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|  Department of Medicine | Doc. No: | SOP-Medicine-22 |
| | Standard Operating Procedure | |
| Title: Proper Use and Care of Laboratory Coats | Rev No: | 002 |
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| Adeline Chow/ Dr Zhou Lei Prepared by | Prof Anantharaman Vathsala Approved By | 16-07-2021 Issue Date |
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1. OBJECTIVE

This SOP provides guidance for proper use and care of laboratory coats in the research laboratories of Department of Medicine.

A lab coat or equivalent protection is required when working with or when working nearby to hazardous chemicals, radioactive materials, and biological agents at BSL2 or greater.

Lab coats are knee-length outer coats or smocks worn to protect street clothes and skin from contamination by chemical, radiological, or biological agents. This design also provides protection from spills, sprays and other releases of fine particles and liquids.

2. SCOPE

This SOP is applicable to all staff and students working in the Department of Medicine research laboratories.


3. RESPONSIBILITY

- 3.1 Principal investigators (PI) should ensure that all staff and students are aware of the hazards present and have been informed of the proper use, care and maintenance of lab coats. PI should also ensure that workers wear lab coats at all times in areas where skin contamination hazards exist.
- 3.2 Staff and Students should wear lab coats at all times in areas where skin contamination hazards exist and maintain lab coats in good condition. They should ensure lab coats must not be taken home or to public laundries to be cleaned.

4. SELECTION OF LAB COATS

Different activity requires different level of protective clothing. It is essential to choose the right protective clothing based on the hazards identified by conducting risk assessment. Some of the key factors to consider while choosing lab coats are as follows:

- **Sleeves:** Loose fitting sleeves should be avoided as they can knock over chemical containers, catch fire easily and forearms are easily exposed to hazardous substances. Properly fitted cuffed sleeves will ensure that sleeves stay in place and forearms are covered at all times, preventing direct contact with hazardous substances. Cuffs may be either elastic or with a velcro for fastening.
- **Fastening:** Fully buttoned type of fastening are commonly used in lab coats. However, this type of lab coat cannot be removed quickly. For easy removal of lab coats in case of contamination or fire, fastening such as snap closure or Velcro may be used. Do note that Velcro may degrade over time.
- **Appropriate material:** Lab coats are available in various fabrics and the choice of lab coat depends on the hazards identified in the activity.

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5. USE AND STORAGE OF LAB COATS

In general, lab coats should not be used as a substitute for engineering controls such as a fume hood, a glove box, process enclosure, etc., or as a substitute for good work practices and personal hygiene. It may also be necessary to supplement lab coat use with additional protective clothing, for example, a rubber apron for handling large quantities of corrosives or hydrofluoric acid.

- Wear lab coats that fit properly. Lab coats are available in a variety of sizes. Lab coats should fasten close to the collar to provide optimal protection.
- Lab coats should be worn fully buttoned or snapped with sleeves down.
- Wear lab coats only in the lab or work area. Lab coats must be removed when leaving the lab/work area to go home, to lunch, to the restroom, or meetings in conference room.
- Take care when putting your lab coat on in the lab to ensure that it doesn't hit any material or equipment.
- If a lab coat is needed to be worn outside in another lab, take a clean one along.
- Hang up in-use lab coats on hooks in a designated area.
- Lab coats must not be stored in contact with street clothing.

6. LAUNDERING OF LAB COATS

- Personnel are not allowed to launder lab coats at home.
- Lab coats should be cleaned routinely, by use of a professional laundry service.
- Frequency of cleaning will depend on the amount of use.
- Lab coats should be free from obvious contamination before sending to the laundry.
- Remove all items especially sharps from the lab coat pockets.
- Significantly contaminated coats will be considered a hazardous waste, and must be managed based on the type of contamination before laundering.


7. DISPOSAL OF LAB COATS

- If the lab coat cannot be safely decontaminated or satisfactorily made safe to be handled by the laundry, it should be disposed of accordingly.
- Typically lab coats can be disposed of as regular solid waste; however, in some cases they should be disposed of as hazardous waste.
- Refer to the respective standard operating procedures and risk assessments for hazardous waste disposal.

8. INCIDENT REPORTING

Accidents resulting in injuries must be reported to the PI and/or laboratory safety lead immediately after first aid is applied.

Seek medical attention when necessary at the University Health Centre or proceed to the Accident & Emergency units of National University Hospital after office hours.

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All incidents or accidents have to be notified to OSHE within 24 hours via the online Accident and Incident Management System (AIMS) at https://inetapps.nus.edu.sg/osh/portal/eServices/ehs360_aims.html.

9. REFERENCES

- NUS Laboratory Chemical Safety Manual (NUS/OSHE/M/02)
- NUS Laboratory Biorisk Management Manual (NUS/OSHE/M/01)
- NUS General Laboratory Safety Manual (NUS/OSHE/M/06)

10. REVISION HISTORY

| Date Revised | Version No. | Author | Summary of Revisions |
|--------------|-------------|--------------|---|
| 16-07-2021 | 002 | Adeline Chow | 1) Update of approver (HOD): Prof Anantharaman Vathsala 2) Update of item 4. Selection of labcoats |