Seeing Patients with ILI or patients with COVID-19 and Other Medical Problems
Objective

- To prepare you to care for patients with ILI/COVID-19 in outpatient settings (urgent care, specialty care for COVID+ pts)
  - Safely → review PPE
  - Efficiently → review EPIC tools, AgileMD
  - In accordance with best practices based on current knowledge → clinical overview of disease
Limit Face to Face Visits

- Use EVIsits when possible
- These can be done (and billed for) using smart sets in epic
- Tip sheet available on intranet and Department of Medicine site
- Patients seeking COVID testing (drive through) can access via MyChart triage or call 702-2800
PPE: Definitions of Usage

- Extended use: wearing same gear for repeated contact with different pts without removing
- Universal masking: wearing mask continuously
- Re-use: removing, cleaning, and storing for future use
Eye Protection Usage Guides
3.21.2020: RE-USE

- If visibly soiled or hard to see through, remove and disinfect immediately
- Use purple or orange wipe to disinfect
- Then store for future use
- Discard if damaged or visibility cannot be restored by cleaning
- PAPRs (including lens cuff) should be disinfected and re-used

- Wear a mask ALL OF THE TIME
- Cloth masks:
  - Take home and wash every night
  - These are to protect patients and staff from us
- Change to a surgical mask before entering room of ILI patient, and then keep surgical mask on
- Discard surgical mask after
  - Displacing to eat or drink
  - Damaged or soaked through
- Wash/sanitize hands after discarding
- Put cloth mask back on
Put on PPE Outside Room

- **Step 1:** Wash/sanitize hands
- **Step 2:** Place eye protection (*goggles or face shield*)
- **Step 3:** Place face mask (if loose ties, secure at middle of head and neck)
- **Step 4:** Gown (Cover torso from neck to knees, arms to end of wrists and wrap around the back. Fasten in back of neck and waist)
- **Step 5:** Gloves to wrist
- **Step 6:** Check PPE and enter patient room
Remove Gown and Gloves In Room

1. Tear belt to untie
2. Cross arms over chest
3. Pull gown forward to remove from body
4. Remove gloves as sleeves pulled down
5. Discard in room
6. Wash/sanitize hands
After Exiting Room

- Sanitize hands
- IF removing mask, discard and then sanitize hands
- IF removing eye protection, wipe down, store in designated place, and sanitize hands
Video Demo of Donning + Doffing PPE

- https://players.brightcove.net/719220616001/default_default/index.html?videoId=6127820282001
MobLMD
EPIC Tools

- AgileMD: up-to-date algorithms for clinical decision making (this is your source of truth)

- ILI Eval Express Lane: efficiently and accurately document
  - Currently one note type: Initial ILI eval note
  - Future: ILI/COVID follow-up note
1. Open the ILI Eval Express Lane in Smartsets.

2. Click “Add Now” Next To Progress Note

3. Open CoVID Ambulatory AgileMD Pathway from Storyboard

4. Write Note
   - Reference AgileMD for clinical decision making.
   - Suggest making ROS and PE macros
   - Use F2 or Arrow to move through smartlists.
Resources & Updates

UCM Coronavirus (COVID-19) Resource Center

For clinical questions regarding the care of COVID PUIs or COVID patients, page the COVID Resource Team (p30028)

Video: How to Don and Doff Personal Protective Equipment (PPE)

Recent Updates:

- 3/22/20:
  - Due to critical shortages patients being discharged from the clinic will only receive COVID-19 testing if they are either a UCM or BSD employee
  - Updated ILI symptoms to include Rhinorrhea and Sinusitis
- 3/20/20:
  - Changed RVP test to IRP test for patients going home
  - For Direct Admit flow, combined RVP and COVID-19 testing to occur at the same time

(archived updates)
Patient has Influenza Like Illness (ILI)

**Symptoms**

- Place a surgical mask on the patient
- Place a surgical mask on the patient (rationale)
- Guidance for patients unable to wear masks

Place a surgical mask on the patient and anyone who accompanied the patient

Obtain and Document Contact Number

Confirm that contact information in demographics is correct, specifically a cell phone number for patient or someone accompanying the patient (rationale)

Notify the clinic manager immediately

Obtain and Document Contact Number

Confirm that contact information in demographics is correct, specifically a cell phone number for patient or someone accompanying the patient (rationale)
Write Note
- Reference AgileMD for clinical decision making.
- Use F2 or Arrow to move through smartlists.
5. **Complete Remaining Smartset Fields and AgileMD Orders**

   - Ambulatory providers are directed to review the “COVID-19: Ambulatory Clinics” management pathway available in AgileMD which can be accessed via the patient storyboard. Lab test orders are available within Agile.

   - **Chief Complaint**
     - COVID-19 Eval Reason for Visit
     - Influenza Like Illness

   - **Visit Diagnosis**
     - COVID-19 Eval Diagnosis
     - Febrile Symptoms (R61.89)

   - **Progress Note**
     - PROGRESS NOTE
     - INITIAL RJ EVAL NOTE

   - **LOS**
     - COVID-19 Eval LOS
     - Yes, Office Outpatient Visit 5 Minutes (R62.15)
     - Yes, Office Outpatient Visit 10 Minutes (R62.12)
     - Yes, Office Outpatient Visit 15 Minutes (R62.17)
     - Yes, Office Outpatient Visit 20 Minutes (R62.24)
     - Yes, Office Outpatient Visit 30 Minutes (R62.27)

   - **Patient Instructions**
     - COVID-19 PATIENT INSTRUCTIONS
     - UCM MPC AT HOME CARE WITH FISSILE VIRAL ILLNESS OR COVID-19
     - UCM MPC 10 WAYS TO MANAGE YOUR HEALTH AT HOME WITH A VIRAL ILLNESS
     - UCM MPC SELF-ISOLATION FOR POSSIBLE OR CONFIRMED COVID-19
     - UCM MCH (MCH LIKE SYMPTOMS) COVID-19 SCREENING WORK/SCHOOL EXCUSE

6. **Sign Express Lane**

7. **Refresh The Note**

8. **Sign the Encounter**
Ambulatory providers are directed to review the "COVID-19: Ambulatory Clinics" management pathway available in AgileMD which can be accessed via the patient storyboard. Lab test orders are available within Agile.

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<thead>
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Coronavirus

- Enveloped, single-stranded RNA viruses
- Endemic coronaviruses are frequent causes of respiratory infections globally
- New human coronaviruses included Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS)
- Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the most recently identified human coronavirus
SARS-CoV-2

- Presentation is an Influenza like illness (ILI)
- Most common symptoms (Wuhan, hospitalized patients)
  - Fever 99%
  - Dry Cough 59%
  - Myalgia 35%
  - Dyspnea 31%
  - Sore Throat 17%
  - Diarrhea 10%
  - Anosmia

- Congestion initially seemed to be a negative predictor but is now considered common
Suggested Patient Assessment: Before Entering the Room

- Review VS (temperature, pulse ox)
- Call ALL patients’ cell phones to take history and assess for ILI (questions on next slide)
- Triage ILI pts using Agile ambulatory pathway
History

- Do you work in a healthcare setting at UCM in a role with direct patient contact?
- When did you first starting having flu like symptoms?
- Which of the following do you have: fever, cough, sore throat, body aches, diarrhea?
- Are you experiencing: shortness of breath, chest pain, wheezing, abdominal pain, confusion, seizures, LOC, severe reduction in urine output, vomiting liquids? (probably will need admission)
- Have you been in close contact (within 6 feet for at least 5 minutes) with anyone who has tested positive for COVID-19?
History (chronic conditions)

- Chronic lung disease (asthma, COPD, CF)
- Cardiovascular disease (HTN, CHF, CAD, CHD), CKD, Cancer
- Blood disorder (example: sickle cell anemia)
- Diabetes or other endocrine/metabolic disorder
- Neurologic disorder (epilepsy, stroke, cerebral palsy, muscular dystrophy, spinal cord injury)
- Liver disease
- Pregnant or given birth within 2 weeks
History (continued)

- Have you received recent chemotherapy, do you have an illness (HIV), or are you taking any medications (prednisone, immunosuppressants) that may reduce your ability to fight infections?
- Do you live in close quarters with others (nursing home or long term care facility, shelter, barracks)?
Testing Options

- Routine batched testing; results < 12 hrs
- Rapid one test at a time; results < 45 min
  - For pts being admitted from ED
  - For pts being discharged from ED awaiting placement or on dialysis
- Labor and delivery

- Use COVID order within pathway and lab will determine appropriate platform
What Kind of Sample?

- NP swab in Universal Viral Transport Medium: single sample for both COVID-19 and RVP/IRP
- Nasal swab in eSwab liquid Amies transport: COVID-19 only
How to Collect a NP Sample

Consult Agile for up to date testing recommendations
How to Collect a Nasal Sample

- Insert into nostril until slight resistance met
- Rotate swab 2-3 times and hold in place for 5-10 seconds
- Repeat in other nostril with same swab
- Place in transport media
In the room if patient has ILI sx

- One provider only, with full PPE
  - BP if fever, tachycardia, or hypoxia
  - Lung exam if abnormal VS or patient appears ill (use yellow stethoscope or clean your own)
- Sample collection if indicated

For patients being discharged, appropriate handouts (supportive care, isolation guidelines depending on test positive/negative/no test, f/u instructions)
Supportive Care for Discharged Home

- Agile Pathway
- Analgesia/Antipyretics - Acetaminophen preferred over Ibuprofen
  - Acetaminophen 1000mg q6h PRN, 500mg tabs #56
- Cough
  - Tessalon 100mg TID PRN, 100 mg capsules #21
  - Codeine-Guaifenasin 10-100mg/5mL 5-10 mL q4h PRN, dispense 120mL
Supportive Care for Discharged Home

- **Nausea/Vomiting**
  - Ondansetron 4mg q6h PRN, 4mg ODT #16
  - Metoclopramide 10mg q6h PRN, 10mg tabs #16
  - Prochlorperazine 10mg q6h PRN, 10mg tabs #16

- **Diarrhea**
  - Loperamide 2mg PRN after each loose stool, maximum 16mg daily, 2mg tabs #20
Supportive Care for Discharged Home

- Asthma/COPD
  - Use prednisone with caution
  - Albuterol inhaler 1-2 puffs q4h PRN, #1 inhaler
  - Spacer: use PRN with inhaler
  - Prednisone 40mg daily x5 days, 20mg tabs #10

- Consider Tamiflu if symptoms within 48 hours
  - 75 mg bid for 5 days
Strong Considerations for Admission

- Inadequate oxygenation at rest or with ambulation (90-92% with consideration of respiratory status)
- Age > 65 or comorbidities placing the patient at high risk for poor outcome
- Other clinician concern, including typical reasons for admission such as respiratory distress or end organ damage
Other disposition considerations

- High risk for transmitting infection due to social circumstances (eg, homeless, communal living, SNF) and unable to secure safe alternative
- Consult outpatient social worker for help
- Social Work COVID-19-Homeless Liaison p30066
Testing in Patients Being Admitted (or considered for admission)

- CT (probably preferred to CXR) for patient with abnormal lung exam or hypoxia
- CBC, CMP
- Labs that indicate severe disease: Ddimer>1000, CPK>2XULN, Elevated LDH>254, CRP>100, elevated troponin, abs lymph < 0.8, ferritin>300
Possible Disease Course

Stage I (Early Infection)
- Viral response phase
- Clinical Symptoms
  - Mild constitutional symptoms
  - Fever >99.6°F
  - Dry Cough, diarrhea, headache

Stage II (Pulmonary Phase)
- IIA
- IIB
- Host inflammatory response phase
- Clinical Signs
  - Lymphopenia, increased prothrombin time, increased D-Dimer and LDH (mild)
  - Shortness of Breath
  - Hypoxia (PaO2/FIO2 ≤ 300 mmHg)
  - Abnormal chest imaging
  - Transaminitis
  - Low-normal procalcitonin

Stage III (Hyperinflammation Phase)
- ARDS
- SIRS/Shock
- Cardiac Failure
- Elevated inflammatory markers
  - (CRP, LDH, IL-6, D-dimer, ferritin)
  - Troponin, NT-proBNP elevation

8-10 days
ICU Criteria (transfers to main ER)

- Need for resuscitation
- Hypoxemic respiratory failure is the most common indication for ICU
- Progression to intubation can be rapid (12-24h)
- Shock seems uncommon (until late in course)
- Median time from symptom onset to ICU transfer is ~10 days
Additional Resources

- COVID-19 Resource Center on the intranet
- 24/7 staff resources:
  - 1-800-683-5704
  - Pager 30028
- Come to another zoom session
COVID-19 Resource Center

Below is a current list of resources available relating to COVID-19. Outpatient COVID Training and RESOURCE.

View the whole story.

Message from the Chair

Welcome to the Department of Medicine at the University of Chicago. Our department was the first department created when the medical school began over 110 years ago. It has evolved into the largest department not only in the medical school with over 345 full time faculty and research faculty but is the largest department in the University. The main missions of the Department of Medicine, scholarship, discovery, education and outstanding patient care, occur in a setting of multicultural and ethnic diversity. These missions are supported by exceptional faculty and trainees in the Department. We believe you will quickly agree that the DOM’s faculty, fellows and trainees very much represent the forefront of academic medicine – extraordinary people doing things to support the
Questions?
Telephone visits

1. Click the **Telephone Call** button. Search and find your patient.

   ![Telephone Call button](image1.png)

2. Select the **Provider** and the **Non-PVD Department**.

   ![Automatic selection for test, gianna](image2.png)

3. Indicate the call as **Outgoing**, if appropriate.

   ![3/16/2020 visit with Md Ucmc, M.D. for Telephone](image3.png)
Virtual Visit Express Lane Documentation

1. Open the SmartSets section of your Navigator and search for the Ambulatory Virtual Visit SmartSet. Select the checkbox in front of the SmartSet and Click Open SmartSet.

2. Hover over the Virtual Visit Note-Routine and Click to apply the note template.
Virtual Visit Wrap-up

3. Proceed with applying the support suggestions: add Patient Instructions, enter LOS, appropriate time based encounter, etc.

![Ambulatory Virtual Visit - Routine Follow Up](image)
4/3/2020

Is patient ≥ 18 years of age?

No

Refer to COVID-19: Pediatric Ambulatory Clinics Pathway

Yes

Patient assessment via telephone or evisit

Green/Low Risk

Symptomatic AND meets ALL of the below criteria:
- < 60 years old
- NOT a healthcare worker
- NOT living in close quarters (SNF, dorm, barracks)
- NO significant comorbidities
- NOT immunocompromised
- NOT ESRD on dialysis
- NO red flag symptoms

No testing recommended, provide patient education, isolate, call back if symptoms worsen

Yellow-Test

≥ 18 years old with ILI Symptoms

AND
No red flag symptoms

AND
Any of the following:
- ≥ 50 years old
- Presence of ≥1 significant comorbidity
- Health care worker
- Living in close quarters (SNF, dorm, barracks)
- Immunocompromised
- ESRD on dialysis

Pregnant (gestational age ≥32 weeks) or Immunocompromised?

No

COVID-19 testing, Patient education, & isolate

Yes

RVP + COVID-19 testing, Patient education, & isolate

Red Flag/High Risk

Presenting with ANY of these red flag symptoms:
- SOB
- Trouble breathing
- Chest pain
- Wheezing
- Severe and/or constant abdominal pain
- Confusion
- Seizure/loss of consciousness
- Severe reduction in urine output (less than 2x per 24 hrs)
- Vomiting liquids
OR
Personally feels they need to see a physician urgently

ED Visit

Influenza-like Illness (ILI) Symptoms
- Fever
- Cough
- Sore throat
- Body aches
- Diarrhea
- Rhinorrhea
- Sinusitis

Significant Comorbidities
- Chronic lung disease (asthma, COPD, CF)
- Cardiovascular disease (HTN, CHF, CAD, CHD)
- CKD
- Cancer
- Blood disorder (example: sickle cell anemia)
- Diabetes or other endocrine/metabolic disorder
- Neurologic disorder (epilepsy, stroke, cerebral palsy, muscular dystrophy, spinal cord injury)
- Liver disease
- Pregnancy (gestational age ≥32 weeks)
- HIV/AIDS or immunocompromised

Symptomatic AND close contact with a person who tested positive for COVID-19 (within 6 feet of the person 5 or more minutes without wearing appropriate PPE) instruct the patient to quarantine for 14 days.

Symptomatic UCM/BSD health care workers may continue to work with a mask per UCM policy.