IAFC WEBINARS

COVID-19 Weekly Updates

Monday, May 11, 2020 | 4 PM ET

iafc.org/covid19
INTRODUCTION OF PANELISTS

Chief Gary Ludwig, IAFC President
Fire Chief John Sinclair, Chair COVID19 Task Force
Dr. Jim Augustine, MD, FACEP, IAFC COVID-19 TF, EMS Section Representative
Mr. Ken LaSala, IAFC Director of Government Relations

AND SPECIAL GUESTS

- Chief Keith Bryant, US Fire Administrator
- Mr. Koerner is CBRNE Advisor in the Office of the HHS Assistant Secretary for Preparedness and Response (ASPR)
- CAPT Joselito Ignacio is a U.S. Public Health Service Officer (DHS)/ (FEMA)
- Division Chief Pete Lawrence, Ocean City (CA) Fire Department.
Fire Chief Gary Ludwig

IAFC President
Fire Chief John Sinclair
Chair COVID19 Task Force
Coronavirus: What to be Watching

- The Development of a State and local case tracking system
- Management of local COVID outbreaks in congregate settings. Do you need a strike team?
- Summer weather event preparedness
- COVID hospitalizations and deaths
- Your EMS volume
Watching Hospitalizations and Deaths

* Deaths include U.S. residents only.
Coronavirus:
YOUR STAFF

Personnel Health and Safety
Checking personnel mental health and need for breaks/vacations
Maintain and improve your member health monitor process
Masks in the station and gowns for low risk exposure coming off
Coronavirus: Testing for the Virus

PCR = Polymerase Chain Reaction
More options coming, more volume, more speed
• Blood testing is becoming key to future waves
• Still with point of care antigen testing
• The application of antibody tests

### COVID Testing Sequence

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Clinical Significance</th>
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<tbody>
<tr>
<td>PCR</td>
<td>IgM</td>
</tr>
<tr>
<td>+</td>
<td>-</td>
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<td>+</td>
<td>+</td>
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</tbody>
</table>

*Disclaimer: this chart is for illustrative purposes only.*
Better Processes
More PPE
Rapid Testing
Full Hospitals – Hot or Cold.
You need to be involved in that process

COVID-19 Planning for the Fall

Scenario 2: Fall Peak

COVID-19 Cases
States, territories, and tribal health authorities should plan for the worst-case scenario (Scenario 2), including no vaccine availability or herd immunity.

Government agencies and healthcare delivery organizations should develop strategies to ensure adequate protection for healthcare workers when disease incidence surges.

Government officials should develop concrete plans, including triggers for reinstituting mitigation measures, for dealing with disease peaks when they begin.

Risk communication messaging from government officials should incorporate the concept that pandemic will not end soon, and people need to prepare for possible periodic resurgences of disease over the next 2 years.
Coronavirus: Planning for Future Waves

- A Second Shutdown is possible
- A busier system mixing with influenza and winter diseases
- Arrange for flu vaccines for your members and community. Will you be involved?
- Testing out of the hospital. Will you be involved?
- Our members need better protection, with the PPE situation addressed on this continent
- When will COVID vaccine be ready and safe? You will be involved.
Legislation

• Call to Action:
  • $5 billion for AFG and $5 billion for SAFER
  • Waive requirements, including cost share, and allow fire departments to retain and re-hire firefighters
  • https://www.iafc.org/topics-and-tools/legislative-issues/action-center

• H.R. 6509/S. 3607, Legislation to Clarify PSOB Eligibility for the Families of COVID-19 LODDs
Grants

- COVID-19 AFG Grants – Application Period: April 28 – May 15
- FY 2019 SAFER Grants – Application Period: Open through May 15
- FY 2019 FP&S Grants - Application Period: April 27 – May 29
COVID19 – PPE Best Practices and Decontamination

Chief Keith Bryant
U.S. Fire Administrator

CAPT Joselito Ignacio, MPH, CIH
U.S. Public Health Service Chemical, Biological, Radiological/Nuclear Science Advisor and Program Manager for the Interagency Modeling and Atmospheric Assessment Center (IMAAC)

John F. Koerner, MPH, CIH
CBRNE Advisor in the Office of the HHS Assistant Secretary for Preparedness and Response (ASPR)
THE INFORMATION PRESENTED IS CURRENT TO 5/7/2020 AND IS BASED ON THE CURRENT RESEARCH.
COVID19 – PPE Best Practices and Decontamination

PPE Distribution

- 86.1 M N-95 Respirators.
- 123.5 M surgical masks.
- 8.2 M face shields.
- 948.6 M gloves.
- 19.4 M gowns.
- 145 shipments from overseas.
PPE Needs

- FEMA, HHS and CDC identify current and projected needs for critical equipment and balance relief efforts continually.
- DLA contracted with Battelle for 60 critical care decontamination systems for sanitation of N-95 Respirators.
- FEMA and HHS have obligated over $62B.
COVID19 – PPE Best Practices and Decontamination

U.S. Fire Administration

• Personnel assigned to multiple task forces and working groups.
• Representing the needs of fire and EMS.
• Sharing information, training, and products for use by fire and EMS.
• Gathering data through fire reporting software.
COVID-19: Best Practices for PPE Preservation

John F. Koerner, MPH, CIH
Deputy – PPE Preservation WG, COVID-19 Response, FEMA/ASPR
Healthcare Resilience Task Force

Strategic Plans, Office of the Assistant Secretary for Preparedness and Response

11 May 2020

This document contains references and links to non-federal resources and organizations. This information is meant solely for informational purposes and is not intended to be an endorsement of any non-federal entity by FEMA, U.S. Department of Homeland Security or the U.S. government.
Purpose

- To discuss and provide a venue to reflect upon best practices for the preservation of personal protective equipment in healthcare for current, emerging, and future surge operations.
Methods

1. FDA Emergency Use Authorizations beginning March 28, 2020
2. CDC “Strategies to Optimize the Supply of PPE and Equipment”
3. Expedited literature review for best practices
4. Informal interviews to gather experiential evidence
5. Focus group to assess Fact Sheet
6. Interagency review and published
7. Ad hoc Technical Working Group for Decontamination

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Spectrum of Personal Protective Equipment (PPE)

Similar use rates for Respirators & Masks and Eyewear & Face Shields

**Gloves**

~1,500 per COVID-19 hospitalization

**Gowns:**

~375 per COVID-19 hospitalization

**Isolation & Surgical Gowns**

~375 per COVID-19 hospitalization

**Respirators & Masks**

N95 Respirator

Surgical Mask

Procedure Mask

~375 per COVID-19 hospitalization

**Eyewear & Face Shields**

~375 per COVID-19 hospitalization

Eyewear

Face Shield

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As supply decreases, different strategies are used to optimize PPE

**Conventional**
- Usual Standard of Care
- Cached and usual supplies available

**Contingency**
- Functionally equivalent care
- Conservation, adaptation, & substitution of supplies
- Use during **expected** shortages

**Crisis**
- Crisis standards of care
- Critical supplies lacking
- If no gowns, use gown alternatives
- Consider with **known** shortages

*Severity of shortage*

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FEMA Fact Sheet
Coronavirus (COVID-19) Pandemic: Personal Protective Equipment Preservation Best Practices

Published – April 12, 2020

https://www.fema.gov/media-library-data/1587131519031-6501ee8a0ce72004832fa37141c53bc0/PPE_FACTSHEET.pdf

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FEMA Fact Sheet: *Published April 12, 2020*

**Personal Protective Equipment Preservation Best Practices**

1. Amplifies the CDC strategies for optimizing PPE.

2. Suggests appropriate actions based on the organizational/facility stage in the response and specific to user circumstances.

3. All U.S. healthcare facilities should begin using PPE contingency strategies NOW.

4. **Pillars of Practice: REDUCE – REUSE - REPURPOSE**

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How Do I Do It?

- Non-healthcare industries should conserve medical PPE for medical care.
- Maintain social distancing.
- If feasible, conduct patient or civilian interactions outdoors or in large open spaces.

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**Contingency – Engineering, Barriers, and Technology**

- Use barrier controls when possible to limit the need for PPE (e.g., masking patients, acrylic barriers, car windows, improved ventilation systems).
- Limit visitor access and offer technology-based alternatives (e.g., video chat).
- Use tele-consultation, internet-based interviews, or remote camera-based observation when available.
- When clinically appropriate, place IV towers and ventilators outside of patient rooms to allow monitoring and management without entering the room.
REDUCE - Usage Rate of PPE

Contingency – Work Practices & Administrative Changes
- Minimize number of people with, and frequency of, direct patient or civilian contact.
- Work with cohorts of patients/civilians who test positive for COVID-19, rather than single subjects.
- Consolidate activities to a single visit.
- Modify supporting staff workflow to limit PPE use.

Contingency – Personal Protective Equipment
- Understand your PPE requirements and burn rates.
- Extend use-times of undamaged, non-visibly soiled PPE.
- Note: OSHA has relaxed enforcement of annual fit-testing requirements for N-95 FFR’s.
REUSE

- Contingency – Implement strategies to optimize the supply of PPE and equipment.
- Crisis - Implement expanded facility-based PPE reuse policies and procedures.
- Crisis - Track “check in” and “check out” of PPE designated for reuse. Each worker is provided specific PPE at the beginning of the shift. At the end of the shift, all PPE is labeled, collected, and stored for reuse.
- Crisis – Implement guidance for decontamination and reuse of FFRs
REPURPOSE

- Contingency - Use other NIOSH-approved respirators instead of N-95 FFR when respiratory protection is required.
- Contingency - Seek alternative supplies of PPE.
- Crisis - Use N-95 FFRs beyond their expiration dates if certain conditions are met.
- Crisis - Use FDA authorized imported, non-NIOSH-approved disposable FFRs.
To ensure uniform application of modified practices, processes, and procedures, all workers must be trained with recommended elements including:

- Reasons for changes from standard practice and for implementing contingency and crisis practices during COVID-19 related PPE shortages
- New PPE guidance (FDA, CDC, DOJ) related to COVID-19
- Proper methods to conduct new or changed work practices (e.g., staffing, social distancing)
- Methods to install or utilize any barrier controls (e.g., patient masking, Plexiglas shields)
- Proper donning and doffing of PPE to minimize self-infection
- Proper hand hygiene


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DECONTAMINATION AND REUSE OF N95 RESPIRATORS FOR HEALTHCARE FACILITIES

6 MAY 2020

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Decontamination and Reuse of disposable n95 respirators

Reduce
Think of ways to reduce your use of PPE.

Reuse
Implement ways to safely decontaminate and reuse PPE.

Repurpose
Use alternative types or sources for PPE.
When N95 decontamination and reuse recommended

Crisis capacity to ensure continued availability

National or healthcare facility-level
The CDC recommended the healthcare system focus efforts on three FFR reprocessing techniques

Preservation Thread / Healthcare Resilience Taskforce  
April 2020

- New guidance recommends researchers, decontamination companies, healthcare systems, or individual hospitals should focus current efforts on ultraviolet germicidal irradiation (UVGI), vaporous hydrogen peroxide (VHP), and moist heat incubation
  - VHP is a promising method with a potential for high capacity throughput, but certain VHP systems, such as the Clarus® R VHP generator, may be more compatible with FFR decontamination
  - Moist heat caused minimal degradation in the filtration and fit performance of the tested FFRs. One limitation of the moist heat method is the uncertainty of the disinfection efficacy for various pathogens.
  - UVGI is a promising method but the disinfection efficacy is dependent on dose. Moreover, UVGI is unlikely to kill all the viruses and bacteria on an FFR due to shadow effects produced by the multiple layers of the FFR’s construction

<table>
<thead>
<tr>
<th>Method</th>
<th>Treatment level</th>
<th>Antimicrobial efficacy</th>
<th>Filtration performance</th>
<th>Fit performance</th>
<th>Material degradation</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHP</td>
<td>Various concentrations and dwell times tested</td>
<td>&gt;99.99%</td>
<td>Passed</td>
<td>Unaffected for up to 20 treatments</td>
<td>Degradation of straps notes after 30 cycles</td>
</tr>
<tr>
<td>Moist heat</td>
<td>99.99%</td>
<td>99.99%</td>
<td>6 of 6 models passed after 3 cycles</td>
<td>Passed</td>
<td>Some respirators experienced seal compromise</td>
</tr>
<tr>
<td>UVGI</td>
<td>0.5-950 J/cm²</td>
<td>99.9% for all tested viruses</td>
<td>Passed</td>
<td>90-100% passing rate after 3 cycles</td>
<td>Reduction of material durability at higher doses</td>
</tr>
</tbody>
</table>

Summary prepared by the Healthcare Resiliency Task Force Preservation Thread
Source: CDC, “Decontamination and Reuse of Filtering Facepiece Respirators using Contingency and Crisis Capacity Strategies,” Last Updated March 31, 2020
<table>
<thead>
<tr>
<th>Method</th>
<th>Treatment level</th>
<th>Microbe tested</th>
<th>Antimicrobial efficacy</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaporous hydrogen peroxide (VHP)</td>
<td><strong>Battelle report:</strong> Bioquell Clarus C HPV generator: The HPV cycle included a 10 min conditioning phase, 20 min gassing phase at 2 g/min, 150 min dwell phase at 0.5 g/min, and 300 min of aeration.</td>
<td><strong>Geobacillus stearothermophilus spores</strong> T1, T7, and phi-6 bacteriophages</td>
<td>&gt;99.999%</td>
<td>3, 4, 6</td>
</tr>
<tr>
<td></td>
<td><strong>Bergman et. al.:</strong> Room Bio-Decontamination Service (RBDS™, BIOQUELL UK Ltd, Andover, UK), which utilizes four portable modules: the Clarus® R HPV generator (utilizing 30% H₂O₂), the Clarus R20 aeration unit, an instrumentation module and a control computer. Room concentration = 8 g/m³, 15 min dwell, 125-min total cycle time.</td>
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<td></td>
<td><strong>Kenney personal communication:</strong> Bioquell BQ-50 generator: The HPV cycle included a 10 minute conditioning phase, 30–40 min gassing phase at 16 g/min, 25 min dwell phase, and a 150 min aeration phase.</td>
<td></td>
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</tr>
<tr>
<td>Method</td>
<td>Treatment level</td>
<td>Microbe tested</td>
<td>Antimicrobial efficacy</td>
<td>References</td>
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</tr>
<tr>
<td>Ultraviolet germicidal irradiation (UVGI)</td>
<td>0.5–1.8 J/cm²</td>
<td>Influenza A (H1N1), Avian influenza A virus (H5N1), low pathogenic Influenza A (H7N9), A/Anhui/1/2013 Influenza A (H7N9), A/Shanghai/1/2013 MERS-CoV SARS-CoV H1N1 Influenza A/PR/8/34 MS2 bacteriophage</td>
<td>99.9% for all tested viruses</td>
<td>12, 13, 14</td>
</tr>
<tr>
<td>Microwave generated steam</td>
<td>1100–1250 W microwave models (range: 40 sec to 2 min)</td>
<td>H1N1 influenza A/PR/8/34</td>
<td>99.9%</td>
<td>14</td>
</tr>
<tr>
<td>Microwave steam bags</td>
<td>1100 W, 90 sec (bags filled with 60 mL tap water)</td>
<td>MS2 bacteriophage</td>
<td>99.9%</td>
<td>15</td>
</tr>
<tr>
<td>Method</td>
<td>Treatment level</td>
<td>Microbe tested</td>
<td>Antimicrobial efficacy</td>
<td>References</td>
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<tr>
<td>Moist heat incubation</td>
<td>15–30 min (60°C, 80% RH)</td>
<td>H1N1 influenza A/PR/8/34</td>
<td>99.99%</td>
<td>14</td>
</tr>
<tr>
<td>Liquid hydrogen peroxide</td>
<td>1 sec to 30 min (range: 3–6%)</td>
<td>Not evaluated</td>
<td>Not evaluated</td>
<td></td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>1 hour at 55°C; conc. range: 725–833 mg/L</td>
<td>Not evaluated</td>
<td>Not evaluated</td>
<td></td>
</tr>
</tbody>
</table>
FDA Emergency use authorized n95 decontamination systems

iafc.org/covid19

Sterilucent HC 80TT
Steris VPro
ASP Sterrad 100NX
Sterizone VP4

Battelle Critical Care Decontamination System
Battelle CCDS™ Process

**HEALTH CARE PROVIDER SIGN-UP PROCESS**

**Battelle CCDS Critical Care Decontamination System™**

1. **Sign up with Battelle**
   - Visit battelle.org/decon to fill out the enrollment form.
   - Battelle emails enrollee links to the enrollment contract, instructions, and the Battelle POC.

2. **Contact Us to Get Your Code**
   - Enrollee signs contract and contacts Battelle POC to receive their 3-digit codes for each facility.

3. **Properly Label Respirators**
   - Once the 3-digit codes are received from Battelle, enrollee collects N95 respirators.
   - N95 respirators must be unsoiled (free of blood, mucus, make-up, lip balm, etc.) and labeled with a permanent marker.

4. **Collect & Bag All N95 Respirators**
   - Enrollee collects 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.

5. **Properly Package**
   - Clean the outside bag with disinfectant.
   - Shipping box must be labeled with the 3-digit code and a biohazard sticker.

6. **Ship to CCDS Site**
   - Enrollee contacts their chosen logistics provider to coordinate pick-up and delivery of their N95 respirators.
   - Enrollee can either use a logistics provider of their choice or Battelle’s preferred logistics provider.

7. **Decontaminated & Returned**
   - Your shipments are barcoded to ensure chain of custody.
   - Your N95 respirators are processed and then verified to ensure they are free of decontaminant.
   - Your decontaminated N95 respirators are returned to your facility.
• Preservation of PPE (Reduce, Reuse, Repurpose) can manage demand at healthcare facility level as resupplies can resume;

• Reminder to use hierarchy of controls
  • Elimination
  • Substitution
  • Engineering Controls
  • Safe Work Practices
  • PPE

• COVID-19 crisis, there are authorized capabilities to decontaminate N-95 respirators for safe reuse;
CARES Act Provider Relief Fund

Division Chief Pete Lawrence
Oceanside (CA) Fire Department
CARES Act (P.L. 116-136)

• $100 billion for the Public Health and Social Services Emergency Fund
• Funds for Medicare providers and suppliers caring for COVID patients
• Funds used to create the CARES Act Provider Relief Fund
• Three primary funding opportunities for fire/EMS agencies:
  – CMS Round I Allocation
  – CMS Round II Allocation
  – HRSA COVID Uninsured Claims
CMS Round I Allocation

- Round I funding total was $30 billion
- CMS provides Medicare-enrolled suppliers/providers with payment of 6.19% of 2019 Medicare fee-for-service (FFS) receipts
- Payments distributed between April 10 – 17 via direct deposit
- Payments based on TIN and not NPI
  - Check with treasurer’s office if no payment received
CMS Round II Allocation

- Round II funding is $20 billion, and payments are not automatic
- EMS agencies will need to report some financial information to CMS including their 2018 Medicare FFS receipts
- Payments will be proportional to 2018 Medicare FFS payments
Round I/II Terms and Conditions

• Agencies accepting Round I and/or II funds must agree to some terms and conditions
  – Medicare provider/supplier in good standing
  – Funds used to prevent, prepare for, and respond to COVID-19
  – Funds can also be used to “cover lost revenues attributable to coronavirus.” This includes revenue reductions due to call volume decreases
    • See - https://www.hhs.gov/sites/default/files/terms-and-conditions-provider-relief-30-b.pdf
  – Funds can’t offset expenses already reimbursed through another source
  – Record keeping requirements for expenses

• Limitation on Out-of-Pocket Expenses for presumptive or confirmed COVID Patients

  Recipient not...to collect from the patient out-of-pocket expenses in an amount greater than what the patient would have otherwise been required to pay if the care had been provided by an in-network Recipient.
Limitation on Out-of-Pocket Expenses

**What it is**

- Prevents billing different in/out of network amounts
- Important for agencies with in-network agreements
- Allows agencies to collect copay/patient’s share of bill as if transport had been in-network

**What it is not**

- Not a ban on balance billing
- Not a limit on billing to insurance companies
- Not a ban on out-of-pocket expenses
- Not a ban on copays or cost share on bill

IAFC anticipates that revenue from Round I and II funds will exceed losses from billing rules for most fire/EMS agencies
HRSA Uninsured Patients Fund

- HRSA will be paying for care provided to uninsured COVID patients
- Payments will be at the Medicare rate up to a total of $10 billion
- HRSA will begin accepting claims on May 6
- Agencies must submit claims through HRSA portal:
  - [https://www.hrsa.gov/coviduninsuredclaim](https://www.hrsa.gov/coviduninsuredclaim)
- May offset losses from CMS Rounds I/II terms and conditions
IAFC WEBINARS

COVID-19 Weekly Updates
Email: covid19tf@iafc.org

iafc.org/covid19