## Today’s Agenda

<table>
<thead>
<tr>
<th>Time (MT)</th>
<th>Presentation</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon – 12:05 pm</td>
<td>Welcome, Announcements, Introductions</td>
<td>Lachelle Smith, Director, ECHO Idaho</td>
</tr>
<tr>
<td>12:05 – 12:10 pm</td>
<td>Idaho Epidemiology Curves and Public Health Updates</td>
<td>Carolyn Buxton Bridges, MD, FACP</td>
</tr>
<tr>
<td>12:10 – 12:15 pm</td>
<td>Treatment Updates</td>
<td>Cathy Oliphant, PharmD</td>
</tr>
<tr>
<td>12:15 – 12:35 pm</td>
<td>COVID and School: Psychosocial Considerations</td>
<td>Sean Nixon, LCSW</td>
</tr>
<tr>
<td>12:35 – 12:55 pm</td>
<td>COVID-19 Patient Case Discussion</td>
<td>ECHO Community of Practice</td>
</tr>
<tr>
<td>12:55 – 1 pm</td>
<td>Closing Pearls, Announcements, Call to Action</td>
<td>Megan Dunay, MD Lachelle Smith, Director, ECHO Idaho</td>
</tr>
</tbody>
</table>

The University of Idaho, WWAMI Medical Education Program is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The University of Idaho, WWAMI Medical Education Program designates this live activity for a maximum of 1.0 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
Idaho Epidemiology Curves and Public Health Updates

Carolyn Buxton Bridges, MD, FACP
Governor’s Coronavirus Working Group, Former CDC Public Health Physician and Researcher
# Case Counts and SARS-CoV-2 PCR Testing in Idaho

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total lab-confirmed</td>
<td>2,455</td>
<td>3,462</td>
<td>11,402</td>
<td>15,266</td>
<td>18,694</td>
<td>21,675</td>
</tr>
<tr>
<td>and probable</td>
<td>(△556)</td>
<td>(△7,940)</td>
<td>(△3,864)</td>
<td>(△3,428)</td>
<td>(△2,981)</td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>74</td>
<td>88</td>
<td>102</td>
<td>122</td>
<td>152</td>
<td>200</td>
</tr>
<tr>
<td>CFR = 2.5</td>
<td></td>
<td></td>
<td>(△14)</td>
<td>(△20)</td>
<td>(△30)</td>
<td>(△48)</td>
</tr>
<tr>
<td>CFR = 0.18</td>
<td></td>
<td></td>
<td>CFR=0.52</td>
<td></td>
<td>CFR=0.88</td>
<td>CFR=1.61</td>
</tr>
<tr>
<td>CFR = 0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFR = 0.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>213</td>
<td>270</td>
<td>500</td>
<td>621</td>
<td>750</td>
<td>886</td>
</tr>
<tr>
<td>(△230)</td>
<td>(△121)</td>
<td>(△129)</td>
<td>(△136)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICU admissions</td>
<td>89</td>
<td>100</td>
<td>144</td>
<td>186</td>
<td>224</td>
<td>256</td>
</tr>
<tr>
<td>(△44)</td>
<td>(△42)</td>
<td>(△38)</td>
<td>(△32)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare personnel</td>
<td>295</td>
<td>366</td>
<td>760</td>
<td>908</td>
<td>1,076</td>
<td>1,271</td>
</tr>
<tr>
<td>(△57)</td>
<td>(△394)</td>
<td>(△148)</td>
<td>(△168)</td>
<td>(△195)</td>
<td>(△195)</td>
<td></td>
</tr>
<tr>
<td>Total tests</td>
<td>37,847</td>
<td>65,306</td>
<td>129,540</td>
<td>150,142</td>
<td>169,588</td>
<td>186,475</td>
</tr>
<tr>
<td>(△17,436)</td>
<td>(△64,234)</td>
<td>(△20,602)</td>
<td>(△19,446)</td>
<td>(△16,887)</td>
<td>(△16,887)</td>
<td></td>
</tr>
</tbody>
</table>

[https://coronavirus.idaho.gov](https://coronavirus.idaho.gov)
Weekly PCR Laboratory Tests Completed and Percent Positivity by Specimen Collection Date

13.2%
Patients currently hospitalized in an inpatient bed who have suspected or confirmed COVID-19.

HHS Protect Data Source
- NHSN
- TeleTrac...

Patients currently hospitalized in the Intensive Care Unit (ICU) with confirmed COVID-19.

Data are preliminary, and subject to change. Data updated by the Department of Health and Welfare Monday, Wednesday, and Friday by 5 p.m. MT.
Cases by Age-Group

Deaths by Age-Group
Long-term Care Facility Outbreak Reports

• Updated weekly at: https://coronavirus.idaho.gov/ltc/.

• As of July 31, 2020
  – Total 103 outbreaks with 1089 total cases
    • 36 facilities have resolved outbreaks.
    • 21 of the 36 resolved outbreaks included only 1 resident or staff member with COVID-19, and there was no further spread in the facility.
  – 106 COVID-19-related deaths associated with eighteen facilities (increase from 80 last week).

• Currently, 67 long-term care facility outbreaks (<28 days since last case).
June 17–20, camp A held orientation for 138 trainees and 120 staff.

June 21–27, staff joined by 363 campers and three senior staff.

- All trainees, staff members, and campers provided documentation of negative viral SARS-CoV-2 test ≤12 days before arriving
- Measures not implemented: a) cloth masks for campers; b) opening windows and doors for increased ventilation.
- Cloth masks required for staff members.
- Camp attendees cohorted by cabin
- Indoor and outdoor activities, including daily vigorous singing and cheering.

On June 23, staff A left camp A after developing chills June 22. Positive test result on June 24.

Began sending campers home June 24; closed camp on June 27.
• Test results available for 344/597 (58%) attendees
• Among GA residents with test conducted, 260/344 (76%) positive.
• Overall attack rate 44% (260 of 597)(Table).
• Attack rates increased with days spent at the camp, with staff members having the highest attack rate (56%).
• Among 136 cases with symptom data, 36 (26%) had no symptoms – most common symptoms:
  – fever (65%)
  – headache (61%)
  – sore throat (46%)

<table>
<thead>
<tr>
<th>Age group</th>
<th>No.</th>
<th>No. positive</th>
<th>Attack rate, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>597</td>
<td>260</td>
<td>44</td>
</tr>
<tr>
<td>6–10</td>
<td>100</td>
<td>51</td>
<td>51</td>
</tr>
<tr>
<td>11–17</td>
<td>409</td>
<td>180</td>
<td>44</td>
</tr>
<tr>
<td>18–21</td>
<td>81</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>22–59</td>
<td>7</td>
<td>2</td>
<td>29</td>
</tr>
</tbody>
</table>
Stein-Zamir, et al. A large COVID-19 outbreak in a high school 10 days after schools’ reopening, Israel, May 2020; Eurosurveillance 2020

• May 17, 2020, schools reopened
  – daily health reports, hygiene, facemasks, social distancing and minimal interaction between classes.
• May 26-27, school (n=1164 students 7-12 grade) notified of two cases
• Two students, unrelated, attended May 19-21 with mild symptoms
• Testing of complete school community during May 28-30
  – 153 students (attack rate: 13.2%) and
  – 25 staff members (attack rate: 16.6%)
• Overall, some 260 persons infected (students, staff members, relatives and friends)
Stein-Zamir, et al. A large COVID-19 outbreak in a high school 10 days after schools’ reopening, Israel, May 2020; Eurosurveillance 2020

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of persons</th>
<th>Number tested</th>
<th>Confirmed cases</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>n</td>
<td>Rate (%)</td>
</tr>
<tr>
<td>7th grade</td>
<td>197</td>
<td>197</td>
<td>40</td>
<td>20.3</td>
</tr>
<tr>
<td>8th grade</td>
<td>197</td>
<td>197</td>
<td>34</td>
<td>17.3</td>
</tr>
<tr>
<td>9th grade</td>
<td>187</td>
<td>187</td>
<td>61</td>
<td>32.6</td>
</tr>
<tr>
<td>10th grade</td>
<td>200</td>
<td>200</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>11th grade</td>
<td>195</td>
<td>194</td>
<td>6</td>
<td>3.1</td>
</tr>
<tr>
<td>12th grade</td>
<td>188</td>
<td>186</td>
<td>3</td>
<td>1.6</td>
</tr>
<tr>
<td>All students</td>
<td>1,164</td>
<td>1,161</td>
<td>153</td>
<td>13.2</td>
</tr>
<tr>
<td>Staff</td>
<td>152</td>
<td>151</td>
<td>25</td>
<td>16.6</td>
</tr>
</tbody>
</table>

- Before May 24 2020, proportion of cases 10–19 years in Jerusalem was 19.8% (938/4,747)
- 40.9% (316/772) during 3 weeks after May 24 2020

[Link to Eurosurveillance article](https://www.eurosurveillance.org/content/table/10.2807/1560-7917.ES.2020.25.29.2001352.t1?fmt=ahah&fullscreen=true)
Treatment Updates

Cathy Oliphant, PharmD
Infectious Disease, Professor and Interim Chair, ISU College of Pharmacy
Remdesivir: NIH Guideline Update for Prioritizing Limited Supplies

- Due to limited supplies of remdesivir, the NIH guidelines recommend that remdesivir be prioritized for hospitalized patients who are receiving supplemental oxygen but not high-flow, noninvasive or mechanical ventilation ECMO.
- For those receiving supplemental oxygen, the NIH guidelines recommend 5 days of remdesivir (or until D/C, whichever comes first).
- If a patient on supplemental oxygen requires high-flow, noninvasive or mechanical ventilation while receiving remdesivir, the course of therapy should be completed.
- Per the NIH guidelines, there is uncertainty in the clinical benefit of remdesivir in patients on high-flow, noninvasive or mechanical ventilation.
Hydroxychloroquine

• Current guidelines (NIH, IDSA) do not recommend the use of hydroxychloroquine in hospitalized patients outside of a clinical trial
• Recent data from randomized controlled clinical trials do not demonstrate an improvement in clinical status, need for mechanical ventilation, duration of hospitalization or a reduction in mortality with hydroxychloroquine
Hydroxychloroquine: Henry Ford Health System

• Retrospective analysis
  – 2,541 patients hospitalized between 3/10-5/2/20 across the Henry Ford Health System

• Patient demographics
  – Median age: 64
  – 51% male
  – 56% African American
  – Majority BMI > 30
  – Many with other co-morbidities
  – 68% received steroids
  – 82% received HCQ w/in 24 hours and 91% w/in 48 hours of admission
  – Median length of hospitalization was 6 days

• Results
  – Primary end point was inpatient mortality
  – 18.1% mortality for entire group
  – 13.5% for HCQ group
  – 20.1% for HCQ + azithro group
  – 22.4% in azithro group

• Weaknesses
  – mSOFA scores only available for 25%
  – Duration of s/s prior to hospitalization unknown
  – Majority of patients receiving concomitant corticosteroids
  – Retrospective, observational
  – No randomized or controlled

Hydroxychloroquine: Outpatient & Prevention

• No evidence to support the efficacy of HCQ in prevention, prophylaxis or outpatient treatment
• Prophylaxis:
  – Boulware et al, NEJM 2020
  – Adults with confirmed COVID exposure
  – HCQ w/in 4 days of exposure
  – COVID infection w/in 14 days similar between HCQ and placebo
    • 75.4% vs 82.6%

• “Baseline use of HCQ in SLE does not preclude SARS-CoV-2 infection and severe COVID”
  – Data obtained through COVID-19 Global Rheumatology Alliance registry
  – Demonstrates that patients receiving HCQ for SLE are not protected from COVID
  – 49.6% of SLE patients receiving baseline HCQ developed COVID
  – Hospitalization rates did not differ between SLE patients on baseline HCQ vs SLE patients not receiving HCQ
Hydroxychloroquine: Outpatient Treatment of Mild COVID

Hydroxychloroquine in nonhospitalized patients with early COVID

- Double-blind, randomized, placebo-controlled study in outpatients with confirmed or probable COVID
  - 423 pts with symptoms < 4 days
- HCQ x 5 days
- No reduction in symptoms
  - 54% HCQ vs 56% placebo at day 5
  - 24% HCQ vs 30% placebo at day 14
- No difference in hospitalization or death

Hydroxychloroquine for early treatment of adults with mild COVID

- Open-label, randomized study in outpatients with confirmed mild COVID
  - 293 pts with symptoms < 5 days
- HCQ x 7 days
- No significant reduction in viral load at day 3 or 7
- No reduction in median time to resolution of s/s
  - 10 days HCQ vs 12 days placebo
- No decrease in hospitalization
  - 7% HCQ vs 6% placebo

Tocilizumab (Actemra)

- COVACTA Trial of tocilizumab in hospitalized patients with severe COVID associated pneumonia
- Did not meet its primary endpoint of improved clinical status or key secondary endpoint of reduced mortality
  - Improvement in clinical status at week 4 (p=0.36)
  - Mortality at week 4 was 19.7% for tocilizumab vs 19.4% for SOC
- Time to discharge demonstrated a positive trend in patients treated with tocilizumab
  - Median time to D/C 20 days vs 28 days SOC
- Difference in ventilator free-days not statistically significant
  - 22 days vs 16.5 days (SOC)
- Many additional studies evaluating the use of tocilizumab are currently underway

Favipiravir (oral antiviral)

*Not approved in US*

- Viral RNA polymerase inhibitor
- Phase 3: Open-label, randomized clinical trial
  - 150 patients (90 – mild, 60 – moderate) received favipiravir
- Favipiravir demonstrated:
  - 28.6% faster viral clearance
  - Faster achievement of clinical cure
    - By day 4, 69.8% achieved clinical cure vs 44.9% in control group
  - Longer median time to 1st use of oxygen
    - 5 days vs 2 days

- Only a few prior studies in COVID
  - Not peer-reviewed or open-label
  - Hospitalized, non-severe patients
    - Likely less effective in severe patients
  - Small numbers of patients
  - Demonstrated
    - Shorter viral clearance time
    - Faster clinical cure rates
COVID and School: Psychosocial Considerations

Sean Nixon, LCSW
St. Luke’s - Caldwell
Learning Objectives

• Understand what is school avoidance/refusal
• Screening and Treatment Options
• Resources for Providers and Families
Background

- In January 2020, a novel coronavirus identified and named SARS-Covi-2, (COVID-19) was first identified in persons within the United States.
- In March 2020, schools in Idaho began to close due to the community impact of COVID-19. Most school moved to online education.
- August 2020, schools are making plans to begin schooling again. Most students, will have been out of school for 5 months.
Return to school

• Opening of school has been documented in news reports and in preliminary research as resulting in an increase in child and parent anxiety.

• Parents are struggling to find make a decision that meets family needs.

• Parents are dealing with increased anxiety, balancing education needs of children, and employment needs.

• Children are anxious when parents are anxious and are also anxious with the unknown's of returning to school.
School Avoidance/Refusal

• Refusal to go to school may happen at any age
• Most typically occurs in children 5-7 years of age and in those 11-14 years of age.
  – During these years, children are dealing with the changes of starting school or making the transition from elementary or middle school to high school. Preschoolers may also develop school refusal without any experience of school attendance.
  – School refusal is also typical after an extended separation from school due to illness, war, natural disaster, etc.
• Generally, the child or adolescent refuses to attend school and experiences significant distress about the idea of attending school.
School Avoidance/Refusal

• Signs of school refusal can include significant school absence (generally one week or more) and/or significant distress even with school attendance. Distress with school attendance may include the following:
  – A child who cries or protests every morning before school
  – An adolescent who misses the bus every day
  – A child who regularly develops some type of physical symptom when it is time to go to school

• Seek assessment if distress is impacting family and child most days.
Diagnosis

• School avoidance/refusal is not a DSM-5 diagnosis
• Potential Diagnoses
  – Separation Anxiety
  – Specific Phobia
  – Anxiety
  – Depression
Provider Tools

• Helpful tools to confirm the diagnosis of an anxiety disorder and the level of impairment include the following:
  – The Child Behavior Checklist (CBCL)
  – The SCARED (The Screen for Child Anxiety Related Emotional Disorders)
  – The Children's Manifest Anxiety Scale
  – Children's Global Rating Scale
  – School Refusal Assessment Scale-Revised (P)

• Assessment of caregiver level of anxiety may be necessary
Treatment Options

• Counseling/Therapy
  – Cognitive Behavioral Therapy (CBT)
  – Exposure Response Prevention Therapy (ERPT)
  – Dialectical Behavior Therapy (DBT)
  – Play Therapy

• Medication Management
  – Medication to treat anxiety/depression based on diagnosis
Parent Tools

• **School Decision-Making Tool for Parents, Caregivers, and Guardians**
  – Decision tool from the CDC
  – [PDF of tool](#)

• **Back to School Planning: Checklists to Guide Parents, Guardians, and Caregivers**
  – Checklist to help parents from the CDC

• **Supporting your child’s mental health as they return to school during COVID-19**
  – Article from UNICEF
Reminders about schooling

• Online School, Hybrid School, In School
  – Parents are facilitators, not teachers.
    • Weigh Expectations
      – What can you and your kids accomplish in a day?
      – What is required each day, each week?
    • Identify what you know and what you do not know
      – Are you the best family member to be helping with topic?
      – What topics bring back memories of your own schooling?
Reminders about schooling

– Use your resources
  • Communicate with school, teachers, resource rooms and administrator's
    – Be honest with your struggles and your needs
    – Be honest about your child's struggles and needs
  • Use this opportunity to demonstrate how to ask for help
– Help your children identify what they can do independently and what they need help with
• This is a difficult time for all families and you are not alone
Key Points

• School avoidance/refusal is normal in children making transitions or having not been in a school setting for an extended length of time.
• If school avoidance/refusal is impacting family and child's life more than a few days per week, seek medical assessment.
• Assess caregiver and child for anxiety surrounding school.
• Rely on facts and ability to mitigate potential harm associated with COVID-19
References

• Center for Disease Control and Prevention
  – www.cdc.gov

• UNICEF
  – www.unicef.org
COVID-19 Patient Case Discussion

ECHO Community of Practice
Case

42yo F with history of GERD and occasional rhinitis presents to your clinic for a telehealth appointment with chief complaint of insomnia.

Patient states that she has been unable to fall asleep for the past three weeks. When she does fall asleep she awakens frequently during the night. No nightmares.

Occasional episodes of feeling totally overwhelmed with shallow breathing and mild dizziness (during the daytime) for the past month or so. Some palpitations with those episodes. No chest pain, no syncope.
Case, continued

Social Hx: Married, 2 kids, ages 12 and 9 (rising 7th and 4th graders, respectively). Non-smoker. 1-2 drinks, 3 days per week. No other substances. Employed by a small consulting business doing financial analytics for corporate clients. Working from home: requires a great deal of attention and concentration to complete her job. Husband owns his own contracting business, out of the house all day.

• Worried that she will need to homeschool her kids.
• Worried about socialization of kids; 12y/o plays competitive soccer and the season has been disrupted. Worried that she is really sad about it.

ROS: Worsening dyspepsia, occasional dry cough
Discussion

• What's your diagnosis?
  – Insomnia?
  – Anxiety? Depression?
  – Adjustment Reaction with Anxious Mood?

• How do you treat this?
  – Non-pharmacologic interventions?
  – Pharmacologic interventions?
  – Who do you treat? Individual? Family unit?

• How do you counsel this patient regarding her symptoms related to known GERD and allergic rhinitis?
JOIN US FOR OUR NEXT SESSION!

For information, please visit uidaho.edu/echo

- Tuesday, August 11 at noon MT
RESOURCES FROM TODAY’S SESSION AND PAST SESSIONS CAN BE FOUND IN OUR ONGOING RESOURCE LIST.

https://iecho.unm.edu/sites/uidaho/download.hns?i=440