NHS Greater Glasgow and Clyde

CLINICAL GUIDELINE

Blood borne Viruses, Testing, Diagnosis And Referral Guidance

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Created by the BBV Testing Policy Short-life Working Group, a sub-group of the NHS GGC HIV Prevention Treatment and Care Steering Group and the NHS GGC Viral Hepatitis Managed Care Network.

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SUMMARY

HIV, Hepatitis C and Hepatitis B diagnosis and testing is the responsibility of all GGC healthcare workers.

HIV, Hepatitis B (HBV) and Hepatitis C (HCV) are commonly termed Blood Borne Viruses (BBV). Missing a BBV diagnosis can cause unnecessary

1. morbidity and mortality
2. transmission to another person.

All GGC healthcare staff, as well as social care staff working with at risk groups, should feel able to offer BBV testing to their patients or know how to signpost patients for a test without delay or stigma

BBV testing

1. is **simple** and easy
2. requires **verbal consent only** as per any blood test e.g. blood sugar for diabetes
3. does **not** require a risk factor discussion (unless appropriate)
4. **must be considered** in a variety of common **clinical presentations** that could present to any healthcare setting in GGC including medical, surgical, psychiatric specialties, primary care, sexual health, addictions or other community services.
5. requires 4-8 mls of venous blood in an EDTA tube (like a full blood count)
6. in some settings can be done on a finger prick blood sample “dry blood spot”

Key points

Thinking HIV HCV or HBV? You must arrange a test

- **A positive test result is likely to be life saving for the patient and others**
- **There is effective treatment for all 3 BBVs which is easy to take**
- **Knowing your BBV status means measures can be taken to stop onward transmission to others**

INTRODUCTION

BBV are transmitted from person to person via blood and/or bodily fluids. Although there are risk factors associated with transmission many people will be unware they have been at risk or not report risk.

Late diagnoses of BBV carries morbidity and mortality risks as well as potential medico legal consequences. There are risks of onward transmission of a BBV that can be successfully mitigated if the individual is aware of their infection.

Every effort should be made to offer BBV testing to those with any clinical features that might suggest an underlying BBV.

Evidence of risk factors, including sharing of injecting equipment and unprotected sexual activities, *are not required* to offer BBV testing. Indeed given the asymptomatic nature of the infections for many years mean the recollection or knowledge of risk may genuinely be forgotten.

Effective treatments exist for all three infections.

- HIV therapy is easy to take and highly effective tablet medication. If diagnosed early the prognosis is the same or even better than matched HIV negative controls.

- HCV has be transformed in recent years with short course tablet therapy that is >95% curative. There are no limitation on prescribing related to cost.

- HBV has effective therapy and requires monitoring to mitigate development of liver disease and there is vaccination for contacts at risk

Comprehensive ***opportunistic testing*** is required for early diagnosis resulting in prompt treatment. **All healthcare staff** play an important role in early diagnoses. Even if not performing BBV testing themselves, all staff should be able to raise the issue and signpost people to appropriate testing services

AIM OF THE GUIDANCE

This Guidance is required by NHS Greater Glasgow and Clyde Sexual Health and BBV Strategic Oversight Group and its sub-committees. It has been developed in line with national guidelines and policies (*Appendix 7*)

Applies to:

- All healthcare staff working with adult patients

Aim

- Increase BBV testing levels
- avoid late diagnoses of HIV, HBV, HCV
- improve staff knowledge and confidence in BBV testing
- provide equity of access to BBV testing
- eliminate any health inequalities around BBV testing and referral

Excludes

- Occupational testing, antenatal screening or the specifics associated with testing children. Separate guidance exists for these areas.

BLOOD BORNE VIRUSES (BBV)

Table 1: Summary of BBVs

	HIV	HCV	HBV
Natural history of untreated infection	Initial seroconversion illness followed a period of asymptomatic infection then progressive symptomatic immunodeficiency	Rarely illness at time of infection. 80% will develop chronic infection usually asymptomatic or nonspecific symptoms e.g. malaise. 20% of chronic infections will result in cirrhosis over 10-20 years	Most adult carriers are asymptomatic and have chronic infection resulting from infection earlier in utero or early childhood. Chronic carriage leads to severe liver disease in around 1/3 of adults if untreated. Acute infection in adults is usually symptomatic and can be severe with liver failure but less likely to become chronic
Vaccine available	No However PrEP (preventative oral medication) is highly effective and can be prescribed for those at risk	No	Yes
Treatment available	Very successful lifelong treatment with combination of drugs to control infection.	Very successful curative therapy in >95% with short oral well tolerated treatment course	Very successful. Oral medication usually lifelong but some patients only require monitoring. Interferon course sometimes used.
Vertical transmission	15-25% untreated, reduced to <1% by treatment of mother and baby. Breast feeding not recommended but can be supported in some women. Guidance is available (see appendix 8)	5% transmission rate, no effective intervention to minimise transmission, breast feeding is not contra-indicated. Treatments are now licensed for children and it is important to test mothers at risk of HCV and refer the children of mothers affected to paediatric infectious diseases.	Variable transmission rate can be reduced by treating mother before birth and active and passive immunisation of baby. All pregnant mothers should follow GGC pregnancy protocol
Window period	1-2 months	3-6 months	3-6 months

TESTING

Who to test?

- Anyone with a clinical presentation that could be associated with a BBV
- Anyone who requests a test
- Anyone who reports risk behaviours
- Anyone from an area of high prevalence

As there is significant overlap in the routes of acquiring HIV, HCV and HBV, all three infections would normally be requested when performing a blood borne virus test- providing they are not already known to be positive for one or more infections. In certain select cases only one virus might be tested for but this would be unusual.

Patients may be unaware of, or not be able or willing to articulate risk behaviours therefore it is important to remember that a documented risk is **not** required to recommend a BBV test.

Table 2: Summary of BBV Testing

Population
Anyone who has symptoms or conditions associated with BBVs including unexplained non-specific symptoms
Those who are being investigated for abnormal LFTs
Those with chronic liver disease
Sexual partners and/or close contacts of those diagnosed with HIV, hepatitis B & C
The children of women known to be diagnosed with a BBV
Patients being considered for immunosuppressive therapy including chemotherapy ‡
Men and women who have had unprotected penetrative anal or vaginal intercourse, as part of a full sexual health screen
Men who have had sexual contact with other men
Pregnant women (HIV and Hep B offered as part of antenatal screening, HCV select women)
People born or who have lived in a country of high prevalence
Anyone who has ever injected drugs or is attending addiction or substance misuse services
Women who attend for termination of pregnancy
Anyone who has been diagnosed with another BBV
People who have received medical or dental treatment in countries where infection control procedures may be suboptimal
People who have had tattoos or body piercing in circumstances where infection control procedures are suboptimal

Table 3: Conditions that may be associated with HIV Infection

A full breakdown of the clinical indicator illnesses associated with HIV infection can be found at *Appendix 1.* This list is not exhaustive and any clinical suspicion of HIV or underlying immunosuppression should prompt testing.

- 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
- TB
- Weight loss of unknown cause

Table 4: Conditions associated with hepatitis B and C

- Non-specific fatigue, myalgia, anxiety, depression, poor memory or concentration (may be indicative of chronic hepatitis C infection).
- Nausea and vomiting.
- Right upper quadrant abdominal pain.
- Jaundice (with dark urine and/or pale stools if cholestasis).
- Signs of chronic liver disease (in advanced chronic hepatitis C).

Who can test?

All doctors, midwives, nurses and trained health and social care workers, as well as third sector organisations can obtain consent for and conduct a BBV test.

Testing for BBVs is therefore achievable in a range of clinical and community settings.

Consent to test

As for all investigations, **all that is required is informed verbal consent**, which does not usually need a lengthy discussion. Individuals should be aware of what they are being tested for and that testing is voluntary.

They should be informed how their result will be managed including a clear agreed plan on how the test result will be communicated back to them.

Pre-test counselling is not required.

The BHIVA/BASHH UK Guidelines for HIV testing 2020 state that 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

In most cases this will be sufficient to obtain informed consent for testing.

In some cases more explanation will be required and other areas explored. These might include:

- The window period, and whether a re-test will be required.
- The person's ability to cope with the result and support available.

Assure patients of confidentiality and explain that life policies and mortgage issues are not a deterrent to testing.

- Negative test results should have no impact and should not be supplied to insurance companies (beware computer generated medical reports which may contain this information)
- Positive tests, wherever they are carried out, may make it more difficult but not impossible to get life policies. This is not different from any other significant medical condition.

Some individuals, for example those with additional support needs may require additional support when performing BBV testing. *See Appendix 3*

The Window Period

All BBV tests have a window period, which is a time after infection during which the antibody response cannot be detected by the usual testing methods. 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 for each virus. If they have been at risk they should be offered re-testing, assuming they are negative, after the appropriate window period.

HIV Window Period

The Fourth Generation HIV antigen/antibody will detect the majority of infected individuals at one month after specific exposure.

A negative result at 45 days post exposure is very reassuring/highly likely to exclude HIV infection.

Hepatitis B and C Window Period

Testing for HCV and HBV is recommended at 3 months and again at 6 months. Hepatitis B and C can have long incubation periods, which is why the official window period is 6 months, however, if the infection is detected earlier, referral should be expedited.

Table 5: Window Periods for BBVs

Infection	Window period *
HIV	45 days
HCV antibody	3-6 months
HCV PCR	1-2 weeks
HBV	3-6 months

Risk Reduction

Use testing as an opportunity to give prevention advice on reducing the risk of passing on or becoming infected with one or more BBVs. This advice may include:

- Safer sex, condoms and lubricant

  Free condoms and lubricant are available in NHS GGC. This site lists where they can be accessed: www.freecondomsglasgowandclyde.org
- Avoid sharing any equipment to take drugs including spoons, filters, water needles/syringes, pipes, snorting equipment and even surfaces to prepare drugs
- Sterile injecting equipment is provided free of charge from a number of settings across NHSGGC.
- Where individuals have tested for HIV, alert them to the availability of PEPSE (Post-exposure prophylaxis for sexual exposure) PEPSE can be obtained from Sandyford or Accident and Emergency, up to 72 hours after sexual exposure to HIV. *(See BASHH/BHIVA UK guideline for the use of post-exposure prophylaxis for HIV (2021) – Appendix 7)*
- Use of HIV PrEP where there is ongoing risk of HIV exposure (discuss with sexual health services).

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How to test

Types of test and taking the sample

BBV testing is available as a venous blood test in all clinical settings and as a dried blood spot (DBS) in prisons, Alcohol and Drug Recovery services, and other settings were phlebotomy is not available, or patients have poor venous access.

HIV	a combined antigen/antibody test
HCV	Either an antibody or PCR test will be conducted. The Specialist Virus Laboratory will decide which test to use, based on clinical and risk information provided with the sample. A positive antibody test indicates that a person has ever been infected. A PCR test should be done. A positive PCR test indicates active infection. An antigen test used to be used to indicate current infection but this is not as sensitive as a PCR and has a higher risk of false negative results.
HBV	a panel of tests to determine past, acute or chronic infection. For the correct tests to be done, the clinician should clearly supply the reason for testing on the request form e.g. test for infection **or** test for post-immunisation serology

Venous Blood Testing

- A single 9 ml EDTA purple topped sample bottle is preferred, however, if this is not available fill a 4 ml Full Blood Count bottle
- If no electronic ordering is available, a standard virology form can be used to request tests. Ensure that contact details are clearly appended
- The results of all virology test undertaken with a CHI number will be available on clinical portal.
- Results from routine blood samples are usually available from the WoSSVC within 2 days, but are guaranteed to be reported within 5 working days and if positive, will be reported directly to the testing physician.
- Samples that require an urgent result must be marked URGENT, and the WoSSVC alerted. Email-west.ssvc2@nhs.scot

Dried Blood Spot (DBS) Tests

DBS samples can be collected from patients with poor venous access, usually resulting from a history of injecting drug use. To facilitate testing among this group, DBS kits have been made available to Alcohol and Drug Recovery services, Shared Care GPs, prisons, Sandyford Sexual and Reproductive Healthcare services and some other primary care settings. Contact the laboratory by email: west.ssvc2@nhs.scot for DBS kits. However, if a venous blood can be taken please take that rather than DBS, a larger range of tests can be performed on a venous blood, for example if the patient is positive for HIV (e.g. avidity, baseline resistance, viral load) or HBV (only HBsAg and HBcore IgG available on DBS). The same HIV antigen/antibody assay is used for both plasma and DBS.

Point of Care Tests (PoCT) or Finger Prick Tests

PoCT are widely used in many health care settings across the UK but the main weakness is that they generally only test for a single pathogen therefore multiple tests are needed. For this reason, PoCT are limited for use in some settings by some practitioners in NHS GGC. It is important to recognise that the window period can also vary depending on which type of PoCT has been used and the generation of the kit. BHIVA/BASHH UK Guidelines for HIV testing 2020 advise a window period of 90 days for HIV PoCT.

Home Testing Kits

Home testing kits have been licensed for use in the UK. While home testing kits are very accurate if used appropriately, all home testing kits are vulnerable to user error. Any patient who reports a positive, or reactive result from a home testing kit, requires a confirmatory test in a health care setting. It is also important to consider the window period when discussing home testing results.

Sending the sample

During normal working hours, all venous and DBS samples should be sent to the West of Scotland Specialist Virology Centre (WoSSVC) Level 5 New Lister Building, GRI.

Centres which use **DBS only** and do not have a van collection service can post the DBS samples to the laboratory using the freepost labelling system.

Venous samples must never be sent in the post using the freepost label. This would constitute a serious breach of sample transport regulations.

DBS and other testing techniques have their own associated protocols and timescales which are communicated to those authorised to use them.

Laboratory details can be found at *Appendix 4*

RESULTS

Interpreting the result

Confirmatory samples will be required for any positive or indeterminate/equivocal results and will be requested by the laboratory. For indeterminate/equivocal results this is because the result is currently unclear and another test is required to confirm the results. For those who have tested positive, confirmatory samples are mainly to confirm patient identity and it is acceptable for them to be taken after referral to specialist care**. Referrals for positive results 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.**

HIV: A positive antigen/antibody test shows ongoing infection with HIV and referral is indicated. Other tests to measure the level of virus (Viral Load) stage of infection (CD4) and duration of infection (avidity) and HIV baseline resistance are also carried out.

HBV: A positive hepatitis B surface antigen indicates active infection, and the need for referral to specialist services. The presence of e-antigen (HBeAg) usually indicates an earlier phase of infection, and is associated with higher viral loads and increased infectivity. In patients who are negative for surface antigen, both anti core antibodies (anti-HBc) and anti surface antibodies (anti-HBs) are present in resolved infection. Anti-HBs in isolation indicate a response to prior vaccination. Patients with evidence of resolved infection may be at risk of reactivation if undergoing immunosupression, and such patients should be referred for specialist opinion, as prophylactic treatment may be required (see GG&C guidelines on hepatitis B reactivation). DBS samples can only screen for HBsAg and HBcore IgG (HBV core antibody). If a patient is positive for HBsAg the laboratory will contact the sender to ask for a venous blood sample to test for other HBV markers.

HBsAg	Total Anti HBc	IgM antiHBc	Anti HBs	HBV DNA	Interpretation
-	-	-	-	-	Never infected, susceptible
+	--	-	-	+ or -	Early acute infection (pos or neg DNA) (or transient up to 18 days after vaccination if HBV DNA neg)
+	+	+	-	+	Acute infection
-	+	-	+	-	Recovered from past infection and immune
+	+	-	-	+	Chronic infection
-	+	-	-	+ or -	Isolated core antibody False positive (susceptible) or past infection (resolved) or “low level” chronic infection or passive transfer of antiHBc to infant born to HBsAg positive mother
-	-	-	+	-	Immune if vaccination completed or passive transfer after hepatitis immune globulin administered(for 3-6 months)

HCV: A PCR or an antibody test will be used. The laboratory will decide which test to use based on the clinical or risk information provided on the request form. It is essential that clinicians provide the following information, where applicable:

- history of injecting drug use or other risk factors associated with hepatitis C
- evidence of liver disease e.g. cirrhosis, deranged LFTs
- evidence of acute hepatitis

A positive **PCR** test indicates on-going active infection and patients should be referred to Specialist Care.

A negative **PCR** test means there is no active infection, except if the risk incident has occurred in the last 2 weeks.

An **antibody test** indicates if the person was ever infected with hepatitis C. A negative antibody test (HCV Ab -) indicates that the person has not been infected with hepatitis C, although this may be negative in the window period. In addition HCV antibody declines over time and may become falsely negative on dried blood spot testing (which is less sensitive) in those with distant infection. A positive antibody test (HCV Ab +) shows that the patient has been infected at some time. Low level Ab can sometimes be due to non-specificity and may not represent past infection. Antibody positive samples will then be tested RNA (by PCR)

A positive RNA (PCR) test indicates active infection and the need for referral.

The laboratory will interpret all HCV test results, and confirm whether onward referral is indicated. If there is clinical suspicion of chronic hepatitis, please contact the lab to discuss.

HCV Antigen testing is no longer performed. It was indicative of ongoing active infection where positive but a negative test was not sensitive enough to rule out active infection.

Giving the result

The way a BBV result is communicated back to the patient should be agreed where possible at the time of testing. Some areas have specific protocols and systems in place to communicate negative results via automated techniques.

If negative:

- Check if re-testing is required due to the window period
- Explain that this negative result does not mean they are immune from infection in the future
- Discuss how to avoid future risk
- Discuss the need for repeat testing, and the frequency of this, if the person is at on-going risk.
- Discuss hepatitis A/B vaccination and schedule if appropriate

If positive:

- Communicating the test result back to the patient is the responsibility in most cases of the testing team and should be via the mechanism agreed at the time of testing

- Understand the referral pathway for the diagnosis and communicate this to the patient.
- For HIV, immediate referral is required

- For acute symptomatic HBV or HCV and where there is clinical concern, immediate referral is required.
- For chronic HBV and PCR positive HCV routine referral to a specialist for investigation and assessment for treatment is recommended
- For HBV reactivation please follow the NHS GGC Clinical Guideline
- **A positive result will require a confirmatory sample.** However, referrals **should not be delayed** by the need for a confirmatory result.
- Where there are concerns around communicating a positive result discussion with the team for onward referral may be appropriate
- If the patient cannot be told the result despite reasonable attempts by the testing team the specialist team referring team should be contacted for further advice.
- There is currently a "failsafe" mechanism in place for HIV results where a Sandyford team will review all new positive HIV results and make sure referral has happened appropriately. They may contact the testing team to confirm. This does not happen for new viral hepatitis results currently.

Repeat Testing

In addition to those individuals who are in the 'window period', repeat testing for BBVs is recommended for people in situations where risk behaviour is likely to continue: These include:

• All sexually active MSM.	Offer of annual testing recommended
• Individuals involved in prostitution	Offer of annual testing is recommended (more frequently if fall into other categories e.g. MSM and transwomen, PWID)
• MSM at high risk of HIV* * See BASSH Recommendation on STI testing for men who have sex with men at *Appendix 7*	3 monthly HIV testing is recommended
• People who are on opiate agonist therapy (eg methadone/suboxone)	At a minimum, annual testing for HCV and HIV is recommended, with increased frequency for those with active injecting drug use
• People who inject drugs or share other drug taking equipment	Aim for 3 monthly testing, with opportunistic testing if other bloods being taken.
• Individuals in receipt of PrEP	Aim for 3 monthly testing
• People who are at recent risk of HCV infection and who have an antibody positive but PCR negative result	Repeat PCR testing after a 6 month interval following last exposure. This excludes acute infection where the PCR might not be initially positive
• Anyone who has previously tested	

negative but re-presents with clinical symptoms suggestive of a BBV	Repeat on presentation

Repeat testing is also an opportunity to re-iterate risk reduction advice and consider what other referrals or support might be appropriate. See *Appendices 5 and 6*

REFERRAL

In NHS GGC referral for adults diagnosed with HIV is to the Brownlee Centre for Infectious Diseases, Gartnavel General Hospital

Patients with ongoing HBV or HCV infection can be referred to either Departments of Gastroenterology or Infectious Diseases. Patient's should be referred to whichever unit they will find it easiest to attend (typically their local unit if not able to clarify at time of referral).

All patients co-infected with HIV and hepatitis should be referred to the Brownlee Centre.

Children are followed up by the specialist paediatric infectious disease consultants at Royal Hospital for Children.

Table 5: Referral Centres

Referral Centre	HIV	HCV	HBV	HIV/Hepatitis Co infection
Infectious Diseases Brownlee Centre	♦	♦	♦	♦
Dumbarton Joint Hospital (outreach clinic)		♦	♦	
Gastroenterology Gartnavel General Hospital Glasgow Royal Infirmary Queen Elizabeth University Hospital New Victoria Hospital Royal Alexandra Hospital Inverclyde Royal Hospital Vale of Leven		♦ ♦ ♦ ♦ ♦ ♦	♦ ♦ ♦ ♦ ♦ ♦ ♦	

Referral can be facilitated via the normal processes, by letter, phone call or SCI gateway to the appropriate treatment centre. Glasgow Royal Infirmary also accepts referrals via email to GRI.LiverNurses@ggc.scot.nhs.uk

All HIV and hepatitis B positive results are automatically copied to the Sandyford Shared Care Support Service. Sexual Health Advisors will contact the testing clinician to offer professional support and advice to manage the BBV testing, diagnosis and referral process including facilitating follow-up and referral.

Sandyford Shared Care/BBV Failsafe Support Service – 0141 211 8634

In addition there are a range of third sector support agencies that deliver information, prevention interventions, counselling and support to those at risk of or living with BBVs. *See Appendix 5*

Appendix 1: Clinical Indicator Conditions for HIV Infection

Please review tables 1-3 in appendix 1 of https://www.bashhguidelines.org/media/1250/hiv-testing-2020-wiley.pdf

Appendix 2: BBV Prevalence Rates by Country

Appendix 2

List of High Hep B & HIV* Prevalence Countries (Sources: Hep B - The Lancet 2015; HIV - UNAIDS Global Report 2018)

E. Europe & Asia	Hep B >8%	HIV ≥1%
Armenia	Y	-
Burma***	Y	-
East Timor***	Y	-
Estonia	-	-
Georgia	Y	-
Korea North	Y	-
Kyrgyzstan	Y	-
Laos	Y	-
Mongolia	Y	-
Russian Federation	-	1.4**
Taiwan***	Y	-
Thailand	Y	1.1
Turkmenistan***	Y	-
Ukraine	-	1
Vietnam	Y	-
Pacific		
Kiribati	Y	-
Nauru	Y	-
Niue	Y	-
Papa New Guinea	Y	-
Solomon Islands	Y	-
Tonga	Y	-
Vanuatu	Y	-
African Continent		
Angola	Y	2.2
Benin	Y	1.1
Botswana	Y	22.2
Burkina Faso	Y	1.0*
Burundi	Y	1
Cameroon	Y	4.5
Cape Verde	-	1
Cent. African Rep.	Y	3.7
Chad	Y	2
Congo	Y	3**
Cote d'Ivoire	Y	3.2
Dem. Rep. Congo	-	1.1*
Djibouti	Y	1.6
Equatorial Guinea	Y	4.9
Ethiopia	-	1.5**
Gabon	Y	3.8
Gambia	Y	1.8
Ghana	Y	1.6
Guinea	Y	1.6
Guinea-Bissau	Y	3.9**
Kenya	-	5.9
Lesotho	Y	22.7
Liberia	Y	1.1
Malawi	Y	9.1
Mali	Y	1.3
Mauritania	Y	-

	Hep B >8%	HIV ≥1%
Mauritius	Y	1.1*
Mozambique	Y	10.5
Namibia	Y	13.3
Niger	Y	-
Nigeria	Y	3.1
Rwanda	-	2.9
Sao Tome & Principe	Y	1.4**
Senegal	Y	-
Sierra Leone	Y	1.3
Somalia	Y	-
South Africa	-	19.2
South Sudan	Y	2.5
Sudan	Y	-
Swaziland	Y	28.8
Togo	Y	2.4
Uganda	Y	7.1
United Rep. Of Tanzania	Y	4.7
Western Sahara***	Y	-
Zambia	-	12.9
Zimbabwe	Y	14.7
Middle East		
Yemen	Y	-
South America		
Belize	-	1.5
Guyana	-	1.5
Suriname	-	1.1
Arctic and North America		
Baffin Island	Y	-
Banks Island	Y	-
Canada (Around Hudson Bay or	Y	-
Greenland	Y	-
North West Territories	Y	-
Nunavut	Y	-
Quebec (Around Hudson Bay or	Y	-
Queen Elizabeth Islands (Some)	Y	-
Victoria Island	Y	-
Caribbean		
Bahamas	-	3.2
Barbados	-	1.6
Dominican Republic	-	1
Haiti	Y	1.7
Jamaica	-	1.6
Trinidad & Tobago	-	1.2

* HIV prevalence estimates for 15-49 year olds (midpoint estimates used)
Please check original UNAIDS data table for risk groups and ranges
http://www.unaids.org/sites/default/files/media_asset/HIV_estimates_from_1990-to-present.xlsx
*** High prev. HBV Countries consistently not included in HIV tables individually

(Limited recent Hepatitis data for Algeria, Bahrain, Botswana, Chad, Cyprus, Guinea-Bissau, Iraq, Kuwait, Lesotho, Libyan Arab Jamahiriya, Mauritius, Oman, Qatar, Syrian Arab Republic, Sao Tome and Principe and United Arab Emirates)

HIV TESTING & RISK REDUCTION: UPDATED BY CEG March 2019

Appendix 3 – Sandyford Testing Services, Specialist BBV Testing and Support Services and Treatment and Care Centres

1) Sandyford Services

1.1 Sandyford Shared Care/BBV Failsafe Support Service – 0141 211 8639

For support, advice, assisted management or training on Testing, Diagnosis & Management, supported referral and partner notification (contact tracing) Operated by Sexual Health Advisors

1.2 Sandyford Sexual Health Advisors – 0141 211 8634

1.3 Sexual and Reproductive Health Clinics

Sandyford Central is the main Sandyford service near Charing Cross. Sandyford services including test only clinics are also throughout Greater Glasgow and Clyde. Appointments, including for test only clinics can be made by contacting the main Sandyford service on 0141 211 8130.

a) Sandyford Central

2-6 Sandyford Place
Glasgow
G3 7NB
Telephone: 0141 211 8130
www.sandyford.org

1.4 Professional helpline email

ggc.sandyfordprofessionalsupport@nhs.scot

2) Brownlee BBV Testing Service

Gartnavel Hospital,
1053 Great Western Road,
Glasgow,
G12 0YN
Tel: 0141 211 1089
www.brownleehiv.scot

3) Specialist Treatment and Care Centres

3.1 Infectious Diseases-FOR ALL HIV REFERRALS

For viral hepatitis referrals all co-infected. Also Glasgow city centre homeless including Hunter Street and Simon community HUB (walkin 10-2 Mon&Th), West Dunbartonshire including VOL, Clydebank and Dumbarton and all prisoner or DTTO related cases.

Brownlee Centre
Gartnavel Hospital,
1053 Great Western Road,
Glasgow,
G12 0YN
Tel: 0141 211 0056/0097/1086
www.brownleehiv.scot
Non HIV referrals will be seen on the 7th floor of Gartnavel General Hospital

3.2 Gastroenterology

Gartnavel General
Ward 7B, Eighth Floor, Main Building
Gartnavel General Hospital
1053 Great Western Road
Glasgow G12 0YN
Tel- 0141 201 7489

Glasgow Royal Infirmary
Including Glasgow Drug Crisis Centre,
Springburn HC, Shettleston HC, Bridgeton HC,
Kirkintilloch HC
Walton Liver Clinic
Ground Floor, Walton Building
Glasgow Royal Infirmary
84 Castle Street, Glasgow G4 OSF
Tel: 0141 201 6440
email: gri.livernurses@ggc.scot.nhs.uk

Queen Elizabeth University Hospital
1345 Govan Road
Glasgow G51 4TF
Tel: 0141 201 0000

New Victoria Ambulatory Care Hospital
Grange Road
Glasgow G42 9LF
Tel: 0141 201 6000

Royal Alexandra Hospital
Corsebar Road
Paisley
PA2 9PN
Tel: 01475 505180

Inverclyde Royal Hospital
Larkfield Road
Greenock
PA16 0XN
Tel: 01475 505180
Wellpark Clinic
30 Regent Street
Greenock
PA15 4BP
Tel: 01475 715353

Vale of Leven
Main Street
Alexandria
G83 0UA
Tel: 01389 817239* OUTPATIENT REFERRALS TO BROWNLEE FOR ANY BBV

3.3 Paediatric HIV and HCV Treatment and Care Services

Dr Conor Doherty or Dr Rosie Hague
Paediatric Infectious Diseases
Royal Hospital for Children – Glasgow
1345 Govan Road
Glasgow G51 4TF
Tel switchboard 0141 201 0000

Appendix 4 – Laboratory Information

West of Scotland Specialist Virology Centre

Monday to Friday, 09:00 to 17:00 Tel: 0141 201 8722 or email west.ssvc2@nhs.scot

For information on how and where to submit samples:

http://www.nhsggc.org.uk/virology

- In normal hours the lab is able to process and produce results within 2 hours of receipt. Note that reactive samples will need to be confirmed on the next day and samples requiring RNA testing will take between 3-7 days to be processed. Contact the laboratory if urgent testing is required.
- DBS samples will be processed within 1-2 days of receipt, samples requiring HCV PCR may take between 3-7 days for results to be released.
- Testing clinicians must provide the laboratory with adequate contact details to include the name and preferably two contact numbers of the main results recipient and a deputy.
- Note that provided a CHI number is supplied, the results will also be available on the Clinical Portal.

Out of hours

Weekday's between 17:00 and 09:00 and weekends contact on call virologist via Glasgow Royal Infirmary Switchboard, Tel: 0141 211 4000 or email west.ssvc2@nhs.scot

Appendix 5 – Patient Support and Information

1) Support Organisations and Services

NHS GGC HIV Peer Support Project

Brownlee Centre
Gartnavel Hospital,
1053 Great Western Road,
Glasgow,
G12 0YN
Tel: 0141 211 1074
Brownleehiv@ggc.scot.nhs.uk
www.brownleehiv.org

Waverley Care African Health & Hepatitis C Projects

www.waverleycare.org

Scottish Drugs Forum

91 Mitchell Street
Glasgow
G1 3LN
0141 248 6414
http://www.sdf.org.uk/

Terrence Higgins Trust Scotland

126 West Regent Street
Glasgow
G2 2RQ
Email: info.scotland@tht.org.uk
Tel: 0141 332 3838

2) Patient Information

Information on BBVs can be found by visiting:https://www.nhsinform.scot/

Appendix 6 – Training and Risk Reduction Information and Resources

1) **NHS Learn Pro –** https://nhs.learnprouk.com

   GGC: 116 Blood Borne Viruses

   GGC: 149 HIV Stigma Module

   Module on Dried Blood Spot testing in development

2) **Free Condoms**

   www.freecondomsglasgowandclyde.org

3) **Injecting Equipment Provision**

   http://www.staffnet.ggc.scot.nhs.uk/Acute/Division%20Wide%20Services/Pharmacy%20and%20Prescribing%20Support%20Unit/Community%20Pharmacy/Pages/Addictions-ContactsInformation.aspx

4) **Scottish Drugs Forum**
   http://www.sdf.org.uk/training/

5) **NHS NES**
Sexual Health and Blood Borne Viruses
https://learn.nes.nhs.scot/12752/sexual-health-and-blood-borne-viruses

Appendix 7 - National Policies and Guidelines

Proposal for Consideration by the Scottish Government Scotland's Hepatitis C Action Plan: Achievements of the First Decade and Proposals for a Scottish Government Strategy (2019) for the Elimination of both Infection and Disease. Health Protection Scotland
https://hpspubsrepo.blob.core.windows.net/hps-website/nss/2840/documents/1_HCV-Elimination-Scotland-2019-07-31.pdf

UK National Guidelines for HIV Testing 2020, British HIV Association · British Association for Sexual Health and HIV · British Infection Society
https://www.bashhguidelines.org/media/1250/hiv-testing-2020-wiley.pdf

Recommendations for Testing for Sexually transmitted infections in men who have sex with men 2016, British Association for Sexual Health and HIV
http://www.bashh.org/documents/BASHH%20Recommendations%20for%20testing%20for%20STIs%20in%20MSM%20-%20FINAL.pdf

UK guideline for the use of post-exposure prophylaxis for HIV (2021). British Association for Sexual Health and HIV.
https://www.bashhguidelines.org/media/1265/pep-21.pdf

BHIVA/BASSH guidelines on the use of pre-exposure prophylaxis (PrEP) (2018)
https://www.bhiva.org/file/5b729cd592060/2018-PrEP-Guidelines.pdf

Healthcare Improvement Scotland. National Clinical Guidelines for the treatment of HCV in adults (2018).
https://hpspubsrepo.blob.core.windows.net/hps-website/nss/1862/documents/1_national-clinical-guidelines-treatment-hepatitis-c-in-adults-june-2018.pdf

Good Practice Guidance on HIV Prevention in Men who have Sex with Men (MSM), January 2019
https://www.hps.scot.nhs.uk/web-resources-container/good-practice-guidance-on-hiv-prevention-in-men-who-have-sex-with-men-msm/

Appendix 8 – NHSGGC BBV Clinical Guidelines

1. HIV in Pregnancy and the Prevention of Vertical Transmission Management, Obstetrics
2. Untreated HIV Positive Patient Presenting in Labour Management, Obstetrics
3. HIV Significant Laboratory Results – Obstetrics
4. Adult Hepatitis C Treatment Guideline
5. Hepatitis B Infection Assessment and Management in Adults
6. Hepatitis B Reactivation
7. Hepatitis B positive, Management of women identified through antenatal screening