# Anesthesia/OR PPE guidance

### **General Guiding Principles**

- No amount of PPE is protective to you unless you take basic measures to prevent transmission:
- Wash your hands, with soap and water, or hand sanitizer, for at least 20 seconds. Do this before and after each patient encounter, before you eat or drink, after you go to the bathroom, and any time your hands are soiled.
- Don't touch your face, eyes, nose, or mouth.
- Social distancing stay at least 6 feet away from your colleagues.
- Decrease number of personnel in any room or area (patient's room, provider office, cafeteria table, etc)
- When not at work, shelter at home, per Governor's order.
- Wash your hands.

#### **Guiding Principles for Clinical Care**

- Consult teams should strongly consider whether a face-to-face patient encounter is necessary to give recommendations. If so, consultants follow algorithms for each individual unit. If an N-95 mask is obtained during the day, the single mask should be utilized for all N95-requiring procedures throughout the day, providing it is not soiled, saturated, or damaged.
- Avoid AGPs as feasible especially nebulizers, venturi-mask, face-tent, trach-collar
- The fewest people necessary for a given procedure should enter the room to preserve PPE

#### **Guiding Principles for Surgical Care**

- Any operative, minimally invasive, or percutaneous procedures which can be safely deferred during the COVID-19 pandemic should be postponed. Prior to being performed, all procedures should be assessed as to absolute clinical necessity in order to prevent potential unnecessary exposures and preserve PPE.
- While there has not been documented aerosolization of virus during laparoscopies, orthopedic, abdominal, gynecological, and urological cases, suctioning of bovie smoke, minimizing pressure of pneumoperitoneum, and deflating pneumoperitoneum are reasonable measures to employ during applicable surgeries/procedures.
- Note: since the negative predictive value of COVID testing is not known at this time, COVID test results will not currently be taken into account when deciding choice of PPE.

### **Types of PPE**

- Standard Surgical PPE: Surgical mask, eye protection, fluid resistant/sterile gown, sterile gloves, bouffant head cover, hospital-issued scrubs
- COVID Surgical PPE: N95, procedure mask over N-95, eye protection, fluid resistant/sterile gown, double sterile gloves, bouffant head cover, hospital-issued scrubs
- Augmented COVID surgical PPE: PAPR/CAPR (no additional mask needed), eye protection, fluid resistant/sterile gown, double sterile gloves, bouffant head cover, hospitalissued scrubs
- COVID PPE: N95, procedure mask over N95, eye protection, yellow isolation gown, gloves, bouffant head cover, hospital-issued scrubs
- For those who cannot use an N95, please see separate document on PAPR/CAPR guidance
- Augmented PPE (including use of PAPR/CAPR) outside of the guidance in this document is at the discretion of the hospital epidemiologist (Dr. Meghan Brett)

• Standard Precautions make use of common sense practices and personal protective equipment use that protect healthcare providers from infection, and prevent the spread of infection from patient to patient. These measures include practicing excellent hand hygiene, appropriate PPE use if possible exposure to infectious material anticipated, respiratory hygiene/cough etiquette, safe injection practices and handling of sharps, appropriate handling, cleaning, and disinfecting of the environment, laundry, etc.

### **Procedural risk levels:**

Ultra-High Risk Procedures	High Risk Procedures	Low Risk Procedures
<ul> <li>Any procedures on the glottis, oropharynx,</li> </ul>	All thoracic surgery requiring lung isolation or	Any transcutaneous ENT procedure
nasopharynx, mastoid, or sinuses	tracheal / pulmonary resection	<ul> <li>Laparoscopy (endoscopic or robotic-assisted)</li> </ul>
<ul> <li>Any ENT/OMFS procedures using cautery, laser,</li> </ul>	Flexible Bronchoscopy of lower airways through	Majority of orthopedic, abdominal, gynecological,
drill or saw use within airway/oral cavity	ETT	and urological cases
Any procedures utilizing operative rigid	<ul> <li>Diagnostic bronchoscopy <u>+</u> lavage, brushing,</li> </ul>	Majority of orthopedic, abdominal, gynecological,
laryngoscopy or rigid bronchoscopy	biopsy, transbronchial biopsy or similar.	and urological cases
Any procedures on the subglottic airway involving	Double lumen tube placement <u>+</u> blocker	GI Lower Endoscopy
incision of the airway (tracheostomy), dilation of	Upper GI Endoscopy	PICC
the airway, laser or electrocautery debridement of	NG/OG tube placement in non-intubated patients	Cesarean section
the airway	TEE, cardioversion	Tunneled central lines
	Electroconvulsive therapy (ECT)	Everything else

# 1. Anesthesia personnel

Scenario	Isolation	Roles	PPE for Patient	PPE for Anesthesia personnel	
Low – high risk procedure requiring	Airborne + contact +	Physicians	Procedure mask prior to	COVID PPE	
intubation/extubation, GA	eye protection	CRNAs	intubation and post		
		Anesthesia	extubation		
		assistants			
Ultra-high risk procedure	Airborne + contact +	Physicians	Procedure mask prior to	Augmented COVID PPE	
- Intubation/extubation, GA	eye protection	CRNAs	intubation and post		
- Patient intubated prior to OR		Anesthesia	extubation		
		assistants			
Low risk procedure with regional/MAC or non-	Standard surgical	Physicians	Procedure mask	-Standard surgical PPE	
AGP anesthesia	precautions	CRNAs			
		Anesthesia			
		assistants			

High risk procedure with	Airborne + contact +	Physicians	Procedure mask	COVID PPE
- Regional/MAC	eye protection	CRNAs		
- Patient intubated prior to OR		Anesthesia		
		assistants		
Low risk procedure	Airborne + contact +	Physicians	NA	Standard PPE
Patient intubated prior to OR	eye protection	CRNAs		
		Anesthesia		
		assistants		

# 2. Surgical personnel: Surgeons, scrub nurses, techs, etc.

				PPE for Surgical	Wait Time Between Intubation/Extubation OR Door Opening
Scenario*	Isolation	Roles	PPE for Patient	personnel	for entry or exit of any team members.
Low risk procedure requiring intubation/extubation, GA	Droplet + contact + eye protection	Physicians, APPs Nurses Techs	Procedure mask prior to intubation + post-extubation	Standard surgical PPE	15 minutes
Low risk procedure requiring intubation/extubation, GA Emergent case – ie when waiting 15 minutes to enter room is not feasible  -OR- High risk procedure requiring intubation/extubation, GA	Airborne + contact + eye protection	Physicians, APPs Nurses Techs	Procedure mask prior to intubation + post- extubation	COVID surgical PPE	Intubation: No delay, providing all team members present in OR with PPE on at time of intubation Extubation: 15 minutes
Ultra-High-Risk procedure requiring intubation/extubation, GA	Airborne + Contact + Eye protection	Physicians, APPs Nurses Speech therapists Techs	Procedure mask prior to intubation + post- extubation	Augmented COVID surgical PPE	Intubation: No delay, providing all team members present in OR with PPE on at time of intubation Extubation: 15 minutes
Low risk procedure with regional/MAC or non-AGP anesthesia	Standard surgical precautions	Physicians, APPs Nurses Techs	Procedure mask	-Standard surgical PPE -May consider COVID PPE for COVID+/rule out or high risk of conversion to GA	No delay

High risk procedure with	Airborne +	Physicians, APPs	Procedure mask	COVID surgical PPE	15 minutes after procedure ends
regional/MAC	contact + eye	Nurses			
	protection	Techs			
Low risk procedure	Airborne +	Physicians, APPs	NA	Standard surgical	If extubated in OR, 15 minutes after
Patient intubated prior to OR	contact + eye	Nurses		PPE	extubation
	protection	Techs			
High risk procedure	Airborne +	Physicians, APPs	NA	COVID surgical PPE	15 minutes after procedure ends
Patient intubated prior to OR	contact + eye	Nurses			
	protection	Techs			
Ultra-high risk procedure	Airborne +	Physicians, APPs	NA	Augmented COVID	15 minutes after procedure ends
Patient intubated prior to OR	contact + eye	Nurses		surgical PPE	
	protection	Techs			

<sup>\*\*\*</sup>For all known COVID +/PUI, all OR personnel must don COVID PPE or Surgical COVID PPE. \*\*\*

# Abbreviations/Definitions:

AGP – aerosol generating procedure

APP – advanced practice providers including nurse practitioners, physician assistants, pharmacist clinicians, etc

CAPR - controlled air purifying respirator

COVID – Coronavirus disease, clinical syndrome caused by the novel SARS-CoV-2 coronavirus

C/S – Caesarian section

CTICU – Cardiothoracic Intensive Care Unit

ENT – Ear, Nose, Throat

EVS – environmental services

GA – general anesthesia

HCP – healthcare personnel

MAC – Monitored Anesthesia Care

MEC in ED – Metabolic, Encephalopathic, Combative unit in the Emergency Department: has 4 negative pressure rooms

MICU – Medical Intensive Care Unit

NICU – Neonatal Intensive Care Unit

NSI – Neurosciences Intensive Care Unit

OMFS – Oral Maxillofacial Surgery

OT – occupational therapists

PAPR - powered air-purifying respirator

PED – Pediatric Emergency Department

PICU – Pediatric Intensive Care Unit

PPE – personal protective equipment

PT – physical therapist

PUI – person under investigation (ie laboratory testing for COVID-19 is pending)

RACC – Respiratory Acute Care Center for COVID+ or rule-out patients who require admission, higher levels of care

RCC – Respiratory Care Center, the triage area currently in BBRP (Bill and Barbara Richardson Pavilion)

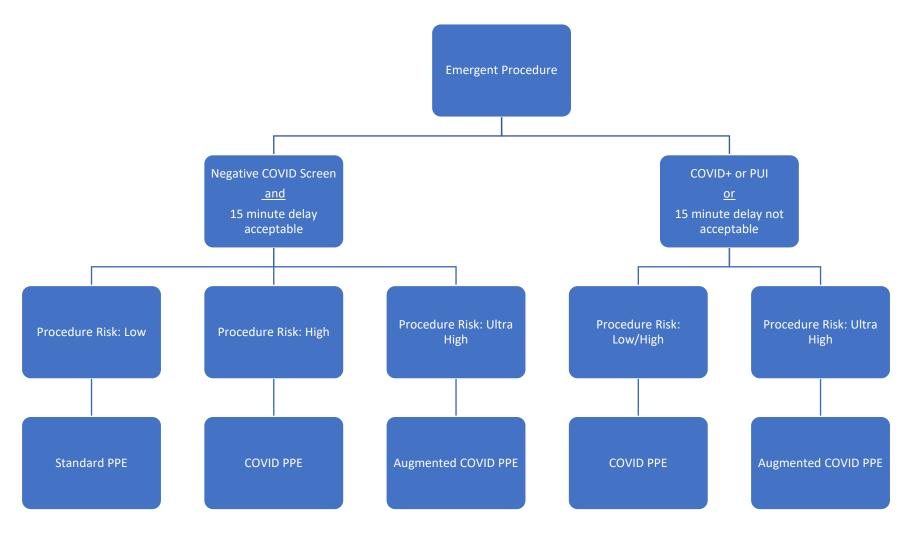
RICC – Respiratory Intermediate Care Center for COVID+ or rule-out patients who can discharge home after interventions

RTs – respiratory therapists

TSI – Trauma Surgery Intensive Care Unit

UC – Urgent Care

WSC - Women's Specialty Care



- For all known COVID +/PUI, all OR personnel must don COVID PPE or Surgical COVID PPE.
- For all cases in which it is not acceptable to wait 15 minutes after intubation, all team members must be in the room having already scrubbed and donned their COVID Surgical/COVID PPE (for high risk procedures) and Augmented COVID Surgical/Augmented COVID PPE (for ultra-high risk procedures) at the time of intubation.
- The PPE Committee continues to review the emerging SARS-CoV-2/COVID-19 literature, professional guidelines, and expert opinions. and updates will be made to these documents on a rolling and as needed basis.