Document Type: Policy	**Ref No:** HRS/HPSD/OHS/1/2019	**Version Number:** 1
Document Title: Health Screening and Immunization of Healthcare Professionals.	**Effective Date:** 10/10/2019	**Revision Date:** 10/10/2023
Ownership: Occupational Health Screening (OHS)/Medical Fitness Department (MFD), Public Health Protection Department (PHPD) and Health Regulation Sector.		
Applicability: All Health Professionals seeking DHA licensure or licensed by DHA.		

1. Purpose:

1.1. To standardize health screening and immunizaton requirements for all DHA licensed Healthcare Professionals (HP) for new and renewal of health professional license.

1.2. To identify and manage health professionals who may be a source of blood borne pathogens and communicable disease transmission.

1.3. To protect the public and patients from the risk of blood borne pathogens and communicable disease transmission.

1.4. To send certificaties electrornically to Health Regulation Department through integration of Salama System.

2. Scope:

All Health Professionals seeking DHA licensure or licensed by DHA.

3. Definitions/Abbreviations:

Blood Borne Pathogens: Shall mean pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).

Communicable Disease: An infectious disease transmissible (as from person to person) by direct and indirect contact infections with an affected individual or the individual's discharges or by indirect means

(as by a vector).

Direct contact infections spread when disease-causing microorganisms pass from the infected person to the healthy person via direct physical contact with blood or body fluids. Examples of Direct contact are touching, kissing, sexual contact, contact with oral secretions, or contact with body lesions.

Indirect contact infections spread when an infected person sneezes or coughs, sending infectious droplets into the air. If healthy people inhale the infectious droplets, or if the contaminated droplets land directly in their eyes, nose or mouth, they risk becoming ill.

Droplets generally travel between three and six feet and land on surfaces or objects including tables, doorknobs and telephones. Healthy people touch the contaminated objects with their hands, and then touch their eyes, nose or mouth.

Health Facility: Shall mean a DHA licensed health facility that performs medical examinations on patients, diagnosing their diseases, treating or nursing them, admitting them for convalescence, or assuming any activity related to treatment or to rehabilitation after treatment, whether it is owned or managed by natural or juridical persons.

Healthcare worker/Health Professional: Shall mean a DHA licensed healthcare professional working in a DHA licensed health facility and required to be licensed as per the applicable laws in the United Arab Emirates.

The Health Professional is an individual employed by a health facility whether directly or by contract with another entity to provide direct or indirect patient care. This includes but is not limited, to healthcare professionals, medical and nursing students, administrative staff and contract employees who either work at or come to the health facility sites.

Interferon Gamma Release Assay: Is a blood test that can be used to help in the diagnosis of latent TB.

EPPs: Exposure Prone Procedures

HBV : Hepatitis B Virus

HCV : Hepatitis C Virus

HIV : Human Immunodeficiency Virus

HP : Healthcare Professionals (Nurse, Allied Health, Physician/Dentist)

HRS : Health Regulation Sector

IgG: Immunoglobulin

IGRA : Interferon Gamma Release Assay

IVS: Identified and Validated blood Sample

KPIs : Key Performance Indicators

PCR : Polymerase Chain Reaction

PHSD : Public Health and Safety Department

TB : Tuberculosis

UAE : United Arab Emirates

VZV : Varicella Zoster Virus

4. Policy Statement:

4.1. Occupational Health Services/Medical Fitness shall be responsible to screen and Public Health Protection Department (PHPD) to monitor the immunization status of all DHA licensed Healthcare professionals.

4.2. All DHA licensed Health Professionals (HP) in the Emirate of Dubai shall adhere to health screening and immunization requirements in accordance to the United Arab Emirates (UAE) Federal laws and local regulations.

4.3. All health facilities must maintain up to date record of their staff health screening and vaccination status.

4.4. The Health Facility (HF) must ensure Health Professionals (HP) have access to appropriate testing, counselling and immunization services for licensure.

4.5. All HP shall report to the Occupational Health Clinic, Medical Fitness Department for Screening.

4.5.1. The Medical Fitness Department will screen all HP and undertake a physical examination and a mini-mental state examination for HP over the age of 60 years.

4.5.2. The medical screening results shall be submitted to the DHA's Health Regulation Sector for professional licensing and PHPD for monitoring.

4.6. Pre-employement and periodic renewal of licensure Health Screening Tests.

4.6.1. All HP shall undergo pre-employment and renewal of licensure screening tests including but not limited to active Tuberculosis (TB), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Varicella Zoster Virus (VZV) IgG and HIV (**Appendix 1 and 2**).

4.6.2. Health Professional pre-employment and periodic renewal of licensure shall be based on the Occupational Clinic/Medical Fitness Department test for TB, HBV, HCV, VZV IgG and HIV.

4.6.3. HP infected with TB, HBV, HCV and HIV will be subject to UAE Federal and local and Regulations (Cabinet Resolution No. (5) of 2016 amended the Cabinet Decree No. (7) of 2008).

a. All HP with resident visa found to be positive for any of the blood borne pathogens including HBV, HCV and TB will be referred to an Infectious Diseases Specialist or Gastroenterologist for further assessment, treatment and follow up.

b. All lab testing must be undertaken by a DHA licensed laboratory.

i. For HBV cases, a blood sample test must be taken no less than three months apart and with viral load levels ≥10^4 GE/ml to ensure viral load stability by a DHA laboratory.

ii. For HCV cases, a sample test must be taken no less than three months apart and with viral load levels ≥10^4 GE/ml to ensure viral load stability by a DHA laboratory (**Appendix 3**).

iii. For HIV national cases, there must be two Identified and Validated blood Sample (IVS) test results, taken no less than three months apart and with viral load levels below 20 copies/ml to ensure viral load stability by a DHA laboratory (**Appendix 4**). Viral loads greater than 20 copies/ml must have a 2nd test undertaken after 10 days. HIV national HP shall:

- Recognize their infectious status.
- Follow the recommended treatment plan.
- Modify their clinical involvement (EPP), under the direction of the infection control practitioner (**Appendix 5**).

- Ensure log books assigned by the Health Regulation Sector (HRS) are up to date in for monitoring of EPP and licensure.
- HF management must ensure HP clinical involvement is strictly followed as per the EPP requirements (**Appendix 6 and 7**).

4.7. Vaccination and Immunization

4.7.1. Mandatory

a. Hepatitis B antibody will be checked after the vaccination is completed. If the level is < 10 international units, a second three doses series will be given. If the repeat Hepatitis B antibody is still < 10 international units, then the employee will be labelled as a non-responder.

b. Varicella vaccine will be offered to all non-immune clinical HP.

4.7.2. Recommended vaccines:

a. Influenza vaccine will be offered annually to all clinical healthcare professionals (also recommended for HP), before the influenza season.

b. Pneumococcal vaccine (PCV13) at 50 years (one-time vaccine).

c. Tetanus booster (once every 10 years).

5. PHPD Key Performance Indicators

5.1. PHPD KPIs will include:

5.1.1. No. of HP eligible for screening.

5.1.2. No. of HP screened.

5.1.3. No. of tests for HIV, HBV, HCV and TB submitted within the recommended timeframe.

5.1.4. No. of tests for HIV, HBV, HCV and TB received with the recommended timeframe.

5.1.5. No. of confirmed +ve tests (m/f) for HIV, HBV, HCV and TB.

5.1.6. No. of confirmed –ve tests (m/f) for HIV, HBV, HCV and TB.

5.1.7. Number of HP with restricted EPP for HBV.

5.1.8. Number of HP with restricted EPP for HCV.

5.1.9. Number of HP with restricted EPP for HIV.

References:

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2. Cabinet Resolution No. (5) of 2016 amended the Cabinet Decree No. (7) of 2008.
3. Cabinet Decision No. (33) of 2016 promulgating the bylaw of the control of communicable diseases.
4. Council of Ministers Resolution No. (5) Of 2016 amending Cabinet Decree No. 7 of 2008
5. Centers for Disease Control and Prevention (2002). Division of Nosocomial and Occupational Infections. *Bureau of Infectious Diseases. Centre for Infectious Diseases Prevention and Control.*

6. Centers for Disease Control and Prevention (2003). Guidelines for Environmental Infection Control in Healthcare Facilities: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee. *Centers for Disease Control and Prevention (HICPAC).* MMWR 2003; 52(No.RR-10).
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8. CDC (2009). Information for Employers Complying with OSHA's Bloodborne Pathogens Standard. Centres for Disease Control and Prevention. Available at: https://www.cdc.gov/niosh/docs/2009-111/pdfs/2009-111.pdf (accessed 19/09/19).
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10. Department of Health (2014). The Management of HIV infected Healthcare Workers who perform exposure prone procedures: updated guidance. *Public Health England.* January 2014.
11. Federal Law No. (14) Of 2014 concerning the control of communicable diseases.
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13. National Health and Medical Research Council (1996). Infection control in the health care setting-guidelines for the prevention of transmission of infectious diseases. *National Health and Medical Research Council,* Canberra; 1996.

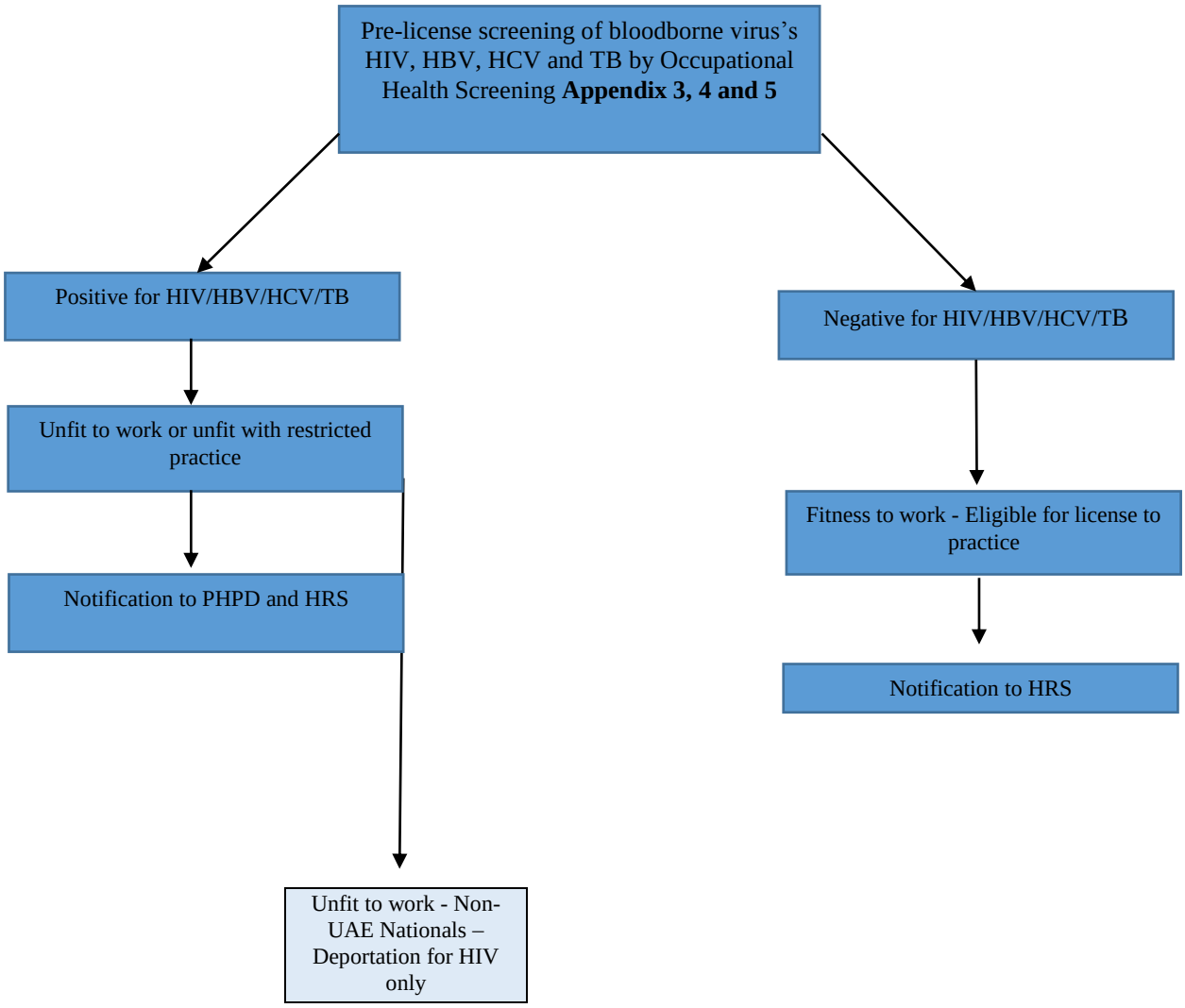
14. SHEA (2010). SHEA Expert Guidelines. Infection Control and Hospital Epidemiology. *March 2010, vol. 31, no. 3*

15. University of Portland (2016). Blood Borne Pathogens and Communicable Diseases Reporting, Prevention, and Exposure Control Plan. Environmental Health and Safety.

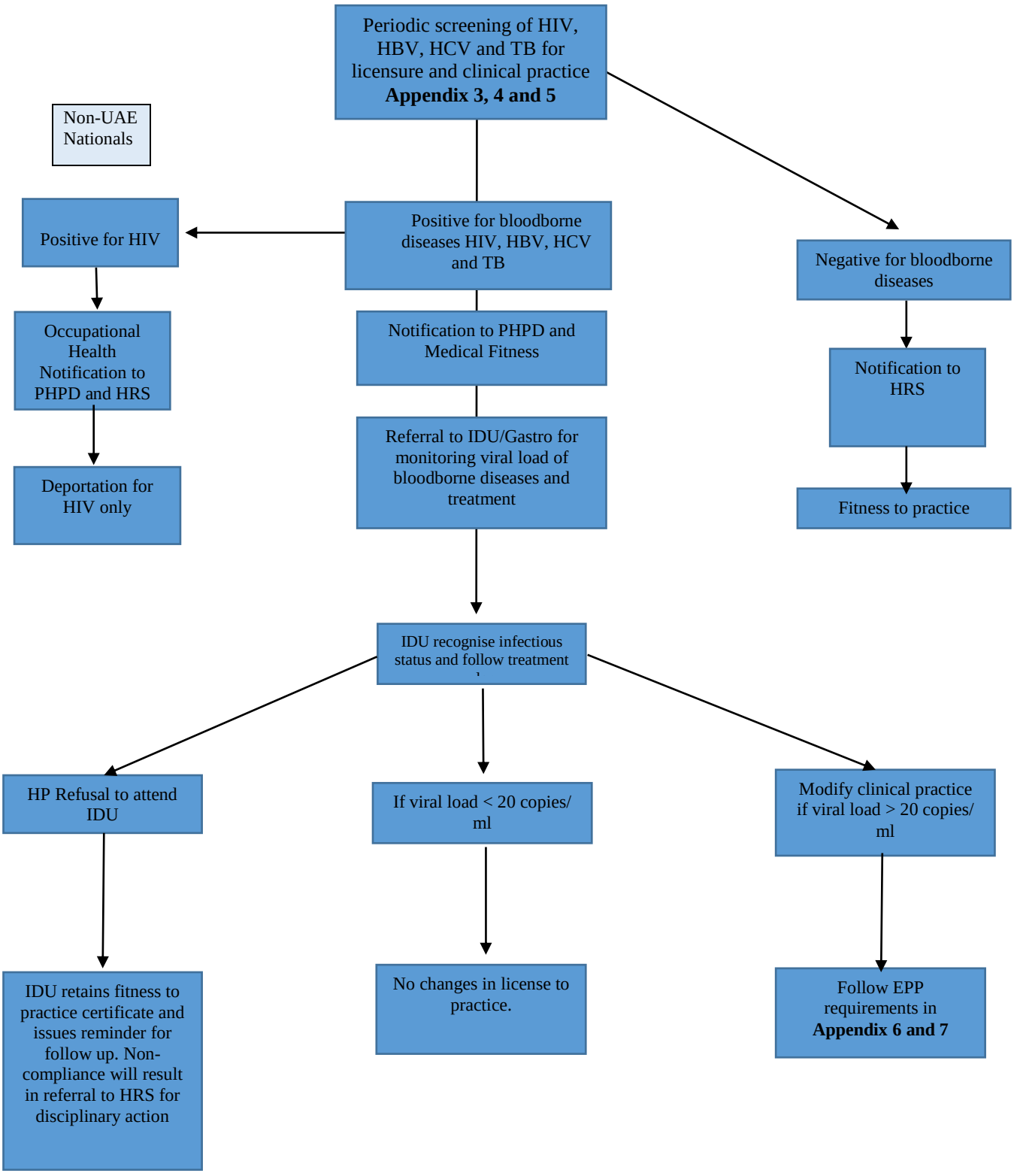
16. UAE Federal law No. (14) Of 2014 on fighting the communicable diseases.

Appendix:

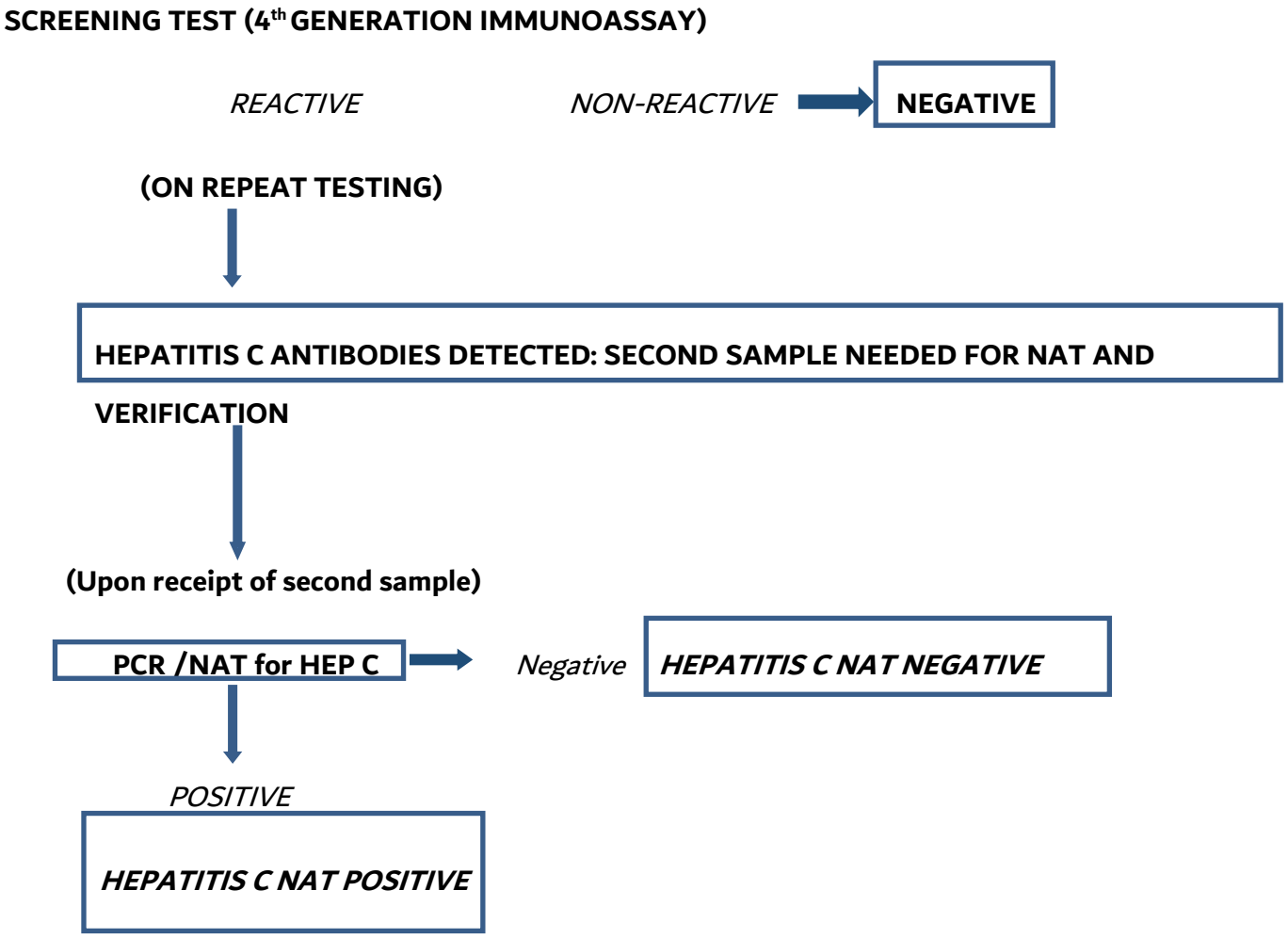
Appendix 1 – Pre-license screening of Health Professionals for HIV, HBV, HCV and TB.



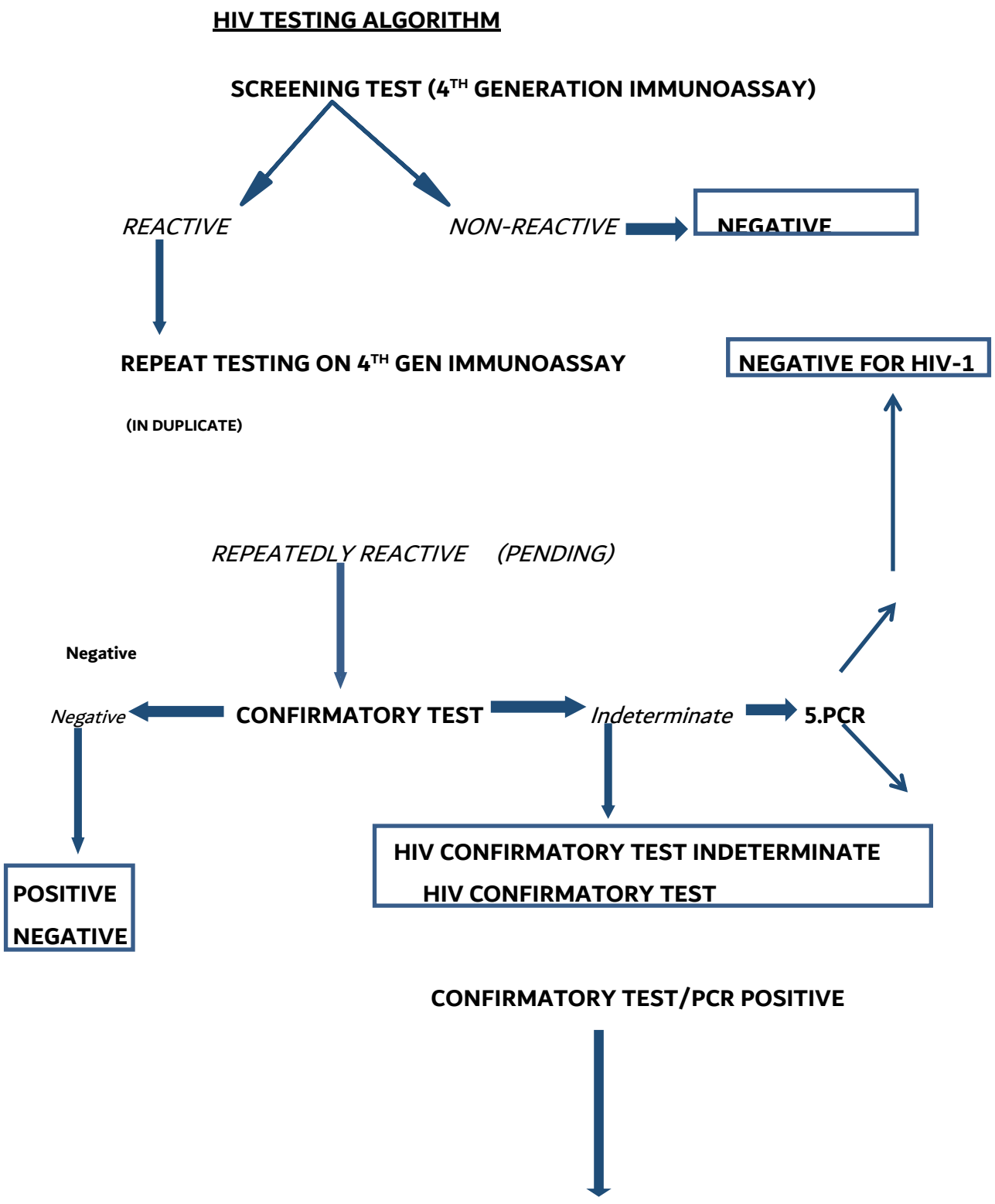
Appendix 2 - Periodic screening of Healthcare Professionals for HIV, HBV, HCV and TB for licensure and Clinical Practice

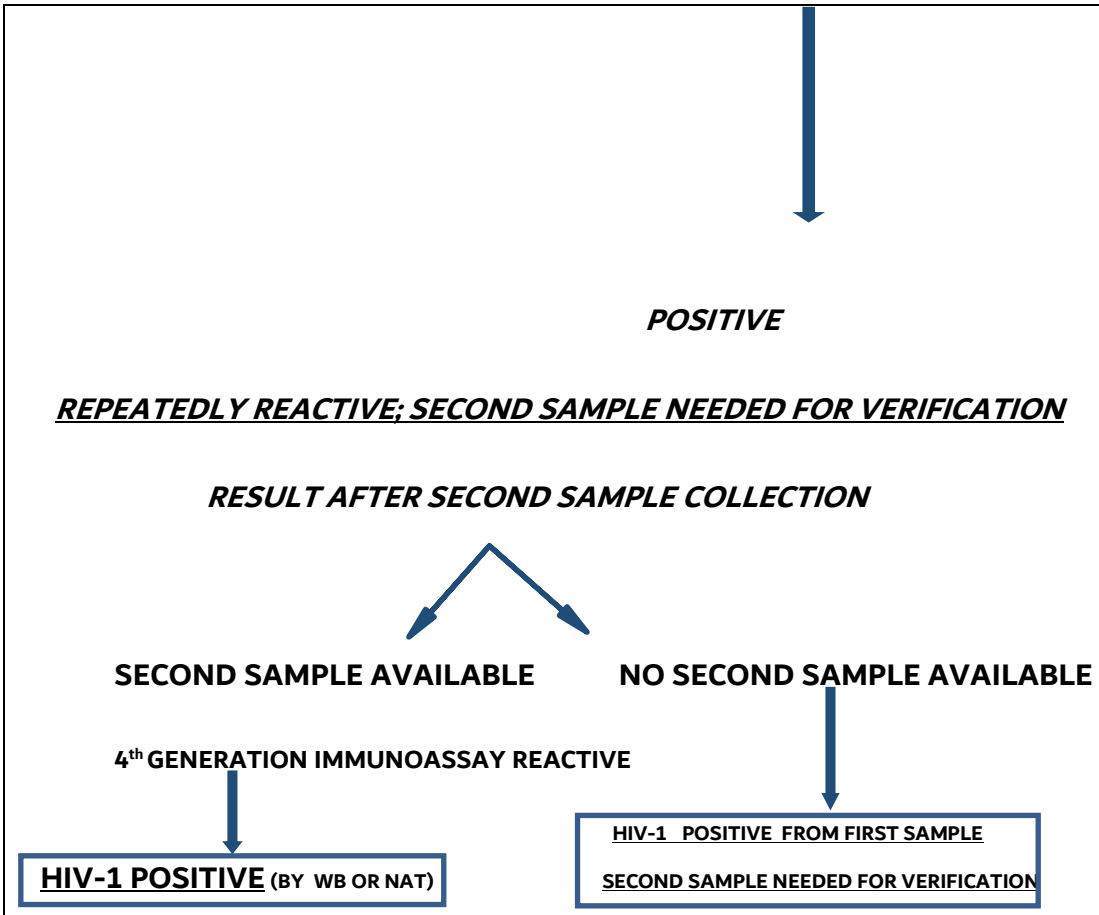


Appendix 3 – HCV Algorithm for Blood Borne Pathogen Testing for Medical Fitness



Appendix 4 – HIV Algorithm for Blood Borne Pathogen Testing for Medical Fitness




POSITIVE
REPEATEDLY REACTIVE; SECOND SAMPLE NEEDED FOR VERIFICATION
RESULT AFTER SECOND SAMPLE COLLECTION
SECOND SAMPLE AVAILABLE
NO SECOND SAMPLE AVAILABLE
4th GENERATION IMMUNOASSAY REACTIVE
HIV-1 POSITIVE (BY WB OR NAT)
HIV-1 POSITIVE FROM FIRST SAMPLE
SECOND SAMPLE NEEDED FOR VERIFICATION

Appendix 5 - Periodic Screening of Healthcare Professionals for TB, HBV, HCV and HIV.

Infectious Diseases Screening			
Disease	**Screening test**	**Confirmatory if Screening test Positive**	**Action if Test Turned Positive**
1. Latent TBI	PPD or IGRA	Rule out Active TB (pulmonary or extra pulmonary) by CXR and Sputum AFB	Active or LTBI Provide treatment and follow up
2. HBV	HBsAg	Not required	Refer to **Appendix 6 and 7**
	Anti-HBs Ab to be done only in case vaccination for Hepatitis B virus was not given or in case of non-response to the given vaccines	Not required	Negative provide HBV vaccination
3. HCV	HCV Ab	PCR	Refer to **Appendix 6 and 7**
4. HIV/AIDS	Elisa HIV Ab/Ag	Western Blot	Refer to **Appendix 6 and 7**

Appendix 6 - Adapted from Categorization of healthcare-associated procedures according to level of risk for blood borne pathogen transmission, adapted from SHEA Guideline for Management of Healthcare Workers Who Are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus (2010).

Category I: Procedures with a minimum risk of blood borne pathogens transmission.

A procedure where the hands and fingertips of the HP are usually visible and outside the body most of the time and the possibility of injury to the worker's gloved hands from sharp instruments and/or tissues is slight. This means that the risk of the HP bleeding into a patient's open tissues should be remote, e.g. insertion of chest drain. Category I may include:

a. Regular history-taking and/or physical or dental examinations, including gloved oral examination with a mirror and/or tongue depressor and/or dental explorer and periodontal probe.
b. Routine dental preventive procedures (e.g., application of sealants or topical fluoride or administration of prophylaxis (a), diagnostic procedures, orthodontic procedures, prosthetic procedures (e.g., denture fabrication), cosmetic procedures (e.g., bleaching) not requiring local anaesthesia.
c. Routine rectal or vaginal examination.
d. Minor surface suturing.
e. Elective peripheral phlebotomy (b).
f. Lower gastrointestinal tract endoscopic examinations and procedures, such as sigmoidoscopy and colonoscopy.

g. Hands-off supervision during surgical procedures and computer-aided remote or robotic surgical procedures.

h. Psychiatric evaluations (c).

Category II: Procedures for which blood borne pathogens transmission is theoretically possible but unlikely. A procedure where the finger tips may not be visible at all times but injury to the HP's gloved hands from sharp instruments and/or tissues is unlikely1. If injury occurs it is likely to be noticed and acted upon quickly to avoid the HP's blood contaminating a patient's open tissues e.g. appendectomy. Category II may include:

a. Locally anesthetized ophthalmologic surgery.

b. Locally anesthetized operative, prosthetic, and endodontic dental procedures

c. Periodontal scaling and root planting (d).

d. Minor oral surgical procedures (e.g., simple tooth extraction [i.e., not requiring excess force], soft tissue flap or sectioning, minor soft tissue biopsy, or incision and drainage of an accessible abscess).

e. Minor local procedures (e.g., skin excision, abscess drainage, biopsy, and use of laser) under local anaesthesia (often under bloodless conditions).

f. Percutaneous cardiac procedures (e.g., angiography and catheterization).

g. Percutaneous and other minor orthopaedic procedures.

h. Subcutaneous pacemaker implantation.

i. Bronchoscopy.

j. Insertion and maintenance of epidural and spinal anaesthesia lines.

k. Minor gynaecological procedures (e.g., dilatation and curettage, suction abortion,

colposcopy, insertion and removal of contraceptive devices and implants, and collection of ova).

l. Male urological procedures (excluding trans-abdominal intra-pelvic procedures).

m. Upper gastrointestinal tract endoscopic procedures.

n. Minor vascular procedures (e.g., embolectomy and vein stripping).

o. Amputations, including major limbs (e.g., hemipelvectomy and amputation of legs or arms) and minor amputations (e.g., amputations of fingers, toes, hands, or feet)

p. Breast augmentation or reduction.

q. Minimum-exposure plastic surgical procedures (e.g., liposuction, minor skin resection for reshaping, face lift, brow lift, blepharoplasty, and otoplasty).

r. Total and subtotal thyroidectomy and/or biopsy.

s. Endoscopic ear, nose, and throat surgery and simple ear and nasal procedures (e.g., stapedectomy or stapedotomy and insertion of tympanostomy tubes).

t. Ophthalmic surgery.

u. Assistance with an uncomplicated vaginal delivery (e).

v. Laparoscopic procedures (If moving to an open procedure is required, these procedures will be classified as Category III).

w. Thoracoscopic procedures (f) (If moving to an open procedure is required, these procedures will be classified as Category III).

x. Nasal endoscopic procedures (g).

y. Routine arthroscopic procedures (h).

z. Plastic surgery (i) (A procedure involving bones, major vasculature, and/or deep body

cavities will be classified as Category III).

aa. Insertion of, maintenance of, and drug administration into arterial and central venous lines.

bb. Endotracheal intubation and use of laryngeal mask.

cc. Obtainment and use of venous and arterial access devices that occur under complete antiseptic technique, using universal precautions, "no-sharp" technique, and newly gloved hands.

Category III: Procedures for which there is definite risk of blood borne pathogens transmission or that have been classified previously as "exposure-prone". A procedure where the fingertips are out of sight for a significant part of the procedure, or during certain critical stages, and in which there is a distinct risk of injury to the HP's gloved hands from sharp instruments and/or tissues. In such circumstances it is possible that exposure of the patient's open tissues to the HP's blood may go unnoticed or would not be noticed immediately, e.g. suturing of an episiotomy. Category III may include:

a. General surgery, including nephrectomy, small bowel resection, cholecystectomy, subtotal thyroidectomy, other elective open abdominal surgery.

b. General oral surgery, including surgical extractions (j), hard and soft tissue biopsy (if more extensive and/or having difficult access for suturing), apicoectomy, root amputation, gingivectomy, periodontal curettage, mucogingival and osseous surgery, alveoplasty or alveoectomy, and endosseous implant surgery guideline on health care professionals infected with HBV, HCV, and/or HIV.

c. Cardiothoracic surgery, including valve replacement, coronary artery bypass grafting, other bypass surgery, heart transplantation, repair of congenital heart defects, thymectomy, and open-lung biopsy.

d. Open extensive head and neck surgery involving bones, including oncological procedures.

e. Neurosurgery, including craniotomy, other intracranial procedures, and open-spine surgery.

f. Non-elective procedures performed in the Emergency Department, including open resuscitation efforts, deep suturing to arrest haemorrhage, and internal cardiac massage.

g. Obstetrical/gynaecological surgery, including caesarean delivery, hysterectomy, forceps delivery, episiotomy, cone biopsy, and ovarian cyst removal, and other trans-vaginal obstetrical and gynaecological procedures involving hand-guided sharps.

h. Orthopaedic procedures, including total knee arthroplasty, total hip arthroplasty, major joint replacement surgery, open spine surgery, and open pelvic surgery.

i. Extensive plastic surgery, including extensive cosmetic procedures (e.g. Abdominoplasty and thoracoplasty).

j. Transplantation surgery (except skin and corneal transplantation).

k. Trauma surgery, including open head injuries, facial and jaw fracture reductions, extensive soft-tissue trauma, and ophthalmic trauma.

l. Interactions with patients in situations during which the risk of the patient biting the physician is significant; for example, interactions with violent patients or patients

experiencing an epileptic seizure.

m. Any open surgical procedure with a duration of more than 3 hours, probably necessitating glove change.

Notes:

1. Does not include subgingival scaling with hand instrumentation.
2. If done as emergency (e.g. during acute trauma or resuscitation efforts), peripheral phlebotomy is classified as Category III.
3. If there is no risk present of biting or of otherwise violent patients.
4. Use of an ultrasonic device for scaling and root planning would greatly reduce or eliminate the risk for percutaneous injury to the provider. If significant physical force with hand instrumentation is anticipated to be necessary, scaling, root planning, and other Class II procedures could be reasonably classified as Category III.
5. Making and suturing an episiotomy is classified as Category III.
6. If unexpected circumstances require moving to an open procedure (e.g. laparotomy or thoracotomy), some of these procedures will be classified as Category III.
7. If moving to an open procedure is required, these procedures will be classified as Category III.
8. If opening a joint is indicated and/or use of power instruments (e.g. drills) is necessary, this procedure is classified as Category III.
9. A procedure involving bones, major vasculature, and/or deep body cavities will be classified as Category III.
10. Removal of an erupted or non-erupted tooth requiring elevation of a mucoperiosteal flap, removal of bone, or sectioning of tooth and suturing if needed.

Appendix 7 – Adapted from Management of Health Professionals Infected with HBV, HCV and/or HIV, adapted from SHEA Guideline for Management of Healthcare Workers Who Are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus (2010).

Virus circulating the viral burden	Catergories of clinical activities	Controls/Restriction	Testing requirement
HBV			
$<10^4$ GE/ml	Catergories I, II and III	No restrictions	Twice per year
$\geq 10^4$ GE/ml	Catergories I and II only	Restricted	Quarterly
HCV			
$<10^4$ GE/ml	Catergories I, II and III	No restrictions	Twice per year
$\geq 10^4$ GE/ml	Catergories I and II only	Restricted	Quarterly
HIV			
< 20 copies GE/ml	Catergories I and II only	Category III	Quarterly
≥ 20 copies GE/ml	None	Restricted All Categories	* *

** A second test must be done on a new blood sample 10 days later to verify the first result. If the count is still in excess of 20 copies/ml, a full risk assessment should be initiated to determine the risk of HP to patient transmission and action shall be taken to restrict EPP practice until the viral load is undetectable in accordance with sensitivity assays. The roles and responsibilities of the respective individuals involved in the monitoring process for HIV infected HPs performing EPPs are as follows:

A. Healthcare Worker
Must be under the care of a designated consultant occupational physician **Must** accept that it is a condition of undertaking EPPs that they consent to ongoing monitoring while they continue to practice exposure-prone procedures, including: i. the registration of their details and monitoring data with Occupational Health and DHA ii. the release of monitoring information to the consultant occupational physician and the treating physician iii. to provide an IVS for viral load monitoring at the appointed times iv. to seek advice if change in health condition may affect their fitness to practice or impair their health v. to notify OH when they are changing their practice or their place of employment Thus, HPs must agree that by seeking to and undertaking EPPs, they are giving implied consent to i and ii above and they are undertaking to satisfy iii, iv and v as well
B. Treating physician
The treating physician **is responsible for** the monitoring of the infected HP including: i. ensuring that the testing protocol and timings are followed ii. reacting promptly to any alerts received via Occupational Health or DHA iii. taking appropriate action when those who should present for tests do not do so e.g. notifying the relevant manager of the HP's non-attendance and restriction from EPP practice iv. taking IVS samples, and ensuring samples are sent to laboratories; v. interpreting the viral load results in relation to clearance to perform EPPs vi. ensuring that the Screening Advisory Committee is updated in a timely manner vii. advising the HP and the employer, on an ongoing basis, on whether the HP is fit to perform EPPs viii. timely liaison with treating physicians
C. Treating physician
The treating physician **is responsible for:** i. the clinical management and support of the seropositive HP ii. advising and maintaining timely communications with the consultant occupational physician responsible for monitoring the infected HP.