General Medicine COVID-19 Quick Guide

Note: The recommendations in this guide are meant to serve as treatment guidelines for use at the UVM Medical Center. Other UVM Health Network facilities should consider adopting to the extent possible, based on local policies and practice standards. These guidelines should not replace a provider’s professional medical advice based on clinical judgement.

Clinical Presentation

- Fever: 44-94%
- Fatigue: 32%
- GI Symptoms: 4-9%
- Non-productive cough: 68-83%
- Headache: 14%
- Weakness: 8%
- Myalgia: 11%
- Nasal Congestion: 5-25%
- Anosmia: Unclear prevalence
- Shortness of breath: 19-40%
- Pharyngitis: 14-61%

Initial Evaluation

- Labs:
  - CMP, CBC with diff, D-dimer, CK, troponin, CRP, LDH, Ferritin, consider sputum cultures
  - Characteristic findings: Lymphopenia, mild hepatocellular injury pattern of elevated LFTs, anemia, mild thrombocytopenia. Elevated: D-dimer, CK, LDH, CRP, and Ferritin
- Imaging: Lung Ultrasound or portable CXR should be done on all potential COVID-19 patients.
  - XR: Bilateral alveolar or interstitial infiltrates are common (can mimic pulmonary edema)
  - POCUS: diffuse B-lines or focal B-lines interspersed with A-lines in one field
- EKG as clinically indicated (not mandatory in all COVID patients)

Clinical Course

- Hospital admission typically 7 days after fever/cough onset, followed by SOB and possible ARDS over next 2-3 days
- Late complications include cardiac injury, kidney injury and secondary infection

Admission Triage - Consider ICU and/or critical care consultation for:

- Persistent respiratory rate > 30 (adults)
- FiO2 > 0.50 (anything over 6 liters NC)
- Rapid escalation in O2 requirements regardless of absolute requirement
- Persistent hypotension

Infection Control - Staff should be trained on appropriate PPE and safe donning and doffing.

- Aerosolizing procedures (CPR, Intubation, Nebulized medications, CPAP/BiPAP, High Flow oxygen) should be done in a negative pressure room, staff should be in fit tested N95 or PAPR.
- Patients should wear a procedural mask during transport and when caregivers are in the room.
- Limit duration and frequency of nonessential direct patient contact; use video conferencing or telephone when feasible.
- Mitigate risk of fomite transmission through judicious use of stethoscopes – only use if findings will change management.
- Sensitivity of COVID testing depends on a number of factors. In patients with a high pretest clinical suspicion and a negative initial nasopharyngeal swab, maintain precautions and re-test (sputum is preferable) and/or consult ID.

Management of the Hospitalized Patient

- Monitoring
  - Continuous pulse oximetry for patients receiving supplemental oxygen
  - Telemetry when on >/= 6 lpm NC or if needed for other indications (no specific indication for COVID-19)
  - Labs: Daily BMP, LFTs if elevated on admission, serum glucose
- Therapeutics
  - Remdesivir should be considered for any hospitalized COVID-19 patient with an O2 sat < 94%. Refer to the UVMCC COVID-19 Therapeutic Algorithm for further details. Remdesivir requires ID consultation.
  - Potentially helpful:
    - Biologics: baricitinib or tocilizumab may be considered in the treatment for anti-cytokine storm therapy. Consult rheumatology and refer to the UVMCC COVID-19 Therapeutic Algorithm for further details.
    - Statins: consider starting if not already taking and CV indication present
    - VTE prophylaxis – COVID-19 patients should be considered high risk for VTE
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- Potentially harmful: Consider holding Thiazolidinediones (i.e. pioglitazone). Avoid NSAIDS if possible.
- Steroids (including inhaled): Generally avoid unless other clinical indication present, such as COPD, adrenal insufficiency, or severe COVID-ARDS in ICU/intubated
- Note: No longer recommending empiric antibiotics for CAP

Supportive Care

- Goals of care: Patients can develop rapidly escalating oxygen requirements and prognosis of intubated patients is poor.
  - Involve family/support person if possible via conference call/video conference to help clarify goals of care
- Medications:
  - PRN or scheduled acetaminophen q6h
  - melatonin QHS
- Fluid management: Patients are believed to be sensitive to even mild volume overload. Consider early ICU consultation/pressors for hypotension rather than multiple fluid boluses. Try to maintain euvolemia while taking into account insensible losses from fever and hyperventilation. Use diuretics if necessary.
- Respiratory: Goal SpO2 90-96%.
  - Consult ICU if requiring more than 6L NC or oxygen requirement is rapidly increasing.
  - If patient is DNI: escalate FiO2 using Hudson NC or oxymizer; consider HFNC/NIV only if in negative pressure room.
  - Awake Prone Positioning: Encourage patient to self-reposition every 2 hours between left lateral recumbent, right lateral recumbent, sitting upright 60-90 degrees and prone as tolerated. Discontinue if oxygen saturation decreases with new position. Educate nurses on the rationale behind this directive to help with adherence.
- Avoid common complications of hospitalized patients such as delirium and falls: employ current protocols while trying to limit staff exposure to patient as possible for infection control.

Disposition

- Discharge criteria: based on CDC guidelines
  - Resolution of fever >72 hours without antipyretics
  - Improvement in illness signs and symptoms (cough, SOB, and oxygen requirement)
  - At least 7 days from symptom onset
  - Assess prior to discharge if patient is appropriate for post-discharge prophylactic anticoagulation
- Discharge needs and plan. Work with CM/SW to complete the following:
  - Confirm working contact number for patient and primary support person
  - Confirm discharge location: private room, can adhere to isolation, no risk of transmission to immunocompromised members of the home. Work with CM/SW on hospital/state sponsored alternatives if home is not a safe option
  - Confirm ability to manage ADL/iADLs (likely unable to get inpatient PT evaluation)
  - Confirm that patient has resources to receive 1-2 weeks of food and other supplies
  - Perform DME needs assessment (including home O2 if needed)
  - Discharge medications/supplies: 30-day supply of medications, one procedure mask for patient to wear on d/c
  - Transportation: verify patient has a ride by private vehicle or arrange safe transportation
  - Discharge instructions
    - Counsel patient on home isolation and use Epic Smart Phrase .COVIDDISCHARGE in “Message to Pt” section of discharge navigator
    - Add Patient education information to After Visit Summary by adding COVID: ISOLATION topic to “Clinical References” section of discharge navigator
  - Ambulatory follow-up plan: verify PCP and provide warm handoff via phone, document in discharge summary

References


Rachel McEntee, MD and Mark Pasanen, MD 5/29/2020