COVID-19 Inpatient Management Pathway

Approved: COVID Clinical Care Pathway Steering Committee, V21 last updated 11/13/20

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Clinical Guidelines

Journal References

Contributors

Quick Orders- Use as Clinically Indicated

Medications

- Anticoagulation Prophylaxis order set
- Meter Dose Inhalers (MDI)
- Acetaminophen 975 mg q6h PRN
  - Acetaminophen 500 mg q6h PRN (cirrhosis)
  - Acetaminophen 500 mg q6h scheduled
  - Ibuprofen 600mg q6h prn (second-line)
- Benzonatate capsule 100 mg TID prn
  - Benzonatate capsule 100 mg TID scheduled
  - Dextromethorphan-guaifenesin 2-20mg/mL oral syrup 10 mL q4h prn
  - Codeine-guaifenesin oral liquid 10-100mg/5mL

Labs:

- CRP
- LFT
- CBC w/diff
- HIV 1/2 Antibody/Antigen Screen, if not previously screened
- Hepatitis C Virus Antibody, if not previously screened

Consultations:

- Consult Infectious Diseases
- Consult Pulmonary / Critical Care
- Consult Palliative Care

UCHealth COVID-19 Inpatient Management Pathway

Has patient been tested for COVID-19?

No → **See COVID-19 Inpatient Testing Pathway**

Yes

Was the COVID-19 Test Negative?

- Sensitivity SARS-CoV-2 PCR Test
- PPE Recommendations

Note: Coinfections are uncommon, though new reports of rhinovirus co-infection and influenza infection are increasing so coinfection does not rule out COVID-19

Yes, (-) Negative → **Proceed with care as appropriate**

No, (+) Positive **OR** Potential Positive

Management

Anticoagulation prophylaxis

- Anticoagulation Prophylaxis order set

Note: COVID-19 patients are at high risk for prothrombotic state

Discuss and document goals of care and DNR status

- Code status **AND** document code status via .COVIDCODE
  - Code Status and Goals of Care Discussion Aid
  - If no intubation, then no CPR/ACLS (DNR)
- For palliative treatments, consider using: COVID-19 Palliative Care Symptom Treatment Tool
- Consider early palliative care consult, if available, for high-risk patients or goals of care unaligned with prognosis. See risk criteria for early palliative care consult

Click the links below for management information:

- **Oxygen delivery**
  - For ≥ 6 L/Min O2, **OR** patients with underlying lung disease: consider Pulmonary/ICU Consult for management assistance
- **Bronchodilators**
- **Antipyretics**
- **Antitussives**
- **Family or close contact to patient counseling**
- **Other medication considerations**
- **Other Infectious Disease Screenings**

Did patient clinically improve? Yes → **Do not repeat COVID testing**

No

Is there an alternate diagnosis for the patients symptoms? Yes → **Do not repeat COVID testing**

No

Are you able to send a lower respiratory tract sample? (preferred)

No → **If symptoms persist, consider repeating COVID testing**

Note: Retesting should be rare.

- Order: COVID-19 RNA - SARS CoV-2 (preferred test for diagnosis)

Clinical note

Yes → **Send lower respiratory tract sample**

- If intubated, tracheal aspirate is preferred.
- Order: COVID-19 RNA-SARS CoV-2 Alternative Source Testing

Is repeat specimen positive?

Yes → See Management

Maintain precautions

- Discuss with local IP

No

Is there still a high concern for COVID-19?

Yes → **Maintain precautions**

No → **Proceed with care as appropriate**

Does Patient Require High-Flow Oxygen OR Mechanical Ventilation?

No

Floor Status Management

Note: Data are rapidly changing for COVID-19 therapies. See NIH Treatment Guidelines,and UCH guidance below (updated as new data emerges)

- For patients on supplemental oxygen or ventilator:
  - Order dexamethasone PO 6 mg daily for up to 10 days until discharge, whichever occurs sooner (if concern for poor enteral absorption, use dexamethasone IV 6 mg daily)
  - If patient is pregnant, consult OB/GYN regarding use of steroids in pregnancy
  - For patients on supplemental oxygen but NOT requiring mechanical ventilation or ECMO:
  - Consider Remdesivir 200mg IV on day 1, then 100mg IV on days 2-5, for up to 5 days or until discharge, whichever is sooner.
  - See criteria for remdesivir use
  - Counsel patient / caregiver about risks, benefits, and alternatives
  - Monitor hepatic function tests daily while on remdesivir
- Consider clinical trial enrollment if appropriate.
- Convalescent plasma is not currently recommended for routine use. If desired, recommend enrollment in clinical trial. If patient does not wish to enroll in clinical trial, or clinical trial unavailable, convalescent plasma is available by emergency use authorization (EUA). Prior to ordering EUA convalescent plasma, provider must counsel patient on risks, benefits, and alternatives, provide FDA fact sheet for providers and caregivers, and obtain verbal consent.
- Order Anticoagulation Prophylaxis Order Set, if not already ordered
  - See anticoagulation recommendations
- Conservative fluid management as tolerated to avoid precipitating ARDS
  - **Avoid maintenance fluids**
- Patients are at increased risk for **cardiomyopathy**
  - Workup as appropriate
  - If decompensation, consider: ECHO, EKG, Troponin, BNP
- Watch for signs of Hyperinflammatory Response Syndrome
  - Consider admit to ICU or Stepdown Status
- Consider consult ID as clinically indicated
- Consider early palliative care consult, if available, for high-risk patients or goals of care unaligned with prognosis.
  - See risk criteria for early palliative care consult

Yes

ICU and Stepdown Status Management

Note: Data are rapidly changing for COVID-19 therapies. See NIH Treatment Guidelines,and UCH guidance below (updated as new data emerges)

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  - Order dexamethasone PO 6 mg daily for up to 10 days until discharge, whichever occurs sooner (if concern for poor enteral absorption, use dexamethasone IV 6 mg daily)
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- Initiate ICU VTE Anticoagulation Prophylaxis Order Set
  - See anticoagulation recommendations

Intubation:

- The most experienced provider should perform this procedure
- Minimize proceduralists and bedside providers
- Use checklist for intubation
- Perform early with ARDS

Mechanical Ventilation:

- Mechanical Ventilation Settings and Recommendations
- Use mechanical ventilation orderset

For septic shock and signs of ARDS:

- Consider a conservative fluid strategy
  - Balanced salt solution (LR or plasmalyte) fluid boluses 250-500 cc
  - Perfusion targets up to 30 mL/kg (for BMI > 30, use ideal body weight) - if no evidence of volume overload
- Consider adding norepinephrine to maintain perfusion

- Consider consult ID as clinically indicated
- Consider early palliative care consult, if available, for high-risk patients or goals of care unaligned with prognosis.
  - See risk criteria for early palliative care consult
  - If transitioning to comfort-based care, use compassionate extubation pathway

Does patient have any signs of clinical deterioration?

Yes, Admit to ICU

No, Continue Care

Consider discontinuation of isolation

Clinical Note

Patient must have **ALL** of the following before discontinuation of enhanced isolation precautions:

- Patients who have tested negative for COVID-19 but are on enhanced isolation precautions:
  - Page local IP or call local command center to remove enhanced isolation precautions, **OR**
- Patients who have tested positive for COVID-19:
  - Must be at least 10 days from admission, **AND**
  - No fever for 72 hours without use of an antipyretic medication, **AND**
  - Symptoms are improving

Consider discontinuation of isolation

Clinical Note

Patient must have the following before discontinuation of enhanced isolation precautions:

- 14 days from admission, **AND** tracheostomy has been performed **AND** no fever for 72 hours without the use of an antipyretic medication **AND** symptoms are improving, **OR**
- Patients must have two negative results for COVID-19 from two consecutive NP swabs COVID-19 RNA - SARS CoV-2 Screening and Clearance collected ≥24 hours apart **AND** two consecutive negative results from tracheal aspirates, COVID-19 RNA-SARS CoV-2 Alternative Source Testing

See COVID-19 Inpatient Discharge Pathway