

Standard Operating Procedure

The operating procedure set out below must comply with the Data Quality Principles set out within Trust Data Quality Policy

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Author	Dr Joanna McKinnell Consultant	Dec 2024
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Mandatory BU's/Groups consulted (if applicable)	SMBU2	Dec 2024
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Disclaimer:

This is a controlled document. Printed versions of this document will be classed as uncontrolled.

Please refer to [Koha Policies and Guidelines Catalogue](#) for the most recent version.

SOP Document Controls:

Version Number	Date	Author	Reason for Revision
1.0.0	Jan 2025	Dr McKinnell	New SOP to Koha.

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1. Introduction

The aim of this SOP is to prevent transmission of Blood Borne Viruses (BBV) between patients and or staff within the haemodialysis unit

2. Purpose

BBV can spread on haemodialysis units. The strategy to minimise this revolves around herd immunity against hepatitis B for both staff and patients, vigilance around detection of BBV especially before a patient starts dialysis and after foreign travel and consequent appropriate patient and machine isolation of those infected or at high risk of becoming infected.

Ongoing audits will be as per national recommendations detailed in

<https://ukkidney.org/sites/renal.org/files/FINAL-BBV-Guideline-June-2019.pdf> page 16

3. Scope

This SOP is for use in the renal units in Derby and Lichfield.

4. Abbreviations and Definitions

< A table detailing each abbreviation/acronym in the document. Also include any terms that should be defined or used as a keyword >

BBV	Blood Borne Virus
HD	Haemodialysis

5. Responsibilities

Essential reading for: Registered Renal Nurses working on the haemodialysis units in Derby and Lichfield. Medical staff working in the renal speciality who manage the care of haemodialysis patients

Information for: All clinical staff working in the renal speciality.

Training and support will be provided by senior sisters and educators on the dialysis unit during morning handover and team time out days. Further training and education will be supported by haemodialysis consultants during ward rounds and HD MDT.

6. Procedure

Prior to first session:

Determine whether patient is infected with a BBV and therefore at risk of infecting other patients.

Hepatitis B is the most infectious BBV and therefore any patient on HD found to have Hepatitis B infection will need to be dialysed in isolation on their own isolated machine.

Some patients known to renal before starting dialysis will have been vaccinated against hepatitis B.

Initial panel of bloods (*order set Renal LCC Virology= baseline dialysis screen*)

Blood test	Interpretation
HIV antigen/antibody (HIV blood)	HIV detected = Current HIV infection
Anti Hepatitis C Antibody (If this is positive the lab will add an HCV RNA PCR)	Positive HCV PCR= current infection. Positive Hep C Ab and negative PCR= past resolved infection.
Hepatitis B Surface Antigen Screen (HBsAg)	This patient is infected with hepatitis B and will need isolation and segregated machine
Anti Hepatitis B surface Antibody (HBsAb)	>100 = immune (e.g. after vaccine)
Anti Hepatitis B core Antibody (HBcAb)	Current or past infection - may reactivate if immunosuppressed

Please look through these results at the first session and update the data sheet on vital data to include their virology. The results need to be highlighted during the first HD review to their named consultant.

If patients are dialysed before their BBV results are known the patient should be isolated and the machine should not be used on another patient until their results are known and negative.

If patients are not immune to hepatitis (HBsAb < 100) please highlight this to the Hep B vaccine nurse

Routine monitoring (*order set Renal Pre-dialysis 3 monthly or 6 monthly*)

The purpose of routine monitoring is to make sure people who have been previously negative for Hepatitis B, HIV and Hepatitis C do not become positive. We are also monitoring immunity after vaccination as this can fall in haemodialysis patients.

Renal pre-dialysis 3 monthly	Interpretation
Hepatitis B Surface Antigen Screen (HB sAg)	This patient is infected with Hepatitis B and will need isolation and segregated machine
Renal pre-dialysis 6 monthly	
Hepatitis B Surface Ag Screen (HBsAg)	Hepatitis B infection
Hepatitis B surface Ab screen (HBsAb)	>100 = immune; < 100 refer Hep B nurse/SOP
Hepatitis C virus Ab screen (if this is positive the lab will add an HCV RNA PCR)	Positive HCV PCR= current infection. Positive Hep C Ab and negative PCR= past resolved infection.
HIV Ag/Ab screen	HIV infection

It is the responsibility of the named nurse to review these results prior to the HD review after the 3 and 6 monthly bloods and discuss the results with the consultant.

Holiday dialysis considerations

There are still some countries in the world where BBV are more prevalent and dialysing whilst there runs the risk of contracting BBV. Following return from holiday precautions need to be taken to avoid spread of BBV within our own dialysis unit. Similarly for patients visiting our unit from abroad.

Check country list for risk of contracting BBV whilst receiving HD abroad against published BBV risk levels. (see table, up to date guidance found at [Good Practice Guidelines for Renal Dialysis/Translation Units](#))

Prior to travel to intermediate or high risk country

Check Hepatitis B surface Ab screen (HBsAb). If fallen < 100 in a patient previously documented as a Responder to vaccination arrange a booster with the Hep B nurse. If the patient has never been vaccinated refer to the Hep B vaccine nurse to start vaccination. If Non-responder to previous vaccine course counsel the patient about the increased risk of contracting Hepatitis B whilst abroad.

**Following return from travel / visit to UHDB dialysis unit
from abroad check virology first dialysis session on return**

	LOW RISK	HIGH RISK
Country	<ul style="list-style-type: none"> • UK • Europe • US • Canada • Australia • New Zealand • Japan 	<ul style="list-style-type: none"> • The rest of the world • Particular concern is the Indian subcontinent (The Indian subcontinent consists of India, Bhutan, Maldives, Sri Lanka, Nepal, Bangladesh, and Pakistan) • Parts of Africa
Bloods required at first dialysis and subsequent monitoring use Renal <u>RETURN FROM HIGH RISK COUNTRY Order SET</u>	<ul style="list-style-type: none"> • Anti Hep C Antibody • Hepatitis C RNA • HBsAg • HIV 	<ul style="list-style-type: none"> • Hepatitis C RNA and Anti Hep C antibody - every 2 weeks for 3 months • HBsAg - every 2 weeks for 3 months • HIV Ab/Ag
Isolation	NO	YES until 3 month screening period complete
Own machine	NO	YES until 3 month screening period complete

When sending post holiday bloods label these as post holiday rather than routine screening and use return from high risk country order set

Any patient who becomes positive for Hepatitis B Surface Ag Screen (HBsAG) HCV RNA or HIV must be discussed with their consultant immediately. It is the responsibility of the named nurse to order and look through these results after their patients return from holiday. The monitoring should be highlighted to the consultants during rounds.

Please ask the following questions on return from holiday (NB all patients including low risk countries):

- While abroad did you have any blood transfusions?
- While abroad did you have any surgery or dental treatment?
- While abroad were you ill, requiring hospital admission?
- Were any needles, dialysis lines or dialysers shared between you or any other patients?
- Do you undertake any high risk sexual activity?
- Do you inject any intravenous drugs into yourself?

Dialysis of Patients with BBV

Patients found to be Hepatitis B surface Ag positive should have Hep B RNA sent, they must be dialysed in a single room and their machine must be isolated for them only.

Nurses caring for the patient should use full infection control precautions with PPE which is changed before caring for any other patient. Further treatment must be discussed with their consultant.

HBcAb positive patients need to be discussed and will need enhanced monitoring

(monthly HBsAg) and/or treatment especially if they are immunosuppressed (IS). If they are on IS they will need their own machine because of risk of reactivation and becoming infective.

Patients known to be infected with HIV or Hepatitis C are ideally dialysed in isolation but if required they can be dialysed on the main unit provided maintenance of infection control precautions. Nurses should use full infection control precautions with PPE which is changed before caring for any other patient. The machine does not need to be isolated but should have a full A and C disinfection procedure after each dialysis. Again, treatment should be discussed with their consultant. Wherever possible these patients should also remain in isolation.

Concern about new infection

Sometimes the doctors may have a concern there is a new BBV infection, in this case send the post high risk screen panel and include the details in the request of the concern (for example abnormal LFTs, recent high risk behaviour)

Transplant listing

Patients on the transplant list who have visited a high risk country will need to be suspended for two months following return from holiday and only reactivated if all subsequent monitoring remains negative

7. Information Governance

N/A

8. References and Associated/Linked Documents

The procedures detailed are based on the national guidance found at

<https://ukkidney.org/sites/renal.org/files/FINAL-BBV-Guideline-June-2019.pdf>

This SOP is to be read in conjunction with: SOP for Hep B Vaccination, SOP for equipment isolation stored in renal shared drive.

Details for: Hepatitis B vaccine Renal Patient Group Direction (PGD) › Trust Policies Procedures & Guidelines catalog (koha-ptfs.co.uk)

Management of blood borne virus infection detected using this SOP should be based on trust guidelines:

Details for: Hepatitis B - Clinical Guideline › Trust Policies Procedures & Guidelines catalog (koha-ptfs.co.uk)

Details for: Hepatitis B - Prevention of Hepatitis B Reactivation During Immunosuppressive Therapy - Clinical Guideline › Trust Policies Procedures & Guidelines catalog (koha-ptfs.co.uk)

Details for: Hepatitis C - Clinical Guideline › Trust Policies Procedures & Guidelines catalog (koha-ptfs.co.uk)

Details for: HIV Referral Pathway - Summary Clinical Guideline - Derby Sites Only › Trust Policies Procedures & Guidelines catalog (koha-ptfs.co.uk)

9. Appendices

N/A