SESLHD PROCEDURE COVER SHEET

Health
South Eastern Sydney
Local Health District

NAME OF DOCUMENT	Aerosol-generating interventions (AGI) for acute respiratory infections
TYPE OF DOCUMENT	Procedure
DOCUMENT NUMBER	SESLHDPR/754
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LEVEL OF EVIDENCE	National Safety and Quality Health Service Standards: Standard 3 – Preventing and Controlling HealthCare-Associated Infections
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FORMER REFERENCE(S)	SESLHDBR/094 – Aerosol-generating interventions (AGI) for conditions during the COVID-19 pandemic period
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FUNCTIONAL GROUP(S)	Cardiac and Respiratory Care Infection Control
KEY TERMS	Aerosol-generating procedures
SUMMARY	To ensure a safe clinical environment for clinicians and patients. To minimise delay in initiating standard aerosol generating therapies/diagnostics in the treatment of respiratory or cardiac conditions.

Aerosol-generating interventions (AGI) for acute respiratory infections

SESLHDPR/754

1. POLICY STATEMENT

The procedure will be followed to minimise delay in initiating standard aerosol generating therapies/diagnostics in the treatment of respiratory or cardiac conditions.

2. BACKGROUND

Non-invasive ventilation, high flow nasal oxygen (HFNO), spirometry, nebulisers and cough insufflator/exsufflator machines and some physiotherapy techniques may increase the risk of transmission of respiratory infections to staff members and other patients as they are Aerosol Generating Procedures (AGPs).

AGPs create smaller respiratory particles due to the rapid movement of air or gas over a moist surface. Many procedures can generate aerosols, increasing the risk of transmitting respiratory viruses.

3. RESPONSIBILITIES

3.1 Line Managers will:

- oversee the correct use of the procedure.

3.2 Clinicians will:

- comply with the content of the procedure.

4. PROCEDURE

4.1 In scope therapies:

Aerosol-generating therapies:

- Non-invasive ventilation (NIV) including bilevel positive airway pressure therapy (Bi-PAP or VPAP)
- Continuous positive airway pressure therapy (CPAP)
- High flow nasal oxygen therapy (HFNO)
- Nebulisers
- Cough insufflator/exsufflator machine
- Other AGI/AGP therapies i.e. sputum induction, Positive Expiratory Pressure (PEP) device use, suctioning and manual assist cough.

Aerosol-generating diagnostics:

- Spirometry
- Peak flow monitoring

4.2 Application:

Includes: Adult inpatients in general ward areas, Coronary Care Unit, Emergency Departments (ED), outpatients and patients enrolled in Respiratory Coordinated Care Programs (RCCP) and other community patients utilising the above in scope therapies.

Excludes: Intensive Care, Recovery, Anaesthetics and Operating Theatres, Obstetrics, Paediatrics.

4.3 Risk Assessment

A risk assessment must be conducted prior to the initiation of any of the above AGPs to assess if a patient has signs/symptoms of an acute respiratory infection (ARI). Alternative therapies and investigations that avoid AGPs must also be considered. Non-urgent AGPs should be deferred if the patient has a suspected or confirmed ARI. In the event an AGP must be performed, and the patient has a suspected or confirmed ARI, please adhere to the 'Key Considerations' (section 4.4).

The risk assessment must be conducted by either a medical registrar, intensive care registrar, ED registrar, Advanced Trainee, consultant medical officer, respiratory Clinical Nurse Consultant (CNC) or a senior physiotherapist.

4.4 Key Considerations:

- AGPs on patients with suspected or confirmed acute respiratory infections (ARIs) should involve the **minimum necessary healthcare workers (HWs)**, with the **most qualified** person performing the procedure.
- **Nebulisers are not recommended**. Alternative medication delivery methods, such as a pressurised metered-dose inhaler with a spacer, should be used.
- If an AGP is unavoidable (i.e. a nebuliser) in a patient with a confirmed or suspected ARI. Please ensure the below is adhered to:
    - Isolate the patient.
    - Use a **negative-pressure room** if available; otherwise, a single room with the door closed.
    - HWs performing AGPs should utilise **contact, droplet, airborne precaution** precautions, including an **impervious gown, gloves, P2/N95 respirator, and eye protection**.
    - If remaining in the room continue **airborne** precautions **for at least 30 minutes post-treatment**, depending on air exchange rates. If unsure contact your infection prevention and control team.
- Cardiopulmonary resuscitation. While, providing CPR for patients suspected or confirmed to have an ARI utilise **contact, droplet airborne** precautions.

4.5 Ceiling of Care

For adults being admitted to hospital a discussion regarding ceiling of care should be held either at the time of admission or as soon as practicable. This includes appropriate documentation of ceiling of care and resuscitation orders in the event of initial treatment failure.

4.6 Transmission based precautions

As per CEC Infection Prevention and Control Manual - Acute Respiratory Infections including COVID-19:

- Summary table: COVID-19 and other ARI risk assessment guide for PPE selection for direct care of patients, page 60, and

- Appendix 4A: Application of transmission-based precautions – visual guide to PPE, page 77.
- SESLHDPR/581 - Management of Acute Viral Respiratory Illness (including influenza and COVID-19)

4.7 Selection of PPE

As per the CEC Infection Prevention and Control Manual - Acute Respiratory Infections including COVID-19:

- NSW IPAC Framework for Respiratory and COVID Safe Healthcare, page 54 – 59.
- ARI/COVID-19 PPE in Allied Health procedures, Appendix 4C, page 79 – 81.
- SESLHDPR/581 - Management of Acute Viral Respiratory Illness (including influenza and COVID-19)

4.8 Changes to Nurse / Allied Health initiated therapies

NB: There are no standing orders for nurse/allied health-initiated nebulisers.

Senior physiotherapists may perform spirometry, peak flow testing, cough assist machine and other physiotherapy techniques as listed in 4.1 after an appropriate risk assessment.

4.9 Changes to therapies

Nebulisers	• Nebulisers, including normal saline nebulisers, are a medication and must be charted in eMR by a medical officer • Spacers and metered dose inhalers or dry powdered devices are the recommended delivery system for inhaled medications. The decision to use nebulisers can only be made after a risk assessment by either a medical registrar, intensive care registrar, ED registrar, Advanced Trainee, consultant medical officer, respiratory CNC OR a senior physiotherapist.
Tracheostomy or laryngectomy management	• Patients with a tracheostomy or laryngectomy requiring regular normal saline nebulisers /continuous humidification will require a risk assessment by either a medical registrar, intensive care registrar, ED registrar, Advanced Trainee, consultant medical officer, respiratory CNC OR a senior physiotherapist. • Site specific management of in-line suction and closed circuits will be described in clinical business rules.
Domestic CPAP/Bi-level devices	• For inpatients requiring domestic CPAP/Bi-level device therapy, a risk assessment should be conducted by the attending medical consultant of the admitting team prior to use of the device
Spirometry	• Ward spirometry will be performed on request. A risk assessment should be attended prior to consideration for spirometry. PPE requirements and location for procedure will be determined during the risk assessment. • An in-line viral filter must be used.

5. DOCUMENTATION

Documenting the Risk Assessment: The risk assessment should be highlighted/flagged in the medical record by using a heading such as Risk Assessment for AGP.

The documented Risk Assessment for AGP in the medical record must state:

- actual clinical benefit of or specific indication for the AGP or alternative therapies
- if the patient as a suspected or confirmed ARI
- assess the clinical setting and the most appropriate **location** for the aerosol generating procedure (AGP) or investigation
- type of accommodation and type of precautions according to CEC guidelines.

6. AUDIT

Via ims+ reporting

7. REFERENCES

1.	Spirometry | Emergency Care Institute
2.	CEC Infection Prevention and Control Manual - Acute Respiratory Infections including COVID-19
3.	SESLHDPR/581 - Management of Acute Viral Respiratory Illness (including influenza and COVID-19)

8. VERSION AND APPROVAL HISTORY

Date	Version	Version and approval notes
May 2023	4	Business rule SESLHDBR/094 converted to a district procedure. Minor review to include further information in Sections 1, 4.1, 4.3 and 4.7. Approved by Executive Sponsor.
1 October 2025	5.0	Major review to address changes in management of COVID-19. Risk rating reduced from high to medium. Approved by SESLHD Patient Safety and Quality Committee and Chief Executive.