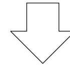
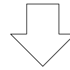
Covid workflow in the Emergency Department

Patient arrives in the ED



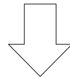
Screen all presenting patients for:

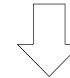
1. ILI (Influenza like illness) symptoms
2. CLI (COVID like illness) symptoms
3. History of Covid
4. Recent completed or pending Covid test



Order the following for ill appearing ILI/CLI patients:

1. Rapid SARS-COV-2
2. CBC w/diff
3. CMP
4. Chest xray





To be admitted

Viral testing – order Respiratory Pathogen Panel

Guidelines for admission:

1. Hypoxia *(O2 less than 92% on 2L or 90% on room air)*
2. Symptomatic SOB *(resp rate >22)*
3. Heart rate >100
4. Sit/stand exertional O2 sat drop of 3% or more, or less than 90%, along with other significant comorbidities and/or significant chest xray findings
5. Risk factors for severe COVID:
   - Male
   - Age (60+)
   - African American
   - Obesity (BMI 30+)
   - DM/HTN
   - Heart disease
   - Renal disease
   - History of CHF, COPD, or asthma
   - Immunocompromised
6. Elevated inflammatory markers
7. Inability to isolate at home and keep high-risk individuals who live with the patient safe

If #7 is the only reason for admission, work with case management on potential alternate housing options.

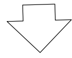
Refer to the ACEP Covid19 Severity Tool

To be discharged

1. Viral testing – order Rapid Flu A/B/RSV
2. Order and administer mABs for eligible patients
3. Discuss safe discharge plan
4. Explain return precautions

Reviewed 10.28.2021

Covid positive patient admitted to a medical unit



Manage orders

Labs

Ensure D-dimer and CRP were done on day of admission

Follow normal criteria for ordering a c diff test in the first 3 days. After 3 days, restrict c diff ordering to:
- new or worsening symptoms
- leukocytosis and/or imaging consistent w/colitis
- no laxatives within 2 days prior to onset of symptoms

Medications

Assess for clinical trial eligibility prior to administration of COVID active therapeutics

Order dexamethasone if hypoxemic from COVID, unless contraindications.*

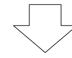
Order remdesivir if ALT results <10x ULN, and if hypoxemic, immunosuppressed, or indicated by ID consultant*

Baricitinib OR tocilizumab may be considered an option to be added to standard of care therapy (dexamethasone +/- remdesivir) in patients who require high-flow oxygen, non-invasive mechanical ventilation, invasive mechanical ventilation or ECMO. There is no benefit for use in patients who do not require high levels of oxygen support.

*Click links for more details on therapeutic dosing evidence review, and for additional therapeutic options.
NIH COVID-19 Treatment Guidelines
IDSA COVID-19 Treatment Guidelines

Follow weight- and GFR-based prophylactic anticoagulation in the COVID order set, unless documented contraindication

Avoid antibiotics unless leukocytosis, focal lobar infiltrate, or clinical decompensation.
Doxy or Azithro/ceftriaxone as first line if CAP suspected.
If considering antibiotics, order serial procal.



Follow protocols

Goals

Discuss and document goals of care. Consult palliative care if needed to assist.

HCPOA documented and scanned in to the chart

Mobility

Practice early mobility guidelines when able. When the patient is in bed - consider self prone positioning and lateral repositioning for all hypoxic patients.
Contraindications: inability to turn in bed, altered mental status, risk for aspiration

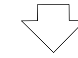
Use the mobility algorithm to determine if PT/OT is needed

Include therapies in rounds

Monitor O2 sat on room air or patient's home O2 level. Notify provider if O2 sat <90 with ambulation and sustained despite pause in mobility.
Consider therapeutics specific for hypoxia if this is noted.

Infection Prevention

Maintain CAUTI and CLABSI prevention pathways



Plan for discharge

Throughout Admission

Include social work/case management in local IDR process for all Covid admissions. Use the discharge checklist to facilitate discharge planning, considering:
1. Anticipated discharge location/post acute services
2. Insurance coverage
3. Safe quarantine plan
4. PCP follow up plan

Retest for COVID as required by receiving LTAC, SNF, or psychiatric facility

Discharge Guidelines

Guidelines for discharge to home:
1. O2 sat above 90
2. Improved fever curve
3. Assessment of deterioration risk based on:
   - Day of illness
   - Inflammatory markers
   - Patient symptoms
4. Safe isolation plan
5. Counsel on family isolation precautions

Post Discharge

Initiate INR monitoring for warfarin patients, including which doctor will follow or register for anticoagulation clinic if possible

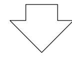
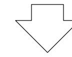
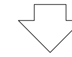
Offer psychologic support for survivors

Medication Footnote

- Shortages of tocilizumab are intermittent and expected to be ongoing for the near future. Supply is limited at all NM sites. Sarilumab is an alternative IL-6 inhibitor which also may be considered, however supply is also very limited. Check with pharmacy to determine current availability status.
- Baricitinib may also be considered when IL-6 inhibitors are unavailable. There have, however also been reports of baricitinib unavailability, so check with pharmacy to determine current supply status.

Reviewed/Updated 1.20.2022

Covid positive patient admitted to an intensive care unit

Manage orders

Labs

Order additional labs:
- RPP, urine legionella, urine strep, blood cx, sputum
- If intubated: BAL culture, lower respiratory tract panel

Order Covid initial specific labs:
- CRP, D-dimer
- Consider ferritin, troponin, procal, CK, LDH
- Repeat at clinician discretion, not more than q48 hrs

Medications

Order dexamethasone if hypoxemic from COVID, unless contraindications*

Order remdesivir if ALT results <10x ULN, and if hypoxemic, immunosuppressed, or indicated by ID consultant*

Tocilizumab may be considered an option to be added to standard of care therapy (dexamethasone +/- remdesivir) in patients who require invasive mechanical ventilation or ECMO.

Baricitinib OR tocilizumab may be considered an option to be added to standard of care therapy (dexamethasone +/- remdesivir) in patients who require high-flow oxygen, non-invasive mechanical ventilation. There is no benefit for use in patients who do not require high levels of oxygen support.

*Click links for more details on therapeutic dosing evidence review, and for additional therapeutic options.
NIH COVID-19 Treatment Guidelines
IDSA COVID-19 Treatment Guidelines

Follow weight- and GFR-based prophylactic anticoagulation in the COVID order set, unless documented contraindication

If CAP/HAP coverage is initiated, stop as soon as possible based on clinical laboratory assessment.
Do not continue coverage longer than 48 hours unless indicated.

Follow protocols

Goals

Discuss and document goals of care. Consult palliative care if needed to assist.

HCPOA documented and scanned in to the chart.

Mobility

If no contraindications present, proning if P to F ratio<150 at least 16 hours per 24hrs.

Patients with ARDS should follow the ARDS protocol.

Use the mobility algorithm to determine if PT/ OT is needed.

Include therapies in rounds.

Infection Prevention

Maintain CAUTI and CLABSI prevention pathways.

Transition Care

Intubated Patients

Complete early assessment of trached patients by ENT and/or SLP to downsize, assess PMV candidacy, or cap trach.

Complete SLP evaluation (swallow, Passy Muir Speaking Valve, alternative communication needs) for trached patients, if indicated.

Complete RN swallow screen for all extubated patients, with SLP referral if screen is failed.

Medication Footnote

- Shortages of tocilizumab are intermittent and expected to be ongoing for the near future. Supply is limited at all NM sites. Sarilumab is an alternative IL-6 inhibitor which also may be considered, however supply is also very limited. Check with pharmacy to determine current availability status.
- Baricitinib may also be considered when IL-6 inhibitors are unavailable. There have, however also been reports of baricitinib unavailability, so check with pharmacy to determine current supply status.

Reviewed/Updated 1.20.2022