# "I can't get over this cold!"

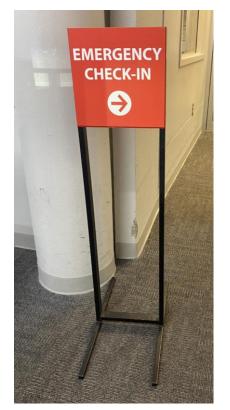
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#### HPI: 39yo M with trouble breathing



- Began 1-2 weeks ago
- Seen at urgent care, not tested but told he had "the flu"
- Continued symptoms: cough, substernal chest pain, sore throat, difficulty breathing, nausea/vomiting, diarrhea



## What additional information do you need?

- Known sick contacts?
- Vaccination status for COVID and flu?
- History of immobilizations?
- History of trauma?
- Past medical history?
- Travel or other exposures?



## HPI: 39yo M with trouble breathing



- Past Medical History: psoriasis on ustekinumab
- Social History: no known sick contacts, no travel or exposures, works in public service
- Vaccination history: Up to date on current flu and COVID-19 vaccines



## Physical Exam



- Vital Signs: Temp 39.1C, HR 123, BP 104/74, SpO2 88% on RA, RR 26
- General: ill appearing
- HEENT: posterior oropharynx clear
- CV: tachycardic but regular
- Resp: tachypneic with accessory muscle use, coarse breath sounds and rhonchi throughout all lung fields
- GI: soft, nontender
- Neuro: AOx3, no focal deficits
- Extremities: no swelling



## Next Steps – First take a deep breath yourself!

- What type of room does this patient require?
- Do you need PPE?
- What type of bedside resources does this patient require?
- What is the likely patient disposition?



## Next Steps – Consider differential diagnosis

• Infectious: viral pneumonia (COVID-19, Influenza, RSV), bacterial pneumonia, empyema/pleural effusion, tuberculosis

• Pulmonary: Pulmonary embolism, pneumothorax, reactive airway disease exacerbation

• Cardiac: heart failure exacerbation, acute coronary syndrome

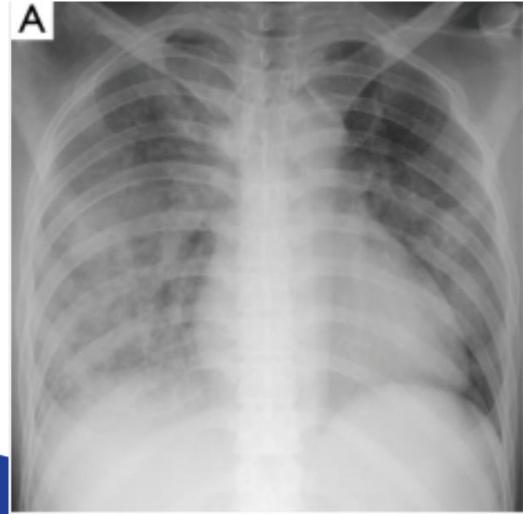


#### Next Steps – Resuscitate your patient

- Primary respiratory issue
  - O2 by NC vs nonrebreather
  - Escalate to BiPAP as needed
- IV fluids, antipyretics, empiric antibiotics
  - What would you want to cover?
- Work up labs (CMP, CBC, ABG, viral swab, cardiac), chest xray



## ED Work Up



- WBC 34.4
- ABG 7.31/PCO2 34/PaO2 78
- Cr 1.59
- Lactate 2.4
- CXR as shown
- Repeat VS: T 37.1C, HR 112, BP 100/68, SpO2 91% on BiPAP, RR 24
- Admit to ICU What type of isolation precautions?





Takahashi N, Shinohara T, Oi R, Ota M, Toriumi S, Ogushi F. Acute respiratory distress syndrome caused by *Mycoplasma pneumoniae* without elevated pulmonary vascular permeability: a case report. J Thorac Dis 2016;8(5):E319-E324. doi: 10.21037/jtd.2016.03.08

## Patient boarding in ED: RN "He looks worse"



- Repeat VS: T 37.1C, HR 112, BP 100/68, SpO2 91% on BiPAP, RR 24
- Decision made to intubate given ongoing hypoxia
- Repeat CXR
- Next steps if patient does not improve
  - Additional intensive care escalation
  - Consider ECMO (who do you call?)



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## Lab calls – Biofire + Mycoplasma pneumoniae

- What now?
  - Consult ID for guidance on antibiotics given local sensitivities and severe infection
  - Continue supportive respiratory and intensive care
- Isolation precautions?
- Anyone else you need to call?



#### Unusual presentation of a common pathogen

- Why did this happen?
- Anything that could have prevented this?
- How do you counsel the family?

