1

UNDIFFERENTIATED RESPIRATORY PATIENTS

ED UPFRONT RAPID EVALUATION AND TRIAGE

Fever OR SOB OR Cough?

Include subjective fever and chills. Anosmia may be early symptom.
Atypical presentations: Chest Pain, Vomiting, Diarrhea.
Risk factors: Elderly, Immunocompromised, COPD, HTN, CAD, DM.

YES → **Well Appearing AND No Hypoxia AND Normal Respiratory Rate?**

NO → **USUAL CARE**

YES → **DISCHARGE**

Well-appearing patients without extreme vital sign derangements.

1. Click the **COVID-19 Discharge box** in Dispo.
2. Use the **COVID-19 Eval button** in My Notes.
3. Order **Ambulatory COVID-19 Testing** like you would a prescription in Dispo.
   - Do this **only if clinically warranted** and the patient has no other route for testing.
4. **Give the patient strict ED return precautions.** We anticipate that a small percentage of discharged patients will deteriorate and require a return visit.

UNSURE → Consider Walking O2 Sat

- ≥ 93% → **DISCHARGE**
- < 93% → **SEND TO MAIN ED**

NO → **SEND TO MAIN ED**

Ill-appearing or high risk patients with concerning vital signs, and/or those who are unable to follow discharge instructions.

- Not all patients require labs or imaging.
- If they do, see "ED Ordering Guidelines."

For more info, see the Upfront Triage Guidelines.

2

UNDIFFERENTIATED RESPIRATORY PATIENTS

MAIN ED - ROUTINE CARE

Ill-Appearing OR
Significant Vital Sign Abnormalities?

*Hypoxia **OR** SOB **OR** Fever **OR***
*COVID-19 + with Worsening Symptoms **OR** High Risk*

Patients may appear well even with deviations in vital signs. Other factors (elderly, underlying cardiac or pulmonary illnesses, immunosuppressed states, morbid obesity) may factor into clinical judgement & decisions.

ED WORKUP

- **Supportive Care**
  - IV or Oral Fluids (avoid large fluid boluses)
  - Antipyretic (acetaminophen is preferred)
  - Nasal Cannula Supplemental Oxygen
- **Labs and Imaging**
  - Not all patients require investigations.
  - See ***Main ED - Ordering Guidelines***
  - Consider POCUS.

if

Negative Workup **AND**
Normal Respiratory Rate
AND
Room Air or Walking Sat
>93%?

YES

DISCHARGE

1. Click **COVID-19 Discharge box** in Dispo.
2. Use **Ambulatory COVID-19 Test** as needed.
3. Give patient strict ED return precautions.

Nursing Home Patients
- TBD

Psych or ETOH Patients with Mild Symptoms
- Consider admission for COVID testing with psychiatric consultation.

review

RR > 24 OR
HR > 125 OR
CURB 65 > 3 OR
O2 Sat < 93% (3L NC) AND
CXR with infiltrate

(these indicate severe disease)

YES

CALL MICU ATTENDING

3 **See Main ED - Critical Care**

NO

ADMIT TO MEDICINE FLOOR

1. Click the **COVID-19 Precautions** box in admit order.
2. Order **Inpatient COVID-19 Testing.**
3. Get continuous VS/ O2 monitoring.
4. **These patients deteriorate quickly. You must reevaluate the pt before they go upstairs** to make sure they do not need escalation of care.

UNDIFFERENTIATED RESPIRATORY PATIENTS

MAIN ED - ROUTINE CARE

Ill-Appearing OR
Significant Vital Sign Abnormalities?

*Hypoxia **OR** SOB **OR** Fever **OR***
*COVID-19 + with Worsening Symptoms **OR** High Risk*

Patients may appear well even with deviations in vital signs. Other factors (elderly, underlying cardiac or pulmonary illnesses, immunosuppressed states, morbid obesity) may factor into clinical judgement & decisions.

ED WORKUP

- **Supportive Care**
  - IV or Oral Fluids (avoid large fluid boluses)
  - Antipyretic (acetaminophen is preferred)
  - Nasal Cannula Supplemental Oxygen
- **Labs and Imaging**
  - Not all patients require labs or CXR.
  - Consider POCUS.

3 See Main ED - Ordering Guidelines

IS THE DISEASE MILD?

Negative Workup AND
Normal Respiratory Rate AND
Room Air or Walking Sat >93%?

YES

DISCHARGE

1. Click **COVID-19 Discharge box** in Dispo.
2. Use **Ambulatory COVID-19 Test** as needed.
3. Give patient strict ED return precautions.

IS THE DISEASE SEVERE?

RR > 24 OR
HR > 125 OR
CURB 65 > 3 OR
O2 Sat < 93% (3L NC) AND
CXR with infiltrate

NO

ADMIT TO MEDICINE FLOOR

1. Click the **COVID-19 Precautions** box in the admit order.
2. Order **Inpatient COVID-19 Testing.**
3. Get continuous VS/ O2 monitoring.
4. **These patients deteriorate quickly. You must reevaluate the pt before they go upstairs** to make sure they do not need escalation of care.

YES

CALL MICU ATTENDING

ADMIT TO MICU OR NP15

1. Click the **COVID-19 Precautions** box in admit order.
2. Order **Inpatient COVID-19 Testing.**

4 See Main ED - Critical Care

CURB-65 Protocol: 1 point for each of the following criteria	**C**onfusion	**U**rea >7 mmol/L	**R**R ≥ 30	**B**lood pressure: SBP≤ 90 mmHg -or- DBP ≤ 60 mmHg	Age > **65**

UNDIFFERENTIATED RESPIRATORY PATIENTS

MAIN ED - ORDERING GUIDELINES | Labs and Imaging

LABORATORY TESTS

Regular ED Sepsis Labs
CBC, BMP, LFTs, UA, CG4, Blood and Urine Cultures

Presentation-Specific Labs
Troponin or D-Dimer*

** May be confounders if clinical suspicion not high.*

Known COVID Positive, Admitted or Sick Patients

CRP	Troponin
Procalcitonin	D-Dimer
Ferritin	HIV-1/HIV-2 Ab/Ag
LDH	Cytokine panel
PT/PTT	Fibrinogen

Refer to the Lab Observations Document for more info.

IMAGING

Chest X-Ray - (*use clinical judgement)*
- If COVID likely + O2sat > 93% → **No XR**
- If O2sat < 93%, complicated disease suspected or for procedural confirmation → **Portable XR**

CT or CTA Chest → *not for COVID eval*

Note: avoid imaging to conserve PPE & prevent contamination. May use POCUS.

Typical Findings on XR or CT
Bilateral patchy opacities
Ground glass infiltrates

Atypical Findings on XR or CT
Unilateral disease
Pleural effusion (can exist)

Maximize POC Ultrasound to Avoid DI Exposures
Consider POCUS evaluations in sick or deteriorating patients

- **Lung:** pleural thickening (line looks thick)
  bilateral patchy B lines
  subpleural consolidations / larger consolidation
- **Echo:** decreased EF (pre-existing or new)
- **IVC:** fluid guidance
- **Procedures:** peripheral & central access (must use probe cover)
  performance & confirmation prior to portable CXR

- **Exposure:** clean probes and touched surfaces with purple-top Sani-wipes.
- **Potential Aerosolization:** take off unnecessary items, use probe cover, wipe down whole machine with purple-top Sani-wipes.

UNDIFFERENTIATED RESPIRATORY PATIENTS

MAIN ED - CRITICAL CARE

Respiratory Distress OR New or Increased O2 Requirement?

Attending to Attending ICU Conversation

RESUSCITATE

NO

ADMIT TO MEDICINE FLOOR

1. Click the **COVID-19 Precautions** checkbox in the admission order.
2. Order **Inpatient COVID-19 Testing.**
3. Continuous pulse ox and VS monitoring.
4. Re-evaluate frequently for signs of deterioration.

2 **See Main ED - Routine Care**

AIRWAY

Put on FULL PPE.
AIRWAY CART outside the room

- **Consider Early Intubation.**
  - Can trial up to 5L NC with facemask covering it. If fails 5L NC, use NRB. Escalate to NRB at any time.
  - **DO NOT** delay intubation.
- **Avoid NIPPV, HFNC, Venti or Neb Masks** when possible. These are aerosolizing.
- **Use RSI & Video Laryngoscopy** when possible. Avoid BVM for preox. If BVM needed, use low tidal volumes with filter.
- **Use a Negative Pressure Room** if possible.
- **Perform all other procedures while in full PPE in the room** (OG, central line, ABG).
- Refer to *COVID ED Airway and Respiratory Care Guidelines* for more information.

***Airway Bag** = Disposable stylet, glidescope covers, cord covers, one-way PEEP valve, HEPA filter.*

Full PPE = Brand New N95 + Face Shield + Hair Net + Impermeable Gown + Double Gloves + Shoe Covers

BREATHING (VENT)

- **Vent Settings: ARDSnet Protocol**
  - Low tidal volumes
  - Higher PEEP (15-20 mmHg if needed)
  - Refer to *YNHHS High Peep Protocol*
- **Nebs:** Use MDI with spacer for non-intubated pts if needed. For intubated pts, consider aerosolized adaptor for nebs.

CIRCULATION

- **Fluids: Avoid large fluid boluses.**
- **Pressors:** Consider early pressors for hypotensive patients (levophed 1st, vasopressin 2nd).
- **Central Access:** Left IJ is preferred CVC site. Confirm fluid needs and CVC placement with Ultrasound. Consider peripheral pressors if patient is too dyspneic / hypoxic to lie flat for CVC placement.

Triaging from ED to MICU or COVID Floor | 3/24/20

Tachypnea >24 or
Tachycardia >125

AND

- Fever **or**
- High-risk COVID exposure **or**
- Known COVID +

YES

Does disease quality as severe:
- SaO2 (3L) < 93%
- Chest x-ray with infiltrate

OR
- CURB-65 ≥ 3 (criteria below)

YES

Call **MICU attending**

Admit to MICU or NP15

NO

Clinical decision to admit

YES

Admit and check the **"COVID-19 Precaution"** box

NO

Discharge home with follow-up

NO

Alternate diagnosis: asthma, COPD, etc.

Usual ED evaluation and triage

CURB-65 Protocol: 1 point for each of the following criteria	**C**onfusion	**Ur**ea >7 mmol/L	**R**R ≥ 30	**B**lood pressure: SBP≤ 90 mmHg -or- DBP ≤ 60 mmHg	Age > **65**

Placeholder - ED Cardiac Arrest Guide