**Background:** This guidance is intended to support clinical decision making of the MMC Emergency Physicians. It is based on current federal and state guidelines as well as the hospital’s local interpretation of those guidelines. This is not intended to supplant the clinician’s clinical impression. This guidance will be updated as needed, however, please regularly review the federal CDC website for more contemporaneous updates. **PLEASE recall,** all patients with fever and respiratory symptoms should be managed with a minimum of droplet precautions.

**CDC Screening Recommendations** (current as of March 9, 2020) include consideration of ANY travel to affected geographic areas within 14 days of symptoms onset and ANY persons, including healthcare workers, who have had close contact with a laboratory-confirmed COVID-19 patient. The CDC’s final recommendation allows for clinicians to use their clinical judgement and consider testing patients with symptoms compatible with COVID-19 based on the local epidemiology of the disease. This guidance is intended to support the medical decision making of Maine Medical Center’s Emergency Physicians as they respond to this disease.

**Clinical Symptoms** include fever (even subjective) and/or symptoms of acute respiratory illness (including cough, dyspnea). From an early article describing the Wuhan, China experience with COVID-19 (1),
- 83% of patients experienced fever,
- 82% of patients experienced cough
- 31% of patients experienced dyspnea

Other symptoms included myalgia (11%), confusion (9%), HA (8%), sore throat (5%), rhinorrhea (4%), chest pain (2%), diarrhea (2%) and N/V (1%). 90% of patients had a combination of the above symptoms

On **CXR**, 25% of patients had unilateral PNA, while 75% of patients had bilateral PNA

**What Has Changed:** As of 3-13-2020, Maine has transitioned into the community spread phase of this event with COVID-19 patients presenting with NO travel or contact risk factors. DUE TO THIS and availability of testing, MMC is liberating testing for SARS-2CoV and COVID-19. In this phase of the pandemic, widespread testing is indicated.

**Managed in ED Alternate Site**

- **NOT Sick Patient*** arrives to Triage 1
  - Registration asks if the patient is experiencing fever or respiratory symptoms
    - If answers YES, patient given mask and triage RN notified
    - If answers NO (e.g. asymptomatic) to Triage 1
  - Patient Moved to P7 alternate testing area. Physician/Nurse in AIRBORNE Precautions.
  - COVID-19 Test and Influenza testing Performed. Use clinical judgement to determine if additional testing required. If so, move to negative pressure room for continued care.
  - If safe for discharge, patient discharged with regular AVS AND CDC Home Care Instructions for COVID-19 and Influenza

**Managed in Main ED**

- **Sick Patient*** arrives to Triage 1
  - Registration asks if the patient is experiencing fever or respiratory symptoms
    - If answers YES, patient given mask and triage RN notified
  - If answers NO (e.g. asymptomatic) to Triage 1
  - Patient Moved to CK side. **PLEASE NOTE:** Some of these triage decisions are NOT straight forward. Nurses in Triage and Physicians (RDU/CK/A/B) should communicate frequently if questions arise regarding who should be placed in CK/P7 and who should be placed in the maine room. While these discussions are ongoing, have the patient place a surgical mask on themselves and maintain social distancing. Patient placed in CK.
  - All staff in PPE while in the CK Side. Patients evaluated by nursing/attending/resident while patient is in a mask and staff in PPE. **PLEASE RECALL:** the CDC’s guidelines are tremendously broad. Patients with febrile illnesses AND/OR patients with respiratory illnesses will all be managed on the CK side. **WITH POSITIVE CASES WITH ONLY COMMUNITY CONTACT, PLEASE HAVE A LOW THRESHOLD FOR TESTING. NO medical students should see these patients.**

**Clinical Tips**
- * K2 is the critical care room for this area
- * Try to avoid NIPPV if possible (generates aerosols and may not work in COVID-19 its)
- * Use MDI’s over Nebs for the same reason
- * We have portable XR and a dedicated US for the area.
- * Take breaks from PPE
- * Patients with OBVIOUS non-respiratory source of fever can be managed in the A/D/C/CDU

**Managed in Main ED**

- **Sick Patient*** arrives by EMS
  - Emergency Medical Dispatch is inquiring re: travel history and fever in patients with comparable symptoms (triggered by fever or dyspnea). EMS guidance is to use the same screening criteria as physicians/nurses. Patient placed in mask and REMIS notified
  - REMIS in turn notifies Charge and Triage 5 RN
  - Patient Moved to CK side. **PLEASE NOTE:** Some of these triage decisions are NOT straight forward. Nurses in Triage and Physicians (RDU/CK/A/B) should communicate frequently if questions arise regarding who should be placed in CK/P7 and who should be placed in the maine room. While these discussions are ongoing, have the patient place a surgical mask on themselves and maintain social distancing. Patient placed in CK.
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**Clinical Tips**
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- * Patients with OBVIOUS non-respiratory source of fever can be managed in the A/D/C/CDU
What is known NOW (March 15, 2020)

- Even without travel or contact risks, please remember, patients with these symptoms may suffer from other respiratory infections, such as influenza. Please take appropriate precautions for ALL patients suffering fever PLUS respiratory symptoms.
- There is community spread in Maine. Based on this, please consider a low threshold for COVID-19 testing.

Thoughts/Considerations (from the experience in China): One Chinese hospital (2) classified cases as follows:

<table>
<thead>
<tr>
<th>NOT-SICK</th>
<th>SICK</th>
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<tbody>
<tr>
<td>Mild cases - The clinical symptoms were mild, and there was no sign of pneumonia on imaging.</td>
<td>Severe cases - Cases meeting any of the following criteria:</td>
</tr>
<tr>
<td>Moderate cases - Showing fever and respiratory symptoms with radiological findings of pneumonia.</td>
<td>• Respiratory distress (&gt;30 breaths/ min);</td>
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<tr>
<td></td>
<td>• Oxygen saturation≥93% at rest;</td>
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<tr>
<td></td>
<td>• Arterial partial pressure of oxygen (PaO2)/ fraction of inspired oxygen (FiO2) ≥300mmHg (LmmHg=0.133kPa)</td>
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<tr>
<td></td>
<td>• In cases with chest imaging that showed obvious lesion progression within 24-48 hours, &gt;50% were managed as severe cases.</td>
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- Approximately 15% of hospitalized patients were classified as severe, and severe cases were older and more likely to have underlying disorders; approximately 5% of patients were admitted to the ICU. (3)
- Approximately 1% of hospitalizations occur in children < 19 years old (4)
- Patients with severe or critical symptoms should be admitted to the appropriate floor. Patients without severe/critical symptoms may be discharged with regular AVS plus CDC “Home Isolation Instructions” for COVID-19
- Infection control practices include limiting the number of health care providers that come into contact with the patient. Consider attending only evaluation of stable patients under investigation for COVID-19. Of note: No medical students should care for PUI’s for COVID-19
- Travel history is a moving target. As of March 9, 2020, the CDC considers China, Iran, Italy, So. Korea, and Japan as areas with widespread disease. Please review the CDC guidelines regularly for updates as, at some point, this list will evolve.
- The CDC’s current guidance of considering testing for symptoms compatible with COVID-19 is challenging as many Emergency Medicine patients present with this complaint set. Current guidance from the Maine CDC includes travel and contact history to support decisions re: which patients to test. For real-time clinical support, please contact MMC’s Infection Control Team, including Dr. Valenti or Gwen Rogers, Director of Infection Prevention.
- MMC has chosen Powered Air-Purifying Respirators (PAPR) as the level of respiratory protection. Please review the information on donning and doffing these devices on the following page.
- Patients under consideration for COVID-19 should be managed in a negative pressure room and all procedures should be completed in those rooms, including any procedures that may generate aerosols (sputum induction/suctioning/etc). Please review operational guidance for intubation of these patients.
- Please note: Even patients who are not tested/admitted, but are evaluated for fever and a respiratory illness should be discharged with instructions to remain at home until their symptoms resolve AND they are cleared by their PCP or other local or state public health authorities as these patients may still be suffering from a respiratory infection such as the flu.
- Consider consultation with Infection Control for necessary decision support at pager 767-6887. 1 NP swab is sent to the lab and includes influenza and COVID-19 testing. Testing is currently being performed at NORDX. There are three tests performed throughout the day, with results remaining at home until their symptoms resolve AND they are cleared by their PCP or other local or state public health authorities as these patients may still be suffering from a respiratory infection such as the flu.

Critical cases: Cases meeting any of the following criteria: Respiratory failure and requiring mechanical ventilation, shock, with other organ failure that requires ICU care.

Patient expects for COVID-19 testing coming to REMIS will be directed to an Attending Physician. Only patients who are clinically sick should be referred to the ED for evaluation. Patients who are not ill (i.e. those not requiring Emergency Services or Admission) should be evaluated by their primary physician over the phone and sent to an alternate test site. The ED cannot sustain testing on asymptomatic patients.

Providers insisting on COVID-19 testing can refer their patients to the MMP Off Site Testing Facility on St. John’s St. ALSO, the COVID-19 orders have a list of alternate test sites by MaineHealth location. Finally, if a calling physician is not affiliated with MaineHealth/MMP, they can call the state’s hotline (211) for information regarding testing in their area.

References:
2) Authority, M. a. a, H., Interpretation of New Coronavirus Pneumonia Diagnosis and Treatment Plan (Trial Version 6). 2020.