Northwestern Medicine®

COVID-19 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-19
4. Recent completed or pending COVID-19 test

Order the following for patients with ILI/CLI who appear ill:

1. Rapid SARS-CoV-2
   - A. If severely immune compromised, prefer rapid flu A/B/SARS-CoV-2 test over sole SARS-CoV-2 test if feasible during all evaluations.
   - B. For all others **only when influenza risk is high per IDPH/CDPH**
     - a. Patients with moderate to severe illness and likely to be admitted with symptomatic viral illness: full respiratory pathogen panel
     - b. Patients to be discharged: rapid flu A/B/SARS-CoV-2 test
   - C. Routinely when not at high risk of influenza for all non-severely immune compromised patients with CLI/ILI, order SARS-CoV-2 test then work up as per test results.
     - If positive, treat as COVID-19.
     - If negative, continue further work-up; however, if high clinical suspicion, continue COVID-19 precautions.
2. CBC w/diff
3. CMP
4. Chest X-ray

To be admitted:

1. Viral testing – as above
2. Guidelines for admission:
   - A. Hypoxia (O_2 sat less than 92% on 2L or 90% on room air)
   - B. Tachypnea (resp rate >22).
   - C. Heart rate >100
   - D. Sit/stand exertional or ambulatory O_2 sat less than 90%
   - E. Consider those at high risk for severe COVID-19 and/or significant chest X-ray findings (CDC Risk Factors for Severe COVID).

To be discharged:

1. Viral testing – as above
2. Consider outpatient therapies for COVID-19 (e.g. Paxlovid, molnupiravir).

   Refer to ASP/ID COVID-19 Guidance for Outpatient Therapy for dosing, contraindications and interactions.

   (NM ASP COVID Guidance for Outpatient Therapy)
3. Discuss safe discharge plan: (CDC Isolation Guideline)
4. Explain return precautions

Reviewed 7/2022

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When Patient Tests Positive for COVID-19 and Is Admitted to 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-19 active therapeutics

Order dexamethasone if hypoxemic from COVID-19, 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.

Consider Paxlovid for patients who test positive, have risk for progression to severe disease, are mildly symptomatic without supplemental oxygen requirements, and have no contraindications. Consult with pharmacist as Paxlovid does entail some risk for serious drug interactions. Click links for more details on therapeutic dosing evidence review, and for additional therapeutic options.

NIH COVID COVID-19 Treatment Guidelines

IDSA COVID COVID-19 Treatment Guidelines

Follow weight- and GFR-based prophylactic anticoagulation in the COVID-19 order set, unless documented contraindication. Refer to Anticoagulation in COVID-19 Clinical Guideline.

If CAP suspected, refer to CAP guidelines Northwestern Medicine Antimicrobial Stewardship

Follow Protocols

Goals

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

Advance Directives documented and scanned into the chart.

Mobility

Practice early mobility guidelines when able. Examples include: sitting edge of bed, chair for meals, up to bathroom when able with assist.

When the patient is in bed, consider self-prone positioning and lateral repositioning for all hypoxic patients.

Prone Positioning Contraindications: Spinal instability, unstable fractures, chest tubes, open wounds, shock, abdominal surgery, pregnancy (2nd or 3rd trimester), recent tracheotomy, increased ICP/IOP, maxillofacial injury.

Self-Prone Position Contraindications: Inability to turn in bed, altered mental status, risk for aspiration.

Use BMAT or mobility algorithm (where available) to determine if PT/OT is needed.

Include therapies in rounds as appropriate.

Infection Prevention

Maintain CAUTI and CLABSI prevention pathways

Plan for Discharge

Throughout Admission

Include Social Work/Case Management in local interdisciplinary rounding process for all COVID-19 admissions. Use the discharge checklist to facilitate discharge planning, considering:

1. Anticipated discharge location/post-acute services
2. Insurance coverage
3. Safe isolation plan
4. PCP follow-up plan

Retest for COVID-19 as required by receiving LTAC, SNF or psychiatric facility

Discharge Guidelines

Guidelines for discharge to home:

1. O_2 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

Consult social work if there are any identified social determinates of health (SDOH) needs.

Reviewed/Updated 10/2022

When Patient Tests Positive for COVID-19 and Is Admitted to ICU

Manage Orders

Labs

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

Order COVID-19 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-19 unless contraindications*

Continue remdesivir if previously started.

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. Refer to Anticoagulation in COVID-19 Clinical Guideline.

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.

Advance Directives documented and scanned into the chart.

Mobility

Practice early mobility guidelines when able. Examples include: sitting edge of bed, chair for meals.

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

Prone Positioning Contraindications: Spinal instability, unstable fractures, chest tubes, open wounds, shock, abdominal surgery, pregnancy (2nd or 3rd trimester), recent tracheostomy, increased ICP/IOP, maxillofacial injury.

Use BMAT or the mobility algorithm (where available) to determine if PT/OT is needed

Include therapies in rounds as appropriate

Infection Prevention

Maintain CAUTI and CLABSI prevention pathways

Transition Care

Patients Who Are Intubated

Complete early assessment of patients with tracheotomy 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 patients with trach, if indicated

Complete RN swallow screen for all patients after extubation, with SLP referral if screen is failed

Reviewed/Updated 10/2022