

Today's Agenda

Time (MT)	Presentation	Presenter(s)
Noon – 12:05 pm	Welcome, Announcements, Introductions	Lachelle Smith, Director, ECHO Idaho
12:05 – 12:10 pm	Idaho Epidemiology Curves and Public Health Updates	Carolyn Buxton Bridges, MD, FACP
12:10 – 12:15 pm	Treatment Updates	Cathy Oliphant, PharmD
12:15 – 12:35 pm	Post-Acute Care and Residential Facilities - Challenges in the Time of COVID	Megan Dunay, MD, MPH
12:35 – 12:40 pm	Didactic Pearls	Sheila Giffen, MD Alejandro Necochea, MD
12:40 – 12:55 pm	Patient Case Presentation	Donna Beeson, DP
12:55 – 1 pm	Closing Pearls, Announcements, Call to Action	ECHO Panelists Lachelle Smith, Director, ECHO Idaho



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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



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Case Counts and SARS-CoV-2 PCR Testing in Idaho

	5/19/2020	6/1/2020	Number New
Total lab-confirmed and probable	2,455	2,906	451
Deaths	74 (3.0%)	83	9 (2.0%)
Hospitalizations	213 (8.7%)	247	34 (7.5%)
ICU admissions	89 (3.6%)	98	9 (2.0%)
Healthcare personnel	295 (12%)	309	14 (3.1%)
Total tests	37,847 (6.5%)	47,870	10,033 (4.5%)

<https://coronavirus.idaho.gov>

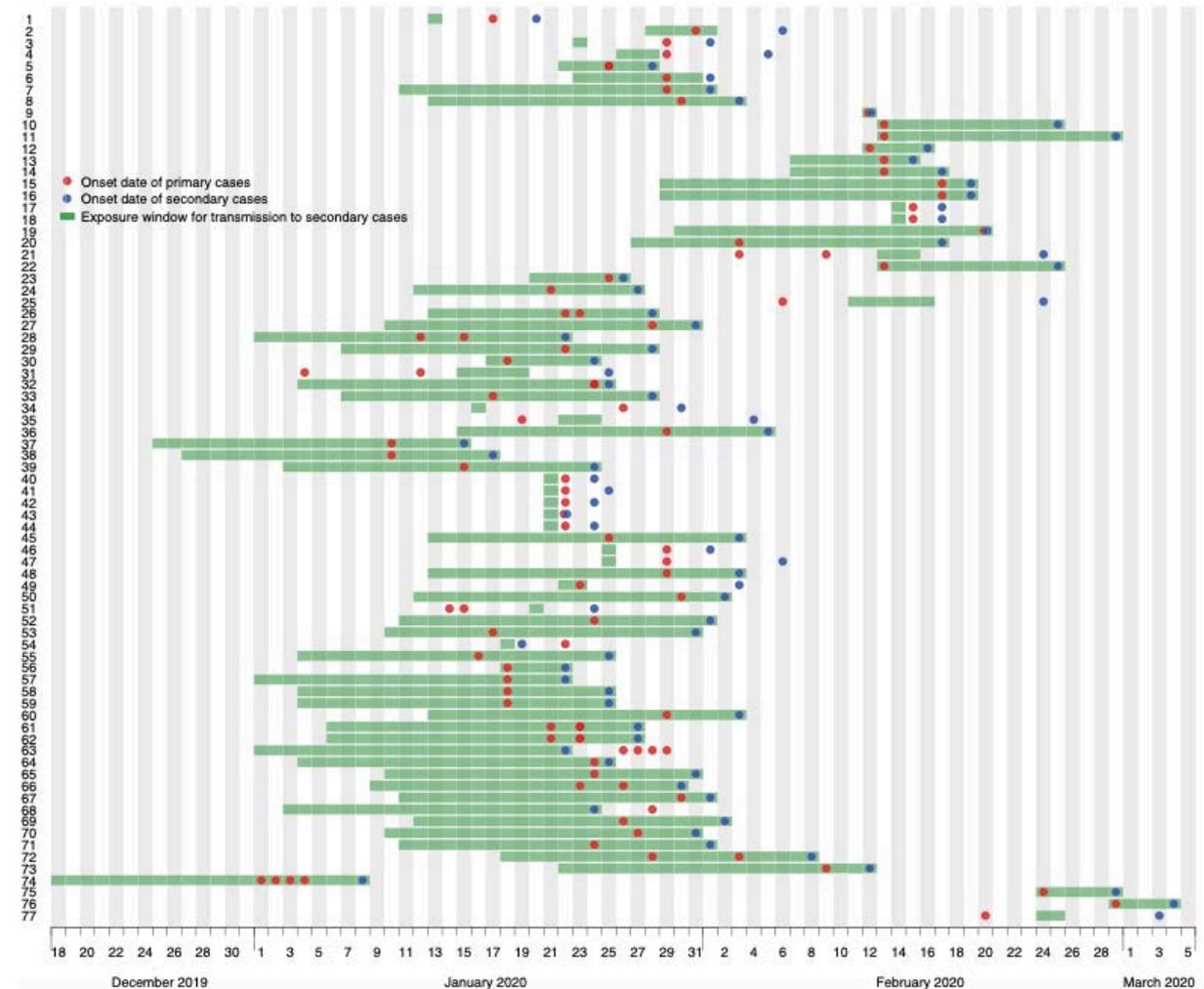
Rebound Idaho Criteria

- 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).



He, et al. Temporal Dynamics in Viral Shedding and Transmissibility of COVID-19. Nature Medicine. 2020 May;26(5):672-675. doi: 10.1038/s41591-020-0869-5. Epub 2020 Apr 15.

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

Roxby, et al MMWR April 10, 2020 / 69(14);416–418.

Asymptomatic and Pre-symptomatic Transmission

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



Test group/Case ID	Sex	Age (yrs)	Symptoms reported in 14 days preceding first test	SARS-CoV-2 test results	
				Day 1	Day 7
Persons with positive test results on day 1					
Resident A	Female	92	None	Positive	Negative
Resident B	Female	82	None	Positive	Positive
Resident C	Male	75	Cough (resolved) and one loose stool on day of test	Positive	Positive
Staff member D	Female	24	Headache x 10 days	Positive	Not retested
Staff member E	Female	51	Body aches, cough, and headache x 5 days	Positive	Not retested
Person with positive test result on day 7					
Resident F	Female	86	None	Negative	Positive

Roxby, et al MMWR April 10, 2020 / 69(14);416–418.

Treatment Updates

Cathy Oliphant, PharmD

Infectious Disease, Professor and Interim Chair, ISU College of Pharmacy



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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



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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



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



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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 \leq 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



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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



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 µg/mL FEU (per VAGLAHS 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†

- 14 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

MMWR 5/29/20

- Large-Scale Testing after 2+ Cases
 - All residents
 - All staff
 - Serial
 - Multiple asymptomatic pts
- Isolation
- Cohorting
 - Residents
 - Staff
- Rigorous criteria for patient movements



Challenges facing LTCF: *Idaho*



Access to PPE



Access to Testing when needed



Isolation of Residents



Fear of large/serious outbreak



Communication and messaging

- ▶ Dora AV, Winnett A, Jatt LP, et al. Universal and Serial Laboratory Testing for SARS-CoV-2 at a Long-Term Care Skilled Nursing Facility for Veterans – Los Angeles, California, 2020. MMWR Morb Mortal Wkly Rep 2020;69:651-655. DOI: <http://dx.doi.org/10.15585/mmwr.mm6921e1>
- ▶ Kimball A, Hatfield KM, Arons M, et al.; Public Health - Seattle & King County; CDC COVID-19 Investigation Team. Asymptomatic and presymptomatic SARS-CoV-2 infections in residents of a long-term care skilled nursing facility—King County, Washington, March 2020. MMWR Morb Mortal Wkly Rep 2020;69:377-81.
- ▶ Hsu A, Lane N. Impact of COVID-19 on residents of Canada’s long-term care homes—ongoing challenges and policy response. London, United Kingdom: International Long-Term Care Policy Network; 2020. [https://ltccovid.org/2020/04/15/impact-of-covid-19-on-residents-of-canadas-long-term-care-homes-ongoing-challenges-and-policy-response/external icon](https://ltccovid.org/2020/04/15/impact-of-covid-19-on-residents-of-canadas-long-term-care-homes-ongoing-challenges-and-policy-response/external%20icon)
- ▶ McMichael TM, Clark S, Pogojans S, et al.; Public Health - Seattle & King County, EvergreenHealth; CDC COVID-19 Investigation Team. COVID-19 in a long-term care facility—King County, Washington, February 27-March 9, 2020. MMWR Morb Mortal Wkly Rep 2020;69:339-42.

References



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Didactic Pearls

Sheila Giffen, MD

Executive Medical Director, St. Alphonsus Health Alliance

Alejandro Necochea, MD, MPH

Medical Director, St. Luke's Health Partners



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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>



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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.



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