CoVID-19 : New Standards to Protect EMS

Steering through the storm

UMC
HEALTH
SYSTEM

UMC EMS

Objectives:

- **Review the history and epidemiology of CoVID-19.**

- **Examine the most recent changes in patient care and treatment for individuals with suspected CoVID-19 infection.**

- **Discuss the use of MDI inhalers and early IM epinephrine to reduce transmission risk and avoid intubation.**

- **Examine the restrictions to intubation and patient contact.**

What is CoVID-19?

- A viral respiratory illness. Antibiotics won't work.

- Coronaviruses were discovered in animals about two decades ago.

- Coronaviruses are common, but CoVID-19 is a new strain that was has not been previously identified in humans. Our immune systems have never encountered it.

- **The outbreak:**

    - Wuhan, Hubei Province, China. Population of over 11 million.

        - Thought to transmitted from a bat to human at a "wet" or "live" market. Bats are a culinary treat.

    - Estimated at 214,000 cases to date, confirmed as of 03/19/2020 worldwide

    - USA estimated 7,323 cases.

    - Death rate about 4% (8,727 deaths of 214,010 case confirmed worldwide).

    - USA death rate about 1.5% (107 deaths of 7,323 cases with 55 deaths in Washington State alone). Elderly are hardest hit.

    - https://repository.netecweb.org/exhibits/show/ncov/ncov
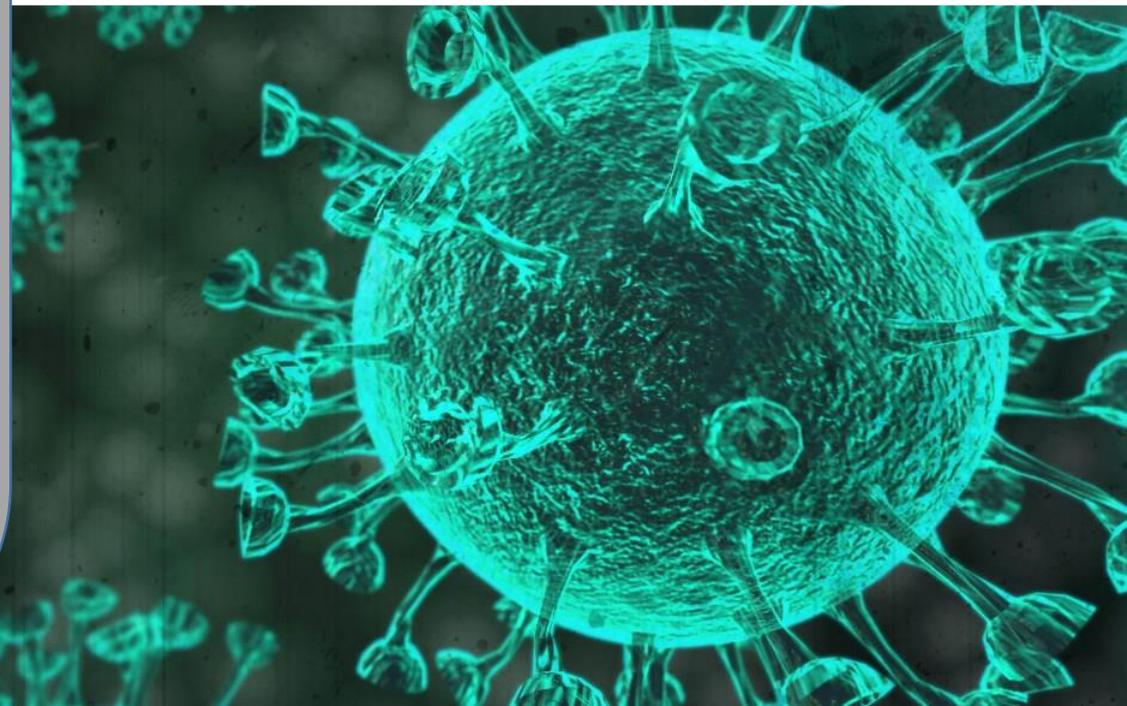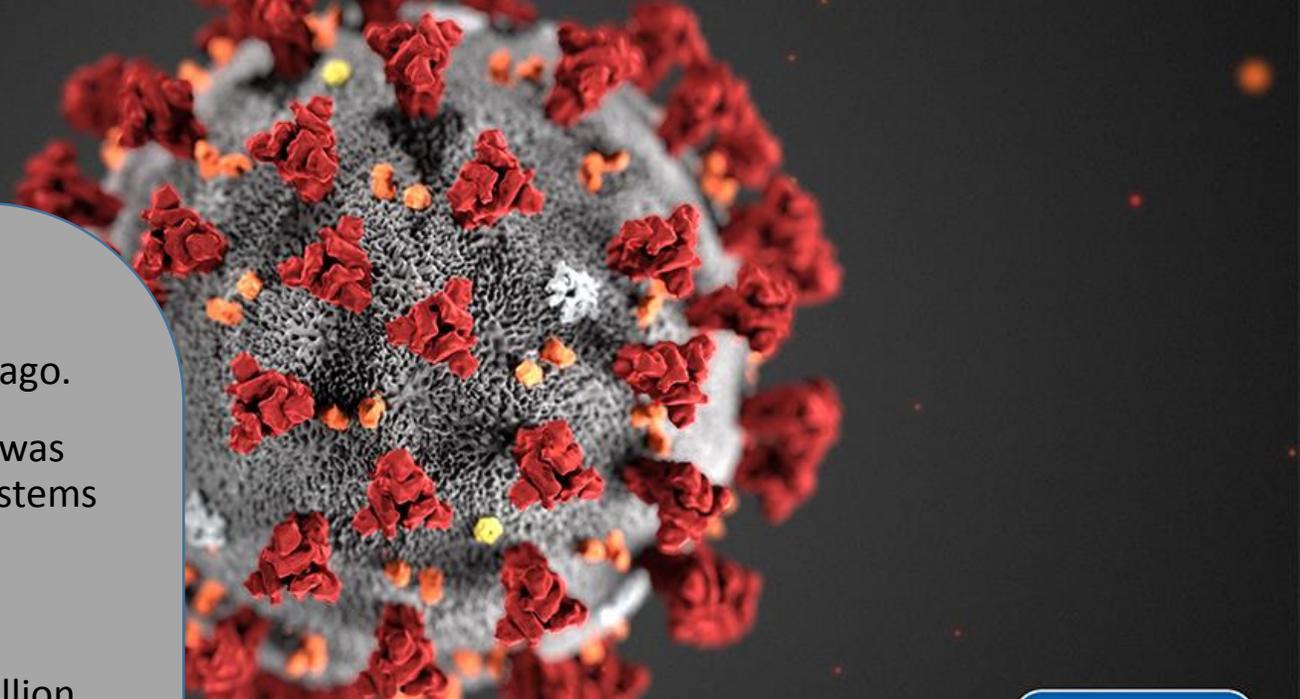
Protect Yourselves

Time / Number: Keep your duration and number of responders with the patient to a minimum.

Distance: Attempt to maintain a 6 ft distance from the patient.

Shielding: Early proper PPE is a *MUST*

Who are we concerned about?

CDC Guidelines:

- Fever greater than 100.4°F

- Cough (productive or non-productive)

- Flu-like symptoms

- Anyone in direct contact with a confirmed CoVID-19 patient
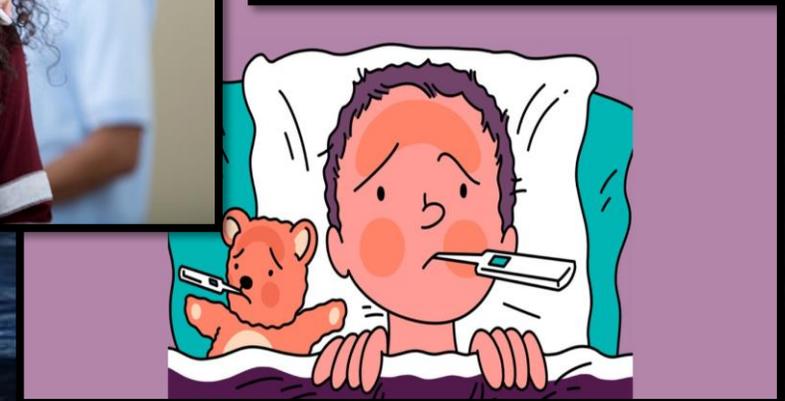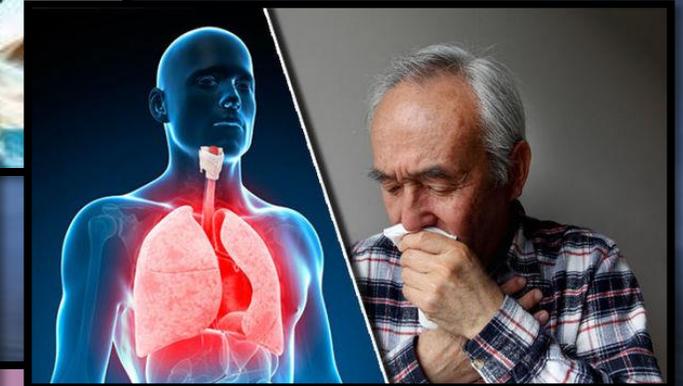
We come FIRST!

The "BUDDY" System:

- Take each other's temperature (start and end of each shift)

- Any FEVER, COUGH, or URI s/s – Report to your supervisor and DON'T come to work!

- If any point in your shift these S/S arise…Put on a surgical mask and call your Chief!

Proper PPE – More than you wear?

PPE must protect from droplet/fluid contamination

Universal precautions with proper PPE required.

- N95 mask, impermeable gown, gloves, eye protection.

- Limit patient contact to one provider only if at all possible.

- All providers should attempt to maintain a distance of 6 feet or more from the patient when feasible and does not interfere with indicated patient care.

PPE is coming in very short supply! Reuse your N-95 mask as directed

Care Changes: What if the patient needs transport?

Be cautious of aerosolization during patient care. For those with a suspected respiratory viral infection:

- **NO** nebulized medications, **NO** CPAP for these patients.

- Instead, use albuterol MDIs (Metered Dose Inhaler) ONLY to decrease risk of aerosolization. Watch this video on building a closed MDI system for your protection. This video is required and part of the education.

    - https://www.youtube.com/watch?v=8qaIk59u4mc&feature=youtu.be&app=desktop

    - We will be placing MDIs on our units in the upcoming days as they become available.

- Oxygen saturations of 88% or higher on a non-rebreather is acceptable before considering further methods.

- Use an albuterol MDI ONLY if saturations are less than 88% on supplemental oxygen.

- If an MDI is used, epinephrine by IM is **highly recommended** (0.3 mg or 0.15 mg). Paramedic skill only. Lower certification levels must call for a 211 if Epinepherine is neeed.

- Consider EARLY EPI for wheezing even with a fever and signs of CoVID-19. Goal is to prevent intubation.

The Metered Dose Inhaler (MDI) Mask

Gather up a non-rebreather (NRB) mask, nebulizer, and the medication in an inhaler.

1. Remove and discard the bottom portion (bag) of the NRB, just like when you're setting up a nebulizer mask. Apply ECG electrodes over the ports to block them. The patient will need to wear a nasal cannula for oxygen under this setup --- no oxygen is going through this mask.

2. Attach the corrugated tubing to the mask *(this one is from a nebulizer kit)*

3. Shake the albuterol canister, and then slip the mouthpiece of the metered dose inhaler into the other end of the tube. It'll fit. Administer the puffs of medication, have the patient breathe it in, and then remove the mask. This is not intended to provide supplemental oxygen... the nasal cannula will.

Intubation?

So, you've made the decision to intubate. *Well...*

Intubation is <u>discouraged</u> for suspected CoVID-19 patients due to respiratory droplet precautions.

- **King Airway is approved, but to be used only in extreme situations .**

- **No CPAP. No nebulized medications.**

At the hospital

Driver goes directly into the hospital to receive instructions from the charge nurse while the treating 'medic remains with patient in the ambulance.

When brought into the emergency center, the patient should wear a surgical mask (not an N95) if on room air or with a nasal cannula. Be mindful of what you touch and where... do NOT contaminate the emergency department.

Reminder:

Not every patient has CoVID-19.

This education and change in practice applies only to those patients with suspected CoVID-19 and/or as suggested per dispatch categorization.

For our other patients, follow protocols as usual.

Finally...

With CoVID-19 tests still in short supply and we're still learning about signs, symptoms, and patient outcome:

Don't make assumptions. We can't scan for CoVID-19, there's no bedside test, and your patient may surprise you in the end.

Questions?

Please contact your supervisor