



# **Viral Hepatitis Update**

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## What will be covered in this session

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- *What*
  - *Why*
  - *When*
- of hepatitis C!*

# Why I am here!

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- DHS funded hepatitis C education project which eventuated into
  - sh<sup>3</sup>ed  
**Sexual Health HIV Hepatitis Education**
- PHCRED research project - CAKE
  - C Awareness Knowledge Education





## Myths or facts?

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- Hepatitis C is a death sentence
- There are no effective pharmaceutical treatments for hepatitis C
- Hepatitis C is a sexually transmitted disease

# Why do you need to know?

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# Hepatitis C

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- Hepatitis C virus (HCV) was first identified in 1989
- Significant public health issue
  - leading cause of liver transplants in Australia
- Up to 40% of people who are infected unaware



## Why does general practice need to understand hepatitis C?

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- Around 250,000 Australians have been exposed to the virus
- Up to 10,000 new infections occur annually
- Only 2% of infected people treated each year in Australia



## Why does general practice need to understand hepatitis C?

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- General practice could play a major role in testing, diagnosing and referral
- General Practice has important role in ongoing support and management of a person with hepatitis C



# Why does general practice need to understand hepatitis C?

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Health professionals:

- Poor understanding of hepatitis C - transmission, prognosis and management.
- Lack of awareness about infection control procedures
- Inappropriate clinical behaviour toward people with hepatitis C (C-change, 2001)
  - refusal to provide services, lack of pre & post test discussion, confidentiality breaches

# HCV Prevalence Worldwide



# Natural History HCV

If 100 people catch the hepatitis C virus at the same time

20 - 40 people get rid of the virus but will have antibodies for some time

60 - 80 people develop chronic hepatitis C infection

Around 20 people will never develop any liver damage or physical symptoms

Approximately 40 people develop some long term symptoms or signs of liver damage 10-15 years after infection

5 - 20 of these people will develop cirrhosis of the liver 20 years after infection

5 - 10 of these people may experience liver failure after 20 to 25 years

1 - 4 of these people may develop liver cancer after 20 to 25 years



## **Hepatitis C knowledge of doctors**

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Doctors' knowledge of risk factors:

- 32% confused hepatitis C with hepatitis A
- Patients and doctors evaluate impact of hepatitis C differently
- Limited knowledge of hepatitis C support services among medical specialists



# Hepatitis C knowledge of practice nurses - CAKE

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- Practice nurses attending an immunisation event completed an anonymous survey
- Little knowledge of available treatment or referral
- Thought should have primary care needs met in general practice



# Knowledge of people with hep C

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Confusion about:

- prognosis
- transmission and hepatitis C status
- differences between hep A, B and C

Information first received has greatest influence on attitudes

- Attitudes influence the person's perception of disease, influence health behaviour and access to services



# Hepatitis C Fast facts

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- HCV is a blood borne virus
- Previous infection with one strain of the virus does not protect against re-infection with the same or a different strain
- The seroconversion 'window period' ranges from two to twenty-six weeks, during which time antibodies cannot be detected
- Hepatitis C is not regarded as a sexually transmissible infection in Australia



# Hepatitis C Fast facts

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- There is currently no vaccine available to protect against hepatitis C
- Hepatitis C infection is the leading cause of liver transplant
- Current research suggests that the risk of transmission from mother to baby is approximately 5%



# Risk factors for HCV

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- Injecting drug use (IDU) (past or present, very high risk)
- Blood transfusion or blood products before 1990
- Unhygienic tattoos & body piercing
- Incarceration
- Medical/dental procedures in regions with high HCV prevalence or unhygienic conditions
- Needle stick injuries (rare)
- Mother with chronic HCV (low risk)



# Hepatitis serology

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- Antibody detection test (anti-HCV) = exposure
- Virus detection test (PCR) = active infection
- Hep C genotype determines duration of therapy and likelihood of response



# Signs/Symptoms of Hepatitis C

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People with hepatitis C will often be totally asymptomatic, however ....

## **Common symptoms of HCV include**

- fatigue, lethargy
- nausea
- right upper quadrant pain
- abdominal bloating

## **Physical signs of Hep C**

- Commonly have no abnormal signs
- Cirrhosis may be undetectable clinically
- Patients may have typical signs of chronic liver disease



# Factors which may progress liver damage

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- Older age at infection
- Alcohol intake (>50 g/day)
- Duration of infection (after 15 years )
- Gender
- Co-infection with HIV or HBV
- ALT level
- Fibrosis rate
- Obesity



# Treatment

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- The treatment currently available to people with hepatitis C is a combination of pegylated interferon and ribavirin therapy.
- Combination therapy is successful in treating a majority of people with hepatitis C.
  - People with genotype 2 or 3, about 80% clear the virus
  - People with genotype 1, about 50 % clear the virus



# Goals of therapy

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- No virus
- Arrest progression necrosis/fibrosis
- No symptoms
- Reduce progression to cirrhosis
- Prevent decompensation
- Prevent hepatocellular carcinoma



# Treatment Duration

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- Genotype 2 or 3 without cirrhosis **24 weeks**
- Genotype 1, 4, 5 or 6 and genotype 2 or 3 with cirrhosis **48 weeks**
- The aim of treatment is sustained virological response (SVR).



# Side effects Interferon

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- Flu like symptoms
  - Headache
  - Fatigue
  - Myalgia, arthralgia
- Nausea
- Diarrhoea
- Thyroid dysfunction
- Insomnia
- Leukopenia
- Neutropenia
- Thrombocytopenia
- Psychiatric symptoms
  - Irritability
  - Anxiety
  - Depression
  - Suicidal behaviour



## Side effects Ribavirin

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- Haemolytic anaemia
- Cough and dyspnoea
- Rash and pruritus
- Teratogenicity
  - Requires both partners using contraception while on treatment and 6 months post treatment



# What do patients want to know?

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- Do I have hepatitis C?
- Can I be cured?
- How bad is my liver?
- Will I get cirrhosis?
- What is my genotype?



## What to tell the patient

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- They have a treatable disease
- Cirrhosis takes at least 2-3 decades to develop
- Take time to get information
- They do not have to tell employer



## Key Messages

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- Nearly everyone with HCV is candidate for treatment
- Genotype and viral load are key to treatment options
- Liver biopsies not required for access to treatment



## Key Messages

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- Treatment access is easier
- Benefit is obtained regardless of Rx outcome
- Earlier treatment = better outcome

# Regional Statistics By Division

## Notifications of Infectious Diseases



### Victorian Summary Report—1 January to 19 September 2007

Disease Type	current week*	previous weeks*			rate#	1 Jan - 19 Sep			total 2006	total 2005	total 2004
		-1	-2	-3		2007	2006	2005			
<b>Blood Borne Diseases</b>											
Hepatitis B - Newly acquired	1	1	1	0	1.8	61	79	64	110	87	115
Hepatitis B - Not further specified	36	30	40	34	37.1	1386	1122	1232	1577	1668	1498
Hepatitis C - Newly acquired	0	0	0	1	3.0	102	158	113	207	173	119
Hepatitis C - Not further specified	6	34	70	51	53.3	1932	1844	2001	2560	2837	2904
Hepatitis D	0	0	0	1	0.2	7	6	1	7	2	4



# DHS IDEAS WEBSITE

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- **To view the current data for your Division use the following link for daily updated data.**
- [www.health.vic.gov.au/ideas/downloads/daily\\_reports/rptDGP\\_Summary.pdf](http://www.health.vic.gov.au/ideas/downloads/daily_reports/rptDGP_Summary.pdf)



## Aims of HCV component of SH<sup>3</sup>ED

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- To improve the overall knowledge of general practice (GPs, PNs & allied health) relating to HCV (including transmission, risk factors, impact and support needs)
- General practice is aware of paths of referral to support/information/treatment services



## **Myth or fact?**

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**Hepatitis C is a death sentence**



## Myth or fact?

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**There are no effective  
medical treatments for  
hepatitis C**



Myth or fact?

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**Hepatitis C is a sexually transmitted disease**



## Hepatitis B fast facts

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- The number of Australians living with chronic hepatitis B virus (HBV) infection is estimated to be approximately 160,000, with over one million having been infected.
- Of those with chronic HBV, approximately one quarter will die due to complications of chronic liver disease such as cirrhosis and hepatocellular carcinoma.
- Worldwide burden – 400 million people chronically infected, with over a million deaths per year –



# Hepatitis B fast facts

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- An overall figure of <2% HBsAg carriage in Australia does not reflect the burden of disease in certain sections of the community, with groups at higher risk including:
  - Migrants from endemic areas (especially those from the Asia-Pacific region and Africa)
  - Indigenous Australians
  - Injecting drug users
  - Men who have sex with men
  - People serving custodial sentences.



## Notifiable infectious diseases

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- Copies of the notification form, information on diseases and outbreaks, media releases, disease data, privacy information and other publications are all available at the Department of Human Services Internet site
  - <http://www.health.vic.gov.au/ideas>



# Acknowledgements

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- University of Melbourne Department of General Practice
- Dr Jacqui Richmond
- Anyone else whose information I have used!

# Questions??

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# How Hepatitis C differs from B

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**Hepatitis B** can be mild, severe, acute or chronic

- Hepatitis B is found in body fluids including blood, semen, vaginal fluid and breast milk
- Hepatitis B can be transmitted through sexual activity, unsafe injecting practices, sharing toothbrushes or razors, tattooing or body piercing with contaminated equipment, and from mother to baby at birth
- About 5% of adult hepatitis B infections will become chronic
- Babies and young children infected with hepatitis B are much more likely (>95% risk) than adults to become chronically infected
- Antiviral drugs, post-exposure prophylaxis and vaccination are available for hepatitis B



# How Hepatitis C differs from A

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**Hepatitis A** is usually a mild disease that does not become chronic

- Hepatitis A is transmitted through food and water and from person to person by contaminated faeces
- The time between contact with hepatitis A until symptoms develop is usually 4 weeks, but it can range from 2 to 7 weeks
- This acute illness usually lasts from 1 to 3 weeks, but it may continue for several weeks or months. Hepatitis A does not become chronic. Many people are not aware they have been infected
- Once a person has been infected with hepatitis A and developed antibodies, they have life-long immunity from infection with this virus