Aotearoa New Zealand STI Management Guidelines for Use in Primary Care

Hepatitis A, B and C

The following guideline is a brief overview of hepatitis screening and vaccination in the context of a sexual health check

Hepatitis A

Background

- **Transmission:** faecal-oral, either from person to person or through contaminated food or drink
- Causes an acute (rarely fulminant) hepatitis
- Risk factors include travel to high prevalence countries, oral-anal sexual contact (rimming), and injecting drug use
- Outbreaks have occurred in men who have sex with men (MSM) overseas
- Injecting drug users account for 30% of cases in communities during outbreaks
- Acute hepatitis A is a notifiable infection

Target populations for screening in the context of a sexual health check

- Testing for hepatitis A virus (HAV) is not a universal part of routine sexual health screening
- Serology and vaccination have limited indications for funding in Aotearoa New Zealand
- Serology is not mandatory before vaccination. There is no harm in vaccinating an already immune person, however some groups with a higher probability of prior infection may wish to avoid the expense of

vaccination

The following are ***unfunded*** indications for screening before vaccination:

- MSM and others engaging in oral-anal sexual contact
- People who inject drugs
- People who have hepatitis B or C (superinfection with HAV leads to increased morbidity and mortality)
- People travelling to high-risk countries

Repeat testing is unnecessary unless unexplained liver disease

Tests

- HAV testing is not funded in Aotearoa New Zealand, unless acute infection is suspected
- Routine testing for HAV immune status = total HAV antibody (Ab)
- Differential testing for HAV IgG and IgM is limited to patients suspected of having acute HAV (jaundice and deranged liver function tests)
- Serology is not mandatory before vaccination. There is no harm in vaccinating an already immune person, however some groups with a higher probability of prior infection may wish to avoid the expense of vaccination

Interpretation of results

- **Total HAV Ab < 20 IU/mL**
    - Susceptible
    - Offer vaccination if risk, and patient willing to pay
- **Total HAV Ab > 20 IU/mL and no suspicion of acute hepatitis**
    - Previous infection or vaccination
    - Reassure the patient
    - No further action required
- **Suspicion of acute hepatitis and total HAV Ab > 20 IU/mL or positive HAV IgM with or without positive HAV IgG**
    - Possible acute infection – IgM remains positive for 6 months or

more
- Request liver function tests and HAV IgM if not already done
- Supportive care and monitoring
- Advise avoiding food-handling and sexual contact (including oral-genital and oral-anal) until non-infectious
- Infectiousness lasts from 2 weeks before until 1 week after onset of jaundice
- Notify public health immediately

Vaccination

- Vaccination is only funded for limited indications in Aotearoa New Zealand
- Serology is not mandatory before vaccination. There is no harm in vaccinating an already immune person, however some groups with a higher probability of prior infection may wish to avoid the expense of vaccination
- Consider unfunded vaccination for the following target groups in the context of a sexual health check:
    - MSM and others engaging in oral-anal sexual contact
    - People who inject drugs
    - People who have hepatitis B or C (superinfection with HAV leads to increased morbidity and mortality)
- See the Immunisation Handbook 2020 for vaccination schedule

Hepatitis A and HIV

- HAV infection does not appear to be associated with worse clinical outcomes in people living with HIV
- HAV vaccine is recommended (unfunded) for people living with HIV, who have additional risk factors (see target populations above)

Hepatitis B

Background

- **Transmission:** contact with infectious blood or body fluids including during childbirth, contact with broken skin, sexual intercourse or injecting drug use
- Broad spectrum of disease from subclinical to fulminant hepatitis
- Persistent infection can lead to chronic liver disease, including cirrhosis or hepatocellular carcinoma
- If hepatitis B virus (HBV) is acquired as an adult, the majority will have immune clearance and develop subsequent immunity. Only 5-10% of adults will develop chronic HBV infection. This contrasts with chronic infection rates of over 90% in neonates and 20-50% of children under 5 years of age
- Hepatitis B vaccination has been a part of the infant immunisation schedule in Aotearoa New Zealand since 1988
- By December 2019, 93% of children aged under 2 years had completed a primary course of hepatitis B vaccination, which confers lifelong immunity in approximately 95% of those vaccinated
- **Acute** hepatitis B is a notifiable infection

Target populations for screening in the context of a sexual health check

- Testing for HBV is not a universal part of routine sexual health screening
- People born in Aotearoa New Zealand after 1988 are likely to have been vaccinated as babies, with lifelong immunity in approximately 95% of those vaccinated
- While serological testing after vaccination is not routinely recommended, serum anti-HBs antibody ≥ 10 IU/L, measured at least 1-2 months after the course of immunisation, is a correlate of long-term protection
- In most people, antibodies wane to undetectable levels by 7 years after the last vaccination, however sustained immune memory and long-term protection continue to occur in immune-competent adults without the need for boosting
- In the context of a sexual health check, the following target groups should be offered serological testing and vaccination, unless known to be immune:
    - MSM
    - People living with HIV
    - Sex workers

- People who inject drugs
- People of Māori, Pacific or Asian ethnicity born in Aotearoa New Zealand before 1988
- Immigrants of any age from Pacific Island, Asian, Middle Eastern or African countries
- People who have been incarcerated
- Contacts of people with HBV
- Following non-consensual sexual intercourse

- **Repeat testing is unnecessary if vaccination is declined unless unexplained liver disease, or if patient is using HIV pre-exposure prophylaxis (PrEP)**
- Serological testing after vaccination is only indicated in people at higher risk of exposure to HBV, or those at higher risk of having severe disease

High-risk individuals, for whom serological testing is indicated after vaccination (adapted from Immunisation Handbook 2020*)*

Household or sexual contacts of people with acute or chronic HBV infection
Current or recent injecting drug users
People who change sexual partners frequently (e.g. sex workers)
Immunocompromised people, including those who are HIV positive
Following non-consensual sexual intercourse
Before planned immunosuppressive therapies for 28 days or more
Following immunosuppressive therapies for 28 days or more
Solid organ and post-haematopoietic stem cell transplantation (HSCT) patients
Following percutaneous injury (e.g. needle-stick injury)
Adults at occupational-related risk
People with haemophilia and other regular recipients of blood products
Inmates of custodial institutions
People with developmental disabilities
People with chronic disease (e.g. chronic renal failure requiring haemodialysis, or chronic liver disease)
Migrants from HBV endemic regions (where HBsAg prevalence is over 2%)

Tests

- Routine testing for HBV immune status = hepatitis B surface antigen (HBsAg) and hepatitis B surface antibody (HBsAb)

Interpretation of results

- HBsAg positivity indicates active infection
- HBsAb > 10 IU/L indicates immunity (if HBsAg negative)
- If HBsAg positive, refer to the Hepatitis Foundation of New Zealand for monitoring and onward referral as indicated
- Hepatitis A and C serology should be requested. People who are susceptible to hepatitis A should be offered unfunded vaccination
- Sexual partners, first degree relatives and household contacts should be advised to attend their GP for screening and vaccination if not immune

Vaccination

- See Immunisation Handbook 2020 for vaccination schedule

Hepatitis B and HIV

- HBV infection is associated with worse clinical outcomes in people living with HIV
- HBV vaccine is therefore recommended and funded for people living with HIV
- Some HIV antiretroviral therapy has activity against HBV, enabling targeted therapy in people with co-infection, without an increase in pill burden
- People with chronic Hepatitis B who would like to use PrEP should be referred to or discussed with a sexual health specialist

Hepatitis C

Background

- **Transmission:** exposure to infected blood or body fluids. Most newly acquired infections in Aotearoa New Zealand are from injecting drug use. Hepatitis C is rarely sexually transmitted; the risk is greatest for MSM, especially in association with injecting drug use
- Most people who contract hepatitis C virus (HCV) are asymptomatic. Spontaneous clearance occurs in approximately 20-25% of people with the infection, however 75-80% develop chronic hepatitis C, with risk of cirrhosis, hepatocellular carcinoma, and risk of transmission of HCV to others
- The National Hepatitis C Action Plan for Aotearoa New Zealand – Māhere Mahi mō te Ate Kakā C 2020-2030 – aims to eliminate Hepatitis C as a public health threat by 2030, in line with World Health Organisation (WHO) hepatitis C global elimination goals
- Effective treatment is available

- Risk factors for HCV:
    - Injecting drug use
    - Blood transfusion in Aotearoa New Zealand before July 1992
    - Receiving health care in a region with high HCV prevalence
    - Incarceration
    - Tattoo or body piercing not performed in a licensed premises in Aotearoa New Zealand
    - History of acute hepatitis, jaundice or abnormal liver function
    - Being born to a mother with HCV infection (5% risk of transmission)

- People cannot develop immunity to HCV, therefore re-infection is possible
- **Acute** HCV is a notifiable infection

Target populations for screening in the context of a sexual health check

- Testing for HCV is not a universal part of routine sexual health screening
- In the context of a sexual health check, the following target groups should be offered serological testing:
    - People who inject drugs and their sexual partners
    - People who have shared injecting equipment, needles and sharp objects (including household items like scissors, razors,

toothbrushes) with a known HCV-positive person
    - People living with HIV, particularly MSM living with HIV (test annually)
    - MSM prescribed HIV pre-exposure prophylaxis (PrEP) (test annually)
    - Recipients of blood transfusion or blood products before July 1992 (in Aotearoa New Zealand)
    - People who have received medical or dental treatment in a country with high HCV prevalence
    - People who have had tattoos or body piercing in circumstances where infection control procedures could be suboptimal
    - People who have been incarcerated
- Repeat annually for those with ongoing risk

Tests

- Routine testing for hepatitis C = HCV Ab
- Patients who have previously cleared HCV will continue to test positive for HCV antibody. *If ongoing risk*, request HCV RNA for future screening (with clinical details on laboratory form)

Interpretation of results

- HCV antibody positive indicates current or past infection. Request HCV RNA to check if infection is current
- If HCV RNA positive, infection is current. Refer to local protocols for management. Effective treatment is available
- Hepatitis A and B serology should be requested. People who are susceptible to hepatitis A or B should be offered vaccination (hepatitis A unfunded, hepatitis B funded)

Vaccination

- There is no vaccine available for HCV

Hepatitis C and HIV

- HIV co-infection is associated with a reduced rate of spontaneous HCV clearance, and more rapid HCV disease progression
- All people with HIV and HCV co-infection should be offered treatment for both
- Request specialist advice for co-infection

Useful patient resources

The Hepatitis Foundation of New Zealand

Endorsement: These guidelines have been endorsed by the Blood Borne Viruses and Sexually Transmitted Infections Standing Committee (BBVSS).

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