SESLHD PROCEDURE COVER SHEET

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FUNCTIONAL GROUP(S)	Clinical Governance; Infection Control
KEY TERMS	PAPR, Purchasing, Elastomeric Respirator
SUMMARY	Viral respiratory infections (including COVID-19) are primarily spread through respiratory particles and aerosols, and require the use of airborne, droplet and contact precautions during patient care. Aerosols are smaller than droplets and transmission can occur via these small-particle aerosols. These are unseen and can remain suspended in the air for prolonged periods and over a greater distance. Airborne precautions, including a correctly fit checked P2/N95 mask for respiratory protection, are recommended for aerosol-generating procedures (AGPs). P2/N95 respiratory protection is recommended for staff when performing aerosol-generating procedures (AGPs) with COVID-19 positive patients. PAPRs/Elastomeric Respirators may be an alternative for staff who are unable to use a standard P2/N95 respirator or for prolonged use in specific circumstances. This protocol serves to provide an over-arching governance framework that is applicable for all SESLHD facilities, and thus ensures a level of standardisation with respects to how PAPRs are acquired and utilised.

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Governance of purchasing Powered Air-Purifying Respirators (PAPRs) and Elastomeric Respirators

SESLHDPR/688

1. POLICY STATEMENT

This document outlines the mandatory governance process that must be followed prior to implementation of Powered Air-Purifying Respirators (PAPRs) or Elastomeric Respirators in SESLHD facilities.

2. BACKGROUND

A variety of PAPR/Elastomeric Respirator designs are currently available on the market. The current PAPR models available can be categorised by having either a tight-fitting face piece or loose-fitting hood/helmet.

PAPRs are an alternative to P2/N95 respirators in selected circumstances, and consist of battery powered hoods, helmets, or face pieces with a blower. The blower forces ambient air through air-purifying elements (a filter cartridge) to the inlet covering (a hood or helmet). The blower then pushes the filtered air into the face piece, which covers the mouth and nose or the user's face. This process creates an air flow inside either a tight-fitting face piece or loose-fitting hood or helmet, providing an assigned protection factor (APF).

Elastomeric Respirators are reusable devices with exchangeable cartridge filters. They are normally tight fitting with a half or full-face piece. Due to complexities surrounding face shape of the wearer, it can be difficult to achieve a satisfactory face seal.

It is well documented that care should be taken on removal of PAPRs, which is associated with a high risk of contamination.

Several considerations must be taken into account prior to purchase of PAPRs/Elastomeric Respirators to ensure systems purchased are safe for use in a healthcare setting. PAPRs/Elastomeric Respirators are one potential part of a Respiratory Protection Program and are not the first line of defence against acquisition of respiratory infections in the workplace.

3. RESPONSIBILITIES

3.1 Employees will:

- Comply with the requirements of this procedure
- Report non-compliance with this procedure
- Report any injury caused whilst using this equipment i.e., facial pressure injury.

3.2 Line Managers will:

- Inform equipment managers, purchasing officers and representatives of sponsors of the requirement of this process.

3.3 District Managers/ Service Managers will:

- Implement the requirements of the procedure.

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3.4 Sterilisation Services Department (SSD) Managers will:

- Review and sign off protocol for cleaning and disinfection of all reusable components of PAPRs/Elastomeric Respirators to reduce the risk of a healthcare worker donning an item that has not been effectively reprocessed since its last use.

3.4 Work Health and Safety Managers, Infection Prevention and Control Practitioners, Infectious Disease Medical Officers will:

- Review written protocols and donning and doffing sequence as part of an implementation plan.

4. PURCHASING OF PAPRS OR ELASTOMERIC RESPIRATORS

4.1 Procurement considerations

Staff must ensure the following in line with the NSW Health Policy Directive PD2023_028 – NSW Health Procurement (Goods and Services) Policy and the SESLHD overview of the latest Procurement Policy and Procedures issued through the Ministry of Health not limited to:

- Current whole-of-health contracts and prequalification schemes or whether item to be procured direct from market
- Obtaining a minimum of 3 (three) quotes where purchase is above $30,000 with recommendation for selection
- Procurement risk assessment tool for purchases over $30,000
- Evaluation forms and Request for Clinical Product evaluation must be completed for new purchases not currently on whole-of-health contracts or previously evaluated in SESLHD facility; and approved by site Products Committee prior to purchase

4.2 Technical Considerations when purchasing PAPRs or Elastomeric Respirators

The following elements must be considered:

- Level of protection
- Assigned protection factor (APF)
- Level of fluid resistance (generally not provided with Elastomeric Respirators)
- Exhalation valves
    - Presence of filter on exhalation valve
    - Need for wearing of mask under or over face piece
- Comfort for the wearer
- Exclusions for use i.e. loose fitting PAPR (surgery etc)
- Whether Fit Testing is required for use
    - Factors that inhibit successful fit testing i.e. facial hair
    - Fit testing frequency and criteria for repeat testing i.e. weight loss
- Presence of integrated eye protection; and protection from neck up
    - Need for further integrated PPE from the neck up i.e. eye protection
- Ability to perform clinical care during use

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  - Line of sight and visual fields; and effects on posture and neck alignment
  - Ability to hear and communicate with others
  - Ability to undertake clinical duties i.e. use stethoscope
- Ability to clean and disinfect post use
  - Disposable components versus reusable
  - Manufacturer's instructions
  - Approval to send to central sterilising unit by SSD Manager
- Preventative Maintenance Agreement
  - PAPR batteries
  - Cartridge changes and schedule for changing filters
  - End of service life indicators
  - Schedule for equipment inspections for problems
- Education and Training program
  - Training shall be provided by competent person
  - Training should cover fit checking, fit testing, appropriate use, donning, doffing, cleaning and disinfection, maintenance, filter change and storage
  - Donning and doffing sequence must be in line with CEC principles; and be approved by site Infection Prevention and Control Department, WHS team
- Creation of local procedures
  - Approval for content of procedures must be sought by site Infection Prevention and Control Department, WHS team
  - Document to be endorsed by site Infection Prevention and Control Committee

5. DOCUMENTATION

- In conjunction with quotes, recommendations for purchasing as per Section 4.1 Procurement considerations.
- Once PAPR or Elastomeric respirator purchasing approved, sites utilising devices must have written procedures in place which cover:
  - Safety: indications /contraindications for use, preparation prior to donning (calibration, parts inspection, manufacturer flow test), fit testing (if required), procedure steps for donning and doffing.
  - Preventative Maintenance: procedures and schedules for filter and cartridge changes
  - Cleaning and disinfection: Clearly described process for the cleaning and disinfection of all reusable components.
- For further guidance on the use of PAPRs and Elastomeric Respirators, staff should refer to the latest Clinical Excellence Commission (CEC) core guidance resources.

6. AUDIT

- Purchasing audits and records
- Infection Control Committee endorsement of records

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7. REFERENCES

- Clinical Excellence Commission Infection Prevention and Control Management of COVID-19 in Healthcare Settings
- Clinical Excellence Commission Respiratory Protection in Healthcare
- NSW Health Policy Directive PD2023_028 – NSW Health Procurement (Goods and Services) Policy
- SESLHDPR/307 – Sterilisation: Purchasing of Reusable Medical Devices (RMDs) and reprocessing equipment
- SESLHD Finance and Corporate Services, Financial Operations 2020 SESLHD Procurement Policy and Procedures

8. VERSION AND APPROVAL HISTORY

Date	Version	Version and approval notes
September 2020	DRAFT	New procedure drafted by Dr Claudia Whyte, SESLHD Manual Working Party and Dr Christopher Weatherall.
October 2020	DRAFT	Endorsed by COVID-19 Infectious Diseases and Infection Control Practitioners Committee and Executive Sponsor.
December 2020	0	Endorsed by SESLHD Clinical and Quality Council for publication
15 November 2023	1.0	Minor review: Author changed to SESLHD Manual Working Party in line with other SESLHD IPCC procedures, minor wording changes, hyperlinks updated with most current versions. Approved by SESLHD Infection Control Committee.

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