Biological hazards

– **Infectious disease control**

Anaesthetic procedures >

This information bulletin provides examples of several safe work practices which could form the basis of more detailed procedures to be adopted in individual work situations relating to anaesthetic procedures in various health care environments.

Introduction

This information bulletin should be read in conjunction with the National Code of Practice for the Control of Work Related Exposure to Hepatitis and HIV (blood-borne) Viruses [NOHSC:2010(2003)], which is an Approved Code of Practice under section 187A of the *Workers Rehabilitation and Compensation Act*.

Transmission of HIV and the hepatitis B virus in the workplace has occurred in two major ways:

- when sharps contaminated with infected blood or body fluids penetrate the skin; and
- when infected blood or body fluids splash into the eye or onto broken skin or into a cut.

Preventing transmission

Universal precautions are based on the concept that all blood, blood products and body fluids of all persons are potential sources of infection, independent of diagnosis or perceived risk.

Preventing transmission of HIV and the hepatitis B virus in the workplace, therefore, means:

- preventing injuries from sharps and other instruments contaminated with blood or body fluids; and
- avoiding contact between blood or body fluids and the eye, or other mucous membranes, and broken skin or cuts.

Therefore, all staff must adhere rigorously to protective measures which minimise exposure to these agents. The use of universal precautions involves placing a barrier between staff and all blood and body fluids.

Training

It is essential that all anaesthetic staff receive initial and ongoing training to enable them to do their duties in a healthy and safe manner. This training should enable them to anticipate and manage situations in which they may be exposed to infectious organisms such as HIV or the hepatitis B virus.

It is also important that anaesthetic staff have access to appropriate professional counselling and follow-up services are available after any possible and definite exposures to blood and body fluids.

Safe work practices

Safe work procedures should be developed within the framework of risk identification, risk assessment and risk control. The implementation of effective controls impacts on many areas in the workplace, including the selection and purchasing of equipment, staffing, policy and procedures in the workplace, provision of information and training, and the recording and monitoring of exposures to blood or body fluids.

Work practices and the choice of personal protective equipment should be based on universal precautions.

The following procedures should be observed by anaesthetic staff:

- a tray or trolley should be available for used anaesthetic equipment;
- single-dose drug ampoules should be used in preference to multidose vials;
- a swab of cotton wool saturated with alcohol can be placed over the end of the vaccine bottle to prevent aerosol germination when extracting the needle;
- consideration should be given to the use of blunt drawing needles for use with cannulas and three-way stopcocks (used in intravenous infusion sets);
- needles should not be resheathed unless using a single handed bayonet technique or self-sheathing/recapping device; and
- used needles and other disposable sharp instruments should be promptly discarded into an approved sharps container. See Australian Standard AS 4031 Non-reusable Containers for the Collection of Sharp Items Used in Health Care Areas.

Post-exposure procedures

All workplaces must have in place post-exposure procedures. These procedures should be consistent with procedures for other workplace accidents and should utilise existing mechanisms for compensation, rehabilitation, retraining and long term follow-up of employees injured at work.

The procedures should address:

- immediate action;
- follow-up action;
- record keeping; and
- confidentiality.

Personal protective equipment

All staff who are required to wear personal protective equipment while on duty should be trained in its correct fit and use. This equipment should be checked regularly, maintained and restocked as necessary.

While on duty, anesthetist staff should have access to the following items:

- gloves (double gloving may be advisable in high risk procedures);
- plastic aprons should be worn by scrub staff;
- impermeable gowns with long waterproof sleeves and full length front panelling are recommended if gross contamination is likely. Gowns should be made of waterproof fabric with

the ability to breathe. See Australian Standard AS 2892 Textiles for Hospitals and Institutions - Fabric Specifications;

- open footwear should not be worn. Galoshes, calf-length rubber boots or other protective footwear are preferable to shoes;
- fluid-resistant face mask;
- protective eyewear, that is, goggles or a full-face mask; and
- an approved sharps container.

More information

A range of information bulletins are available on related topics. Please view www.worksafe.nt.gov.au or contact NT WorkSafe for details.

Australian Standards are available from the Territory Construction Association, phone 8922 9666. Australian Standards can be viewed online by visiting the Northern Territory Library, Parliament House, phone 8999 7177.

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