RDTI Trauma protocol for patient care during COVID-19 pandemic

Routine ED screening for COVID-19

Upon entry into ED all patients are being asked about exposure to COVID patients, and if they are experiencing fever, cough, shortness of breath, or diarrhea. Any patient who screens positive is given a surgical mask and cohorted into a separate area in the waiting room.

EMS Triage nurse asks same questions on patients who enter building as well as any phone call notifications.

The pediatric ED is now a temporary Respiratory EC (REC) to cohort patients with suspicious symptoms who need advanced work-ups, therapeutics, and possible hospitalization. Any suspicious patients not needing this are screened out or discharged from triage area. If patient determined after initial work-up outside the REC to be COVID-19 PUI, patient should then be moved to REC if OR/inpatient bed not immediately available. COVID-19 OUI trauma patients may be moved to REC after stabilized and cleared by ED or Trauma attending.

Trauma activation protocol

All level 1 trauma activations will receive an immediate screening CXR and temperature upon arrival. Patients will be presumed positive for COVID-19 if they have a fever (oral or axillary temp > 100.0) or infiltrates on CXR or CT scan.

The following steps will be taken in presumed COVID positive patients (COVID PUI) to protect the healthcare team and conserve PPE. All COVID PUI patients will get the COVID test ordered in the EMR.

1. Ensure properly fitting surgical mask on patient if not intubated. All patients will have a surgical mask effective 3/28 per MH policy regardless of screening status.
2. Limit healthcare members in the trauma bay to those critical to patient safety.
   
   Adult level 1 activations
   
   Trauma team: one senior trauma team member (faculty, fellow, or chief) and one junior trauma team member (junior or intern) at discretion of trauma attending. Trauma attending will respond to all level 1 activations and be present in the ED during initial evaluation and stabilization.
   
   ED team: ED attending +/- resident, two nurses, no techs, one respiratory therapist (if patient is intubated or requires intubation), and one radiology technician (for the screening CXR and other necessary images). An ED tech will be stationed outside the trauma bay and retrieve supplies and medications as needed.
   
   Pediatric level 1 activations – physician staffing
   
   ED team: 1 ED attending (adult or pediatric) and 1 PEM fellow or EM resident
   
   Trauma Team: one trauma attending (adult or pediatric), and 1 senior physician (trauma fellow, Pediatric surgery fellow, or chief resident) at the discretion of the trauma attending. Stable patients may need less physicians at the bedside.
   
3. Patients with penetrating neck or chest trauma (GSW, stab, impalement) will be staffed by minimum necessary personnel (wearing N-95 mask) until the screening CXR and temperature can be assessed. For the hemodynamically stable patient (at discretion of trauma or ED
most providers can stay outside the trauma bay until the screening CXR and temperature is measured. Please follow steps in step 2 if the patient screens positive.

4. Clinicians performing high risk procedures\(^\dagger\) in trauma bay will wear full PPE including N-95 masks. Please minimize the number of clinicians in the trauma bay during the procedure to those critical to patient safety at the discretion of the trauma attending.

5. Any patient requiring immediate surgery will be posted with OR front desk in the normal fashion. Please tell the OR that the patient is COVID PUI.

6. Emergent operations for COVID PUI patients will NOT be done in OR 41. They will be done in the level 1 COVID OR (OR 40).

7. Consider elective intubation (done by ED physician) in the ED to minimize exposure during transportation. If patient remains non-intubated for transport please ensure full face mask or surgical mask is on patient at all times.

8. Minimize staff (nursing, anesthesia, and surgical) in the OR. Those in the OR will wear full PPE including N-95 mask.

9. At the conclusion of the case the room will be left unattended for 30 minutes prior to a terminal clean and treatment with UV robot. Minimum turnaround time of 90 minutes should be expected.

10. Direct scene to OR patients with Life Flight will go to OR 40. N-95 masks will be worn if performing high risk procedures\(^\dagger\) and a terminal clean will be completed after the procedure.

\(^\dagger\) High risk procedures specific to trauma include endoscopy, tracheostomy, cricothyroidotomy, and thoracotomy or tube thoracostomy if there is a high likelihood of penetrating lung injury (including pneumothorax/hemothorax on CXR). If the patients officially tests positive for COVID, the one provider removing the chest tube will wear an N-95 mask at the time of chest tube removal. Please refer to COVID PPE algorithm for full list of high-risk procedures.

**Trauma Operating Room changes during COVID pandemic**

**OR 41 (hybrid OR)** – emergent trauma operations on patients not meeting screening criteria for COVID-19

Airborne precautions including N95 mask will be utilized for high-risk trauma procedures as per the COVID PPE algorithm. This includes intrathoracic procedures where the likelihood of penetrating lung injury is high, endoscopy, and airway procedures.

**OR 40** – emergent trauma operations for COVID PUI patients or scene to OR patients

This room will have minimum equipment in the room to facilitate cleaning. We will minimize staff in the OR by limiting the anesthesia and surgical team to attending with assistants at discretion of attending to provide safe patient care based on acuity of the procedure. The room will have a surgical tech and circulating nurse that stays in the room at all times. A clinical runner will be outside of the room to retrieve equipment as needed.

**OR 34** – will now replace OR 40 as the second trauma OR for scheduled inpatient procedures