IAFC WEBINARS

COVID-19 Weekly Updates
Monday, April 20, 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

Christina Baxter PhD, Emergency Response Tips, LLC

Michael Ragone, Chief Fire and Federal Services, GMR
Fire Chief Gary Ludwig

IAFC President
Member Survey / Dashboards

Survey on Economic Impact of COVID19

Two Areas of interest or concern

1. Cost of Response
2. Impact on Local Economy/Budgets
Dr. James Augustine MD, FACEP

Member COVID19 Task Force
Coronavirus What we are Learning

• Pulse Oximetry is the best monitor device for the patient to determine “how sick”
• Symptom checking and a thermometer are the best way to check if our members are sick
• Seeming to have lots of asymptomatic persons
Community Impact – Deaths

- The Eagles Survey
- 18 have Increased – NYC, Detroit, NOLA, ++
- 7 are Flat
- 7 have Decreased
- Termination of Resuscitation is very important
- The Increase is likely to continue, as medical care system is disrupted
The EMS Challenges

• Update on Resuscitation
  – The (short) title is below, and the link is: https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.120.047463
  10.1161/CIRCULATIONAHA.120.047463
  – Interim Guidance for Basic and Advanced Life Support in Adults, Children, and Neonates With Suspected or Confirmed COVID-19: From the Emergency Cardiovascular Care Committee and Get With the Guidelines®-Resuscitation Adult and Pediatric Task Forces of the American Heart Association in Collaboration with the American Academy of Pediatrics, American Association for Respiratory Care, American College of Emergency Physicians, The Society of Critical Care Anesthesiologists, and American Society of Anesthesiologists:
  – Supporting Organizations: American Association of Critical Care Nurses and National EMS Physicians
  – Running Title: Edelson et al.: Interim Guidance for Life Support for COVID-19
Workforce Safety

**Personnel Health and Safety**

– Station common areas – surgical/personal masks
– Checking personnel health on arrival for shift or response – symptoms first, then temperature
– Health monitor process/forms each staff member

“What we can’t do during a battle, is lose our forces.”
CDC Guidance Update.
April 8
Testing for the Virus

- PCR = Polymerase Chain Reaction
- A method to analyze for a short sequence of RNA
- A swab of nose or throat
- Some with rapid answers
Testing for Antibodies

• The FDA on 4/17/20 published a number of resources for health care providers regarding serological tests intended to detect antibodies to COVID Links:
  • Letter to Health Care Providers
  • FAQs on Diagnostic Testing for SARS-CoV-2
  • FDA Fact Sheet - Serological Testing for Antibodies to SARS-CoV-2 Infection
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Testing for Antibodies

• Antibody Testing
• IgM
• IgG
Testing for Antibodies

• Some with rapid answers
COVID Testing Sequence

- Testing is becoming available
- Some with rapid answers looking for the virus
- Then the application of antibody tests

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Clinical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR</td>
<td>IgM</td>
</tr>
<tr>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
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<td>+</td>
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<td>-</td>
<td>+</td>
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<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
The whole population (100%) can be divided into:

- **No symptoms (30%)**
  - Contagion: 5% of the population

- **Mild/moderate symptoms (55%)**
  - Contagious: 15% of the population

- **Severe symptoms (10%)**
  - Contagious: 30% of the population
  - Hospitalization: 12% of the population
  - ICU/Ventilation: 12% of the population
  - Immune: 15% of the population

- **Critical symptoms (5%)**
  - Contagious: 50% of the population
  - Dead: 50% of the population

**References:**
IAFC WEBINARS
iafc.org/covid19

Fire Chief John Sinclair
Chair COVID19 Task Force
Government Relations

3.5 COVID-19 Bill
   Replenish SBA programs
   Funding for hospitals and testing

EMPG Applications – Due April 27-28

SAFER Grant Applications - Due May 15

4th COVID-19 bill
   $5 Billion each for AFG and SAFER Programs to Reimburse Fire & EMS Departments for COVID-19 Response Expenses
Christina M. Baxter, Ph.D.
CEO
Emergency Response TIPS, LLC
christinabaxter@emergencyresponsetips.com
## FDA Emergency Use Authorization Issued March 24, 2020

<table>
<thead>
<tr>
<th>Certification/Class</th>
<th>N95</th>
<th>FFP2</th>
<th>KN95</th>
<th>P2</th>
<th>1st Class</th>
<th>DS</th>
<th>N95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>USA</td>
<td>EU</td>
<td>China</td>
<td>AU/NZ</td>
<td>Korea</td>
<td>Japan</td>
<td>Mexico</td>
</tr>
<tr>
<td>Filter performance</td>
<td>≥ 95%</td>
<td>≥ 94%</td>
<td>≥ 95%</td>
<td>≥ 94%</td>
<td>≥ 94%</td>
<td>≥ 95%</td>
<td>≥ 95%</td>
</tr>
<tr>
<td>Test Agent</td>
<td>NaCl</td>
<td>NaCl and paraffin oil</td>
<td>NaCl</td>
<td>NaCl</td>
<td>NaCl and paraffin oil</td>
<td>NaCl</td>
<td>NaCl and paraffin oil</td>
</tr>
<tr>
<td>Flow rate</td>
<td>85 L/min</td>
<td>95 L/min</td>
<td>85 L/min</td>
<td>95 L/min</td>
<td>95 L/min</td>
<td>85 L/min</td>
<td>85 L/min</td>
</tr>
<tr>
<td>Total inward leakage (TIL)</td>
<td>N/A</td>
<td>≤ 8% leakage (arithmetic mean)</td>
<td>≤ 8% leakage (arithmetic mean)</td>
<td>≤ 8% leakage (arithmetic mean)</td>
<td>≤ 8% leakage (arithmetic mean)</td>
<td>Measured and reported in Users Guide</td>
<td>N/A</td>
</tr>
<tr>
<td>Inhalation resistance (max. pressure drop)</td>
<td>≤ 343 Pa (at 85 L/min)</td>
<td>≤ 70 Pa (at 30 L/min)</td>
<td>≤ 240 Pa (at 95 L/min)</td>
<td>≤ 500 Pa (clogging)</td>
<td>≤ 70 Pa (at 30 L/min)</td>
<td>≤ 240 Pa (at 95 L/min)</td>
<td>≤ 70 Pa (at 30 L/min)</td>
</tr>
<tr>
<td>Exhalation resistance (max pressure drop)</td>
<td>≤ 245 Pa (at 85 L/min)</td>
<td>≤ 300 Pa (at 160 L/min)</td>
<td>≤ 250 Pa (at 85 L/min)</td>
<td>≤ 120 Pa (at 85 L/min)</td>
<td>≤ 300 Pa (at 160 L/min)</td>
<td>≤ 70 Pa (at 40 L/min)</td>
<td>≤ 50 Pa (no valve) (at 40 L/min)</td>
</tr>
<tr>
<td>Exhalation valve leakage requirement</td>
<td>Leak rate ≤ 30 mL/min at -245 Pa</td>
<td>N/A</td>
<td>Depressurization to 0 Pa ≥ 20 sec at -1180 Pa</td>
<td>Leak rate ≤ 30 mL/min at -250 Pa</td>
<td>Visual inspection after 300 L/min for 30 sec</td>
<td>Depressurization to 0 Pa ≥ 15 sec at -1470 Pa</td>
<td>N/A</td>
</tr>
<tr>
<td>CO2 clearance requirement</td>
<td>N/A</td>
<td>≤ 1%</td>
<td>≤ 1%</td>
<td>≤ 1%</td>
<td>≤ 1%</td>
<td>≤ 1%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1 Tested on human subjects performing a series of exercises
Verification of NIOSH-Approved N95 Claims

**Required Elements:**
1. Name of approval holder, manufacturer, or registered trademark
2. NIOSH in block letters or the NIOSH logo
3. TC Number (TC-84A-XXXX) (NIOSH Testing and Certification approval number)
4. Filter Designation (filter series (N/R/P) and filter efficiency level (95/99/100)
5. Model Number

*Lot number is recommended on the mask and required on the packaging.

**All manufacturers are required to have elements 1 – 5 above [REF: DHHS Letter to All Manufacturers dated 9/3/2008]

Search the NIOSH Certified Equipment List: https://wwwn.cdc.gov/niosh-cel/

- Use the full TC number to search (84A-XXXX)
- If you do not have a TC number available, go to the Advanced Search Tab
  - Under Schedules, select 84A
  - Under Protections, select N95 under the particulate section
  - Under Manufacturer or Brand, select the appropriate name from the list.
    - If you don’t see the manufacturer’s name immediately, type in the first few letters and let the computer search for you as many companies use shortened names on their products, yet the full name is used during certification
Common Difficulties Encountered Verifying NIOSH approvals

NOTE that there is no TC-84A-####

NIOSH Updated Labeling Requirements in September 2008

The NIOSH IT architecture is outdated

Manufacturers Listed Alphabetically – G

Index: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21

Better chance searching through NIOSH CEL

Vendors need to be cognizant of truncating numbers – real TC # is 84A-0160

However, the materials within the Strategic National Stockpile were procured in 2006, BEFORE the updated label requirements
Common Difficulties Encountered Verifying KN95 approvals

**FDA Registration:**

Look for registration within the FDA portal: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/rl.cfm?fbclid=IwAR3A VZZDltzS70v6vM6q69q6S0kWKnD5XW5 PNLDvQImbGNNk_pZM9MvB

“Although not required, if a KN95 mask does not have an EUA, importers may want to take appropriate steps to verify the authenticity of these products.”

Look at the Following:

1. Does test data appear to match KN95 requirements?
2. Was the testing performed by a valid entity in China?
3. If they claim FDA on documents, are they even a registered entity?
4. Is the mask CE-registered? If so, did you validate the certificate?

https://www.cdc.gov/niosh/nptl/respirators/testing/NonNIOSHresults.html
Common Difficulties Encountered Verifying KN95 approvals

<table>
<thead>
<tr>
<th>检验检测项目 (计量单位)</th>
<th>测试方法</th>
<th>标准值及允差</th>
<th>检验检测结果</th>
<th>判定</th>
<th>备注</th>
</tr>
</thead>
</table>
| NaCl颗粒物过滤效率 | GB 2626-2006 6.3 | 过滤效率(%)：
空气流量: 88L/min
气溶胶颗粒: NaCl
气溶胶浓度: 15mg/m³
温度: 23.1°C
相对湿度: 36.0% | 过滤效率(%)：
≥95.0
(KN95) | 符合 |  |
| 吸气阻力(Pa) | GB 2626-2006 6.5 | 头罩：中号 | ≤350 | 符合 |  |
| 呼气阻力(Pa) | GB 2626-2006 6.6 | 头罩：中号 | ≤250 | 符合 |  |
| 外观检查 (2个) | GB 2626-2006 6.1 | 按标准5.2条要求 | 符合要求 | 符合 |  |

-Registered with FDA?
-Lab certified by CNAS for testing against GB 2626-2006?
-Cross-certified to FFP2? If so, is CE marking correct?
Common Difficulties Encountered Verifying FFP2 approvals

Ensure that you have the correct CE mark!

ICR Polska is a Notifying Body for EU

Certificate listed as invalid or fake!
NPPTL Respirator Assessments to Support the COVID-19 Response

International Respirator Assessment Request

On February 29, 2020, CDC published guidance Strategies for Optimizing the Supply of N95 Respirators. This guidance provides Crisis Alternate Strategies that includes the option: “Use of respirators approved under standards used in other countries that are similar to NIOSH-approved N95 respirators.” The other countries listed in the guidance and their associated product classifications are shown below.

<table>
<thead>
<tr>
<th>Product Classifications</th>
<th>Jurisdiction</th>
<th>Performance Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2, P3</td>
<td>Australia/New Zealand</td>
<td>AS/NZS 1716:2012</td>
</tr>
<tr>
<td>PFF2, PFF3</td>
<td>Brazil</td>
<td>AI/NT/INN 13698:2011</td>
</tr>
<tr>
<td>KN95, KP95, KN100, KP100</td>
<td>China</td>
<td>GB2626-2006 GB2626-2019</td>
</tr>
<tr>
<td>FFP2, FFP3</td>
<td>Europe</td>
<td>EN 149-2001</td>
</tr>
<tr>
<td>DS/DL2, DS/DL3</td>
<td>Japan</td>
<td>JMH/LW-2000</td>
</tr>
<tr>
<td>Korea 1st class</td>
<td>Korea</td>
<td>KMOEL-2017-64</td>
</tr>
<tr>
<td>N95, P95, R95, N99, P99, R99, N100, P100, R100</td>
<td>Mexico</td>
<td>NOM-116-2009</td>
</tr>
</tbody>
</table>

https://www.cdc.gov/niosh/npptl/respirators/testing/NonNIOSH.html
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Michael Ragone

Chief - Fire & Federal Services
# Major Milestone Events

## U.S. Milestones

<table>
<thead>
<tr>
<th>JANUARY 2020</th>
<th>FEBRUARY 2020</th>
<th>MARCH 2020</th>
<th>APRIL 2020</th>
<th>MAY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>01.21.2020</strong> First COVID-19 Patient in the U.S.</td>
<td><strong>01.24.2020</strong> First COVID-19 Employee Update</td>
<td><strong>02.19.2020</strong> Seattle COVID Assisted Living</td>
<td><strong>03.28.2020</strong> FEMA Contract Activation</td>
<td><strong>04.05.2020</strong> PPE Update: Guidance for Reuse &amp; Extended Use of N95 Masks</td>
</tr>
<tr>
<td><strong>01.31.2020</strong> Implemented China Travel Restrictions</td>
<td><strong>01.30.2020</strong> Second COVID-19 Employee Update</td>
<td><strong>03.08.2020</strong> Vehicle Decontamination Standards</td>
<td></td>
<td><strong>03.24.2020</strong> COVID-19 Security Guidelines</td>
</tr>
<tr>
<td><strong>02.20.2020</strong> First COVID-19 Case in California</td>
<td><strong>03.04.2020</strong> Guidelines for Preparation and Response</td>
<td><strong>03.09.2020</strong> Facility &amp; Disinfecting Guidance</td>
<td></td>
<td><strong>03.23.2020</strong> Aircraft Fogger Use Suspended</td>
</tr>
<tr>
<td><strong>03.12.2020</strong> First COVID-19 Death in the U.S.</td>
<td><strong>03.06.2020</strong> FEMA Request for Additional Resources</td>
<td><strong>03.13.2020</strong> Uniform Decontamination Procedures</td>
<td></td>
<td><strong>03.19.2020</strong> Potential Exposure Reporting Procedure</td>
</tr>
</tbody>
</table>

## Operational Milestones

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.28.2020</td>
<td>GMR NATCOM Activated</td>
</tr>
<tr>
<td>01.24.2020</td>
<td>Implemented Nurse Navigation Medical Assessment &amp; Screening Tool (MAST)</td>
</tr>
<tr>
<td>01.23.2020</td>
<td>Homeland Security First Airport Screening</td>
</tr>
<tr>
<td>03.09.2020</td>
<td>Implemented Oregon Health Authority Contract Began stand-by at Dobbins/Miramar AFB</td>
</tr>
<tr>
<td>03.07.2020</td>
<td>California Grand Princess Evacuation</td>
</tr>
<tr>
<td>03.26.2020</td>
<td>Memphis FedEx Screening</td>
</tr>
<tr>
<td>03.31.2020</td>
<td>Arlington EMS NNL Go-Live</td>
</tr>
<tr>
<td>03.30.2020</td>
<td>Santa Cruz NNL Go-Live</td>
</tr>
<tr>
<td>04.01.2020</td>
<td>Contra Costa Temporary Hospital</td>
</tr>
<tr>
<td>04.06.2020</td>
<td>Hawaii NNL Go-Live</td>
</tr>
<tr>
<td>04.07.2020</td>
<td>FedEx Ground Locations Go-Live</td>
</tr>
<tr>
<td>04.13.2020</td>
<td>FedEx Memphis Flight Ops &amp; Cleveland Screening Go-Live</td>
</tr>
</tbody>
</table>

## Employee Communication

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.24.2020</td>
<td>First COVID-19 Employee Update</td>
</tr>
<tr>
<td>01.30.2020</td>
<td>Second COVID-19 Employee Update</td>
</tr>
<tr>
<td>03.08.2020</td>
<td>Vehicle Decontamination Standards</td>
</tr>
<tr>
<td>03.09.2020</td>
<td>Facility &amp; Disinfecting Guidance</td>
</tr>
<tr>
<td>03.13.2020</td>
<td>Uniform Decontamination Procedures</td>
</tr>
<tr>
<td>03.16.2020</td>
<td>Video Message from CEO, COO and CMO</td>
</tr>
<tr>
<td>03.19.2020</td>
<td>Potential Exposure Reporting Procedure</td>
</tr>
</tbody>
</table>
First Wave Incidents

- 2/19 - Seattle: Evacuation of Assisted Living Facility
- 3/7-15 – Oakland: Evacuation of Grand Princess Cruise Ship
- 3/8 – California: Statewide transports
- 3/9 – Portland: Support for Oregon Health Authority
- 3/9 – Dobbins and Miramar Air Force Bases: Quarantine Standby
New York FEMA Response
Deployment began March 28, 2020

350 AMBULANCES
- 123 ALS Units
- 2 Bariatric Units
- 225 BLS Units

790 CAREGIVERS DEPLOYED

13 STRIKE TEAMS

11,374 CALLS RECEIVED

Data as of 4.15.2020
New Jersey FEMA Response

Deployment began April 10, 2020

175 AMBULANCES
- 75 ALS Units
- 100 BLS Units

1,828 MISSIONS

493 PATIENT CONTACTS

547 PATIENT TRANSPORTS

Data as of 4.15.2020
• **Phase 1**: GMR begins providing COVID-19 screening at the FedEx airport distribution hub in Memphis, TN, monitoring 8,500 FedEx employees.

• **Phase 2**: Expanded to 15 FedEx Hubs throughout US.

• **Phase 3**: Deployment of GMR air medical personnel with FedEx teams internationally for medical repatriation missions.

• **Phase 4**: Employee Testing of all FedEx employees.
• GMR’s Nurse Navigation Line provides COVID-19 screening and remote monitoring solutions for 911 centers overwhelmed by potential infectious disease calls.

• Two stage solution:
  – Outbreak Screening: 911 dispatchers route potential outbreak cases to nurse navigators who screen per CDC guidelines and direct to appropriate care.

• Solution is live today in 911 centers covering 2.6M Americans and is being deployed in centers covering another 5.5M Americans.

• GMR launched the web-based Medical Assessment and Screening Tool (MAST) for employees and other caregivers in the GMR/FEMA network. (manual to begin but now automated)

• Simultaneously, GMR activated the Access2Care Nurse Navigation Line to begin tracking and monitoring caregivers and patients under investigation for suspected COVID-19 exposure.

• The Navigation hotline is staffed 24/7 by registered nurses and allied health professionals.
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Documents and Videos
Guidelines for Preparation and Response – 3/4
Vehicle Decontamination – 3/8
Facility Decontamination – 3/9
Uniform Decontamination – 3/13
GMR COVID-19 Safety flyer and social graphics
GMR PPE Infographic flyer
How to Wear a Mask flyer
Hand-washing poster
MAST Symptom Screening
MAST Contact Exposure
MAST Manual Entry of Employee Information
Tri-jet Fogger Instructions
Caregiver Well-Being

- GMR Caregiver Well-Being webpage
  - Dealing with Stress Management
  - Emergency Responder Crisis Text Line
  - That Discomfort You’re Feeling is Grief
  - Resources to Help Parents Talk with Children
- GMR Deployed Team Resources webpage
- GMR Caregiver Well-Being wallet cards
- Childcare Stipend Guidelines implementation
- Optum Employee Assistance Program
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Email: covid19tf@iafc.org

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