



Treatment for Hepatitis B

Education +
Resource Centre
(ERC)

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1) Introduction

Whilst this fact sheet provides general information about Hepatitis B (Hep B) treatment, it is written as an introduction to the medical treatment available for people who have been diagnosed with chronic Hep B and have had treatment offered as an option to them by their attending gastroenterologist, hepatologist or infectious diseases physician. Medical treatment is NOT recommended for all people diagnosed with chronic hepatitis B.

2) What is the aim of medical treatment of Hepatitis B?

The aim of medical treatment is to stop the virus being active and replicating (multiplying) in the liver. If the amount of virus decreases due to treatment then the immune system is able to overcome and inactivate the virus. This prevents further liver damage and reduces the risk of developing chronic liver disease or cirrhosis (scarring of the liver) and liver cancer.

3) Who should have treatment for Hepatitis B?

About 95% of adults who contract Hep B will clear the infection by themselves and will not need medical treatment. However, some people who develop chronic Hep B - that is when the virus is not cleared after six months, symptoms of liver disease are present and the virus is active (i.e. multiplying in the liver) - may require treatment. They should be referred to a gastroenterologist, hepatologist or infectious diseases physician for assessment.



4) How can you get treatment in Australia?

In Australia, treatment is free and available at major hospitals through a liver or hepatitis clinic. A list of clinics in Victoria can be found at the end of this fact sheet. To qualify for treatment, people must have had Hep B for at least six months; their blood tests must show that the liver is being damaged and that the virus is active. Most people will also need to have a liver biopsy, which involves a very small piece of liver being taken out with a needle. The piece can then be looked at under a microscope and the amount of inflammation and scarring assessed.

5) What are current medical treatments and what do they do?

Currently in Australia there are three drugs available for the treatment of chronic Hep B. The two main drugs are: Pegylated Interferon, often referred to as Peginterferon and Lamivudine. Adefovir (ADV) is the third drug approved for use in Australia but is only approved for use in people who have become resistant to Lamivudine. The most common treatment used is Lamivudine. Other types of treatment may sometimes be used in clinical trials.

Before commencing treatment you may be asked to consent for blood tests for HIV and Hepatitis C as some treatment options may interfere with treatment for these infections and there is a small chance they may also be present. Hepatitis A vaccine may also be recommended as well as advice concerning the vaccination of family members and lifestyle changes regarding alcohol consumption and stress management.

What is Peginterferon?

Interferon is a protein naturally produced in our bodies to fight viruses by boosting the immune system. The medication is a synthetic reproduction of the naturally produced Interferon. Whilst boosting the body's own immune response, Interferon also interferes with the virus's ability to multiply.

Peginterferon is given as an injection under the skin once a week for six to 12 months. Most people can learn to give the injection to themselves at home.

About 35% of people with chronic Hep B who have Peginterferon achieve long term benefit. Blood tests in these people show that the virus has stopped multiplying and liver function is normal. Sometimes after treatment ceases, the benefits increase. These benefits include improved liver function as demonstrated by blood tests and a reported decrease in the severity of symptoms.

Liver inflammation may get worse for a short time when the treatment is working. This is called a "Hepatitis B flare." Sometimes this "flare" will clear the virus and the person will not get any more liver damage or problems from the virus.



What are the side effects?

The most common is “flu-like symptoms”. This can include fever, sweats, muscle/ joint pain and headaches. Usually simple pain relief like paracetamol (Panadol) every four hours while the symptoms last will help. Symptoms are usually worse at the beginning, and may go away during treatment. They will not come back after the end of treatment.

Depression and mood changes are another common side effect. These can occur in people who have not had any mental health problems. Support from a counsellor or antidepressant medication may be recommended. These problems usually settle down as soon as the treatment is stopped.

Other side effects include changes in blood cell counts, hair loss or thinning, thyroid problems and weight loss. Most of these will go away after the treatment is stopped.

Due to the side effects, it is very important that people who are having Peginterferon treatment attend clinic appointments and have regular blood tests. Most side effects will get better once treatment is stopped. Sometimes the dose of Peginterferon has to be lowered, or treatment stopped for a short time, until the blood tests return to normal or the side effects are reduced.

What is Lamivudine?

Lamivudine is an oral antiviral medication that is used to treat Hep B. An antiviral medication is a substance that destroys a virus or suppresses its replication. Lamivudine stops the virus from multiplying, which means that it will stop damaging the liver. It is given every day for at least one year, as a tablet.

Whilst on treatment, most people taking Lamivudine will have tests showing decreased activity of the virus with liver function tests returning to normal levels.

Approximately 20% - 30% of people will have long-term benefit after taking Lamivudine for one year. This is measurable through blood tests described later in this fact sheet under the heading “What are the blood tests?”. Treatment can be continued for more than two years, if required. Taking Lamivudine for longer than one year will increase the likelihood of long term benefits.

What are the side effects?

Lamivudine is usually well tolerated. If side effects do occur, the most common include headaches, diarrhoea, abdominal discomfort or pain, feeling tired, and nausea (feeling “sick”). Most of these side effects will not last long and may go away even when the person is still taking treatment. Treating doctors should always be informed of any side effects experienced whilst on treatment.

Whilst Lamivudine can be effective, the virus will become active again if treatment is ceased too early. Therefore, people taking Lamivudine should not stop taking it without talking to their doctor first.



Sometimes the Hep B virus can become resistant to Lamivudine. The longer someone takes Lamivudine, the more chance they have of developing resistance. This means that it will not work as well as before and usually a new drug like Adefovir will be used.

What is Adefovir?

Currently Adefovir is only available to people who have had Lamivudine and have developed resistance to it (see above). Adefovir, like Lamivudine, is an antiviral drug. It is in tablet form and is usually given once a day.

6) Future Treatments and Clinical Trials

Research projects that look into different drug treatments are called clinical trials. Sometimes clinical trials can offer people with Hep B a chance to take part in projects testing new treatments. Most major city hospitals in Australia run clinical trials for Hep B treatment, usually through the Liver or Hepatitis clinic. These treatments will have to be tested in a number of clinical trials before being licensed in Australia.

New treatments being tested include Telbivudine and Tenofovir. Entecavir is an antiviral drug that is not yet available in Australia, however, it is approved for use in treatment of chronic Hep B in the United States.

7) What are the blood tests?

Blood tests indicate the type and stage of Hep B and also assess liver function. The results of these tests allow the attending doctor to decide if treatment is an option for a person with Hep B.

The main blood tests are:

DNA level

This shows the amount of virus found in the blood. It measures the actual genetic material ("DNA") of the Hep B virus. If this test is positive, it shows that the virus is active and multiplying in the liver. Successful treatment would show that the DNA level is negative, which means that the virus is no longer multiplying in the liver.

Hepatitis B "e" antigen (HBeAg)

Before treatment, a positive result for this test can show that someone has chronic Hep B and will need treatment. It also shows that the person is very infectious and can easily pass hepatitis B on to other people. If the Hep B "e" antigen test becomes negative during treatment, it indicates that the treatment is successful and that the virus is likely to be no longer active. Sometimes a negative Hep B "e" antigen test can lead to the emergence of a mutant strain of the Hep B virus, called a precore mutant, with ongoing active disease which may also require treatment.



Hepatitis B “e” antibody (HBeAb)

This test will be negative before treatment. If treatment is successful, the “e” antibody will become positive. A series of positive Hep B “e” antibody results can indicate the person is likely to have a long term benefit from the treatment.

Seroconversion is an important goal of treatment and is said to have occurred if a positive Hep B “e” antibody test is coupled with a negative Hep B “e” antigen test. If this occurs therapy may no longer be needed.

Liver function tests (LFTs)

These tests can show how much inflammation is occurring in the liver. People with Hep B often have high levels for these tests. If treatment is successful these levels will usually come back to normal. The most important of these tests is called the “ALT”.

ALT

ALT stands for Alanine aminotransferase. When elevated, this protein specifically indicates liver inflammation and damage.

It is always important to talk to a doctor with experience in Hep B about blood tests and what they mean.

8) Further information and Liver and Hepatitis Clinics

Education + Resource Centre (HIV, Hepatitis, STIs)

Mon – Fri: (03) 9276 6993

Melbourne Sexual Health Centre

(03) 9347 0244

Freecall 1 800 032 017

Australian Hepatitis Council

Phone: 02 6232 4257

Web sites

www.accessinfo.org.au (Hepatitis, HIV & STI Education & Resource Centre at The Alfred)

www.gesa.org.au (Australian Organisation of Gastroenterologists)

www.hepnet.com (Canadian Hepatitis Information Network)

www.hivandhepatitis.com (Very informative and easy to use)

www.hepb.com.au (Information available in English, Arabic, Mandarin and Vietnamese- please note this is a pharmaceutical site)

<http://www.hepatitisaustralia.com/> (Australian Hepatitis Council)

<http://www.betterhealth.vic.gov.au/> (Vic Gov website)

<http://www.liverfoundation.org> (The American Liver Foundation)



A free and confidential service for people seeking information about HIV/AIDS, Hepatitis and sexually transmissible infections (STIs)

Liver/Hepatitis Clinics (Victoria)

To attend a liver or hepatitis clinic you will need a referral letter from a doctor. If you need an interpreter, please request when making your appointment. Appointments at public hospitals are free of charge.

Albury/Wodonga

(02) 6024 5255

Alfred Hepatitis Clinic, Prahran and Cheltenham

(03) 9276 2223

Austin / Repatriation Medical Centre, Heidelberg

(03) 9496 2787

Ballarat Liver Clinic – Dr John Watson

(03) 5331 8289

Bayside Hepatitis Clinic (Through Alfred Liver Clinic)

(03) 9276 2223

Box Hill Hospital, Box Hill

(03) 9895 3333

Cranbourne Liver Clinic

(03) 9594 3088

Epping – Northern Hospital Liver Clinic

(03) 9219 8335

Footscray – Western Hospital

(03) 8345 6490

Geelong Hospital, Geelong

(03) 5226 7111

Knox Private Hospital (St Vincent's Hepatitis Clinic)

(03) 9210 7300

Maroondah Hospital

(03) 9871 3371

Monash Medical Centre, Clayton and Springvale

(03) 9594 3088

Peninsula Liver Clinic

(03) 9781 4434

Royal Melbourne Hospital, Parkville

(03) 9342 7212

Sale – Fitzpatrick House

(03) 5144 4555

Springvale Liver Clinic

(03) 9594 3088

St Kilda – Barkly St Medical Centre (St Vincent's Hepatitis Clinic)

(03) 9534 0531

St Vincent's Hospital, Fitzroy Liver Clinic

(03) 9288 2898



Hepatitis Clinic

(03) 9288 3580

Werribee Mercy Hospital (St Vincent's Hospital Hepatitis Clinic)

(03) 9216 8633

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