

CLINICAL RESEARCH - USE OF FUME HOOD(S)

PROCEDURE [®]

DOCUMENT SUMMARY/KEY POINTS

- The purpose of this procedure is to ensure the standardised and safe use of Fume Hoods by clinical research personnel.
- The procedure must be followed by all personnel using Fume Hoods for clinical research.

CHANGE SUMMARY

- Minor typographical changes.

READ ACKNOWLEDGEMENT

- Training/Assessment Required – Personnel using Fume Hood(s) for clinical research.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st August 2021	Review Period: 3 years
Team Leader:	Clinical Trials Program Manager	Area/Dept: Kids Research Institute

Purpose/Scope

The purpose of this procedure is to ensure the standardised and safe use of Fume Hoods by clinical research personnel.

The procedure must be followed by all personnel involved in the conduct of clinical research involving the use of Fume Hoods.

Background

When appropriate usage practices and procedures are followed, Fume Hoods provide an enclosed, ventilated laboratory workspace that limits the exposure of the user to hazardous fumes, vapours, or dusts when handling chemicals or biological substances. Fume hoods must not be used for the containment of biological materials.

A Fume Hood should be used in the following situations:

- When working with significant inhalation hazards, such as hazardous chemical vapours, radioactive materials, toxic gasses or powers;
- When carrying out procedures that could generate high pressure or result in explosion;
- When chemical vapours generated could pose a fire hazard; or
- When working with compounds that have an offensive odour.

SCHN has a variety of Fume Hoods available for clinical research use. The following procedure is common to all Fume Hoods. Users must also refer to the manufacturer's instructions to obtain the details of operating requirements for specific models.

Equipment and Supplies

- Fume Hood
- Gloves
- Goggles
- Lab gown
- Spill kit
- Waste Receptacle(s) incl. Sharps Bin (if applicable)

Procedure

The incorrect use of Fume Hoods can pose a risk to both the user and others. All clinical research personnel are required to receive training/assessment prior to any use of the Fume Hoods, documented in accordance with SCHN Procedure 2019-027 – Clinical Research - Personnel Qualifications and Training Records.

Safe Work Practice(s) are posted in the area(s) where Fume Hoods are located for easy-reference by users.

Use of Fume Hood(s)

- Don PPE including lab gown, appropriate gloves, goggles and enclosed footwear;
- Access and review applicable SDS for any materials to be used, noting any precautions.
- **Note:** Do not use constant flames within the Fume Hood or any flammable substances with flash points below 25°C.
- Identify a Fume Hood suitable for the intended use;
- Inspect the Fume Hood to confirm it is clean and in working order. If anomalies are identified, report the issue immediately to the Research Operations Manager or Delegate. Do not attempt any repairs.
- Ensure that there is adequate space available inside the Fume Hood to safely perform the tasks intended to be performed and that it is kept free of unnecessary materials and/or equipment that could impede air flow;
- Complete the Log located next to the Fume Hood with the details of your usage (if required);
- Remove the guard and/or lift the sash to the recommended height;
- Switch on the Fume Hood including the fan/blower and light(s);
- Allow air to circulate for ~10 minutes prior to commencing use to ensure adequate air filtration (ensure reference to the manufacturer's instructions);
- Check the air intake and exhaust portals are functioning and are not obstructed;
- If the Fume Hood is equipped with an alarm, test the alarm and ensure it is switched on during use;
- Retrieve any materials to be used during processing;
- Decontaminate the Fume Hood surface and any materials and/or equipment to be placed inside the Fume Hood using an appropriate agent, before placement;
- Ensure any materials and/or equipment stored in the Fume Hood during processing are placed to avoid impeding air flow (e.g. not obscuring the hood slots and baffles);
- Use an appropriate barricade if there is any chance of explosion, implosion or eruption during processing;

- Operate at least 15 centimetres inside the fume hood behind the plane of the sash;
- Use of aseptic technique, maintaining a separation between clean and contaminated work spaces at all times;
- Minimise the movement of materials and/or equipment in and out of the Fume Hood once placed;
- Do not leave the Fume Hood unattended during operation;
- If the alarm activates during operation, cease activity within the Fume Hood immediately and notify the Research Operations Manager or Delegate;
- Decontaminate the Fume Hood surface and any materials and/or equipment placed inside the Fume Hood using an appropriate agent, prior to removal;
- Switch off the Fume Hood including the fan/blower;
- Replace the guard and/or lower the sash;
- Return all chemicals to their appropriate storage locations after use (if applicable);
- Discard any waste in the appropriate waste receptacle(s) (if applicable);

Spills

If a spill occurs during use of the Fume Hood:

- Alert other occupants of the area;
- Leave the Fume Hood switched on;
- Access the appropriate spill kit and apply to the affected work surfaces;
- Discard any waste in the appropriate waste receptacle(s);
- Ensure the Research Operations Manager or Delegate is notified;

Abbreviations and Definitions

C	Celsius
NSW	New South Wales
PD	Policy Directive
PPE	Personal Protective Equipment
SCHN	Sydney Children's Hospitals Network
SDS	Safety Data Sheet

Related Documents

1. NSW Health PD2017_026 - Clinical and Related Waste Management for Health Services - http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2017_026.pdf
2. NSW Health PD2017_013 - Infection Prevention and Control Policy - http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2017_013.pdf
3. NSW Health PD2007_052 - Sharps Injuries - Prevention in the NSW Public Health System - http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2007_052.pdf
4. SCHN Policy – Clinical Research [DRAFT]
5. SCHN Policy 2019-021 – Clinical Research - Use of Laboratory Facilities - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4643>
6. SCHN Policy 2014-9061 - Sharps Injuries - Prevention in the NSW Public Health System - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/3295>
7. SCHN Policy 2015-9070 – Waste Management - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/3649/>
8. SCHN Practice Guideline 2016-9029 - Personal Protective Equipment for Infection Control - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/2609>
9. SCHN Procedure 2019-012 – Clinical Research - Bio Specimen Collection, Processing and Shipping - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4626>
10. SCHN Procedure 2019-010 – Clinical Research - Equipment and Supplies – Maintenance and Calibration - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4622>
11. SCHN Procedure 2019-027 - Clinical Research - Personnel Qualifications and Training Records - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4623>
12. SCHN Procedure 2019-028 – Clinical Research – Personnel Roles and Responsibilities - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4624>
13. SCHN Procedure 2019-145 – Clinical Research - Record Keeping - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4661>
14. SCHN Procedure 2019-015 – Clinical Research – Storage of Chemicals - <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4641>

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