

## Laboratory Safety Information Sheet 4

# Working with Human Body Fluids

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Blood, urine, saliva, faeces and other body substances **MUST** be treated as potential sources of Hepatitis, HIV/AIDS, and other microbiological infections. Every care must be taken to avoid contamination by these types of specimens by strict adherence to laboratory rules, written guidelines and precautions.

### PRECAUTIONS

1. Students are permitted to only work with their own blood and body substances or with specimens specifically obtained for experiments from the Blood Bank of hospitals and which have been tested for Hepatitis B and HIV/AIDS.
2. Staff and students must understand the hazards of working with human body fluid and substances, and that updated correct techniques and handling procedures are thoroughly explained and demonstrated to all by experienced laboratory staff.
3. Staff and students must be familiar with the Sharps Injury Protocol.
4. Staff and students must be advised that Hepatitis B vaccination is recommended prior to working with human body substances.
5. Plastic aprons, disposable gloves (of correct size), and safety glasses must be worn when handling body fluids. These items are supplied by the School for each laboratory class.
6. All pipetting procedures must be done by hand. Mouth-pipetting techniques **MUST NOT** be used.
7. Where experiments are being carried out on a common specimen of blood, the specimen must be first collected in a tube(s) containing anticoagulant. The tube(s) must then be safely secured in a rack and then individual samples withdrawn from the common sample(s).
8. Where disposable needle/syringe units are used, the whole unit must be discarded directly into a sharps container. No attempt should be made to recap the needle. (Refer to School Sharps Policy for further information.)
9. Lancets must only be used once and then immediately discarded into a stainless steel autoclave container. Used lancets must not be used by other staff or students. Used lancets must not be left on trays, benches, sinks, etc. Use forceps or tongs and a tray to transport improperly discarded lancets, needles, and other similar sharps to the autoclave container. The lid of the stainless steel autoclave container should be kept on when not in use.
10. Microscope slides used for blood and other body fluid smears, wet preparations, groupings, agglutinations, osmosis studies, etc. must be discarded in an autoclave container immediately after completion of that part of the experiment.
11. Contaminated cotton wool swabs, orange sticks, alcowipes, and tissues should be placed in a biohazard waste bin.

12. Contaminated haemometers, haemocytometers, and other types of cytometers and associated pipettes must be soaked in warm water with detergent or in a proteolytic enzyme cleaner prior to being soaked in disinfectant, or in a disinfectant-detergent agent. Broad Spectrum disinfectant and detergent agents such as Biogram alleviate the need for two-stage soaking, and contaminated equipment and instruments that are made of phenol-resistant materials can be readily soaked in these solutions.
13. Benches must be wiped over with a suitable disinfectant such as Sodium Hypochlorite solution (1000ppm. conc.) or with 70% alcohol immediately after completion of work. (Refer to Spills Management section of the School Infection Control Manual for cleaning of benches and other surfaces following spills and incidents involving large area contamination.)
14. Stainless steel work containers and biohazard bags should be autoclaved after the lab. Contents of the container should be emptied into a sharps container. Biohazards bags can enter normal waste stream once autoclaved.

## INFORMATION FOR PERSONS WHO MAY BECOME EXPOSED TO BODY FLUIDS

If you (or any of your colleagues) become exposed to body fluids, then the following procedure must be followed:

### Immediate Action:

- If skin is penetrated, wash the area well with soap and water (alcohol-based hand rinses or foams containing 60-90% alcohol by weight should be used when water is not available).
- If blood, other body fluids or substances gets on the skin, irrespective of whether there are cuts or abrasions, wash well with soap and water.
- If eyes are contaminated, rinse the area gently but thoroughly with water (using the eyewash station) or normal saline, while the eyes are open.
- If blood, other body fluids or substances get into mouth, spit out and rinse the mouth with water several times.

### Then:

- Immediately report incident to supervisor, OS&H Representative or OS&H Office.
- Complete and submit Accident Form.
- Regardless of the status of the source of the specimen, the affected person should immediately be evaluated and risk-assessed by a trained health care worker or physician.