NWC EMSS COVID-19 Guidelines 3-24-20

All patients presenting with acute respiratory symptoms, especially respiratory failure, pneumonia and fever >100° F should be considered to be infected with COVID-19 until proven otherwise (IDPH).

Minimize chance for exposure: Implement safety measures before arrival, upon arrival, throughout the duration of patient care, and until the ambulance is cleaned and disinfected.

PSAPS/EMDs and pre-arrival notifications:

- EMDs should question callers to determine possibility of S&S and/or risk factors for COVID-19.
- If COVID-19 suspected: Notify EMS providers in advance of a CONTACT ALERT (PPE may be needed)

EMS Pre-arrival preparation and donning of PPE prior to patient contact:

- When alerted by EMD: Don Contact/droplet precaution PPE before entering scene
- **Limit responders who initially don PPE and approach patient within 6 feet to one or two persons**

Screening questions upon pt. contact: Keep distance of 6 ft from pt until PPE applied			
In the past 14 days, have you been in close contact (<6 ft) with a person with suspected or confirmed Covid-19 illness?			
Do you have any of the following S&S?			
☐ Fever > 100° F	☐ Abdominal discomfort	☐ Lightheadedness	☐ Bruising/bleeding
☐ Cough	☐ Anorexia/nausea/vomiting	☐ Sore throat	☐ Rash
☐ Shortness of breath	☐ Diarrhea	☐ Muscle pain/myalgia	☐ Red eye
☐ Severe headache	☐ Fatigue/weakness	☐ Other:	
Have you or a close contact traveled outside Illinois or the US in the last month?			

If risk for Covid-19 is discovered during screening, don appropriate **PPE** if not done so already.

EMS PPE: (limit crew exposed to 1 or 2 persons)

- **CONTACT/DROPLET** precautions: Nonsterile gloves, procedure (surgical) facemask, eye protection orfull face shield; gown (shoe covers if you have them). Expected # per front line ambulance: 4 surgical masks (2 EMS personnel; 1 pt, 1 for person disinfecting rig); 3 gowns, 3 eye protection/face shields; 3 sets of gloves.
- **AIRBORNE** precautions: Contact & droplet PPE PLUS **N95 mask only when performing procedures likely to generate respiratory aerosols: BVM ventilation prior to ETI; ETI procedure;** patients with tracheostomy/ stoma, and during cardiac arrest resuscitation. Expected # N95 masks/vehicle: 2

Patient PPE: Procedure (surgical) mask. Ensure they adhere to respiratory hygiene and cough etiquette

Clinical course/progression of Covid-19 illness

Varies in severity from asymptomatic to mild illness (80%) to severe or fatal illness (20%). Reports suggest potential for rapid clinical deterioration during 2nd week of S&S. More severe illness is characterized by bilateral interstitial pneumonia with dyspnea (5-13 days after onset of S&S) that may progress to ARDS, respiratory failure, sepsis, septic shock and multiple organ dysfunction syndrome (MODS).

EMS Assessment/Care

Suspect pneumonia if: Temp >100°F (37.8°C), productive cough, isolated crackles; SpO_2 <94%; HR >100

1. **IMC:** Assess SpO_2; baseline ECG; full set of VS including measured temperature for evidence of fever
   Diabetics may experience glycemic control issues and DKA – assess glucose levels; hydration status & for evidence of acidosis (increased RR)
2. Obtain history to include risk factors for severe illness (see below) plus screening questions.

Mild illness/low risk for complications:

3. **IMC: Supportive care.** . Encourage rest, fluids, and non-aspirin OTC pain relievers and fever reducers.
   Determine if patient meets non-transport criteria.

Moderate distress: Bilaterally wheezing and/or SOB

4. **IMC: Give O_2 per NC or NRM based on SpO_2 readings. Anticipate severe hypoxia.**
5. **Hx Asthma or COPD** (not ARDS) **with wheezing and good ventilatory effort**
   - **NO Nebulized medications** by EMS at this time due to risk to others.
   - **ALBUTEROL MDI** (90 mcg/puff) with spacer: - anticipate an inhaler shortage; may use after expiration date
     - Adult:: 8 puffs every 20min up to 4 hours then every 1-4 hr
     - Peds: 8 puffs every 20 min for 3 doses
   - **IPRATROPIUM MDI** (18mcg/puff) with spacer:
     - Adult: 8 puffs every 20min, as needed for 3 hours
     - Peds: (severe asthmatic cases only): 4-8 puffs every 20 min as needed, up to 3 hours **OR**
   - Combination Inhaled MDI: Albuterol with Ipratropium (90 mcg albuterol with 18 mcg ipratropium per puff)
     - Adult: 8 puffs every 20min, as needed for 3 hours 3
     - Peds: (severe asthmatic cases only): 4-8 puffs every 20 min as needed, up to 3 hours

CRITICAL (Severe distress): Severe SOB, use of accessory muscles, speaks in syllables, tachypnea, lung sounds may have wheezes, crackles, be diminished or absent; HR & BP may be dropping; SpO_2 <94%; ventilatory failure with severe hypoxemia and hypercarbia (ETCO2 >45) may occur in pts with pneumonia or exacerbation of underlying airway disease. Monitor carefully for development of septic shock.

Time sensitive

IMC special considerations:

ALS

- Assess $ETCO_2$
- **If ventilatory failure: ADD N95 mask to EMS PPE**: Assist ventilations with 15 L O_2/BVM (tight mask seal with 2-person technique while preparing to intubate
- **NO CPAP** on these patients in the out of hospital environment due to aerosolization risk
- Pneumonia may progress rapidly to acute lung injury and ventilatory failure. Pts typically easy to ventilate, they do not develop classic stiff lungs as seen with ARDS.
- Prepare resuscitation equipment - anticipate rapid development of cardiac arrest

ASTHMA Hx ONLY – Severe distress; no improvement from above or critically ill:

EPINEPHRINE

- ADULT: (1mg/1mL) **0.3 mg IM** [BLS]
- PEDS: Typical dosing: <25 kg (**54 lbs**): 0.15 mg ≥25 kg (55 **lbs**): 0.3 mg **IM** (vastus lateralus muscle) [BLS].
- **Begin transport as soon as Epi is given; Do not wait for a response**
- May repeat X 1 in 10 min if minimal response

If severe distress persists: MAGNESIUM (50%)

- **Adult: 2 Gm** in16 mL NS (slow IVP/IO) over 5-10 min. Max 1 Gm / minute.
- **PEDS: 25 mg/kg (max 2 Gm) in NS to total volume of 20 mL (slow IVP) over 10 min. Max 1 Gm/5 min.**

6. **IV NS TKO -**Do not fluid overload these patients: the lungs are like sponges due to inflammatory processes
7. If $ETCO_2$ ≤31: **Assess qSOFA criteria** and treat per **SEPSIS SOP** with NOREPINEPHRINE if hypotensive

Notes on PPE Conservation from CDC and IDPH

- Facemasks are an acceptable and currently required alternative to N95 masks until the supply chain is restored.
- Follow extended use of masks and reuse per CDC guidelines: Maximize mask use by preserving them in a paper bag or breathable container. May use N95 masks beyond their expiration date.
- Prioritize N95 mask use for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to HCP.
- Eye protection/face shields, gown, and gloves continue to be recommended.

If there is a shortages of gowns -prioritize for aerosol-generating procedures and care activities where splashes and sprays are anticipated, and high-contact pt care activities that provide opportunities for transfer of pathogens to the hands and clothing of HCP.

When the supply chain is restored, fit-tested clinicians should return to use of respirators for patients with known or suspected COVID-19.

Resources:

CDC Guidance for Contingency Strategies: https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/contingency-capacity-strategies.html
Interim Guidance for EMS: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html
Extended Use Guidance: https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html

Risk factors for severe illness from Covid-19	
• Age 65 years and older • Residents in a nursing home or long-term care facility • Chronic lung disease; moderate to severe asthma • Heart disease with complications • Diabetes mellitus • Renal failure, liver disease • Obesity with a BMI of 40 or higher	**Immunocompromised state:** Cancer treatment, bone marrow or organ transplantation, immune deficiencies, poorly controlled HIV or AIDS, and prolonged use of corticosteroids and other immune weakening medications. Pregnant women should be monitored (known to be at risk with severe viral illness), no data has shown increased risk

TRANSPORT DECISION

- Patients who are at high risk for severe illness and/or have moderate to severe symptoms, such as fever ≥100° F, cough, and/or difficulty breathing, should be transported. If there is any question as to the medical system being overloaded and need for an alternate evaluation site, contact OLMC before leaving the scene.
- Notify receiving hospital ASAP that you are transporting a potential Covid-19 patient.
- **No support person may accompany a patient** in the ambulance unless a minor. All others should be advised to follow in their private vehicle but will likely not be allowed to enter the hospital. Ensure surgical mask on patient (unless intubated) and parent/guardian of a minor.
- Activate exhaust fans in the ambulance**.**

NO TRANSPORT CONSIDERATIONS:

EMS transport of non-critically ill persons with possible COVID-19 infections may not be in the best interest of the patient, providers, or healthcare system. It is our goal to ensure the greatest good for the greatest number during this public health emergency and to conserve and preserve scarce resources for when they are most needed.

CANDIDATES for ASSESS AND RELEASE – Shelter in Place

Asymptomatic: Person is asymptomatic and concerned about possible exposure. Encourage them to take their temperature twice a day, be alert to S&S of illness, and contact their personal healthcare provider for direction.

Symptomatic

- History of possible (but not confirmed) exposure
- Patient is younger than 60 years of age
- No risk factors: travel, co-morbidities or S&S of severe illness (see above)
- Mild symptoms: fever, cough, without alternative diagnosis (flu, RSV, etc.) with VS/GCS WNL for patient

If YES to all of the above: Patient is a candidate for NON-Transport. **Process Refusal per usual procedure.**
Mildly ill patients should be encouraged to stay home for at least 7 days and contact their healthcare provider by phone for guidance about possible testing and clinical management.

Refusal disclosure to patient:
Based on your age, medical history, and our current assessment, you may have an infectious condition that could include Covid-19, but your condition currently appears mild. Currently, hospitals are unable to test everyone who presents to the ED and immediate care for mild cases consists of rest, hydration, taking acetaminophen (Tylenol) for fever and muscle aches.
Fortunately, you do not currently meet the criteria for evaluation in the emergency department. In order to limit exposures and preserve resources, we will not be transporting you to the hospital. We encourage you to contact your personal healthcare practitioner. Many medical groups are able to conduct a virtual visit if you have computer access. There are also state and county hotlines set up if you would like to call them for information, If your condition worsens please do not hesitate to call your doctor, call us again, or have someone take you to the emergency department.

Standard ambulance cleaning / disinfection

1. **Disinfect stethoscope heads** and other frequently-handled items after each patient.
2. **General recommendation**: Follow CDC Guidelines. Don full contact/droplet PPE. Open ambulance doors for 30 minutes. Observe ambulance at all times to protect critical drugs/supplies. Thoroughly clean all planes and crevices; spray with approved disinfectant registered by the EPA to kill bacteria, viruses and TB. If using a spray, hold dispenser 10" from surface and atomize with quick short strokes, spraying evenly on (potentially) contaminated areas until wet. Allow wet dwell time per manufacturer's instructions. After that, wipe down with a clean towel dampened with clean water then dry thoroughly. Remove/clean residue that may be left behind from disinfectant.

NORTHERN IL

LHDs	Hotline Number
Cook	708.633.3319 ccdph.covid19@cookcountyhhs.org
DuPage	630-221-7030 (8 am – 8 pm)
Evanston	847.448.4311
Will	815-740-7630
Kankakee	815-802-9311
Stephenson	815-801-4636
Winnebago	815-319-6705 (8am-7 pm)

DOWNSTATE IL

CUPD	(217) 239-7877
Sangamon	(217) 321-2606 (7.30 am – 5 pm)
Jackson	1-800-985-5990; (Disaster Distress Helpline)

HOSPITALS

SIH	1-844-988-7800 (24 Hr)
Beloit Health System	1-800-303-5770 (9am-5pm)
KSB Dixon	1-815-285-7777 (9am-5pm)
OSF St. Anthony's Belleville	1-883-673-5669 (24 Hr)
Memorial Hospital Belleville and Memorial East	1-618-607-1259 (24 Hr)
Advocate Health System	1-866-433-2584
Northwestern Medicine Health System	1-312-47-COVID
Edward-Elmhurst System	1-331-221-5199
Rush	1-888-285-RUSH

Resources

- Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected: Interim guidance V 1.2. https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected
- Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19)https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html#minimize
- Italy (2020-03-13) Guidelines for the treatment of people with COVID-19 disease Edition 2.0, 13 March 2020 https://covid.idwiki.org/books/protocols/page/italy-%282020-03-13%29