

### WHAT IS HIV

**Human immunodeficiency virus (HIV)** is a retrovirus that infects vital cells in the human immune system, specifically CD4 T-lymphocytes. HIV infection reduces CD4 T-cell numbers, damaging cell-mediated immunity, and the body becomes progressively more susceptible to opportunistic infections and malignancies. When a person develops these conditions, they are said to have *acquired immunodeficiency syndrome (AIDS)*.

HIV is present in blood, genital fluids and breast milk and is most commonly transmitted during unprotected anal and vaginal penetrative sex, sharing injecting equipment, and from a mother to her baby during pregnancy, birth or through breastfeeding.

Although there is no vaccine or cure for HIV, modern combination treatment with Highly Active Antiretroviral Therapy (HAART) has transformed HIV management. Most patients can now expect to lead a relatively normal life and have near-normal life expectancy. However the benefits of treatment rely on the early diagnosis of infection.

You **CANNOT** get HIV through normal social contact such as kissing, hugging coughing, sneezing, touching or sharing toilets, cups, crockery or food and drink.

### WHO IS AFFECTED BY HIV?

The UK has similar prevalence rate to other Western European countries with an estimated 1.5 per 1,000 of the total population infected.

By the end of 2012 over 100,000 people will be living with HIV in the UK, and approximately a quarter of these will remain undiagnosed and be unaware of their infection

HIV is primarily a sexually transmitted infection. An estimated 50% of people diagnosed in 2010 acquired their infection heterosexually, 45% through sex between men, 2.5% through injecting drugs and 2.5% through other routes

The proportion of late diagnoses ( $CD4 < 350 \text{ cells/mm}^3$ ) remained high in 2010 (50%). These individuals carry a tenfold increased risk of dying within a year of diagnosis, compared to those diagnosed promptly.

Between 80-100 cases are diagnosed annually in NHS GGC, mostly amongst men who have sex with men and people from high-prevalence countries.

### DIAGNOSTIC TESTING

**Testing early saves lives.** Testing is recommended for:

- Anyone, regardless of traditional 'risk group', who has symptoms or conditions that could be associated with HIV. These include:
  - Any lymphadenopathy of unknown cause
  - Any sexually transmitted infection
  - Any unexplained blood dyscrasia including: thrombocytopenia, neutropenia, lymphopenia
  - Cervical cancer and CIN Grade 2 or above
  - Chronic diarrhoea of unknown cause
  - Lymphoma
  - Mononucleosis illness, where EBV testing is negative
  - Multidermatomal or recurrent herpes zoster
  - Oral candidiasis
  - Pyrexia of unknown origin
  - Recurrent bacterial infections e.g. Pneumonias
  - Chronic, recurrent salmonella, shigella or campylobacter infections
  - Severe recalcitrant psoriasis
  - Severe seborrhoeic dermatitis
  - Tuberculosis
  - Weight loss of unknown cause
- Men and women who have had unprotected penetrative anal or vaginal intercourse, as part of a full sexual health screen
- Men who have sexual contact with other men
- People born or who have lived in a country of high prevalence e.g. Sub-Saharan Africa, E. Europe, E. Asia, Caribbean.
- Anyone who has ever injected drugs
- Everyone who has been diagnosed with hepatitis C or hepatitis B
- People who have had unsterile body piercing or tattoos
- Those who have received medical or dental treatment in countries where infection control is poor

### CONSENT TO TEST

All trained healthcare workers can obtain consent for and conduct an HIV test. **Pre-test counselling is no longer required.**

The essential elements for consent to test are to explain:

- The benefits of testing, especially access to successful treatment which is best given early, and the monitoring and support available
- Details of how the result will be given
- The window period, and whether a re-test will be required.
- The person's ability to cope with the result and support available.
- That life assurance and mortgage issues are not a deterrent to testing.

### TAKING THE TEST

The HIV test is combined antigen/antibody test. The preferred method is a venous sample in a single 9 ml EDTA purple topped sample bottle.

All venous samples taken in Glasgow sites should be sent to the West of Scotland Specialist Virology Centre (WSSVC)

Samples submitted from Clyde sites should first be sent to the local laboratory at the IRH, who will then forward any positive results to the WSSVC for confirmatory testing

If no electronic ordering is available, a standard virology form can be used to request tests. Ensure that contact details are clearly appended

### THE WINDOW PERIOD

This is the time after infection during which the antibody response cannot be detected by the usual testing methods. The HIV window period is 1-3 months. It is important to establish whether the person being tested could be in the window period, or has been at risk of exposure to infection during the window period. If they are negative but have been at risk they should be offered re-testing.

The Fourth Generation HIV antibody/antigen tests will detect the majority of infected individuals at 4 weeks after specific exposure, however, an additional HIV test should be offered to everyone who tests negative at 3 months (12 weeks) to definitively exclude HIV infection. Therefore, re-testing from 4 weeks is appropriate and should be conducted especially if sero-conversion is suspected.

If there is an additional known risk then re-testing should not be delayed.

### RESULTS

Results are best given face to face.

A **positive** antigen/antibody test shows ongoing infection with HIV and referral is indicated. Confirmatory samples will be required for any positive results however, referral should not be delayed by the need for a confirmatory test and it is good practice to take the test and continue with the referral.

If the result is **negative**, explain that this does not mean the person is immune from future infection, discuss the need for repeat testing, how to avoid risk and offer hepatitis A/B vaccination if appropriate.

### REFERRAL

In NHS GGC referral for adults diagnosed with HIV, including those co-infected with hepatitis, should be referred to the Brownlee Centre for Infectious Disease, Gartnavel General Hospital, 1053 Great Western Road, Glasgow, G12 0YN

**Tel: 0141 211 1089**

Children are followed up by the specialist paediatric infectious disease consultants at Yorkhill Hospital for Sick Children, Dalnair Street, Glasgow.

**Tel: 0141 201 0323**

Referral can be facilitated via the normal processes, by letter, phone call or SCI gateway.

All HIV positive results are copied to the Sandyford Shared Care Team who can offer support with giving results, referral and contact tracing. Tel: **0141 211 8693**

### PATIENT INFORMATION AND RISK REDUCTION

Use testing as an opportunity to give prevention advice around safer sex and condoms; avoiding sharing any equipment to take drugs; the availability of PEPSE (Post-exposure prophylaxis for sexual exposure) and the need for regular sexual health screening.

Patient information to support the testing process can be found at:

[http://www.nhsggc.org.uk/content/default.asp?page=s1843\\_2\\_6](http://www.nhsggc.org.uk/content/default.asp?page=s1843_2_6)