
INFECTION PREVENTION AND CONTROL MANUAL

8.1 Staff Immunisation

RATIONALE

Immunisation for health care workers is recommended in accordance with the Department of Human Services Victoria, "Immunisation Guidelines for Health Care Workers (HCW's)" 6th. Edition, Revised October 2007.

PERSONS AFFECTED

All health care workers are defined by the category of work they perform. These categories are a guide for immunisation protocols to ensure appropriate levels of protection.

RISK CATEGORY GROUPS

CATEGORY A – DIRECT CONTACT WITH BLOOD OR BODY SUBSTANCES

All persons who have physical contact with or potential exposure to blood or body substances

Examples include:

- Medical Staff
- Nursing Staff
- Health Care Students
- Mortuary Technicians
- Allied Health Staff
- Biomedical Engineers who service patient equipment
- Dental Staff
- Central Sterile Supply Staff
- Plumbers
- Diagnostic Imaging Staff
- Podiatrists
- PSA or like
- Porters/Orderlies
- Cleaners responsible for decontamination and disposal of contaminated materials
- Maintenance Engineers who service equipment
- Child Care Staff
- Emergency personnel (fire, ambulance, police and volunteer first aid workers)

CATEGORY B - INDIRECT CONTACT WITH BLOOD OR BODY SUBSTANCES

Health Care Workers in patient areas who would rarely have direct contact with blood or body substances. These employees may also be exposed to airborne infections.

EXAMPLES INCLUDE:

- Catering Staff
- Social Work Staff
- Clerical Staff in patient areas, clinics, wards, admissions
- Ward Pharmacists
- Volunteers with patient contact

CATEGORY C – LABORATORY STAFF

This group has special risks due to possibility of exposure to high concentrations of micro-organisms and the equipment used (eg centrifuges)

The major risk to laboratory and mortuary staff occurs in the handling of blood, blood products and human tissue. Laboratory manuals should cover strategies to create a safe environment (based on AS/NZS 2243.3:2002)

CATEGORY D – MINIMAL PATIENT CONTACT

These groups have no greater exposure to infectious diseases than does the general public. These employees do not need to be included in vaccination or screening programs.

EXAMPLES INCLUDE:

- Catering Staff (non-clinical contact)
- Gardening staff (Tetanus is highly recommended)
- Administrative staff (payroll, finance etc)
- Other non-clinical staff
- Materials Management

RESPONSIBILITY

Each facility should develop a comprehensive immunization policy for all Health Care Workers (HCW's) Individual assessment should be undertaken prior to employment or upon induction as status may need to be considered when rostering to specific areas (eg. non-immune persons/pregnant women working in paediatric/neonatal/intensive care units etc)

Staff Health Unit/Infection Control Unit will make available the appropriate arrangements for the administration of the vaccines, Mantoux and serological testing. A register of health care workers vaccination history should be maintained. Ensure the database is secure, maintained by a designated person and only accessible to authorized persons, as appropriate. The register is to contain details of vaccine preventable disease history, previous immunisation, antibody and test results, record of screening and vaccines consented to, batch number, expiry date, brand name of vaccines and date administered.

Vaccination schedules should, as much as possible, comply with National Health and Medical Research Council "The Australian Immunisation Handbook" 9th Edition 2008.

A Mantoux screening program for Pulmonary Tuberculosis should comply with the recommendations of the Department of Human Services Victoria "Management, Control and Prevention of Tuberculosis – Guidelines for Health Care Providers" 2002 – 2005.

All health care workers should have access to their individual screening and immunization record upon request. HCW's are encouraged to keep their own personal record of screening results and immunisations.

A personal immunization record of screening results and vaccinations given should be available to each health care worker whenever changes to place of employment occur.

The Infection Control Unit/Staff Health Unit will inform all new staff at the Induction Program of the immunisation policy. Regular education to be provided to all HCW's to reinforce the need for compliance.

CONSENT

Informed consent, **preferably in writing**, must be obtained prior to serological screening, Mantoux testing or immunisation.

The person being immunised will be informed of the reasons for immunisation and possible side effects.

If recommended vaccines are refused, signed documentation of refusal, **reason for refusal (if given)** shall be obtained **and recorded**.

Please Note:

Section 8.1 of Manual will be updated in 2009 on the release of the new Department of Human Services, Victoria policy for Immunisation of Health Care Workers.

REFERENCES:

Department of Human Services, Victoria "Immunisation Guidelines for Health Care Workers (HCWs)" 6th Edition, revised October 2007. Endorsed by the Victorian Advisory Committee on Infection Control.

Infection Control Guidelines for the Prevention of Transmission of Infectious Diseases in the Healthcare Setting. Australian Department of Health and Ageing, 2004.

National Health and Medical Research Council. "The Australian Immunisation Handbook". 9th Edition 2008.

Department of Human Services Victoria. "Management, Control and Prevention of Tuberculosis - Guidelines for Health Care Providers" (2002-2005). Infectious Diseases Unit Victorian Government Department of Human Services 2002.

8.2 Blood and Body Fluid Exposure

RATIONALE

If a staff member sustains an exposure to blood or body fluids by needle-stick, cut or splash to mucosa or damaged skin the organization has a duty of care to provide adequate counselling and post exposure follow up.

Initial and immediate steps to be taken:

- Immediately wash the wound and area with soap and water or rinse eyes thoroughly and gently with large amounts of water.
- The staff member who receives a needle-stick or body fluid splash must immediately report the incident to the unit/area manager and the unit responsible for post exposure management in the facility. This must be done within one hour of exposure. An incident report must be completed.
- Note: It is important that, in order to maintain confidentiality of the staff member and source person, individual records be kept securely.

1. Consult with Recipient

- a) Type, time, source and risk of the exposure is ascertained
- b) State of health is ascertained
- c) Immune status including immunisation status *for Hepatitis B* is ascertained
- d) Consideration, according to circumstances, given to determine the risk of tetanus to the individual.

2. Consult with Source of blood/body fluid

The Medical Officer co-ordinates consultation with the source.

- a) Ascertain their state of health.
- b) Life style, risk factors will be explored with the source
- c) Consent obtained for screening following appropriate counselling.

3. Determine Risk to Staff Member

- a) Prophylaxis will be offered if appropriate. A plan is devised in conjunction with an Infectious Diseases Physician.
- b) H.I.V prophylaxis, if appropriate, is best administered within two hours of exposure.
- c) Hepatitis B prophylaxis, if appropriate is best administered within 72 hours of exposure.

4. Following Consultation with Source (and with specific informed consent after receiving pre-test counselling)

Bloods are taken for Hepatitis B surface antigen, Hepatitis C antibody and H.I.V. antibody. Arrangements made for post test counselling and informing person of results.

Note: While it is best practice to obtain informed consent prior to testing, there are provisions for compulsory testing which may be used in specific circumstances outlined in GUIDELINES ON DIVISION 2A, PART 6 OF THE HEALTH ACT 1958 THE COMPULSORY TESTING PROVISIONS October 2005 published by the Department of Human Services (Public Health) page 10 of these guidelines state “Where the source. . . ”

- Does not have the capacity to consent to testing, and is not expected to regain capacity within a reasonable time frame, and the incident occurs at a health service that has an authorised senior medical officer, it is expected that the matter be referred to that senior medical officer for rapid internal management.
- Does not have the capacity to consent to testing, and is not expected to regain capacity within a reasonable period of time, and the incident occurs at a health service that does not have an authorised senior medical officer, an application may be made to the Chief Health Officer requesting an order or authorisation for testing.
- Refuses to consent for testing, an application is made to the chief health officer requesting an order or authorisation for testing. An authorised senior medical officer cannot order or authorise testing where a person involved in an incident refuses to consent for testing.

Unconscious source. If the source is unconscious or otherwise does not have the capacity to consent to be tested, a risk assessment should be undertaken to determine if the testing needs to be conducted immediately rather than waiting for the person to regain capacity. An order can only be made under these provisions if it *is necessary* to enable rapid diagnosis and treatment. e.g. If the incident occurs during surgery and the source is expected to regain capacity within a reasonable period of time and it is believed that waiting this period of time would not prejudice the health of the care giver, then it would be appropriate to wait until the person regains capacity and seek informed consent.

RICPRAC recommends that health services using this Infection Prevention and Control manual review the COMPULSORY TESTING PROVISIONS and incorporate the guidelines into their own internal protocol and policy documents.

5. Following consultation with staff member and appropriate pre-test counselling and obtaining specific informed consent

Bloods are taken for Hepatitis B surface antibody, Hepatitis C antibody, and H.I.V. antibody (Some units may only test for Hep B antibody & store serum at this time).

NOTE:

DE-IDENTIFICATION FOR NOTIFICATION OF HIV AND PATHOLOGY PROCESS.

To maintain strict confidentiality coding of name, date of birth and sex should be used on pathology slips requesting HIV antibody test. Coding: use first two initials of family name and first two initials of given name followed by date of birth and sex. Client to be made aware of their code for result identification.

All documentations to remain confidential and be stored securely.

A GUIDE TO RISK ASSESSMENT:

This is intended as a guide to risk assessment with a known HIV (+ve) source. The decision on risk and use of triple therapy should be made in conjunction with an Infectious Diseases Specialist.

The Infection Control Coordinator will be aware of availability of starter packs of HIV prophylaxis within your region.

EXPOSURE	RISK	TRIPLE THERAPY
PERCUTANEOUS		
Blood - deep injury visible blood on device, device in vein/artery of source	HIGH	Recommended Triple
Fluid containing visible blood or other potentially infectious fluid or tissue	MEDIUM	Offer Triple
Other body fluid eg. urine	LOW	No offer
MUCOUS MEMBRANES/EYES		
Blood	HIGH	Recommended Triple
Fluid containing visible blood or other potentially infectious fluid or tissue.	MEDIUM	Offer Triple
Other body fluid eg. urine	LOW	No offer
SKIN (NON-INTACT)		
Blood	MEDIUM	Offer Triple
Fluid containing visible blood or other potentially infectious fluid or tissue.	MEDIUM	Offer Triple
Other body fluid eg. urine	LOW	No offer
TRANSMISSION RATES (A GUIDE ONLY)		
Average Risk for HIV infection -		
Percutaneous exposure to HIV (+)ve blood	(0.3%)	
Mucous Membrane exposure	(0.1%)	
Skin	(<0.1%)	
Hepatitis B Infection -		
If not protected from immunisation	(30%)	
Hepatitis C Infection -		
	(3%- as high as 10% when source HCV RNA + ve by PCR)	

EFFECTIVENESS OF TRIPLE THERAPY FOR HIV PROPHYLAXIS:

80% effectiveness if early introduction that is within 1-2 hours of exposure.

SIDE EFFECTS OF TRIPLE THERAPY - 40%

Can Include:

- GIT symptoms/headaches/fatigue (short term toxicity)
- Pancreatitis (rarely)
- Kidney Stones (from prolonged use only 0.8%)
- Liver Toxicity (from prolonged use)
- Bone marrow depression (from prolonged use)

Limited data available on the toxicity of these drugs during pregnancy.

POST EXPOSURE FOLLOW-UP FOR EXPOSED PERSON

Arrangements made for person to receive post-exposure counselling and be given results of blood tests.

Follow up blood tests are arranged at recommended intervals for HIV & HCV antibodies.

If the source is unknown it is suggested that further blood tests for HIV antibody and HCV antibody is undertaken at 6 weeks post exposure.

(NB: HBV serology to be included if non-immune)

REFERENCES:

Department of Human Services (Public Health), guidelines on division 2a, part 6 of the health act 1958 the compulsory testing provisions October 2005

Infection Control Guidelines for the Prevention of Transmission of Infectious Diseases in the Healthcare Setting. Australian Department of Health and Ageing, 2004.

Australian Government Department of Health & Ageing – National HIV Testing Policy 2006.

MMWR Vol. 46 / No.26 Recommendations for follow-up of health care workers after occupational exposure to Hepatitis C virus.

Occupational Health and Safety Act. 2004.

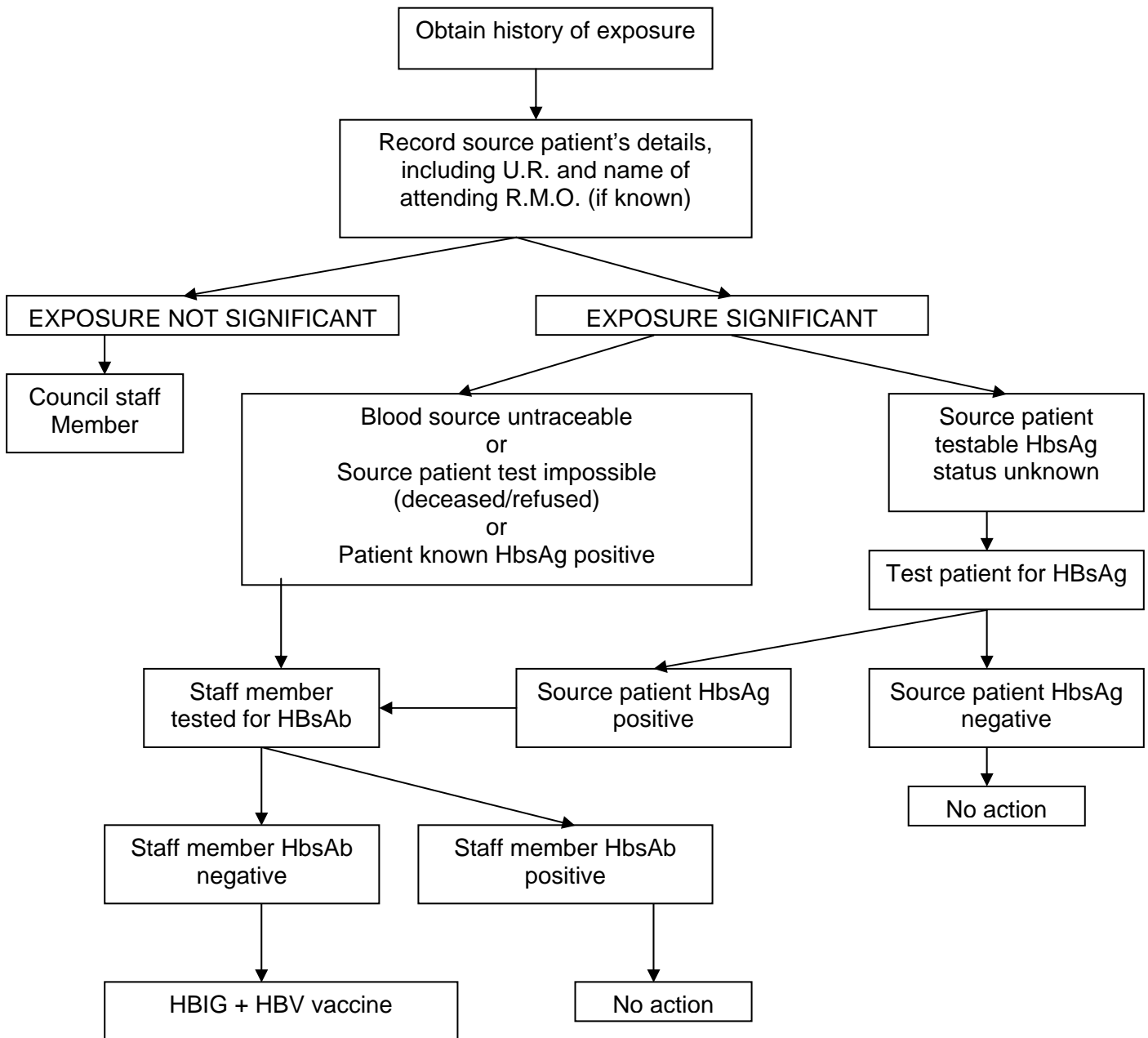
Health (Infectious Diseases) Regulations. May 2001 SR 41/2001

Australian National Council on AIDS, Hepatitis C and Related Diseases “National Hepatitis C Testing Policy” August 2003

Emerging Infectious Diseases - Vol. 7, No 2 March-April 2001. HIV Post-exposure Prophylaxis in the 21st Century, Henderson.

SAMPLE MANAGEMENT PROTOCOL FOR BLOOD/BODY FLUID EXPOSURE

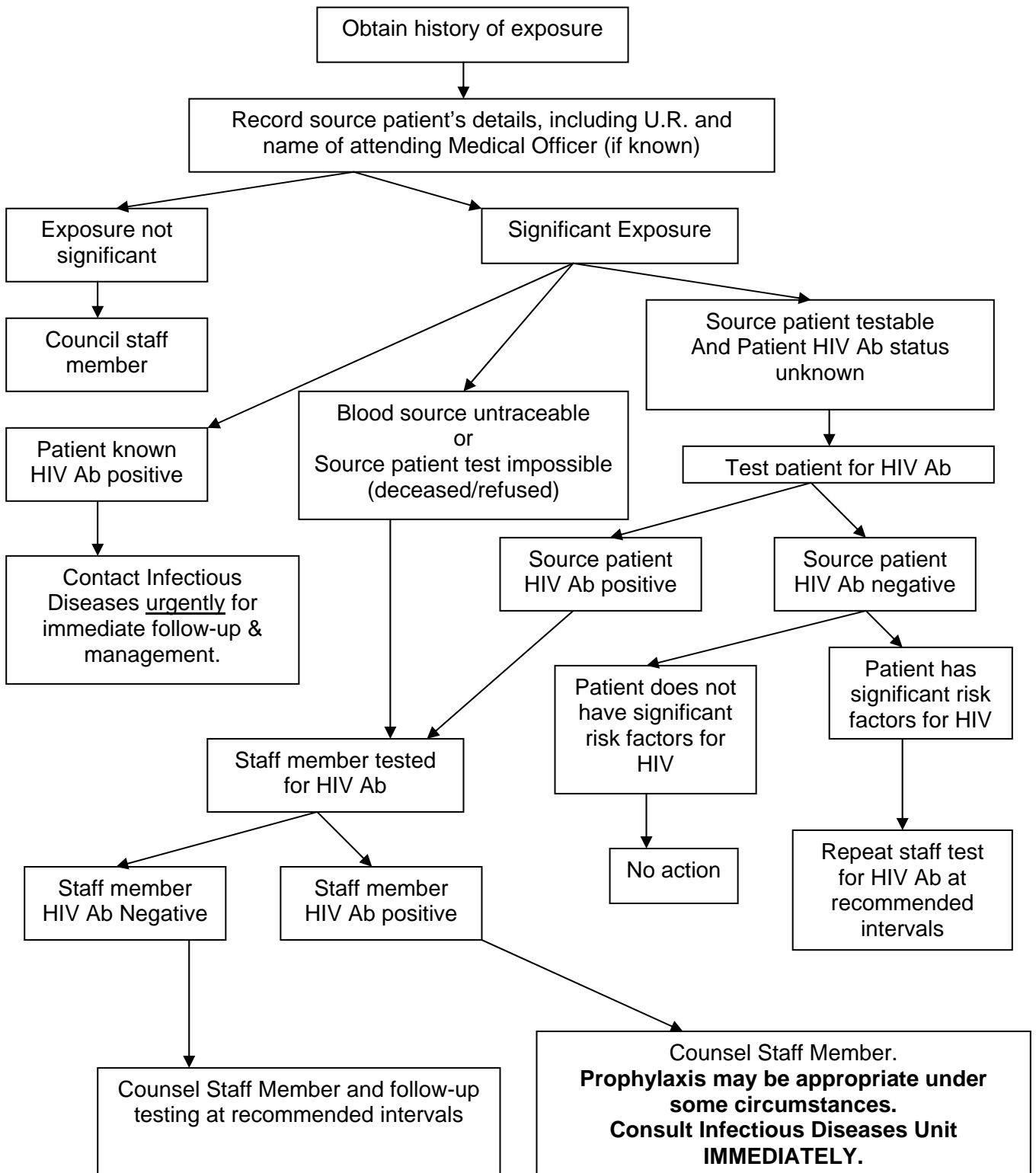
PROTOCOL FOR HEPATITIS B VIRUS (HBV) EXPOSURE



1. Source patient's Medical Officer should be approached to obtain consent from the patient for screening for HBV, HIV, and HCV, If consent is refused, discuss procedure with Infectious Diseases Unit.
2. HBIG – Hepatitis B Hyperimmune Globulin obtainable from Blood Bank.
3. HBV Vaccine –
 1. Not vaccinated – full course of vaccine at 0,1,6, months.
 2. Partly vaccinated – complete vaccination course.
 3. Fully vaccinated – Check serology, give booster if required and re-check Ab.status.

SAMPLE MANAGEMENT PROTOCOL FOR BLOOD/BODY FLUID EXPOSURE

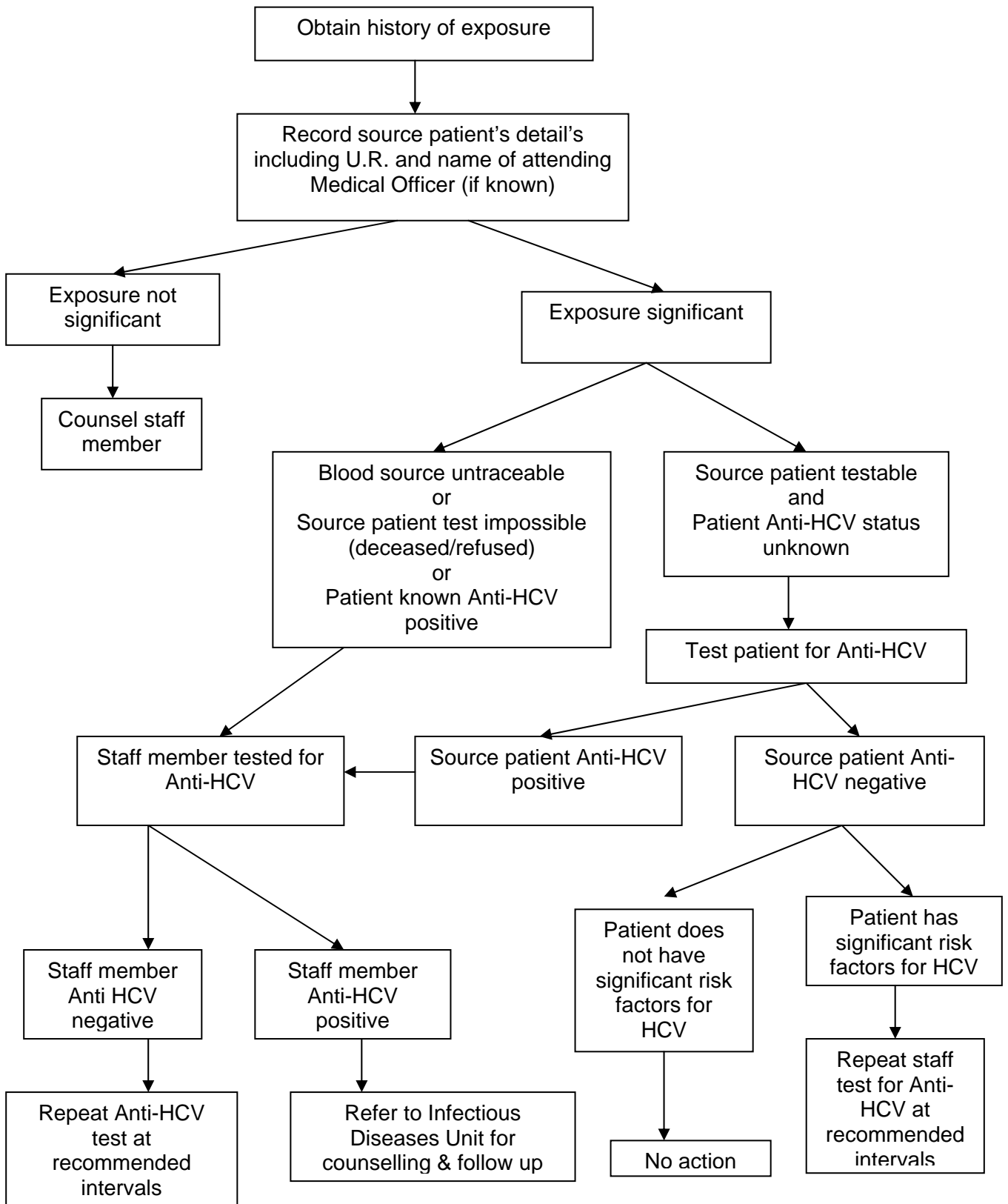
PROTOCOL FOR HUMAN IMMUNODEFICIENCY VIRUS (HIV) EXPOSURE



Source patient's Medical Officer should be approached to obtain consent from the patient for screening for HBV, HIV, and HCV. If consent is refused, discussed with Infectious Diseases Unit.

SAMPLE MANAGEMENT PROTOCOL FOR BLOOD/BODY FLUID EXPOSURE

PROTOCOL FOR HEPATITIS C VIRUS (HCV) EXPOSURE



1. Source patient's Medical Officer should be approached to obtain consent from the patient for screening for HBV, HIV and HCV. If consent is refused discuss procedure with Infectious Diseases Unit

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8.3 Health Care Worker with Infectious Diseases

RATIONALE

In the same way that patients with infectious diseases may pose a risk to staff health care workers (HCWs) with infectious diseases may pose a risk of passing on those infections to patients or colleagues. The rights and responsibilities of the employer, the HCW, other staff and the patients should all be taken into account in these circumstances.

EMPLOYERS RESPONSIBILITIES

The employer will provide a work environment where discrimination against HCWs on the basis of infectious diseases is not acceptable.

A program for new staff members will be conducted to determine their likely immunity to certain infectious diseases.

Immunity to Rubella (German measles), Measles, Mumps, Chicken Pox, Polio, Tuberculosis, Diphtheria, Tetanus and Hepatitis B will be determined, where appropriate by the Staff Health Service / Infection Control on the commencement of employment. Where appropriate, vaccinations against these infections and/or education/counselling will be offered. Also at this time, HCWs identified as having infectious diseases will receive any necessary treatment / referral prior to commencing work. Screening for other infectious diseases will not be done routinely.

No HCW should be disadvantaged or discriminated in their employment solely because they have an infectious disease.

As with all illnesses, a HCW with an infectious disease will be considered individually, dependent on the course of the infection, its likely infectivity, the HCW's medical fitness and availability for appropriate work. Only in special circumstances will a HCW be redeployed or have their duties modified.

HEALTH CARE WORKER'S RESPONSIBILITIES

Health Care Workers whose lifestyle puts them at risk of acquiring infectious diseases that may pose a risk to patients or other staff should seek medical advice, have appropriate investigations and avail themselves of counselling.

HCW's may contact their Infection Control staff for advice, counselling and appropriate referral.

HCW's involved in exposure prone procedures should know their HIV, HBV and HCV status.

HCW's have an ethical responsibility to notify the employer if their infection status poses a risk to patients or work colleagues.

All HCWs have a responsibility to follow medical advice and treatment of any infection, to practise a high standard of hygiene, and to follow Infection Control principles.

RESPONSIBILITIES OF OTHER STAFF

If a HCW notifies a work colleague or supervisor of their infectious status, this information should be treated confidentially, unless the HCW gives explicit permission for this information to be shared with specific personnel for a medical or infection control reason.

Hospital medical records and laboratory results on HCWs, including those infectious diseases, should always be handled with strict confidentiality.

These will be available only to staff directly involved in the care of the HCW,

SPECIFIC RECOMMENDATIONS

The following recommendations are made for HCWs with specific infectious diseases who have direct patient contact or are involved in food preparation.

GASTROENTERITIS (INFECTIOUS DIARRHOEA) AND ENTERIC PATHOGENS

Diseases: Gastro-enteritis (bacterial, viral or protozoal), Enteric (Typhoid) Fever and Hepatitis A/Hepatitis E.

RECOMMENDATIONS:

- All staff working in a health care facility with gastroenteritis must not present at work, and should not return to work until all vomiting and or diarrhoea has ceased for 48 hours. Food Services staff - see Food Safety Plans.

HEPATITIS (OTHER THAN HEPATITIS A)

Diseases: Hepatitis B, Hepatitis C, Hepatitis D

RECOMMENDATIONS

HCW's must not perform exposure-prone procedures if they are:

- HCV antibody positive and HCV RNA positive (by PCR or similar test); or
- Hepatitis B e antigen (HBeAg) positive and/or HBV DNA positive at high titres.

HERPES SIMPLEX

Diseases: Herpes labialis (cold sores), Herpes genitalis, Herpetic whitlow

RECOMMENDATIONS:

- HCW's with herpetic lesions should wear gloves or some other effective occlusive dressing when the lesions are vesicular (virus is not shed from crusted lesions). Covered lesions present minimal risk. HCW's who perform exposure-prone procedures have an ongoing responsibility to know their HSV infectious status, which is best determined by antibody testing and associated confirmatory tests, and should avoid any invasive procedures while lesions are present.

- HCW's with vesicles that cannot be covered (as in oral herpes) should not come into contact with newborn babies or immunocompromised patients, and should be excluded from operating rooms and delivery suites.
- Herpes genitalis poses little risk.

HUMAN IMMUNODEFICIENCY VIRUS

Diseases: Asymptomatic infection, AIDS-related complex, AIDS

RECOMMENDATIONS:

- Staff with direct patient contact should avoid procedures or areas of practice where there is a risk of laceration or reverse (staff to patient) sharps injury.
- Staff with infections occurring as a result of their HIV infection should follow the specific recommendations for those infections and follow the advice of their treating medical practitioner.

As persons with HIV infection may have lowered immunity, HIV infected staff who are at risk of acquiring infection from patients will have their duties modified appropriately. (Confidentiality must be maintained at all times.) The Infection Control unit may assist staff with modification of duties.

HIV positive persons with secondary infections that may be transmitted and are likely to pose a risk to others should seek treatment.

NO MEMBER OF STAFF IS REQUIRED TO INFORM PATIENTS OF THEIR HIV STATUS.

STAPHYLOCOCCAL INFECTION

Diseases: Furunculosis (Boils), Skin Infections, Wound Infections, Whitlow (Paronychia).

RECOMMENDATIONS:

- Staff should have lesions covered whilst at work, or may be unable to work clinically until infection resolved.

STREPTOCOCCAL INFECTION

Diseases: Impetigo, Skin Infections, Sore Throat (Pharyngitis).

RECOMMENDATIONS:

- Staff with pharyngitis should avoid patient contact for at least 24 hours after starting appropriate antibiotic therapy.
- Staff may be unable to work clinically until infection resolved.

TUBERCULOSIS

Diseases: Pulmonary tuberculosis, Extra-pulmonary tuberculosis.

RECOMMENDATIONS:

- Staff with open pulmonary tuberculosis (acid-fast bacilli detected in sputum smears) should be rostered off duties and commenced on anti-tuberculous therapy. Return to work should only be on the instruction of a medical officer.

OTHER VIRAL INFECTIONS

Diseases: Measles, Mumps, Rubella (German Measles), Varicella (Chicken Pox), Shingles (Herpes Zoster).

Infection Control must be notified.

RECOMMENDATIONS:

- Staff with these viral infections should not have direct patient contact until symptoms and signs have disappeared. In most circumstances this means that staff should be off work until a medical officer certifies them fit for work.

VIRAL RESPIRATORY TRACT INFECTIONS

Diseases: Colds, Pharyngitis, Bronchitis

RECOMMENDATIONS

- If well enough to work, a mask should be worn during direct patient contact.
- If not well enough to work, staff should remain off work until symptoms have abated.
- If confirmed Influenza, staff should not attend health care facility until symptoms resolved.

REFERENCES:

Guidelines for the control of infectious diseases, The Blue Book, 2005. Department of Human Services

Management of Healthcare Workers Infected with Hepatitis B Virus, Hepatitis C Virus, HIV or Other Bloodborne Pathogens. Infection Control and Hospital Epidemiology, Vol18 No5 p.349.

Infection Control Guidelines for the Prevention of Transmission of Infectious Diseases in the Healthcare setting. Australian Department of Health and Ageing, 2004.

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8.4 Ingestion of Breast Milk from someone other than the Child's Mother

TYPES OF INCIDENTS TO CONSIDER

Babe breast-fed by donor (not natural mother).

Babe bottle fed with donor expressed breast milk (EBM).

RATIONALE

In the event of a neonate ingesting breast milk from someone other than the child's mother, the incident must be reported immediately and an incident form must be completed.

The approach taken in this situation should be similar to that of an accidental blood and body fluid exposure. (Section 8.2).

Transmission of Hepatitis B, Hepatitis C, and HIV via breast milk is of low risk, but insufficient data is currently available.

REPORTING OF INCIDENT

- a. Notify Unit manager or person acting in charge and treating medical officer.
- b. Fill in an incident report form immediately, making sure that all details of the incident are recorded.

THE ATTENDING DOCTOR SHOULD:

- a. Notify both mothers regarding the incident and arrange for counselling of parents re the incident. Patients should be reassured that the risk of transmission and possible acquisition of infection is minimal.
- b. Obtain informed consent for testing for hepatitis B surface antigen, Hepatitis C antibodies and HIV antibodies. If consent is refused, discuss with infectious diseases unit as outlined in DHS post exposure guidelines.
- c. Collect blood from breast milk donor and mother of recipient.
- d. Consider risk of other diseases and contact Infectious Diseases Physician for advice if necessary.
- e. Breast milk donor parents should be informed of results.

TESTS TO BE PERFORMED

All blood tests are performed on both mothers regardless of blood tests obtained during antenatal period.

DONOR MOTHER (SOURCE OF BREAST MILK)

Tests to be performed:

- Hepatitis C Antibodies
- HIV Antibodies
- Hepatitis B Surface Antigen

RECIPIENT MOTHER (MOTHER OF BABE ACCIDENTALLY FED DONOR BREAST MILK)

Tests to be performed:

- Hepatitis C Antibodies
- HIV Antibodies
- Hepatitis B Surface Antigen

RECIPIENT OF DONOR BREAST MILK

No initial testing indicated.

OUTCOME OF RESULTS

If any serology results are positive, consultation with Infectious Diseases is recommended.

If the donor mother or recipient mother is HIV positive or Hepatitis B positive immediately consult Infectious Diseases.

REFERENCES:

Australian National Council on AIDS, Hepatitis C and related Diseases, The ANCAHARD Bulletin No. 29 September 2002. Management of Exposure to Blood/Body Fluids in a Health Care Setting.

MMWR Vol. 46/No 26 Recommendations for the follow up of health care workers after occupational exposure to Hepatitis C virus. July 4th 1997

Journal of Infectious Diseases 2006; 193: 277-282. Human Leukocyte Antigen Concordance and the Transmission Risk via Breast-Feeding of Human T cell Lymphotropic Virus Type 1. Biggar et al.