

# In-patient Code Blue Response for Pediatric Patients (0-17 years of age) with Suspected or Confirmed COVID-19

# VGH PEDIATRIC CODE BLUE TEAM RESPONSE

15 June, 2020

**HIGHLIGHTS:** Pediatric Code Blue response will be different from adults. Primary causes of pediatric code blue are respiratory or neurological, therefore positive pressure ventilation by bag-valve-mask (BVM) will be provided based on patient need (using 2-hand technique and with appropriate PPE).

- Pediatric Code Blue will follow PALS algorithms for all confirmed or suspected COVID-19 patients.
- Defibrillator cart with listed medications will go into patient room.

PICU defibrillator cart serves PICU, 4C, and 4D. For Pediatric Code Blue in any other area, ICU RN brings cart. PEDIATRIC CODE BLUE TEAM: 1 PICU RN, 2 ICU RNs, 2 Respiratory Therapists (RTs), and Physician Team Leader (Team Leader will be Pediatrician until arrival of Pediatric Intensivist)

# 1. ARRIVAL AND ASSESSMENT PRE-PEDIATRIC CODE BLUE TEAM ARRIVAL:

# **RECOGNITION OF PEDIATRIC CODE BLUE:**

- The First Responder will enter the room, recognize or confirm that the patient requires code blue response, summon further help, and stay with the patient. They will lower bed to CPR position, apply O2 10L/min via mask, and attempt jaw thrust to open airway.
- The Second Responder will ensure Pediatric Code Blue has been called and delegates another staff member to bring
  the AED. Second Responder to bring emergency cart to room. Stays outside of room and passes CPR board from
  Emergency Cart in to First Responder. Provides confirmation to First Responder that Pediatric Code Blue has been
  called.
- Second Responder now dons AGMP PPE and enters the room. First and Second Responders place CPR board under the patient.
- Second Responder initiates compression-only CPR once First Responder leaves room. First Responder dons AGMP PPE
  and re-enters room if Pediatric Code Blue Team has not arrived. Second and First Responder to continue with
  compressions until further help arrives.

#### PEDIATRIC CODE BLUE ACTIVATION AND INITIAL RESPONSE:

- If Pediatric Code Blue called on 4C, 4D, or in PICU, PICU RN will bring defibrillator cart
- If Pediatric Code Blue called in any other area, ICU RN brings defibrillator cart
- ICU RN brings: Resuscitation Medication Kit, EZIO Box, 2 sets of AGMP PPE, and 4 sets of *Enhanced Intubation and Extubation PPE* Kits for Code Blue Team Members
- RT brings: Difficult airway bag

# 2. PREPARING TO ENTER ROOM:

### **ASSESSMENT**: Outside of patient room

- Pediatric Degree of Intervention status and infection precautions/COVID-19 status confirmed
- Safety assessment is completed to determine appropriate PPE prior to Code Blue Team entrance into room

# DEFIBRILLATOR CART: Defibrillator cart will go into room after items listed below are removed

- Cardiac Arrest Record and clipboard remain outside of room
- Open defibrillator cart, open top drawer and remove medication tray, remove from tray and take into room:
  - 3x Epinephrine 0.1mg/mL prefilled syringes
  - o 1x Midazolam 50mg/10mL vial
  - 1x Naloxone 4mg/10mL vial
  - 1x Atropine 1mg/10mL prefilled syringe
  - o 1x Dextrose 50% syringe
  - Leave remainder of medication tray outside of room

If there is confusion about which medications to take into the room, or if removing the listed medications is delaying care, leave the medication tray in the cart and take into room

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# PREPARING TO ENTER ROOM (con't)

# PPE:

- Team members who will be inside of room will don Enhanced Intubation and Extubation PPE with support from Logistics Lead/Documentation RN
- Team members who will be outside of room will don AGMP PPE, supporting each other to ensure proper donning
- Code Blue Team members must ensure all responders in the room are wearing appropriate PPE for planned procedures \*\*Note PPE of 1<sup>st</sup> and 2<sup>nd</sup> responders\*\* (Droplet + Contact PPE or AGMP PPE)

# 3. PEDIATRIC CODE BLUE TEAM RESPONSE:

PEDIATRIC CODE BLUE TEAM MEMBERS AND ROLES		
	Outside of Room Team	Inside of Room Team
PPE REQUIRED	<b>AGMP PPE:</b> Yellow gown, 1 pair of gloves, N95 mask, faceshield, bouffant (optional)	Enhanced Intubation and Extubation PPE: Bouffant, coveralls or blue gown, faceshield, N95 mask, 2 pairs of gloves
ROLE	<ul> <li>Ensure personnel entering room are in correct PPE and donning properly</li> <li>Confirms COVID status to all who respond</li> <li>Delegates tasks, such as runner role</li> <li>Crowd control</li> <li>Ensure parent has a space, provide support as able</li> <li>Ensures intubation checklist is used and complete</li> <li>Code blue documentation, or delegates documentation to a critical care-trained RN</li> <li>Potential personnel: PICU RN, PICU CNL, PICU CNE, ICU RN, Peds CNL/CNE, Step Up RN, Peds charge RN</li> <li>Gather equipment to pass into room</li> </ul>	Physician Team Lead/Airway Potential personnel: Pediatric Intensivist, Pediatrician, Anesthesiologist  PICU RN  Prepare meds Administer meds Rotate through CPR every 2 mins Help with bagging for 2-hand technique as needed Communicate with outside of room Take over team lead while physician intubates Ensure parent has a space, provide support as able  Supporting Code RN Check meds Communicate inside of room events to outside of room team Rotate through CPR every 2 mins Help with bagging for 2-hand technique as needed Ensure parent has a space, provide support as able Potential personnel: PICU RN, ICU RN  RT Airway support

# **ACTION: FOLLOW PALS ALGORITHM (CAB – COMPRESSIONS, AIRWAY, BREATHING)**

- Use 2-hand technique for BVM ventilation (2 hand hold of mask on face, second person to do bagging)
- Most experienced physician available will perform rapid sequence intubation (goal of first attempt success)
- Minimize personnel in room

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# PEDIATRIC CODE BLUE TEAM RESPONSE (con't)

### 2 Pediatric Code Blue Team RNs (1 PICU RN and 1 Supporting Code RN):

- Enter room with defibrillator cart and medications
- Prepare and check medications
- Consider use of Vocera, baby monitors, or walkie-talkies to support communication with outside of room
- Consider use of whiteboard in room, or dry erase marker on windows to enhance communication of events
- Ensure parent has a space inside room (preferred), or outside room wearing droplet and contact PPE (less ideal)
- Intubating physician may delegate team lead role to PICU RN during intubation procedure

### RT: Optimize patient oxygenation and ventilation:

- If BVM required, use 2-hand hold for mask, with assistance from PICU or Supporting Code RN for bagging
- Communicate via Supporting Code RN for Outside RT to gather additional supplies and equipment as needed

# <u>Physician Team Leader</u>: Most skilled physician to perform rapid sequence intubation

- Consider calling Anesthesia to support intubation
- Discusses plan for intubation so all team members are prepared. Delegate checklist and team lead role for duration of intubation procedure
- Video laryngoscopy, or most familiar method preferred for intubation
- \*\*\*Pause chest compressions for intubation\*\*\*

# 4. AFTER PEDIATRIC CODE BLUE:

#### **POST RESUSCITATION**

- Transfer patient to PICU COVID-19 isolation room ASAP
- Communicate prior to commencing transfer to ensure path is cleared of equipment and additional people
- Avoid CXR, ECG or any other testing until patient transferred to PICU COVID-19 isolation room
- Code Blue Team members from outside room (RN and RT) with clean AGMP PPE on will transfer patient to PICU COVID-19 isolation room
- Personnel from inside room must doff PPE appropriately and with supervision
- Once patient settled in PICU COVID-19 isolation room, the transport Code Blue Team members will DOFF PPE
- Code team members present in the room for intubation should shower, including hair wash, and put on clean scrubs
- Room used for intubation will remain on AGMP precautions for 69 minutes post intubation. Only necessary personnel should enter room before AGMP precautions discontinued.
- Ensure appropriate disposal or cleaning of contaminated equipment that was inside room. Paper-backed items and items that cannot be wiped with disinfectant should be discarded inside of room.

#### **CLEANING OF CONTAMINATED DEFIBRILLATOR CARTS**

- Call MDRD to request:
  - Loaner defibrillator (for use in PICU while dirty defibrillator is being cleaned)
  - o Replacement defibrillator cart
- Dirty defibrillator and portable suction machine
  - Place each item in a yellow bag and send to MDRD to clean (yellow bags have been placed on the defibrillator carts, or are available from Dirty Utility rooms, or from housekeeping)
- Cart:
  - o Place opened supply bins, used equipment, and individual medications that went into room into a yellow bag
  - o If medication tray stayed outside of patient room, place tray into clear bag
  - o If medication tray was taken into patient room, place tray in yellow bag

Inform MDRD that the cart was in COVID-19 confirmed/suspected code blue and will need to be "terminally cleaned"