### COVID-19 Surgical Patient Checklist*

To minimize healthcare provider exposure when operating on COVID+ or suspected patient

#### PREOPERATIVE

**Team Briefing**
- Surgeon, Nurse, Anesthesia Provider & OR Runner
- Anesthesia & Surgical plan
- Plan for outside OR Runner to deliver supplies if needed
- Minimize traffic, keep patient chart & staff belongings outside OR
- Recovery plan

**Setup**
- Nurse
  - COVID notification sign on door
  - PPE available
  - Viricidal cleaning supplies available
  - Remove non-essential equipment
- Anesthesia Provider
  - Prepare drugs & equipment
  - Viral filter between patient & circuit
  - Dedicated tray for contaminated items

**Patient Transport to OR**
- Nurse, Anesthesia Provider & OR Runner
  - Anesthesia Provider and Nurse don PPE for transport
  - Surgical mask on patient during transport
  - OR Runner to clean stretcher after patient transfer
  - Perform WHO Surgical Safety Checklist Sign In*

#### INTRAOPERATIVE

**At All Times**
- All staff in OR wearing N95/FFP mask

**Induction**
- Essential personnel only
- Minimize aerosol generation
- If no airway intervention, patient wears surgical mask throughout case

**During Operation**
- Runner remains outside OR
- Perform WHO Surgical Safety Checklist Time Out* before incision
- Surgeon to minimize duration and aerosolization

**End of Case**
- Perform WHO Surgical Safety Checklist Sign Out*
- If patient to remain intubated, notify ICU
- If extubation, ONLY essential personnel remain inside OR
- Runner remain outside OR until patient transported

#### POSTOPERATIVE

**Recovery**
- Anesthesia Provider & Nurse
  - If extubated, recover patient in OR
  - Low flow oxygen
  - Dispose of unused medications or wipe vial with 70% alcohol**
  - OR documents placed in plastic sleeve
  - Surgical/Oxygen mask on patient during transport
  - Remove PPE after patient transferred

**WAIT ONE HOUR AFTER EXTUBATION TO CLEAN OPERATING ROOM***

**AFTER PATIENT LEAVES OR**

**Specimen Handling**
- All specimens double bagged
- Porter wears gloves for transport

**Operating Room Disinfection**
- Clean all surfaces (OR table, anesthesia machine, equipment, stools) - 0.5% chlorine or 70% alcohol
- Clean floor with 0.5% chlorine

**Waste Management**
- All materials from OR double bagged in plastic bag for disposal
- Spray waste bags with viricidal
- Transport wears gloves

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*To be used in conjunction with WHO Surgical Safety Checklist. This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.

**Cleaning and reuse of disposables during COVID-19 pandemic is not recommended if resources are adequate; these recommendations are for critical resource limitations only.

***This refers to standard unventilated room. Time may vary depending on OR ventilation system.

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1. AEROSOL GENERATING PROCEDURES

- Intubation & Extubation
- Positive pressure ventilation
- Manual Ventilation with Bag-Valve-Mask
- Open suctioning of respiratory tract
- High-flow oxygen administration
- Non-invasive ventilation
- Nebulized medications
- Venting CO2 in laparoscopy
- Smoke generated by cautery
- Use of high speed surgical devices
- Upper GI endoscopy, Bronchoscopy, Tracheostomy, upper airway endoscopy
- Dental procedures

TO MINIMIZE AEROSOL GENERATION

Consider:
- Alternative anesthesia techniques depending on patient condition and situation

If general anaesthesia required:
- Cover patient with clear plastic box or sheet during aerosolizing procedures
- Preoxygenate, low flows, minimize manual ventilation, use rapid sequence induction
- Cuffed ETT preferred, minimize leaks
- Inline suction if available
- Viral filter between patient & circuit elbow
- Essential airway personnel only. Others enter only after intubation complete
- Leave viral filter on ETT when disconnecting
- Must be viral (HEPA, HMEF or equivalent) filter to protect against COVID exposure (HME filter not protective)

2. PPE FOR PERIOPERATIVE STAFF

DONNING PPE FOR COVID+ OR

- Coach should be present to observe

1. Perform hand hygiene
2. Don head covering
3. Don N95 mask, place upper strap first, perform seal check
4. Cover N95 mask with surgical mask
5. Don eye protection/face shield
6. Don gown
7. Don gloves
8. Confirm PPE properly placed with coach

DOFFING PPE FOR COVID+ OR

- Coach should be present to observe
- Perform hand hygiene if contaminated at any step
- Hand hygiene can be performed over gloves to conserve supply

1. Remove gown, pull to side & untie in front
2. Remove gloves
3. Remove eye protection/face shield
4. Remove surgical mask, untie lower ties first
5. Remove N95, remove lower strap first
6. Remove head covering
7. Perform hand hygiene, change scrubs

WHY SHOULD STAFF IN OR WEAR N95?

- High risk of aerosol generation, may take 1 hour or more for aerosols to clear
- Potential for ongoing aerosolization in OR during surgical procedure
- Potential lack of anesthesia scavenging system, or lack of viral filter on circuit

3. DECONTAMINATING, CLEANING & REUSING EQUIPMENT

ANESTHESIA EQUIPMENT DECONTAMINATION

Do not reuse oxygen facemask or circuit between patients without decontamination**

Reprocessing oxygen facemask, ETT, suction & circuit tubing**

1. Brush under soap & water, clean internal and external portions thoroughly
2. Dip in 70% alcohol solution or 0.5% chlorine
3. Rinse with clean water
4. Dry completely before next use

- Patient trolley & all OR surfaces wiped with 0.5% chlorine or 70% alcohol solution
- Filters may be transferred with patient, but cannot be reprocessed or reused for a new patient

WHEN N95/FFP SUPPLY LIMITED

- Prioritize N95 for staff performing Aerosol Generating Procedures
- Consider alternative anesthesia (regional, sedation)
- Reprocess N95 for reuse (N95decon.org)**
- Wear surgical mask over N95 mask to minimize surface contamination
- Utilize protocols for extended use or reuse of N95 (www.cdc.gov)
- Train staff on PPE use & conservation

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