Primary Care, Prehospital and Emergent Presentations of COVID-19

March 31, 2020

Carolyn Buxton Bridges, MD FACP
Andrea Christopher, MD, MPH Megan Dunay, MD, MPH
Frank Batcha, MD
Benjamin Cornett, MD
Sheila Giffen, MD
## Today’s Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter(s)</th>
<th>Approximate Time</th>
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<tbody>
<tr>
<td>Welcome, Announcements, Introductions</td>
<td>Lachelle Smith, Director, ECHO Idaho</td>
<td>2 minutes</td>
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<tr>
<td>Idaho Epidemiology Curves and Public Health Updates</td>
<td>Carolyn Bridges, MD</td>
<td>3 minutes</td>
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<tr>
<td>Case 1: Outpatient and Pre-Hospital Triage of a Moderately Ill Patient</td>
<td>Andrea Christopher, MD MPH, Megan Dunay, MD MPH, Frank Batcha, MD, Benjamin Cornett, MD, Sheila Giffen, MD</td>
<td>20 minutes</td>
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<tr>
<td>Case 2: Presentation of a Severely Ill Patient to the Emergency Department</td>
<td>Andrea Christopher, MD MPH, Megan Dunay, MD MPH, Frank Batcha, MD, Benjamin Cornett, MD, Sheila Giffen, MD</td>
<td>20 minutes</td>
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<tr>
<td>Q&amp;A, Highlight pearls</td>
<td>Entire ECHO Community of Practice</td>
<td>10 minutes</td>
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<tr>
<td>Closing, Announcements, Call to Action</td>
<td>Andrea Christopher, MD MPH, Megan Dunay, MD MPH, Lachelle Smith, Director, ECHO Idaho</td>
<td>5 minutes</td>
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Idaho Epidemiology Curves and Public Health Updates

Carolyn Buxton Bridges, MD FACP
Governor’s Coronavirus Working Group, Former CDC Public Health Physician and Researcher
• Increasing cases across ID; at least 7 deaths.
• Counties reporting community transmission thus far: Ada, Blaine, Canyon, Kootenai and Madison

**Timeline of COVID-19 cases in Idaho:**

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<th>Characteristics</th>
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<tr>
<td>&lt;18 years</td>
<td>3</td>
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<tr>
<td>18-49</td>
<td>210</td>
</tr>
<tr>
<td>50+</td>
<td>201</td>
</tr>
<tr>
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<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
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<tr>
<td>Female</td>
<td>219</td>
</tr>
<tr>
<td>Male</td>
<td>195</td>
</tr>
<tr>
<td>Unknown</td>
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| Total Hospitalizations | 45 |
| Healthcare Workers    | 25 |
| Total ICU Admissions  | 6  |

Current Idaho Guidance

- State-wide Stay-at-home order started on March 25
- Will stay in effect at least for 21 days and will be re-evaluated before then
- Information on essential services and other details at: https://coronavirus.idaho.gov/ frequently-asked-questions-on-statewide-stay-home-order/
SARS-CoV-2 Testing in Idaho

- Multiple commercial laboratories are now testing in addition to IBL.
- Percentage of tests that are now positive: ~ 6%.
- IBL will accept specimens for testing for SARS-CoV-2 on CDC priority categories with either high or routine priority.
- Notify your local public health district within 24 hours of shipment so they can correctly identify high priority specimens for IBL.
- Prioritization may be revised if turnaround time for hospitalized patients cannot be maintained.

Number of people tested through the Idaho Bureau of Laboratories (IBL)* 1,567

Number of people tested through commercial laboratories** 4,145

SARS-CoV-2 Testing in Idaho

- **CDC Priority 1:** IBL High Priority Specimen
  - Hospitalized patients
  - Symptomatic healthcare workers

- **CDC Priority 2:** IBL High Priority Specimen
  - Symptomatic patients in long-term care facilities

- **CDC Priority 2:** IBL Routine Priority Specimen
  - Symptomatic patients ≥ 65 years of age
  - Symptomatic patients w/ high risk condition
  - Symptomatic first responders

- **Idaho Public Health/IBL High Priority Specimen**
  - Severe respiratory illness of unknown cause
  - Symptomatic staff or inmate in correctional facility in the absence of an identified COVID-19 outbreak in the facility

- **CDC Priority 3:** Specimens should be sent to commercial laboratories

**For more information visit:** coronavirus.gov
PPE

• It is critical that all healthcare facilities conserve PPE as much as possible.


• Consider use of UV-C sterilization of N-95s

• Call your local health district for requests
Case 1:
Outpatient and Pre-Hospital Triage of a Moderately Ill Patient

Andrea Christopher, MD MPH, Internist, Boise VA; Associate Program Director for UW Boise Internal Medicine Residency; Stern Regional Faculty Educator and Clerkship Site Director for UW School of Medicine
Megan Dunay, MD MPH, Geriatrician, Boise VA; Medical Director for Geriatrics and Extended Care for VA Pacific Northwest Network (VISN 20)

Frank Batcha, MD, Family Medicine, St. Luke’s Wood River Valley
Benjamin Cornett, MD, MD, Emergency Physician, Boise VA; Medical Director, ISU Paramedic Education Program; Medical Director ACCESS (Ada County Paramedics, Boise Fire, Meridian Fire, Kuna Fire, Eagle Fire, Star Fire
Sheila Giffen, MD, Executive Medical Director, St. Alphonsus Health Alliance
Mr. Wood River

52yo M with PMHx DM (A1c 8.7), HTN, HLD, allergic rhinitis lives in Hailey with wife; calls PCP office for advice regarding 2 days of scratchy throat, itchy eyes and dry cough.

PCP triage line recommends urgent care visit:
- Respiratory patients/waiting room
- Others
- Tents?
- Screening?
- Flu swab negative
Mr. Wood River

Pt discharged from urgent care with:
- rx for Flonase
- Return to clinic/ED instructions

Pt calls PCP triage line the next day... with fever to 100.6, body aches
- Instructed to return to clinic: COVID swab obtained
- CXR obtained: bilateral lower lobe ground glass opacities
- Discharged to home with return to clinic/ED instructions
Mr. Wood River

2 days later, pt’s wife calls EMS: pt woke up around 4am short of breath, sweaty. He is listless. She thinks his lips are a little dusky. He’s complaining of mild chest pain. She made him take an Aspirin. EMS dispatched. Upon arrival:

- T: 101.1, HR 103, RR 16, BP 136/99, SpO2 88% RA
- CV: Rapid, regular, no murmurs. No JVD. Radial pulses equal
- Lungs: Crackles at B bases
- Abd: +BS, soft, ND
- Ext: WWP
- EKG: sinus tach, slight strain pattern, no ST seg elevation
- SpO2 up to 93% with 2L O2 via NC
Mr. Wood River

- What does EMS do? Transport? Counsel?
  - What if he was 25yo? 85yo?
  - What about a POST form?

- What if his HR was 80? What if his RR was 32?
  - Pneumonia Severity Index
  - SOFA
  - https://www.mdcalc.com/covid-19

- What if this wasn’t Hailey, but Cottonwood?

- What are best practices for Primary Care and EMS coordination?
Case 2:
Outpatient and Pre-Hospital Triage of a Moderately Ill Patient

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Ms. Owyhee

71yo F with hx of COPD, HFrEF (EF ~45%) NYHA II symptoms, HTN, HLD, hypothyroidism presents to West Valley Medical Center in private vehicle; nephew runs into ED and says he has driven her here because she can’t breathe.

ED staff runs to the car, see her tachypneic, eyes closed, head slumped... staff start to open the car door...!
Ms. Owyhee

STOP

PPE!!!
Ms. Owyhee

Staff dons appropriate PPE... which is?

On exam:
  GCS 11
  VS: T 99.5, HR 128, RR 28, BP: 88/62, SpO2 83% RA
  CV: rapid, regular, +JVD. Thready radial pulses bilaterally
  Lungs: Coarse crackles throughout B bases, + wheezes
  Abd: +BS, soft, ND, NT
  Ext: 2+ pitting edema to B thighs.
Ms. Owhyee

INTUBATE!

• How? Rapid Sequence Intubation!
  • Why?
• When do you intubate in COVID?
  • How is this different than usual practice?
• Who should perform the intubation?
  • Experienced intubaters...
• Initial Vent Settings:
  • 6-8mL/kg tidal volume
Once in the ED and adequately ventilated:

- EKG: diffuse ST segment depressions throughout precordial leads
- CXR: bilateral ground glass opacities, possible retrocardiac opacification
  - CBC: WBC 3.6, PLT 89k
  - BUN 42, Cr 1.4 (baseline unknown)
  - AST 45, ALT 60
  - Procalcitonin 0.1
  - Lactate 3.1
  - ABG: pH 7.55/PCO₂ 30/PO₂ 63/HCO₃⁻ 22
  - Flu swab negative
  - Blood cultures pending; urine antigens pending

- 500cc LR bolus, gently
- Vancomycin, Zosyn?
Ms. Owyhee

• The same principles apply as usual:
  • Use risk-stratification in severe illness
    • SOFA, PSI
  • Understand the spectrum of sepsis
    • Sepsis
    • Severe Sepsis
    • Septic Shock
  • Understand the spectrum of respiratory failure
    • Hypoxemia
    • ARDS
Q&A
Highlight Pearls
Entire ECHO Community of Practice
More to come...

We will talk all about the inpatient management of patients with COVID-19 on Friday, April 3rd
References

• https://www.mdcalc.com/covid-19
• https://www.mdcalc.com/psi-port-score-pneumonia-severity-index-cap#use-cases
• https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html
• https://iecho.unm.edu/sites/uidaho/download.hns?i=452