Agenda

• Situational update
• Battelle Critical Care Decontamination System
• COVID-19 guidance updates
• Moderated Question and Answer session
Situational Update
United States Population Adjusted Mortality

- **Observed case-fatality ratio**
  - **Deaths per 100,000 population**

<table>
<thead>
<tr>
<th>Country</th>
<th>Observed Case-Fatality Ratio</th>
<th>Deaths per 100,000 Population</th>
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</thead>
<tbody>
<tr>
<td>Peru</td>
<td>0.25</td>
<td>80.27</td>
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<tr>
<td>Chile</td>
<td>0.20</td>
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<td>Brazil</td>
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<td>US</td>
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<td>Mexico</td>
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<td>Bolivia</td>
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<tr>
<td>Colombia</td>
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<td>South Africa</td>
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<td>Turkey</td>
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<td>Ukraine</td>
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<td>India</td>
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<td>Philippines</td>
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<td>Indonesia</td>
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<td>2.77</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>0.03</td>
<td>2.09</td>
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</table>
Maryland Situational Updates

Hospitalized COVID-19 Patients

Number of COVID-19 Positive Patients in Acute Care and ICU

Source: CRISP, 2020. CRISP MIE M55 FRED SmartSheet Download.
COVID-19 Current State

• Symptoms appear within 2-14 days of exposure to the virus:
  • Fever or chills
  • Cough
  • Shortness of breath
  • Sore throat
  • Congestion/rhinorrhea
  • Fatigue
  • Myalgias / muscle aches
  • New loss of taste or smell
  • Nausea, vomiting or diarrhea

• Consult / Inform receiving hospital of all PUI patients
Personal Protective Equipment

• EMS clinicians should wear simple face masks on all calls

• All patients transported by EMS should wear a simple face mask

• PPE for EMS Clinicians treating PUI Patients:
  • Gown
  • Gloves
  • Eye protection
  • N95 respirator (fit-tested) should be worn:
    • When providing direct patient care to PUI pts
    • Within 6 feet of PUI pts
    • Any aerosol-generating procedures being performed
    • All cardiac arrests
  • (Other clinical scenarios – i.e. > 6 feet away – wear a simple face mask)
In-Station Masks

• Masks in the station and places where social distancing is not possible are essential to lowering rate of transmission

• Masks in public/stations
  • Cloth/personal masks are ok when not treating patients
  • To lower risk of asymptomatic transmission
  • Do not wear cloth masks on Fire/EMS calls
  • A simple face mask could be substituted if supply available but it should be re-used (if not used for EMS calls)
KN95 Masks

- Many KN95 masks have now been tested by NIOSH and do not filter 95% of airborne particles.
- Most imported KN95s have failed testing - may relabel and use as a simple face mask.

Crisis strategy: Reuse of masks

- Only used in crisis capacity (critically low/no masks)
- Extended use vs. Reuse (EMS)
  - Extended use – wear to see multiple patients without removing
  - Reuse – involves doffing and then donning the mask again
- No way to determine number of safe reuses
- Ensure fit and form
- High risk of contaminating the mask (touching the mask/face area)
Infection Control Guidance

• Consider asking the patient come out of building, if able/safe to do so

• Limit the number of clinicians treating the patient (within 6 ft)

• Do not transport family/friends in ambulance, unless absolutely necessary (minor)
Patient Care

• **Limit** nebs, CPAP or respiratory procedures unless severe distress
  • Turn off nebs prior to entering hospital
  • Cover neb chamber with a mask

• Protocols: IM Terbutaline (mod-severe) or IM Epinephrine (severe or kids)

• **Intubation**
  • Consider Video laryngoscopy if intubation required
  • Most experienced intubator
  • Pause compressions briefly during intubation
  • No prolonged attempts (consider supraglottic prior to this)

• HEPA filter on BVM (if available)
PANDEMIC TRIAGE PROTOCOL

- 24 jurisdictions currently participating
- When checklist used, 26% of patients qualified to remain at home (as of 8/31/20)
- Follow-up calls or visits encouraged but not mandatory
- eMeds documentation
  - Not signed – patient contamination
  - Release on scene
Battelle Critical Care Decontamination System (CCDS) [Will Sundown in October]

- Designed to decontaminate N95 masks
- Services acquired by the US Department of Defense through the Defense Production Act
  - Operated at no direct cost to healthcare organizations
MIEMSS is working with Battelle to complete steps 1 & 2 on behalf of the State-wide EMS system.
CCDS Roles

**Your Facility's Responsibility**

- Your Battelle POC will provide you with 3-digit codes for each facility
- The 3-digit code must be written on each individual N95
- Collect all N95 respirators into a single plastic bag
- Once the plastic bag is filled, tie off the bag and put it into another plastic bag
- Clean the outside bag with disinfectant
- Shipping box must be labeled with the 3-digit code and a biohazard sticker
- You can either use a logistics provider of your choice or Battelle's preferred logistics provider

**Battelle CCDS™ Process**

- Your shipments are barcoded to ensure chain of custody
- Your N95 respirators are exposed to the vapor phase hydrogen peroxide process
- After processing, your N95 respirators are verified to ensure they are free of decontaminant
- The logistics provider returns your decontaminated N95 respirators back to your facility
Marking Masks

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**Site Code**
(Assigned by Battelle Point Of Contact)

**Site Location ID**
(Assigned by Healthcare Facility)

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LABEL HERE

LABEL HERE
Packaging

- N95s must be in a sealed bag (tied is OK) and then double bagged.
- Bags must be placed into a cardboard box and appropriately labeled.
- Vendor shipping labels will be available for each EMSOP through Battelle.
- 49 CFR labeling will be provided to each EMSOP by MIEMSS.
Shipping

• May be shipped through Battelle’s vendor (currently FedEx)
• EMSOP’s may perform delivery and pick-up of masks, if communicated to Battelle
EMS Clinician Follow-up Process

• COVID-19 positive cases must be reported by hospitals to EMS (primary)
  • MIEMSS has provided updated list of county infection control officers to EMS base station hospitals
  • EMS can inform police agencies (Ryan White Act changes)

• CRISP access by the jurisdictional infection control officer (secondary – for participating EMSOPs)
  • Also available to commercial services via SOCALR
Guidance on Possible Exposures

- Monitoring twice daily
  - Temperature and symptom checks

- **NOT** an exposure
  - EMS clinicians who are farther than 6 feet from the patient or
  - EMS clinicians who are within 6 feet of the patient for less than 15 minutes and not performing respiratory procedures
  - No direct contact with respiratory secretions (without PPE)
  - EMS clinicians who are wearing appropriate PPE when interacting with a patient
Possible Exposures

• Possible exposure (without PPE):
  • Prolonged close contact (> 15 minutes) with a suspected COVID-19 patient and
  • Within 6 feet of the patient or
  • If they have performed any respiratory procedures without appropriate PPE (intubation, nebulizer treatments, CPAP, oxygen) or
  • Direct contact with respiratory secretions
## Possible Exposures

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Personal Protective Equipment Used</th>
<th>Work Restrictions</th>
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<tbody>
<tr>
<td>HCP who had prolonged close contact with a patient, visitor, or HCP with confirmed COVID-19</td>
<td>• HCP not wearing a respirator or facemask&lt;br&gt;• HCP not wearing eye protection if the person with COVID-19 was not wearing a cloth face covering or facemask&lt;br&gt;• HCP not wearing all recommended PPE (i.e., gown, gloves, eye protection, respirator) while performing an aerosol-generating procedure</td>
<td>• Exclude from work for 14 days after last exposure&lt;br&gt;• Advise HCP to monitor themselves for fever or symptoms consistent with COVID-19&lt;br&gt;• Any HCP who develop fever or symptoms consistent with COVID-19 should immediately contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.</td>
</tr>
<tr>
<td>HCP other than those with exposure risk described above</td>
<td>• N/A</td>
<td>• No work restrictions&lt;br&gt;• Follow all recommended infection prevention and control practices, including wearing a facemask for source control while at work, monitoring themselves for fever or symptoms consistent with COVID-19 and not reporting to work when ill, and undergoing active screening for fever or symptoms consistent with COVID-19 at the beginning of their shift.&lt;br&gt;• Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.</td>
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Staffing Shortages

• Face masks should be worn on all EMS calls, so there should be few work-related exposures that require quarantine.

• If staffing shortages occur, it might not be possible to exclude exposed clinician from work. Clinicians may work with face mask in place for 14 days and monitor for symptoms.
Symptomatic EMS clinicians (Symptom-Based Strategy)

• EMS clinicians with wet-moderate illness should stay home and self-isolate for:
  • **Ten days from onset of symptoms** and
  • **At least 24 hours have passed since resolution of fever** and there is improvement in respiratory symptoms (e.g. cough)

• EMS clinicians with severe illness (hospitalized) or if immunocompromised should isolate for:
  • **Twenty days from onset of symptoms** and
  • **At least 24 hours have passed since resolution of fever** and there is improvement in symptoms

• If the EMS clinician receives an alternate diagnosis (e.g. flu) from their physician, they should follow instructions given for that illness.
Symptomatic or COVID+ EMS clinician (Test-Based Strategy)

- Test-based strategy for return to work is only recommended when the goal is to discontinue isolation precautions earlier than the symptom-based strategy.

- Resolution of fever, improvement in symptoms and two negative tests that are >24 hours apart.

- Consider variable testing turnaround times (though ICMD/MIEMSS-based testing has 24 hr or less turnaround).
Contacts of Asymptomatic Contacts

- No specific management
- Not considered to have been exposed to COVID-19
PPE Requests

• PPE status continuing to be monitored by daily surveys
• In the event that PPE is needed, make request to your local emergency management agency
  • This request will be routed to MEMA, who will coordinate with state partners, including MIEMSS
COVID-19 Related Cost Monitoring

• Jurisdictions should actively track their expenses related to COVID-19
  • As potential funding is mobilized, reimbursement will be directly linked to accurate record keeping from each EMSOP.
Take Home Points

- At least surgical masks, eye protection, gloves on all EMS calls
- PPE for suspected PUIs: gown/gloves/eye protection/N95 if direct pt care or within 6 ft.
- N-95 for aerosol-generating procedures and all cardiac arrests
- New guidance on management of possible exposures
- **Get your flu vaccine (ideal Sept – Oct)!!!!**

- Next call Sept 16th, 11 am
Resources & Contact Information

• MIEMSS Infectious Diseases Webpage: http://miemss.org/home/infectious-diseases
• EMS Operation Program Recommended Actions Check List
• MIEMSS Infectious Diseases Email: infectiousdiseases@miemss.org
Moderated Q and A Session