In the long term, people 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 people with chronic HCV infection.

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 ideally should be minimal. Excessive alcohol consumption (>40 g/day) is associated with higher risk of disease progression and a poorer response to treatment. Advice about alcohol intake should be tailored to their stage of disease and risk of progression. For example, someone with early liver disease, no risk factors for progression, a consistently normal ALT, and normal clinical examination could be advised to drink alcohol in accordance with the safety advice given to the general population. In contrast, a person with significant fibrosis will have an increased need for moderation of alcohol intake. People with cirrhosis should be certainly be encouraged to stop drinking alcohol altogether.¹⁶

There will be individuals who continue to inject drugs and who require ongoing care and monitoring. They are not only at risk of superinfection with other HCV genotypes, but may be putting others at risk through their injecting practices. Nurses play an important

Advice to your patient about alcohol intake should be tailored to their stage of disease and risk of progression.

role in identify those most at risk and educating against behaviours that risk re-infection and transmission to others. Nurses may counsel patients about the risks of HCV and the benefits of treatment, assist in preparation for HCV treatment, and discuss other aspects of a person's care, including options such as opiate substitution therapy.

Nutrition

For most people with HCV, 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 the 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 herbal medicines 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.

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 nurses to understand these differences so they can advise 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.¹⁷ 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.¹⁸

Prevention and standard precautions

Nurses play an important role in educating people living with HCV about preventing transmission. Prevention messages may include the following:

- People who inject should use sterile needles and syringes and new injecting equipment every time they inject drugs (same applies for snorting devices). They should dispose of equipment and wash hands immediately before and after injecting. Needle and Syringe Programs can be used to obtain sterile injecting equipment, education and referral advice on drug use. More information on safe injecting is available from the Australian Injecting and Illicit Drug Users League (AIVL) National Hepatitis C Education Program (refer Contact section)
- Use condoms or dental dams where there is the possibility of blood contact during sex
- When breastfeeding, milk from cracked or bleeding nipples should be expressed and discarded until the lesions are healed
- Do not share toothbrushes, razors, shavers, dental floss or barber's haircutting equipment
- Do not share or reuse tattoo or body piercing equipment

Standard precautions

Standard precautions are recommended for the care and treatment of all patients, regardless of their perceived or confirmed infectious status, and in the handling of:

- Blood (including dried blood)
- All other body fluids, secretions and excretions (excluding sweat), regardless of whether they contain visible blood
- Non-intact skin
- Mucous membranes

All blood and body fluids of all patients should be considered potentially infectious. Effective infection control for communicable diseases lies in the application of standard precautions when caring for all patients. These include aseptic technique, hand washing, use of appropriate personal protective equipment including gloves and eye protection, as well as appropriate reprocessing of instruments and equipment.

Needlestick injury

The risk of HCV transmission through a needlestick injury depends on the viral load of the source patient, the first aid administered and the instrument involved, for example a hollow bore needle.

All nurses should have access to infection control guidelines that advise about the management of an occupational injury, including clear written instructions on the appropriate action to take in the event of a needlestick injury and other blood or body substance exposure. Nurses are encouraged to report occupational exposures immediately and all testing procedures and follow-up treatment should be fully documented. Confidentiality should be maintained.

In general, if an injury or incident occurs where blood or body substances come into contact with non-intact skin or membranes, the following action should be taken:¹⁹

- Wash exposed membrane or injury with soap and water (an antiseptic could also be used on the skin)
- If eyes have been exposed, thoroughly rinse the eyes with tap water or saline while open
- If mouth has been exposed, thoroughly rinse the mouth with water and spit out

How is hepatitis C different from hepatitis A and B?

Virus Type	Profile	Transmission	Vaccination	Treatment	Notifiable
Hep A (HAV)	Usually a mild disease that does not become chronic.	Orally via food and/or water contaminated with faecal particles from an infected person. Occasionally via oral/anal sexual contact. Rarely through blood-to-blood contact.	Yes	No specific treatment.	Yes
Hep B (HBV)	Can be mild, severe, acute or chronic. Less than 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. Also transmitted through contaminated injecting equipment.	Yes	Antiviral therapy and post-exposure prophylaxis (PEP) are available.	Yes
Hep C (HCV)	Hepatitis C is likely to become a chronic condition in 70 to 80% of infected people, with 10% developing severe liver disease.	Transmitted when infected blood enters the bloodstream of another person (blood-to-blood contact). Unlike hepatitis B, it is very rare for hepatitis C to be transmitted by sexual activity or through mother-to-child transmission. Hepatitis C is not transmitted by food or water contamination.	None for HCV. To prevent the complications of co-infection, people with hepatitis C should be vaccinated against hepatitis A and B.	Antiviral therapy.	Yes

**Two other hepatitis viruses, D (or delta) and E, have been isolated but both are uncommon in Australia.*

- Seek medical advice immediately for assessment of the nature of the exposure, the risk of transmission of blood-borne viruses, the need for HIV or HBV post-exposure prophylaxis (PEP) or other testing/management
- If the exposure is significant and the source patient is known, his or her consent for HIV antibody, HCV antibody and HBsAg testing should be sought

Health care workers with HCV

All health care workers who perform exposure-prone procedures have an ongoing responsibility to know their HBV, HCV and HIV status, and should not perform exposure-prone procedures if there is evidence of current/active HBV, HCV or HIV infection, as there is a risk of transmission of infection.

An exposure-prone procedure is any in which there is a potentially high risk of BBV transmission from a health care worker to a patient during a medical procedure, such as any procedure with sharp hand-held instruments beneath the mucous membrane, or any procedure dealing with sharp pathology or bone spicules in a confined space or where visibility is poor. Exposure-prone procedures do not include non-invasive examinations or procedures, intact skin palpation, injections or venepuncture.²⁰

For more information regarding the rights and responsibilities of health care workers with hepatitis C, contact your state or territory's health department, your local Hepatitis C Council or your state or territory's Anti-Discrimination Board or Equal Opportunity Commission (refer to Contacts).

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.²¹

Discriminatory behaviours in a health care setting may include:

- Refusal of care or treatment;
- Lack of pre- and post-test discussion;
- Breaches of confidentiality and disclosure related to hepatitis C
- Giving a lower standard of treatment;
- Assumptions about how people acquired hepatitis C;
- Assumptions about people's past or present drug use.

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).

Accurate non-judgemental language, combined with a concern for the patient's welfare, helps to build trust with a patient. Therefore, terms such as: addict, addiction, drug addict, drug abuse, drug abuser and intravenous should be avoided. Instead, use the terms: drug use rather than drug abuse; reused equipment rather than shared equipment; new equipment rather than clean equipment; and injecting rather than intravenous. Injecting equipment covers more than just needles, and includes swabs, filters, water, tourniquets and syringes. When discussing drug use with the patient, it is best to ask about the presence of drug dependence or withdrawal symptoms, rather than addiction. Clarifying the meaning of any colloquial terms, or terms that you do not understand, facilitates more effective communication with patients.

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Contacts

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

AUSTRALIA – Hepatitis C Councils

Hepatitis Australia National

Tel: 61 2 6232 4257
Fax: 61 2 6232 4318
Web: www.hepatitisaustralia.com

Australian Capital Territory

Tel: 02 6257 2911
1300 301 383 (Hepline)
Fax: 02 6257 1611
Web: www.acthepc.org

New South Wales

Tel: 02 9332 1599
1800 803 990 (Freecall country)
Fax: 02 9332 1730
Web: www.hepatitisc.org.au

Northern Territory

NT AIDS and Hepatitis Council
Tel: 08 8941 1711
1800 880 899 (Freecall)
Fax: 08 8941 2590
Web: www.ntahc.org.au

Queensland

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

South Australia

Tel: 08 8362 8443
1800 021 133 (Freecall country)
Fax: 08 8362 8559
Web: www.hepccouncilsa.asn.au

Tasmanian Council on AIDS, Hepatitis and Related Diseases

Tel: 03 6234 1242
1800 005 900 (Freecall country)
Fax: 03 6234 1630
Web: www.tascahrd.org.au

Victoria

Tel: 03 9380 4644
1800 703 003 (Freecall country)
Fax: 03 9380 4688
Web: www.hepcvic.org.au

Western Australia

Tel: 08 9227 9800
08 9328 8538 (Infoline)
1800 800 070 (Freecall country)
Fax: 08 9227 6545
Web: www.hepatitiswa.com.au

NEW ZEALAND – HCV

Hepatitis C Support Group (NZ)
Tel: 64 9 377 8500

The Hepatitis Foundation

Tel: 64 7 307 1259
0800 332 010 (Freecall in NZ)
Fax: 64 7 307 1266
Email: hepteam@hepfoundation.org.nz
Web: www.hepfoundation.org.nz

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 858 584 (Infoline)
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

- *Prehospital Care Workers and Blood-borne Viruses*
- *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 and STIs: a guide for primary care*
- *B Positive - all you wanted to know about hepatitis B: a guide for primary care*

Distance-learning kit

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

Manuals

- *Australasian Contact Tracing Manual, Edition 3 2006*

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

ASHM offers training in HIV, viral hepatitis and blood-borne viruses for general practitioners, nurses and allied health care workers around Australia.

For further information on upcoming courses visit www.ashm.org.au/courses or contact the ASHM Education and Training Division on education@ashm.org.au or phone **02 8204 0720**.



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