Learning Outcomes

Participants will be able to:

- Identify groups of people who have a higher prevalence of Hepatitis B and C
- Recognise clinical presentations of these infections
- Discuss how we can detect Hepatitis B and C in primary care – case finding
Hepatitis C

Notes
Notes

Injecting drug use is the commonest route of transmission in Scotland and the UK. Sharing of any of the equipment used to inject drugs can result in transmission of Hepatitis C - not just needles and syringes. Some people who inject drugs may not be aware of the risk from sharing other paraphernalia. Other routes of using drug may also result in transmission - exposure to microscopic amounts of blood can occur when snorting drugs or using crack pipes.

Injecting drug use is highly stigmatised and some people may not wish to disclose this. Some people may not remember injecting on a single occasion. For this reason and due to the risk from snorting it is advised that all drug users are offered BBV testing - even if they say they have never injected.
Notes

One HPA estimate in England suggested approximately 31% of those with chronic Hepatitis C are current injectors, 57% are ex-injectors and 12% had never injected.

NESI is a survey of injecting drug users attending needle exchange sites across Scotland to determine injecting behaviour and also carries out anonymous Hepatitis C testing to determine prevalence of infection.

The proportion of PWID (current) reporting having shared a previously used needle/syringe (i.e. injecting with a needle/syringe that had previously been used by someone else) within the six months prior to interview was 7% in 2013/2014 compared with 15% in 2008/2009. Sharing within the month prior to interview was 3% in 2014 and 9% in 2008/2009.

Needle Exchange Surveillance Initiative (NESI), Prevalence of Hepatitis C and injecting risk behaviours among people who inject drugs attending injecting provision services in Scotland 2008/2009 and 2010. Author: University of the West of Scotland, Publication date: January 2015

Notes

Information on the prevalence of Hepatitis C infection was available from two data sources, on IDUs who have: (i) had a named HIV test, from an unlinked anonymous testing survey; and (ii) attended services providing injection equipment, from the Needle Exchange Surveillance Initiative.

Analysis of pooled data from across the UK, involving almost 1,000 IDUs surveyed in Greater Glasgow and Clyde NHS Board during 2008-2009, demonstrated that both the uptake of opiate substitution therapy and high levels of needle/syringe provision (i.e. a sterile needle/syringe for each injection) can achieve substantial reductions in the risk of Hepatitis C transmission among IDUs.

Rapid Decline in HCV Incidence among People Who Inject Drugs Associated with National Scale-Up in Coverage of a Combination of Harm Reduction Interventions.

Norah E. Palmateer mail, Avril Taylor, David J. Goldberg, Alison Munro, Celia Aitken, Samantha J. Shepherd, Georgina McAllister, Rory Gunson, Sharon J. Hutchinson Published: August 11, 2014 DOI: 10.1371/journal.pone.010451.

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0104515
Notes

Primary care should be involved in testing current drug users but we also need to think about reaching other groups who will not be attending drug misuse services. In particular people who may have used drugs many years ago and no longer identify themselves as a drug user, they may have used drugs very infrequently or even on a single occasion.
Notes

Although drug use is the commonest route of transmission, it is not the only one and we need to be mindful of other risks where blood to blood exposure could have resulted in transmission.
Notes

Transmission through this route is theoretically possible, so we advise against sharing of these items when a person is diagnosed with Hepatitis C. In reality this is a very low risk for transmission.
Notes

Cohort studies on heterosexual monogamous couples showed low incidence of lifetime transmission - 0-2 per 1,000 years of sexual contact.


However there is increasing evidence of transmission sexually in MSM, especially if they are HIV positive.

van de Laar TJW, Matthews GV, Prins M, Danta M. Acute Hepatitis C in HIV infected men who have sex with men: an emerging sexually transmitted infection. AIDS 2010;24:1799–1812

Notes

All blood is now screened in the UK and Western countries but as we have said before people may have been at risk from blood or blood products prior to screening and from this or other unsterile medical treatment abroad.
Notes

So we are clear that we should be screening any one who has or is using drugs, who else should we be discussing testing with? Based on the risks that we have heard about the following people should be offered a test:

- MSM - men who have sex with men (especially if HIV+ve)
- People who have lived in South Asia, Africa, Eastern Europe
- Anyone who has had a tattoo (from an unregistered practitioner)
- Sexual partner/child/household contact of Hepatitis C patient OR drug user
- Anyone who received blood before screening
Notes

This map shows the prevalence of Hepatitis C infection across the world. Higher prevalence in parts of South America, Africa, South Asia and Eastern Europe.
Notes

If you have been at risk of one BBV, you may have been at risk of the others and should be tested for them. Do not assume that someone will have been tested at the specialist service if they are being treated for a BBV.

Prisoners have a higher risk of Hepatitis C infection - likely to be due to higher incidence of injecting drug use.

Hepatitis C Prevalence and Incidence among Scottish Prisoners and Staff Views of its Management, Final Report. Authors: University of the West of Scotland et al. Published: May 2012
Notes

We should also think about Hepatitis C infection when attempting to diagnoses some clinical syndromes. Although acute Hepatitis is uncommon in Hepatitis C infection it can occur and jaundice may also occur due to chronic liver damage.

Hepatitis C is common enough that is should be part of a routine liver screen investigating abnormal LFTs.


Follow-up of mild alanine aminotransferase elevation identifies hidden hepatitis C in primary care

Charles Helsper et al
Published online 2012 Feb 27. doi: 10.3399/bjgp12X630115
Hepatitis B

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Hepatitis B is largely an imported infection. Prevalence is increasing in Scotland due to immigration.

Notes

This map shows the areas of the world with a higher prevalence of Hepatitis B infection - South Asia, including China and Africa are where most of the imported infection in the UK derives from.
Notes

Surveillance systems for Hepatitis B in Scotland have until recently been rudimentary or non-existent. New systems are being developed and implemented.

Current figures are from Christian Schnier, senior epidemiologist at Health Protection Scotland, personal communication 2012
Notes

Unlike HIV, the Hepatitis B virus can survive outside the body for at least seven days. During this time, the virus can still cause infection if it enters the body of a person who is not protected by the vaccine.

http://www.who.int/mediacentre/factsheets/fs204/en/
Notes

In developing countries, common modes of transmission are:

- perinatal (from mother to baby at birth)
- early childhood infections (inapparent infection through close interpersonal contact with infected household contacts)
- unsafe injection practices
- unsafe blood transfusions
- unprotected sexual contact.

In many developed countries (e.g. those in western Europe and North America), patterns of transmission are different from those in developing countries. The majority of infections in developed countries are transmitted during young adulthood by sexual activity and injecting drug use. Hepatitis B is a major infectious occupational hazard of health workers.

The Hepatitis B virus is not spread by contaminated food or water, and cannot be spread casually in the workplace.

http://www.who.int/mediacentre/factsheets/fs204/en/
Hepatitis B - routes of transmission (cont.)

- Sharing any equipment used to inject, snort or smoke drugs i.e. needles, syringes, spoons, water, filters, straws, notes, crack pipes
- Using unsterile equipment and poor infection control procedures for tattooing, body piercing, ear piercing and acupuncture

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Other, much rarer risks.
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Audience should be asked to suggest risk groups e.g.:

- Immigrants and family members of immigrants from higher prevalence countries
- MSM
- People with frequent change of sexual partners, sex industry workers
Notes

MSM and IDU important but low prevalence in UK

**MSM:** The prevalence of Hepatitis B infection in MSM is higher than in the general population. During the 1980s, the prevalence of Hepatitis B infection among MSM ranged from 34.0% to 81.7%, while HBsAg prevalence was 3.0% to 8.7%.

**IDU:** During the 1990s, several hundred new transmissions of Hepatitis B infection were diagnosed annually in Scotland, during a time when outbreaks of infection among injecting drug users were relatively frequent.

Acute hepatitis B (England); annual report for 2015
Infection reports / Immunisation Volume 10 Number 28 Published on: 26 August 2016
### Clinical reasons for Hepatitis B testing

- Investigation of acute icteric Hepatitis
- Investigation of abnormal LFTs
- People about to undergo immunosuppressive therapy or renal dialysis
- All pregnant women to prevent vertical transmission
- Investigation of sexually transmitted disease
- Co-existent Hepatitis C or HIV infection