1. Title
Procedure - Handling Infectious Materials and Infection Control

2. Purpose
The primary purpose of this document is to act as a guideline to advise staff and students that precautions need to be taken before, during and after the handling of, and in the storage and disposal of, biohazardous and infectious materials. Reference must be made to the ECU Faculty of Health, Engineering and Science “Handling Infectious Materials and Infection Control Manual” and/or associated reference information listed within this document, to ensure correct procedures are being followed. This will allow for the following outcomes:

- all infectious and biohazardous materials that are handled in all laboratories, health care and ward settings and associated facilities will be handled with the degree of safety as set down by the reference guidelines;
- staff and students will be confident that their handling of these materials conform to all relevant safety guidelines;
- the disposal of all contaminated materials will be in strict accordance of Australian guidelines and thus will not present any public health concern to the university or outside populace.

3. Organisational Scope
This document details protocols and guidelines that must be followed in the handling of any infectious or biohazardous materials involving microorganisms, human or animal blood, blood products and other body substances by all staff (academic, administration, support, technical, and research), students (undergraduate, postgraduate and research) of, and visitors and contractors to, the Faculty of Health, Engineering and Science of Edith Cowan University, Western Australia. All procedures shall conform to the relevant Australian Standards, government legislation, Edith Cowan University policies and the Faculty of Health, Engineering and Science procedures. This document applies to all staff (academic, technical, research, support and administrative) and students (undergraduate, postgraduate and research) of, and visitors and contractors to, the Faculty of Health, Engineering and Science of Edith Cowan University and Edith Cowan University as a whole.
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GUIDELINES
The Faculty of Health, Engineering and Science of Edith Cowan University is committed to taking all reasonable steps to protect staff, students, visitors, contractors, university clients, the populace and environment from contamination or infection by biohazardous materials. All laboratories, health care settings, wards and associated facilities within the Faculty must function in such a way as to ensure this commitment is met. To that end, all activities involving biohazardous substances must be categorised with regard to:

- the type of materials being used or handled;
- the risk group classification of organisms being used or handled; and
- the risk of exposure to all staff, students and university clients that the biohazardous substances present.

Staff should receive practical instruction in infection control procedures and not just be referred to written material. Infection Control is not simply a matter of implementing standards and guidelines. It is essential that everyone involved in areas handling and/or using infectious or biohazardous materials or who are involved in practical health care and hands-on-contact with the public be aware and have a sound knowledge of:

- potential sources of contamination in their work areas;
- correct procedures for the handling of all possible infectious or biohazardous substances and materials and of substances and materials which may become contaminated;
- correct procedures for dealing with all spillages of contaminated nature and the decontamination of contact areas affected by such spillages;
- the immediate and complete disposal of contaminated materials;
- correct personal hygiene especially hand washing.

It should be kept in mind that many materials and specimens are potentially pathogenic if used or handled incorrectly. A thorough knowledge of handling such specimens is of utmost importance. All potentially biohazardous specimens and materials must be handled with care and caution. Before any microorganism, body fluid, infectious or possibly infectious material is handled reference should be made to the following:

- NHMRC/ANCA: Infection Control in the Health Care Setting
- Australian and New Zealand Standard: AS/NZS 2243.3 – Microbiology
- Reference Group Microorganism Category Listings
- Activity Risk Categories

RISK GROUP ORGANISMS
Risk group microorganisms include bacteria, chlamydiae, rickettsiae, mycoplasmas, parasites, fungi, viruses, whether of human, animal, marine, or plant origin, can be classified by risk groups as follows:

- **Risk Group 1** - a microorganism that is unlikely to cause human, animal or plant disease.
- **Risk Group 2** - a microorganism that can cause human, animal, or plant disease but is unlikely to be a serious hazard to laboratory workers, the community, livestock or the environment; laboratory exposures may cause infection but effective treatment and preventative measures are available, and the risk is limited.
- **Risk Group 3** - a microorganism that usually causes serious human or animal disease and may present a serious hazard to laboratory workers. It could present a risk if spread in the community, but there are usually effective preventative measures or treatments available.
- **Risk Group 4** - a microorganism that usually produces life-threatening human or animal disease represents a serious hazard to laboratory workers and is readily transmissible from
one individual to another. Effective treatment and preventative measures are not usually or readily available.

Reference should be made to the Australian/New Zealand Standard AS/NZS 2243.3 - Safety in Laboratories: Part 3: Microbiology for the actual listings of microorganism's for each risk group and precautionary guidelines. For genetically modified strains reference should be made to the GMAC guidelines.

**ACTIVITY RISK CATEGORIES**

**Category One** encompasses activities and materials that are considered to be of a low risk infectious nature

**Category Two** encompasses activities and materials that pose a moderate risk of exposure to material carrying human pathogens or risk of exposure to zoonoses or plant diseases. This includes all research and teaching activities that require the handling of human or animal body fluids and tissues, plant fluids and tissues, compost and potting mixes, contaminated wastewater and sewerage.

**Category Three** encompasses high risk of exposures to material known or thought to be carrying human, animal, marine, or plant pathogens and shall include all research and teaching that requires the handling of such materials.

It is essential to improve awareness and change individuals and workplace attitudes and practices. This can be achieved by the provision of recognised guidelines and relevant practical instruction by experienced personnel to all staff and students. Adherence to guidelines should be stressed.

**As each workplace will be different, laboratories and work areas involved with infectious/biohazardous materials should have in place infection control practices and protocols specific to their work-area based on Australian national standards and have readily available access to literature regarding all associated matters.**

**RESPONSIBILITIES**

Each staff member and student working in areas that involve the handling and/ or use of any infectious or biohazardous substances has a responsibility to the University, the HES Faculty, their fellow workers, visitors, contractors and themselves to ensure a safe working environment. Each person working in pertinent areas must be familiar with and understand these responsibilities.

Individual schools within the HES Faculty must have their own written guidelines further to the general faculty guidelines where the nature of the work, procedures and work content are more specific in their needs to provide the necessary infection controls.

**TRAINING**

Supervisors will ensure that all staff and students involved in their work areas shall be adequately instructed and trained, and not just advised, in current information on infection control, prior to any exposure to, handling or using of, or partaking in procedures involving biohazardous materials or substances. Supervisors should also emphasise the importance of continuing education and training for all staff and students. New staff and all students (undergraduate, post graduate and research students) should be offered an orientation program to increase their awareness and to assist in their understanding of the University policies and Faculty guidelines for infection control.

Education and training should include:

- basic microbiology involving microorganism reservoirs, sources and causes of contamination, infection and disease, causes and modes of microbe transmission.
- infection control principles;
- importance of good hygiene and correct hand washing procedures;
- standard and specialised laboratory and equipment requirements;
• cleaning and disinfection of work areas;
• use of protective clothing and equipment;
• dealing with spills;
• handling and disposal of sharps;
• management of exposures and accidents;
• handling of specimens;
• waste disposal;
• immunisation advice and recommendations.

AVAILABILITY OF INFORMATION

Before any microorganism, body fluid, infectious or possibly infectious material is handled or used; reference should be made to the Edith Cowan University policies and pertinent work areas’ infection control procedures and guidelines.

The following legislation may be used as a guide:
• Occupational Safety and Health Act 1984; and
• Occupational Safety and Health Regulations 1996.
They are available electronically at the following address: http://www.safetyline.wa.gov.au

The following places can be contacted for the infection control information, materials and updates pertinent to different work areas:


Standards Australia and standards Australia/New Zealand. Information regarding purchase of standards is available electronically at the following address: http://www.standards.com.au

Worksafe Western Australia Occupational Safety and Health Regulations.

Worksafe Western Australia Commission. - Code of Practice: Hepatitis B and HIV/Aids in The Workplace.
Information available electronically at the following address: http://www.safetyline.wa.gov.au

The Health Department of Western Australia. Information may be found electronically at the following address: http://www.health.wa.gov.au


Edith Cowan University Faculty of Health, Engineering & Science procedures, guidelines, and/or manuals:
- Use and Disposal of Sharps
- Personal Protective Equipment (PPE)
- Human Body Fluids
- Handling of Infectious Materials and Infection Control
- Animal Handling

Information available electronically from the following address:

Edith Cowan University related policies/documents:
- University Occupational Safety and Health
- Guidelines for Staff and Students
- Hazardous Substances
- Human Biomedical Products Collected From External Agencies and Institutions.

Information available electronically from the following address:
http://www.ecu.edu.au/gpps/policy/hr/hrcont.php#3

5. Contact Information

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