

**The processes outlined here are aimed at meeting the following goals while maintaining safe and effective patient care:**

1. Protection of staff from exposure and infection
2. Conservation of PPE and resources
3. Mitigation of stress on staff and patients/families

Know that these processes can rapidly change thus always watch for the most updated version. If you notice anything that can be improved, contact any of the hospitalists, Pediatric ID or nurse managers and we will work on it.

**ADMISSION PROCESS AND INPATIENT CARE FOR PED HEM ONC PATIENTS DURING THE COVID ERA**

- **All Patients under Investigation (PUI) may not HAVE to go through the ED.** This is mainly so that we can minimize the ED visit and consequent exposure risk from multiple handlers and other patients. This would be the preferred route should the parent call us ahead of time to notify Ped Hematology Oncology team. However, oncology patients who may directly end up at the ED will have to go through ED. Once the decision to admit has been placed, and patient meets the testing criteria based on current ped ID recommendations, ED will test them for COVID-19, in addition to providing the routine protocol directed care of oncology patients and get them a room and assess whether they need floor or PICU. They then will be transported up with appropriate PPE straight to their room.
- **Direct Admissions** as mentioned above will be the preferred route to take if Ped Hem Onc office or on call Ped Hem Onc provider is notified by the parents. **Inpatient Ped Hem Onc attending or Ped Hem Onc resident will assess the patient if PICU admission is needed.**
  - o Ped Hem Onc team will call parents and admitting and charge RN and patient will be admitted under Inpatient Ped Hem Onc in a regular room on 4S. Hem Onc attending or resident physician will assess the patient and provide necessary care.
  - o If the presenting complaint is fever (most common) or respiratory symptoms, family to stay in their car upon arrival so they can be transported directly up to their room by patient transport. Single caregiver allowed. All patients with fever or any respiratory symptom who are receiving immunotherapy or suffering from a hematologic malignancy (any ANC or ALC) or a solid malignancy patients (with ANC < 500 and ALC < 100) to be considered PUIs /COVID patients and will be admitted to 4S in one of the 2 negative pressure room under Ped Hem Onc service.



- o When the admission is accepted the caregiver will be provided with the phone number to 4S(415-1540). Parents are to notify staff of their arrival to the hospital parking lot. The 4S clerk will call transport and instruct the family to stay in their car until someone comes and gets them.
- o Admitting paperwork should be done in the room, preferably over the phone.
- o COVID-19 testing will be performed by 4S team in addition to the other routine protocol directed treatment. Once the test comes back negative the patient will be transferred to a regular room on 4S.
- o If a directly admitted patient with fever or URI symptoms looks well with stable vitals and initial work up shows an ANC over a 1000 and ALC over 300, there is a possibility of same day discharge after giving appropriate IV antibiotics (Rocephin x 1). Patient may be discharged with instructions of self-quarantine of the entire family until COVID-19 test results re available. Other routine cultures including blood and urine cultures will be followed up as well with instructions to return if symptoms worsen.

**• Bundle care**

- Limit procedures performed on the patient, limit personnel going in the room.
- Nurses and staff to bundle care to limit times of going in the room.
- Use phones as much as possible to communicate with patients and parents rather than going in the room.
- Limit blood draws to daily or every other day; should be done by RN's at a time where she is already in the room (order as nurse collect).
- Limit imaging to medically urgent or necessary.

**Determine immune status of the patients (Table 1)**

Immune status/ Category	Immunodeficiency/Characteristics
Severe	<ul style="list-style-type: none"> <li>• SCID -allogeneic HCT (&lt;100 days and ALC&lt;100/mm<sup>3</sup>, or severe GVHD) -acute lymphoblastic leukemia in induction with ALC &lt;100/mm<sup>3</sup> -relapsed/refractory acute lymphoblastic leukemia with ALC &lt;100/mm<sup>3</sup> -recent T-cell specific therapy (e.g. Anti-Thymocyte globulin (ATG) [&lt;90 days], alemtuzumab [&lt;6 months] -HIV infection with CD4 count &lt;100/mm<sup>3</sup></li> </ul>
Moderate	<ul style="list-style-type: none"> <li>• Acute lymphoblastic leukemia in induction, consolidation or re-induction with ALC 100-300/mm<sup>3</sup> -any other malignancy with ALC&lt;100/mm<sup>3</sup> -bone marrow failure with ALC&lt;100/mm<sup>3</sup> -other high-dose immunosuppression (discuss with ID) -HIV infection with CD4 count 100-200/mm<sup>3</sup></li> </ul>
Mild or none	All other patients



- Switch to PO when feasible and schedule administration of meds at the same time if possible, to limit entries into the room; consider having parents administer PO meds when feasible.

*\*\*When MD thinks parents will be reliable at administering PO meds they have to put this in a communication order.*

- RN will draw up all meds (after checking with pharmacy about storage / stability), label them with times, and make a timesheet with doses which will then be given to the parents during the first RN visit.
- OR RN will open door slightly and place meds on counter right by door at the time the dose is due (she would be more than 6 ft away from patient).
- Have parents administer G-tube feeds (after teaching).  
In order to minimize exposure and cross infection across the hospital the food tray should be delivered to the nurse by nutrition services staff and the nurse delivers the food tray into the patient's room (bundle delivery with other care).
- Housekeeping should not clean rooms during the "aerosolized procedure" window.
- Consider different tactics to limit VS check; when RN is in the room she should bundle care and obtain VS then. If in 4 hours he/she doesn't have another reason to go into the room he/she can facetime or use zoom to contact the parents.
- Limit linen changes to only when soiled; have an extra set in room that parents can change.

### **Rounding of COVID Team : 1 attending, 1 nurse + - 1 resident**

- Team members should have minimal accessories (no jewelries, watches, etc) to avoid impeding donning/doffing.
- Any personnel should not have any accessories going in the room (no phones, stethoscope, papers, pens).
- Do rounds on a blocked time (no respiratory therapy, no administration of meds, no vital signs) that way there's less interruption of limited time with the guardian and patient, no need to use N95, less traffic in a small room.
  - Pre round on all patients by talking to resident +/- nurse
  - Telephone round on all patients/talk to the mother -discuss assessment/plan
  - **Actual patient visits:** Attending goes in the room, examines the patient, briefly reiterates assessment/plan (or any changes to the plan); if anticipating longer talk, tell mother/father you'll call again at a certain time.

**Doff off but keep the mask on, don't touch it. Use hand sanitizer as you go out.**

**If Resident is outside the room: Give hand sanitizer to the attending (don't let attending touch it) in case there's breach of hand hygiene.**



- Residents put all the orders in the computer. Have a phone ready in case clarification from mother needs to be done right there outside the room.

Attending moves to the next room using same mask and put other PPE's on

- **Mask can be thrown out in the last patient's room.**
- **Call any patients for clarification.**

Since we have confirmed COVID cases in the community, every patient with FEVER or respiratory symptom/s including sore throat that requires admission needs to be tested as per the latest ped ID recs stated earlier.

If they are coming through the ED, the ED should perform a test prior to admitting to the floor

- If it is a direct admit, 4S team will be performing the testing for ped Hem Onc patients.
- Please review the testing criteria and testing process
- For any positive results, **please contact Amy Hill at 251-415-1683**

### **Nebulized treatments/Specific treatments:**

Avoid nebulized treatments, when possible, since COVID can become aerosolized during these treatments for up to 2 hours. Utilize MDIs if possible.

- Avoid the use of ibuprofen and substitute with acetaminophen
- Avoid use of systemic steroids
- **Withhold chemotherapy or immunotherapy until full recovery**
- **Consider checking IgG levels and if < 400 give IVIG**
- Consult Peds ID in all patients for whom therapy is being considered
- Very little evidence to support routine therapy, medications may have associated adverse events thus therapy is only on select patients (severe infections in immunocompetent patients, immunocompromised, elderly, those with chronic medical conditions such as diabetes, heart disease, receiving immunosuppressive medications, chronic lung disease, chronic kidney disease)
- As of now hydroxychloroquine/azithromycin and lopinavir/ritonavir, IVIG & Remdesivir are being considered, however supplies are limited or we don't have any.
- If specific therapy is to be initiated, verbal consent should be obtained, inform parents that there is limited data for these therapies, and current standard of therapy is supportive care
- Consider therapy in hospitalized **AND** COVID-positive **AND** with at least one of the following (for immunocompetent and high-risk patients):



**New/increased supplemental oxygen requirement >4 hours; OR -Increase in baseline non-invasive or invasive ventilator support requirement (e.g., increased ventilator pressures) with worsening trajectory > 8 hours.**

**PPE**

- o For COVID confirmed cases:
  - \*Requires a negative pressure room, when available
- o For PUI AND COVID Confirmed cases:
  - \*Disposable stethoscope should be placed & stay in each room
  - \*Gown, mask, gloves & eye protection for all patients, UNLESS THEY NEED ANAEROSOLIZED PROCEDURE, which requires an N-95 mask/PAPR for 2 hours
- \*Examples of why you would need an N-95 mask/PAPR:
  - o Nebulized treatments
  - o Deep suctioning
  - o Trach collar
  - o Intubation
  - o Bag-mask-valve care
  - o CPR

Review donning and doffing PPE

**VISITORS**

For COVID confirmed & PUI cases:

- o Only 1 visitor can stay in the room; should opt for the “lowest risk” caregiver
- o This visitor can NOT leave the room for any reason
- o Food for caregivers Can be delivered to their room, if needed.
- o They will need to ask the nurse to contact food services at 415-1070

There are plenty of cards on the floor that can be provided to caregiver



## DISCHARGING PROCESS

- o For COVID confirmed cases:

Patients diagnosed with COVID who are discharged should remain in quarantine at home until symptom free and 2 weeks after discharge (whatever comes last).

Asymptomatic care takers should remain in quarantine with the patient for a minimum of 2 weeks after discharge.

- o For PUI cases:

Once a patient meets the usual criteria for discharge, they can be discharged home, even if their COVID test is not back yet

They need to be quarantined at least until their test comes back negative

- Provide handout on post-testing instructions, which includes information about quarantine and precautions: Post-Testing Instructions for Patients
- They need to be placed on the White list in Cerner, to help track their test results
- All information needs to be placed on the excel file in the shared drive (My File Share)
  - Residents > Pediatrics > COVID19 Tested folder
- On call Hem Onc attending and resident will check results daily and will notify the parents. In case the test is positive, will also notify ID and Karen Deakins.
- Once ready to discharge, both the patient and the caregiver need to put on a yellow surgical mask and have to be escorted out by patient transport (as in not to touch anything)