<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>Post-Acute Care and Residential Facilities - Challenges in the Time of COVID</td>
<td>Megan Dunay, MD, MPH</td>
</tr>
<tr>
<td>12:35 – 12:40 pm</td>
<td>Didactic Pearls</td>
<td>Sheila Giffen, MD, Alejandro Necochea, MD</td>
</tr>
<tr>
<td>12:40 – 12:55 pm</td>
<td>Patient Case Presentation</td>
<td>Donna Beeson, DP</td>
</tr>
<tr>
<td>12:55 – 1 pm</td>
<td>Closing Pearls, Announcements, Call to Action</td>
<td>ECHO Panelists, Lachelle Smith, Director, ECHO Idaho</td>
</tr>
</tbody>
</table>
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>5/19/2020</th>
<th>6/1/2020</th>
<th>Number New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total lab-confirmed and probable</td>
<td>2,455</td>
<td>2,906</td>
<td>451</td>
</tr>
<tr>
<td>Deaths</td>
<td>74 (3.0%)</td>
<td>83</td>
<td>9 (2.0%)</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>213 (8.7%)</td>
<td>247</td>
<td>34 (7.5%)</td>
</tr>
<tr>
<td>ICU admissions</td>
<td>89 (3.6%)</td>
<td>98</td>
<td>9 (2.0%)</td>
</tr>
<tr>
<td>Healthcare personnel</td>
<td>295 (12%)</td>
<td>309</td>
<td>14 (3.1%)</td>
</tr>
<tr>
<td>Total tests</td>
<td>37,847 (6.5%)</td>
<td>47,870</td>
<td>10,033 (4.5%)</td>
</tr>
</tbody>
</table>

[https://coronavirus.idaho.gov](https://coronavirus.idaho.gov)
Rebound Idaho Criteria

• Stage 3 started on May 30
  • Outdoor pools, waterparks,
  • Bars, breweries, wineries, distilleries
  • Indoor movie theatres
  • Gatherings 10-50 people if social distancing and hygiene can be maintained

• Stage 4 beginning June 13 *if criteria met*
  • Visits to senior living facilities and congregate facilities (*e.g.* assisted living, nursing homes, correctional institutions) can resume.
  • Nightclubs, gatherings of >50 people, large venues if physical distancing

https://rebound.idaho.gov/business-specific-protocols-for-opening/
Asymptomatic and Pre-symptomatic Transmission

• Multiple publications have reported substantial viral shedding among pre-symptomatic and asymptotically infected persons.

• Modeling study from Hong Kong estimate that 44% (95% CI 25-69%) of secondary cases were infected during the index cases' pre-symptomatic stage

• Recommended including 2-3d before illness onset in contact tracing (CDC recommends 48 hrs.

Asymptomatic and Pre-symptomatic Transmission

• Assisted Living facility in Seattle (Roxby, et al MMWR April 10, 2020 / 69(14);416–418).
  • After 2 residents hospitalized with COVID, testing of all residents and staff on days 7 and 14
  • All residents social distancing in their apartments
  • Among 6 positives, 3/4 residents with no symptoms at time of testing, 1 staff with some respiratory, 1 staff only with headache
  • At initial testing, symptoms reported by 42% of residents and 25% of staff members who had negative test results for SARS-CoV-2.
    • E.g. sore throat, chills, confusion, body aches, dizziness, malaise, headaches, cough, shortness of breath, and diarrhea.

• Highlighted
  • Usefulness of testing
  • Limits of symptomatic screening
  • Benefits of infection control, notably social distancing, to limit spread

TABLE. Characteristics of residents and staff members with positive SARS-CoV-2 test results* on day 1 and day 7 — independent and assisted living community for older adults, Seattle, Washington, March 10 and 17, 2020

<table>
<thead>
<tr>
<th>Test group/Case ID</th>
<th>Sex</th>
<th>Age (yrs)</th>
<th>Symptoms reported in 14 days preceding first test</th>
<th>SARS-CoV-2 test results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Day 1</td>
</tr>
<tr>
<td>Persons with positive test results on day 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident A</td>
<td>Female</td>
<td>92</td>
<td>None</td>
<td>Positive</td>
</tr>
<tr>
<td>Resident B</td>
<td>Female</td>
<td>82</td>
<td>None</td>
<td>Positive</td>
</tr>
<tr>
<td>Resident C</td>
<td>Male</td>
<td>75</td>
<td>Cough (resolved) and one loose stool on day of test</td>
<td>Positive</td>
</tr>
<tr>
<td>Staff member D</td>
<td>Female</td>
<td>24</td>
<td>Headache x 10 days</td>
<td>Positive</td>
</tr>
<tr>
<td>Staff member E</td>
<td>Female</td>
<td>51</td>
<td>Body aches, cough, and headache x 5 days</td>
<td>Positive</td>
</tr>
<tr>
<td>Person with positive test result on day 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident F</td>
<td>Female</td>
<td>86</td>
<td>None</td>
<td>Negative</td>
</tr>
</tbody>
</table>
Treatment Updates

Cathy Oliphant, PharmD
Infectious Disease, Professor and Interim Chair, ISU College of Pharmacy
Hydroxychloroquine: Efficacy and Safety

• Multiple studies reporting safety data on hydroxychloroquine or chloroquine point to potential harms with lack of efficacy
• WHO has suspended HCQ arm in the Solidarity trial
• FDA, at end of April, had stated concerns re HCQ/CQ use without further randomized, controlled clinical trials demonstrating clinical benefit from these agents
• Several societies now recommended against use of HCQ outside of clinical trials
Hydroxychloroquine: Efficacy and Safety Trials

Association of Treatment With Hydroxychloroquine or Azithromycin With In-Hospital Mortality in Patients With COVID-19 in New York State (JAMA 5/11/20)

• Composite end point of intubation or death was not affected by hydroxychloroquine +/- azithromycin treatment
  • Treatment with these agents was not associated with lower in-hospital mortality

Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis (Lancet 5/22/20)

• All HCQ/CQ regimens were associated with an increased risk of death and increased frequency of arrhythmias
Hydroxychloroquine or Chloroquine for Treatment or Prophylaxis of COVID-19: A Living Systematic Review (Ann Intern Med)

• Purpose:
  • Summarize evidence about the benefits and harms of HCQ or CQ

• Methods:
  • Evaluated studies reporting efficacy or safety outcomes of HCQ or CQ in any setting

• Studies evaluated
  • 4 randomized controlled trials
  • 9 case series
  • 10 cohort studies
  • No prophylaxis studies

• Findings:
  • Evidence conflicting
  • Insufficient evidence on outcomes such as all-cause mortality, progression to severe disease, clinical s/s, virologic clearance
  • Few controlled studies
  • Control for confounding inadequate

• Conclusion:
  • Evidence on benefits and harms of HCQ or CQ are limited
    • Weak and conflicting data

https://www.acpjournals.org/doi/10.7326/M20-2496
Remdesivir – Emergency Use Authorization

• **FDA issued emergency use authorization (EUA) on May 1, 2020**
  
  “It is reasonable to believe that remdesivir may be effective in treating COVID-19, and that, given there are no adequate, approved, or available alternative treatments, the known and potential benefits to treat this virus currently outweigh the known and potential risks of the drug’s use”

• Emergency use authorization is for the treatment of suspected or laboratory confirmed COVID-19 in hospitalized adults and children with severe disease

• Based on a clinical trial where it was shown to reduce the time to recovery in some patients

• This allows for distribution and emergency use of remdesivir only for the treatment of COVID-19; it remains an investigational drug and is not FDA approved

[University of Idaho WWAMI Medical Education Logo]
Remdesivir for 5 or 10 Days in Patients with Severe Covid-19 (NEJM)

- Randomized, open-label, phase 3 trial
- Primary endpoint
  - Clinical status on day 14
- 397 patients
  - Not on mechanical vent at entry
  - 200 received 5 day regimen
    - Median duration of tx – 5 days
  - 197 received 10 day regimen
    - Median duration of tx – 9 days

- Findings:
  - By day 14, 65% of pts in 5 day group showed clinical improvement compared with 54% of those in 10 day group
  - Median LOS among pts D/C < 14 days for the 5 day group was 7 days and 8 days for 10 day group
  - At 14 days, 60% of patients in 5 day group vs 52% in the 10 day group were discharged
  - Discharge rates were higher in those who had earlier initiation of remdesivir (1st dose < 10 days s/s)
  - Mortality for 5 and 10 day was 8% vs 11%

Remdesivir for the Treatment of COVID-19 – Preliminary Report (NEJM)

• Randomized, controlled trial
  • Preliminary results of Adaptive Covid-19 Treatment Trial
• Enrollment 2/21-4/19/20
• 68 sites in the US, 21 countries in Europe and Asia
• 1063 patients (1059 evaluated)
  • 538 remdesivir
  • 521 placebo

• Results:
  • Remdesivir treated pts had a faster recovery time – 11 d vs 15 days (p<0.001)
  • Earlier initiation of remdesivir was associated improved recovery
  • 14 day mortality rate of 7.1% for remdesivir vs 11.9% for placebo (p=0.059)

• Conclusions:
  • Remdesivir most beneficial for severe COVID pts however mortality rate of 7.1% indicates that additional studies with concomitant therapies should be conducted to further improve clinical outcomes

Post-Acute Care and Residential Facilities - Challenges in the Time of COVID

Megan Dunay, MD, MPH
Geriatrician, Boise VA and Medical Director for Geriatrics and Extended Care for VA
Pacific Northwest Region
Spectrum of Care

Post-Acute Care
- After the acute care hospital
- Acute Rehabilitation
- Subacute Rehabilitation
- Skilled Nursing/Convalescent Care

Long Term Care
- Custodial/Residential Care
- Skilled Nursing Facilities
- Assisted Living Facilities
- Intermediate Care Facilities
Congregate Living Facilities and COVID

People

- Age
- Multimorbidity:
  - CV risk
  - Pulmonary risk
  - Cognition
- Close proximity:
  - Residents
  - Staff (personal cares)
- Staff:
  - Work in multiple facilities
  - Care for many patients

Processes

- Admissions from hospitals
- Transfers to and from hospitals
- Medical appointments in community
- Community outings
- Communal dining
- Recreation and exercise
- Testing
- Isolation
- Hospice
Large-Scale Testing after 2+ Cases
- All residents
- All staff
- Serial
- Multiple asymptomatic pts
- Isolation
- Cohorting
- Residents
- Staff
- Rigorous criteria for patient movements

Required criteria for discharge from acute care to COVID-19 recovery unit:
- Confirmed COVID-19 diagnosis
- During the preceding 2 days:
  - Temperature <100°F (<37.8°C)
  - Respiratory rate <24 per minute
- The day before discharge:
  - Room air pulse oximetry >93% or no change from established baseline for residents with chronic oxygen requirement for 24 hours before transfer
  - D-dimer <2 mg/mL; FEU (per VAQLAH test readout) within 24 hours before transfer
  - White blood cells <11,000/μL
- Resident satisfies all other eligibility criteria for admission to VA SNF

Required criteria for discharge from COVID-19 recovery unit to VA SNF:
- 74 days have passed since admission to hospital and no fever for ≥72 hours without the use of fever-reducing medications and
- Negative results of a Food and Drug Administration Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart (total of two negative specimens)

Required criteria for transfer back to acute care hospital:
- Room air pulse oximetry >94% or change from established baseline for residents with chronic oxygen requirement
- Signs or symptoms as per the judgment of the COVID-19 recovery unit staff members
- Within a 24-hour period, both of the following:
  - Temperature >99.9°F (>37.7°C)
  - Respiratory rate >24 per minute
Challenges facing LTCF:
Idaho

- Access to PPE
- Access to Testing when needed
- Isolation of Residents
- Fear of large/serious outbreak
- Communication and messaging


Didactic Pearls

Sheila Giffen, MD
Executive Medical Director, St. Alphonsus Health Alliance

Alejandro Necochea, MD, MPH
Medical Director, St. Luke’s Health Partners
Patient Case Presentation

Donna Beeson, DO
Hospitalist, St. Luke’s Health Partners
Closing Pearls

ECHO Panelists
Lachelle Smith, Director, ECHO Idaho
Ongoing Resources List

Resources from today’s session and past sessions can be found in our ongoing resources list:

https://iecho.unm.edu/sites/uidaho/download.hns?i=440
COVID-19 ECHO More to Come...

Tuesday, June 16: Noon to 1 p.m. MT
- Justin Glass, MD, Family Medicine Residency - Boise

Starting in June, COVID sessions will be held the first and third Tuesday of the month at noon MT.