COVID-19 Adult Inpatient Workflow – April 22, 2020 1600

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***Admits through SH ED*: Patients that meet the following criteria will receive rapid COVID-19 testing in the ED:**

- Fever > 100
- New or worsening shortness of breath in the last 48 hours
- New or worsening cough in the last 48 hours
- Patient with new AMS / confusion AND no reliable historian available

Patients (hospitalized or incoming admission) with the following symptoms without a clear alternative diagnosis should be considered for rapid COVID-19 testing per clinical judgement:

- New onset or worsening GI symptoms (nausea, vomiting, diarrhea)
- Isolated flu-like symptoms (myalgias, fatigue, chills, headaches)
- Congestion or rhinorrhea
- Hyposmia/anosmia
- Dysgeusia/hyposeusia/agesusia
- Hemoptysis
- Incidental finding of bilateral infiltrates on chest imaging

***Direct Admits / Transfer*: Patient presenting from an outlying facility with above symptoms should receive rapid COVID-19 testing upon arrival to the inpatient unit** (if not already tested) **per clinical judgement. Direct Admits/Transfers should be placed on COVID-19 designated unit when strong clinical suspicion of COVID-19 is present. Otherwise, direct admits/transfers may be placed on other units, tested, and then transferred as needed with positive rapid COVID-19 results.**

Key Factors to Testing:

- For any patient transition from ED to Inpatient, an intentional conversation must occur between providers regarding patient specific COVID-19 symptoms & testing.

The following *patients with COVID-19 symptoms* should be routinely tested for COVID-19:

- ***Pregnant Women***
- ***Health Care & Public Service Workers***
- ***Patients living in or being discharged to a congregant living facility***
- ***Morbidly Obese (BMI > 40)***
- ***Chronic Lung Disease / Asthma / Tracheostomy***
- ***Heart Disease***
- ***Liver Disease***
- **Severely immunocompromised as defined by criteria** in this LINK

Patient is determined to need COVID-19 testing per the above and/or clinical judgement:

- **Initiate Severe Respiratory Isolation (see box to right)**
- **Obtain 1 NP swab specimen. Send for COVID-19 testing: COVID-19 PCR.**
- **If inhaled treatment required, encourage use of home MDI as able. If nebulizers required, please see severe respiratory isolation precautions (box to the right).**

Severe Respiratory Isolation

Precautions include the following:

- Gown
- Gloves
- Eye Protection
- Simple Isolation Mask

When using Severe Respiratory Isolation precautions, remember that the following procedures require the additional precautions:

- **Nebulizers**: N95 mask or PAPR
- **CPAP, BiPAP, Home Vents, Act of Intubation/ Extubation, HFNC:** N95 + Negative Pressure if available.

For patients admitted with respiratory symptoms + concern for COVID-19 disease BUT COVID-19 AND other viral testing is negative, please consider the following clinical presentation if maintaining a high clinical suspicion of COVID-19:

SYMPTOMS		
Common Symptoms (>75% prevalence)	**Intermediate Symptoms** (15-40% prevalence)	**Uncommon Symptoms** (<5% prevalence)
• Fever (> or = to 38 degrees) present at any point during the admission • Cough	• Myalgias • Fatigue • Sputum production • Shortness of breath on admission • Septic Shock	Uncommon Symptoms (<5% prevalence) • Nausea and Vomiting • Diarrhea • Hemoptysis • Nasal Congestion

LABORATORY FINDINGS	IMAGING FINDINGS
• ***Absolute lymphopenia <1500 per mm3*** *(>80% prevalence)* • Elevated LDH (40% prevalence) • Elevated CRP (severe disease) • Elevated D-dimer (severe disease) • NORMAL WBC count + Procalcitonin	• **Chest CT:** Approximately 85% of all patients with COVID19 have abnormal Chest CT scan, findings include local or bilateral patchy shadowing, ground glass opacities • **CXR:** Abnormal in patients with non-severe disease, sometimes consistent with multifocal PNA. In this patient population with negative testing, non-severe disease, and equivocal or negative chest XR, non-contrast CT chest should be considered. • ***Uncommon***: Pleural effusions and hilar adenopathy

CLINICAL GUIDANCE:
For patients with fever + cough + one or more of the above laboratory or imaging findings, maintain high suspicion of COVID-19. Keep patient in severe respiratory isolation and treat accordingly. Utilize positive or presumed positive COVID-19 discharge instructions upon discharge.

Source: New England Journal of Medicine Feb 28, 2020

Re-testing Criteria:

Please use the following criteria (next page) to determine if retesting for COVID-19 should be considered.

Note*: testing accuracy is dependent upon appropriate technique of specimen collection. Sputum specimens could be considered for retesting.*

Status	Retesting Criteria
COVID-19 **POSITIVE** Patients	NO retesting is indicated at this time unless seeking to remove patient from severe respiratory isolation. To determine if patient can be removed from severe respiratory isolation, please refer to the "Provider Guidelines for the Discontinuation of Sever Respiratory Precautions for Patients within COVID-19" found here.
COVID-19 **NEGATIVE Patients with significant Clinical Suspicion** (see above for clinical presentation guidelines)	*Retesting may be indicated with the following scenarios:* • **Respiratory Decline requiring increased Level of Care:** retesting may be considered to confirm etiology • **End of Life Situations:** retesting may be considered for the purposes of preserving PPE and/or directing PPE use within family visitation • **Length of Stay**: retesting may be considered for the purpose of preserving PPE within a longer length of stay ▪ Infection Prevention should be consulted with these scenario

Treatment considerations for patients positive or presumed to be COVID-19 positive (as identified above):

- **PPE**: follow severe respiratory isolation precautions (see sign on door), contact "Hot Zone Boss" as needed for coaching on PPE.
- **Caregiver Limitation**:
  - **RNs and RTs** should serve as primary care providers for direct patient care
  - **Physicians, APPs, Residents** should limit to 1-2 providers per shift
  - **Phlebotomists and Rehab** may provide essential direct patient care as needed
  - **All other team members** (care management, MSW, pharmacy, consulting services, clinical students) should refrain from direct patient care (entering the room). Consider use of virtual or phone communication for subspecialty consults and/or patient & family communication.
- **Consolidate "Batch" Care:**
  - Minimize labs and consults as much as possible
  - Group and "batch" interventions to minimize direct patient contact throughout shift
- **Patient placement:** placement should follow organizational protocols for cohorting until COVID-19 volumes surpass capacity of designated units
  - Hospital Supervisors may be contacted to help facilitate transfers between units as needed
  - Patients not being tested or treated for COVID-19 should be relocated as needed to create capacity within designated units
- **Visitor Movement**: Visitor restriction should continue as established. Visitors permitted on case by case basis. Approved visitors must limit movement to travel between the room and parking lot only. Visitors must wear a mask while en route.