Disclaimer

• No conflicts of interests to disclose
Stroger Emergency Department

- Annual census approx. 116,000
- 60- bed+
- Over 30 Attendings Physicians, 68 residents, 9 Physician Assistants, nurses, ERT’s
- Visiting residents and medical students
Triage

- Universal Masking
- No visitors*
- Screening Tool
Questions for Patients:

Have you had the following signs and symptoms (check all that apply)?

- □ Fever
- □ Cough
- □ Shortness of breath

Date of symptom onset_____________________

In the 14 days before symptom onset, have you:

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>N</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travelled to or lived in Wuhan City, China?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had close contact(^2) with a person who is under investigation for 2019-nCoV while that person was ill?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had close contact(^2) with a laboratory-confirmed 2019-nCoV case while that case was ill?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Presence of fever, respiratory symptoms, travel history, and close contact should trigger the Infection Prevention and Control Recommendations for Patients Under Investigation (PUI) for 2019 Novel Coronavirus (2019-nCoV) algorithm (see attached).
Questions for Patients:

A. Within the past 14 days, have you had the following signs and symptoms (check all that apply)?
   - Cough
   - Shortness of breath or Difficulty Breathing

   Or at least two of the following symptoms

   - Sore throat
   - Headache
   - Chills
   - Repeated Shaking
   - New loss of taste or smell
   - Muscle Pain
   - Fever

   Date of symptom onset: ____________

   AND/OR

   In the 14 days before symptom onset, have you:

   B. Had close contact with a person who has laboratory-confirmed Coronavirus Disease (COVID-19)?

   - Y
   - N
   - Unknown

The presence of symptoms listed in A and/or B should trigger Infection Prevention and Control Recommendations for Patients Under Investigation (PUI) for Coronavirus Disease (COVID-19).
Immediate Isolation
Updated 3/28/20: Surge Flow Sheet

1. Red team curtained rooms (Rm 20-29)
2. Green team
3. Surge COVID #1&2 iso rooms (yellow team/Peds) for spill-over

**NON-COVID**
Blue team internal waiting room (Rm 99 with trauma waiting room for overflow)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>Negative</td>
</tr>
<tr>
<td>Myalgias</td>
<td>Negative</td>
</tr>
<tr>
<td>Sore throat</td>
<td>Negative</td>
</tr>
<tr>
<td>Cough</td>
<td>Negative</td>
</tr>
<tr>
<td>SOB</td>
<td>Negative</td>
</tr>
</tbody>
</table>

- Front Door
  - Fever
  - Myalgias
  - Sore throat
  - Cough
  - SOB

- Urgent/Sick
  - Peri-Arrest/Arrest
  - Ill appearing
  - Significant
  - Tachypnea

- Viral Waiting Room
  - Concerning VS/HPI?
  - Yes
    - Urgent/Sick? Ill appearing
      - Grossly abnormal vitals
      - Abnormal mental status

- Discharge
  - COVID D/C instructions

- Green Team
  - Stable on nasal cannula or facemask
  - Nebulizer, HFNC, or NIV

1. Red or Blue isolation rooms
   - Higher acuity to red iso
2. Consider Yellow Team Neg Pressure rooms (Rm 71, 72)
   - If Red/Blue iso rooms full

- 1. Red Resuscitation Bay: R1-R4
  - 2. Consider red 30-33, RS for quasi ill that may require intubation
Diagnosis

• History – KNOWN exposure, symptoms – Cough/Chest pain/Shortness of breath

• CXR

• Oxygenation

• Swab (No rapid testing)
We suggest using surgical mask to cover all oxygen therapy modalities whenever feasible, especially when patient care work or exam is being performed.

The goals of oxygen therapy is to achieve oxygen saturation between 90-92%.

Start with nasal cannula and titrate up to 3 liters ONLY. This will provide FiO2 around 32%.

If oxygen saturation is still below 90-92%, change to Venturi Mask (FiO2 can be titrated between 35 and 50%).
Venturi Mask

**Step 1:** Select Adaptor and insert into large bore tubing

**Step 2:** Apply protective cap

**Step 3:** Firmly slide into place. Line up tab to indicate $\text{FI}_2$.

**Step 4:** Slide safety guard over adaptor.

**Step 5:** Connect Star Lumen Tubing to distal end.

*Do NOT connect to a bubbler humidification system.*

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<table>
<thead>
<tr>
<th>Device</th>
<th>Flow Rate</th>
<th>$\text{FI}_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal Cannula</td>
<td>1 L/min</td>
<td>~24%</td>
</tr>
<tr>
<td></td>
<td>2 L/min</td>
<td>~28%</td>
</tr>
<tr>
<td></td>
<td>3 L/min</td>
<td>~32%</td>
</tr>
<tr>
<td>Venturi Mask</td>
<td>3 L/min</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>6 L/min</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>8 L/min</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>12 L/min</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>15 L/min</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>15 L/min</td>
<td>50%</td>
</tr>
<tr>
<td>Non-Rebreather Mask</td>
<td>15 L/min</td>
<td>~85%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$\text{FI}_2$</th>
<th>LPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>35%</td>
<td>9</td>
</tr>
<tr>
<td>40%</td>
<td>12</td>
</tr>
<tr>
<td>50%</td>
<td>15</td>
</tr>
</tbody>
</table>
Next step is to use NRB Mask (8-10 liters). This provides approximate FiO2 of 70%.

If more respiratory support still needed, may carefully consider **CPAP in a negative pressure room**.

- Use non-vented face mask only
- Use only dual limb circuit
- Limit pressure to 10-12 cm H2O
- FiO2 maximum of 60%
- Minimize leak from around the mask during use
- Switch device to stand-by when removing mask
- Assess tolerance and response frequently. In the case of no response of intolerance discuss goals of care and either revert to NRM or intubate
Intubation

- Negative Pressure Room
- Full PPE
- Video assisted if possible
- RSI (Rapid Sequence Intubation)
- No bagging
- Ventilator- closed circuit with viral filters
- Intubating Teams*
Limitations

- No High-Flow oxygen
- No nebulized treatments
- CPAP- in negative pressure rooms only
Disposition

- Home – stable vitalis, O2>94%*
- General Medical Admission (NC, VM)
- ICU Admission (CPAP, NRB, Intubated)