

Routine Practices for Aerosol Generating Medical Procedures

Policy: Routine Practices

Revised Date: February 2021

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Aerosol generating medical procedures (AGMP) are any procedure performed on a patient that can induce the production of aerosols of various sizes, including droplet nuclei. Medical procedures that generate aerosols or droplet nuclei in high concentrations can present a risk for opportunistic airborne transmission of pathogens that are not otherwise spread via the airborne route (e.g. COVID-19) and can increase the risk for transmission of organisms known to spread by the airborne route (e.g. TB). **The following procedures are considered AGMP:**

Protected

- Endotracheal intubation
- Code Blue
- Bronchoscopy

Specialized High Flow Oxygen Delivery

- High frequency oscillation ventilation/jet ventilation
- Manual ventilation
- AIRVO, Optiflow
- Laryngeal mask airway (LMA)
- Non-invasive positive pressure ventilation (CPAP, BiPAP)

Respiratory Tract Manipulation

- Sputum induction *
- Chest tube insertion for trauma
- Oral, pharyngeal, transphenoidal and airway surgeries
- Open suctioning
- Tracheostomy insertion/tracheostomy tube change/decannulation
- Autopsy*
- Breath stacking
- Extubation

Some Dental Procedures***

All healthcare workers should perform a Point of Care Risk Assessment (PCRA) prior to performing an AGMP to ensure the appropriate personal protective equipment (PPE) and environmental controls are used.

When performing an AGMP on any patient the following infection control practices and principles are required:

Patient Presentation	PPE Required	Environmental Controls
Unable to Assess	N95 mask, Face shield, Gown, Gloves	Negative pressure room preferred When negative pressure is not available, and for all other AGMP • Private room with door closed, • In shared space with curtains drawn and $\geq 2\text{m}$ segregation from other patients
Routine Practices, No additional precautions required	Mask with eye protection, PLUS Point of Care Risk Assessment	Private room with door closed preferred If not available, in shared space with curtains drawn and $>2\text{m}$ segregation from other patients
Universal Precautions - Droplet, Contact	Mask with eye protection, Gown, Gloves	
Additional Precautions – Droplet, Contact Influenza, RSV	Mask with eye protection, Gown, Gloves	
Additional Precautions – Airborne Tuberculosis, Chickenpox, Disseminated shingles	N95 mask with eye protection, PLUS Point of Care Risk Assessment	Negative pressure room preferred When negative pressure is not available, and for all other AGMP • Private room with door closed, • Emergent only • In shared space with curtains drawn and $\geq 2\text{m}$ segregation from other patients
Infectious Disease Threat or Disease of Emerging Significance COVID-19, MERS-CoV, Ebola**	N95 mask, Face shield, Gown, Gloves	
Protected Protocol	Level III gown (or higher), N95 mask, Extended cuff gloves, Face shield, Goggles or protective eyewear, Bouffant cap	

*N95 and negative pressure must always be utilized when performing sputum induction due to risk of TB

**Ebola also requires use of [Specialized PPE](#)

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The following procedures are NOT considered AGMP:

Procedure

- Chest compressions alone
- Chest tube removal or insertion (except for trauma/emergent insertion)
- Gastroscopy or colonoscopy
- Laparoscopy (GI/Pelvic)
- ERCP
- Cardiac stress test
- Caesarian section or vaginal delivery (with epidural)
- Any procedure with regional anesthesia
- Electroconvulsive therapy (ECT)
- Transesophageal Echocardiogram (TEE)
- Nasogastric, nasojejunal, gastrostomy, gastrojejunostomy, jejunostomy tube insertion
- Bronchial artery embolization
- Chest physiotherapy (outside of breath stacking)

Testing

- Collection of NP or throat swab

Oxygen/Medication Administration

- **Routine** High-flow oxygen delivery: By nasal prongs, venturi/venti masks, HiOx masks, non-rebreather masks
- Intranasal medication administration
- Nebulized medication administration

Patient Care

- Coughing
- Oral suctioning
- Oral hygiene
- Ventilator circuit disconnect

Definitions:

Endotracheal intubation: The placement or removal of any airway device (i.e. endotracheal tube, laryngeal mask, airway) or the use of a laryngoscope to aid in insertion of feeding tube or removal of foreign body

Sputum induction: Delivery of 3% hypertonic saline to obtain respiratory secretions from patients with symptoms of TB; the hypertonic saline is delivered via small volume nebulizer

Manual ventilation: Any ventilation with a manual resuscitation bag via an artificial airway or mask; includes the use of the breath stacking device, in-exsufflator, or any other cough generating procedure.

Non-invasive positive pressure ventilation (CPAP, BiPAP): The delivery of ventilatory support without the need for an invasive, artificial airway; enhances breathing by giving the patient a mixture of air and oxygen from a flow generator through a fitted facial mask or nasal mask.

Open suctioning (not inclusive of oral suctioning): Suctioning a patient utilizing either a single use (open) catheter or in-line suction catheter below the vocal cords (Lower respiratory tract). The patient may or may not have an artificial airway in place

***For dental procedures please refer to departmental specific SOPs