University Health System

Pediatric Code Blue Enhanced Isolation Guidelines–
COVID-19 Pediatric Patients (Confirmed or PUI)
Date: 5/22/2020

Background:
- The safety of the healthcare workers providing cardiopulmonary resuscitation (CPR) should be the top priority.
  No healthcare workers should be inside a code blue room without appropriate personal protective equipment (PPE).
- Unless explicitly stated in the document, patients with suspected or confirmed COVID-19 should be treated by previously established, standard protocols

Institutional Modification
- At the beginning of each shift, the pediatric PCC, PICU/PCCU Charge nurse, supervising pediatric RT, PICU/PCCU and COVID faculty must review the number of admitted pediatric patients with confirmed or suspected COVID, and review who among them may deteriorate clinically
- The goal is to **intubate early and electively, and avoid as many code blues and emergencies as possible**
- Pediatric code blue will be called overhead as standard procedure.

Patient selection
- **The following represents a general guideline and all decisions should be made on a case to case basis**
- **For unintubated confirmed or suspected COVID pediatric patients** (without significant medical comorbidities and the deterioration is unexpected) – **CPR should be provided**
- **For intubated confirmed or suspected COVID pediatric patients** Code status discussion should be carried out soon after intubation with the parents/ caregivers of patients confirmed to have COVID regarding prognosis and the utility of CPR

Equipment to brought to COVID area:

- **COVID Intubation PPE Bag**
  (In PICU Attending Office or PCCU airway cart; To be brought by PICU Attending):
- **COVID Pediatric Code Cart (IMC code cart with 2 two-way radios)**

> PEDIATRIC ISOLATION CODE BLUE BAG
> -10 face shields   *ETT (Size 3.0, 4.0, 5.0,6.0, 7.0)*
> -10 N95 masks (7 regular & 3 small)   - Stylets (Regular, Glidescope)
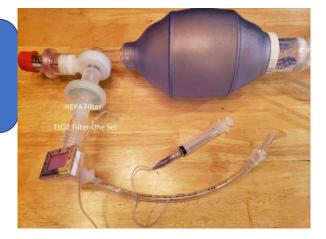> -10 surgical masks   - End Tidal CO2 colorimeter
> -10 gowns   - KY Jelly x2
> -10 regular gloves in each size   - Bougie x1
> -10 pairs of size 7.5 surgical gloves

- **Pediatric Airway Cart (Brought from Peds RT)**
- **COVID Airway Bag (To be carried by Anesthesia Team):**

> ISOLATION CODE MED PACK (in Crash Cart Med Tray)
>
> Epinephrine 1 mg Inj X 3   Dextrose 50% 50 mL Inj X 1
> Sodium bicarbonate 50 mEq Inj X 2   Calcium chloride 1 g Inj X 1
> Atropine 1 mg Inj X 1   Lidocaine 100 mg Inj X 1
>   Flushes

Code Team:

	Role	Responsibility
Inside	Physician 1- PICU	- Code Leader - Bring Intubation PPE bag - Communicator with Recorder*
	Physician 2- Anesthesia	- Airway Management - Bring COVID Airway bag
	Respiratory Therapist 1	- Compressions if No airway - Assist with airway - Vent setup/ maintenance
	Nurse 1 (Bedside Nurse)	- Start compressions - IV Access, lab draws, Med Administration
	Nurse 2	- Nurse assistance, Compressions; - Brings defibrillator, meds, 2-way radio
Outside	Nurse 3	- Hands equip/meds to Nurse 2 - Brings Iso code med pack and RSI kit - Communicate with Nurse 3
	Nurse 4	- Med drawing
	Nurse 5	- Recorder*
	Respiratory Therapist 2	- Equip support/ airway supply - Bring Glidescope
	Pharmacist	- Medication supply
	PICU APP/fellow UH3 Peds Resident	- Facilitate med orders - Alerting specialists
	Tech 1	- Supply runner/ Compressions
	Childlife/Chaplain/SW	- Family/staff support
	Tech 2	- Crowd control

PPE in accordance with current hospital guidelines – See UHS Personal Protective Equipment (PPE) Toolkit

When a Code Blue is Called
- Call code blue while OUTSIDE the room whenever possible
- All members must wear appropriate PPE, supplies available in the PEDIATRIC ISOLATION CODE BLUE BAG
- Don appropriate PPE before entering the room-
  NO PPE, NO RESUCITATION
  - **If patient has no pulse**:
    - **Begin Chest Compressions**
    - **If bag mask ventilated, ensure tight seal with HEPA filter applied**
    - **After ensuring O2 supplementation in place, cover the patient's face with a mask or towel to minimize droplets aerosolization and secretions contamination while performing chest compressions**
    - Wait for code team to arrive
  - **If patient has a pulse**:
    - Provide up to 15L via Oxy-mask
    - Wait for code team to arrive

When the Code Team Arrives and During the Code
- Physician team leader should don PPE and enter the room first
- **Code cart remains outside the room**
- Bring defibrillator, pads and backboard into the room
- Chest compressions may be paused while intubating to allow for increased first-pass success
- **If intubation is unsuccessful, convert to LMA early instead of multiple attempts**
- **For further details on intubating a COVID patient, refer to the "UHS COVID PCCM intubation procedure"**
- If the patient is already intubated, consider leaving the patient on the ventilator to maintain a closed circuit if there is no evidence of airway obstruction; if patient is on volume control, consider changing to pressure control due to chest compressions
- Any staff member who is unwell, has had equipment failure, or likely self-contaminated should be first to doff and exit the patient room
- **Weight based code sheets copies will lie in patient room and in green folder outside of room**

Intubation Procedure
- **Bag Valve Mask (BVM) Ventilation with HEPA Filter and ensuring a tight seal**
- PICU faculty will be the designated person to intubate to maximize first-pass success
- Rapid sequence intubation must be used to minimize chance of coughing
- **Videolaryngoscope (Glidescope)** would be preferred 1st choice
- Place clear, sterile drape/ plastic bag in preparation for intubation
- Provide appropriate preoxygenation via BVM
- Inflate cuff of endotracheal tube(ETT) prior to placing CO_2 Colorimetry or End-Tidal
- Connect ETT directly to ventilator after intubation if possible

After the Code
- **All non-disposable equipment (e.g. videolaryngoscope) must be wiped with hospital approved disinfectant wipes at least <u>TWICE</u> THOROUGHLY.**
- **All equipment should be cleaned in the room, and again once leaving the room**
- As a general rule, **ALL EXPOSED DISPOSABLE EQUIPMENT inside the code blue room must be DISCARDED EVEN IF UNOPENED**
- **Due to potential aerosolization, wait for 20 min before performing post-intubation chest radiography.**
- Any staff member who is unwell, has had equipment failure, or likely self-contaminated should be first to doff and exit the patient room
- Doff PPE ONE AT A TIME-

- Doff PPE slowly and carefully according to pre-existing protocol- Coached and monitored by designated hall monitor

UHS guidelines references in this document can be found at https://www.universityhealthsystem.com/coronavirus-covid19/healthcare-protocols-and-guidelines?web=1