

Infection Control and Public Health Weekly Meeting

Thursday, December 16, 2021; 12:30 – 1:00 pm

COVID-19 and Public Health Updates (Health Commissioners)

- HIV cluster in Butler County (15 2020 / 58 YTD 2021)
- Syphilis cases rising in Ohio (76% male, urban and rural counties) including congenital syphilis
- About 34% of vaccinations first / second doses in HCPH clinics

Emergency Alert: Hospitals Submitting Non-Clinical Staffing Needs Survey by Noon Today for Ohio National Guard Assistance. OHA creating a plan for federal staffing assistance for critical care / respiratory therapy. Travel assistance from outside Ohio.

In Ohio, only 30% nursing home residents boosted. Most positive cases are “unboosted” many of whom families rejected the booster dose. Recommendation for booster dose prior to hospital discharge.

CDC ACIP Recommends mRNA Vaccines to be Preferred (Dec 16)

- Reviewed recent data from Janssen J&J linking the COVID-19 vaccine rare, but severe blood clots (one per 100,000 women ages 30 to 49 years old will have a condition with a case fatality rate of 15%).

Region Six COVID-19 Inpatients

Week	Hospitalized	ICU	Vents
Oct 6	521 (19%)	163 (31%)	163
Oct 27	344 (13%)	114 (33%)	91
Nov 10	296 (11%)	88 (32%)	81
Dec 2	477 (16%)	129 (31%)	88
Dec 8	531 (17%)	143 (27%)	106
Dec 16	622 (19%)	151 (26%)	104



Region	Incidence Rate (cases/day/100K)
1	63
2	87
3	59
4	51
5	70
6	65
7	56
8	52

COVID-19 Booster Doses (EUA age ≥ 16)

- Pfizer-BioNTech COVID-19 booster now includes age 16-17, Moderna for age ≥ 18)
- Eventually “fully vaccinated” will include booster dose(s)
- In vitro neutralizing antibody level 3-5 days after booster dose – “fully boosted”
- Recommend booster doses (may mix and match) prior to hospital discharge to post-acute and long-term care

Monoclonal Antibody Infusions

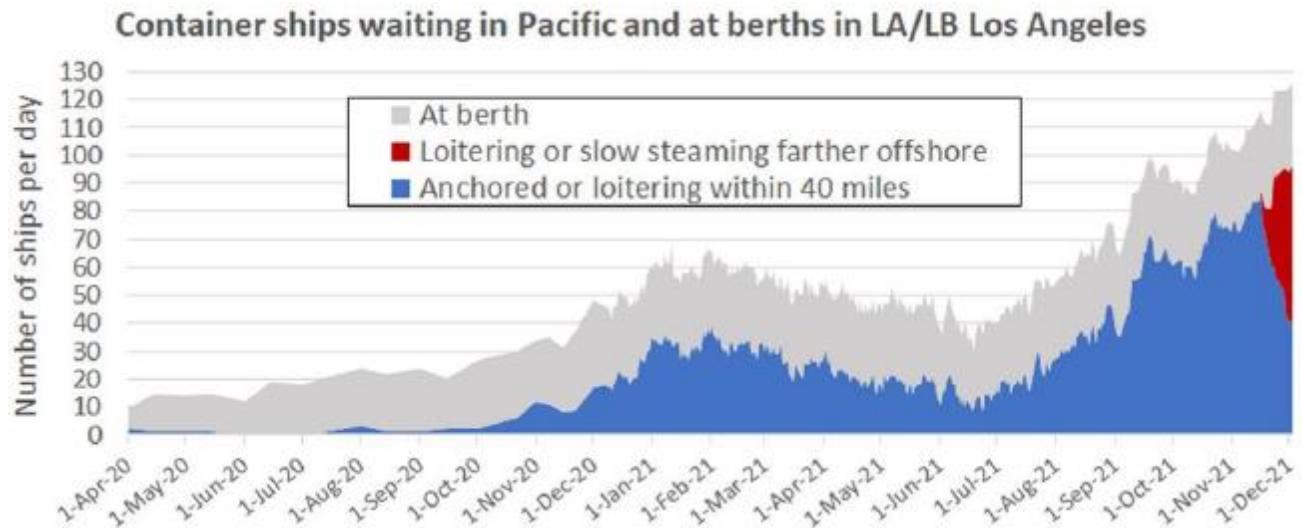
- REGEN-COV (Casirivimab / imdevimab) not available through ODH (Dec 8)
- Allocated Bamlanivimab and Etesevimab (Lilly) for most of the Cincinnati area (until end of year)
- Sotrovimab (GSK) available but not yet distributed (may order) reported sensitive to 37 Omicron spike protein mutations by neutralization assay (3-fold reduction)
- Remains difficult for ambulatory sites to order, outside of emergency department visits

Inventory is decreasing for monoclonal antibody, Ohio cutting distribution (HHS)

- Ohio was in the top five for allocations
- Allocation requests 40% above supply this week for Ohio based health systems
- Dayton region “just in time” monoclonal antibody distribution developed by Premier Health System (Miami Valley Hospital / Atrium) looking at as an example

Supply Chain Update (Kevin Connor)

- Backlogs at our major ports and includes specifics on some of the medical and food products that will be challenging. Premier GPO document (page 5-6) lists shortage products.
- Better action on the East Coast ports of entry
- Air freight capacity used by technology companies
- Survey sent to hospitals (12/16) for opportunities to work together.
- Price increases likely to continue and become standard



Free (Federally Funded) COVID-19 RT-PCR Testing Sites (Tiffany Mattingly)

- Test and Protect (Health Collaborative) funding expires end of 2021 (avg 700 tests per week)
- 63 free PCR testing locations remain in Hamilton County (listed on Test and Protect website) includes Rite Aid, CVS, Walgreens. Kroger will discontinue federally funded free PCR testing in 2022 (antigen testing at Little Clinics)
- Gravity Diagnostics sites (northern Kentucky) with free RT-PCR remain and listed on Test and Protect website

COVID-19 Therapeutics

- Methylprednisolone 40mg IV for pregnant COVID patients who require respiratory support
- IDSA guideline panel recommends fluvoxamine only in the context of a clinical trial
- Adequate supply of tocilizumab and baricitinib

Outpatient Treatment Update

- Oral molnupiravir (*Merck*) unlikely to be available before the end of the year.
- Study in *Lancet* showed response to fluvoxamine (*Luvox*) 100 mg BID x 10 days with 11% hospitalized versus 16% placebo.

SARS-CoV-2 (B.1.1.529) Omicron Variant

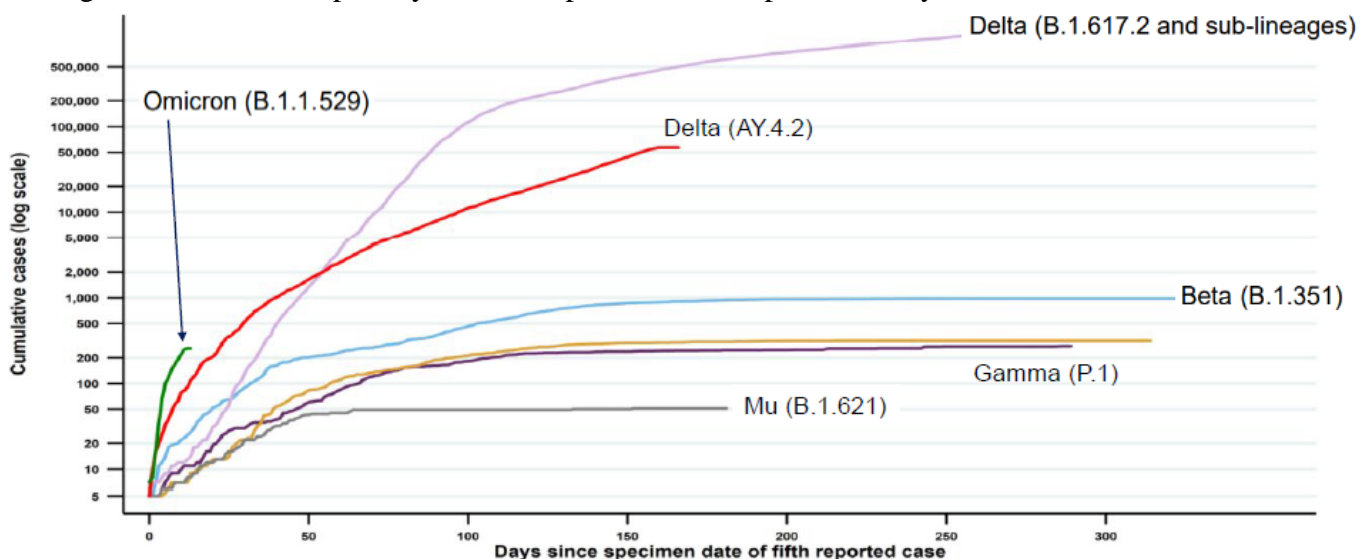
- RT-PCR testing in use detects omicron variant (antigen test validation ongoing)
- CDC estimates the strain may cause a surge in infections and reach a peak in January
- Worst case scenario is large wave of omicron and delta infections arriving as soon as next month, around the same time influenza and winter “cold” cases tend to rise
- Four most common symptoms of the omicron variant are cough, fatigue, congestion and runny nose, according to a CDC analysis of the first 43 U.S. cases

ACIP Briefing on Omicron Variant

- Likely to be more transmissible than original SARS-CoV-2. How easily Omicron spreads compared with Delta remains unknown. Likely that vaccinated people with breakthrough infection or people infected without symptoms can spread the virus to others.
- More data are needed to know if Omicron infections cause more severe illness or death than infection with other variants.
- Vaccines expected to protect against severe illness, hospitalizations, and deaths. Breakthrough infections in people who are fully vaccinated likely to occur
- Still determining how well existing treatments for COVID-19 work

In U.K., Omicron cases growing rapidly despite Delta

With growth rate of 0.35 per day, Omicron predicted to surpass Delta by mid-December



Findings on Omicron from other Countries

- South Africa ... spread with doubling time of 3.4 days in province with high population immunity. Increased risk of reinfection associated with Omicron
- Norway ... Christmas party outbreak —attack rate over 70%, most vaccinated with 2 mRNA doses; no hospitalizations

MMWR: SARS-CoV-2 Omicron Variant —United States, December 1–8, 2021

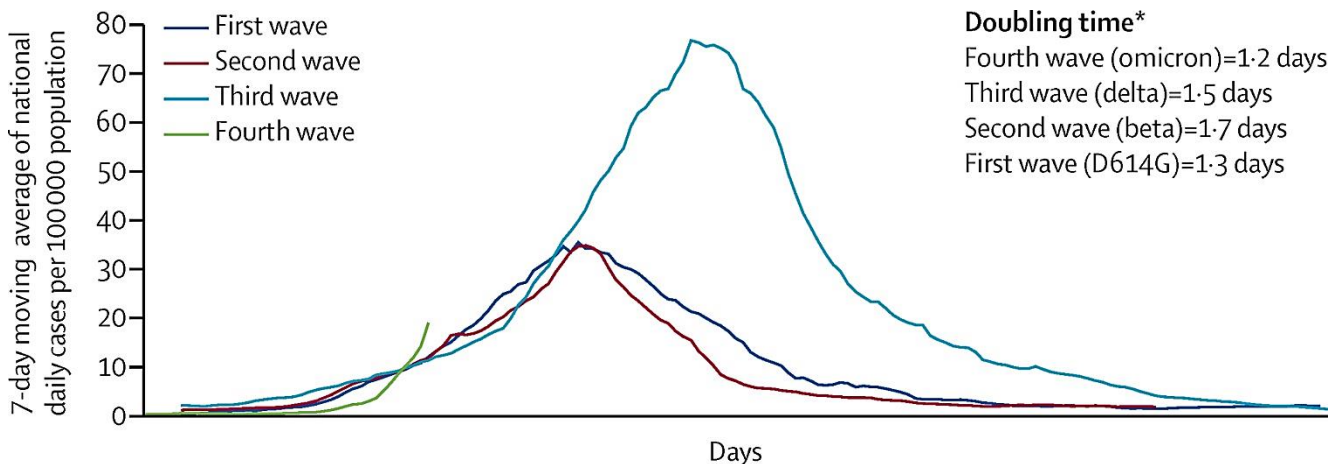
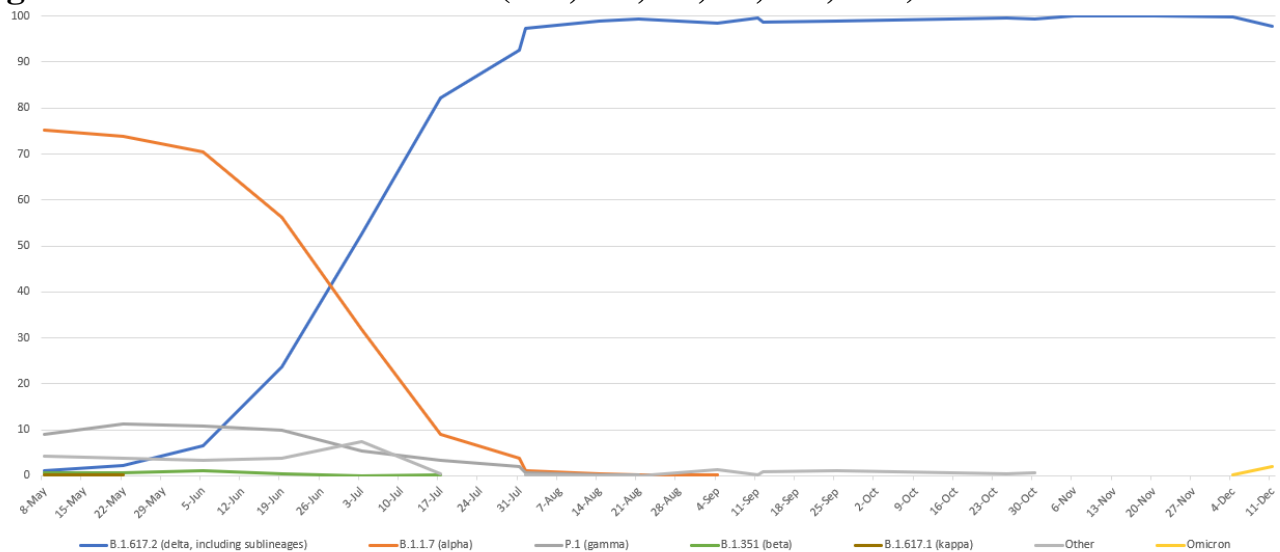
- 43 cases with full details, identified in 22 states (33% with international travel history; also domestic travel, large public events, household transmission)
- 79% fully vaccinated; 32% with booster dose
- Five of the 14 persons received additional dose < 14 days before symptom onset

- Persons with recent international travel or participation in large public events might be more likely to vaccinated
- 14% previously infected

Genomic Surveillance in the United States

- CDC estimates that if a variant is circulating at 0.1% frequency, there is a >99% chance that it will be detected in national genomic surveillance.
- Enhanced genomic surveillance for S-gene Target Failure since November 28
- Rapid screening for SGTF by PCR-based diagnostic for confirmation by genomic sequencing
- Expanded voluntary airport-based genomic surveillance programs in Atlanta, New York City, Newark, and San Francisco

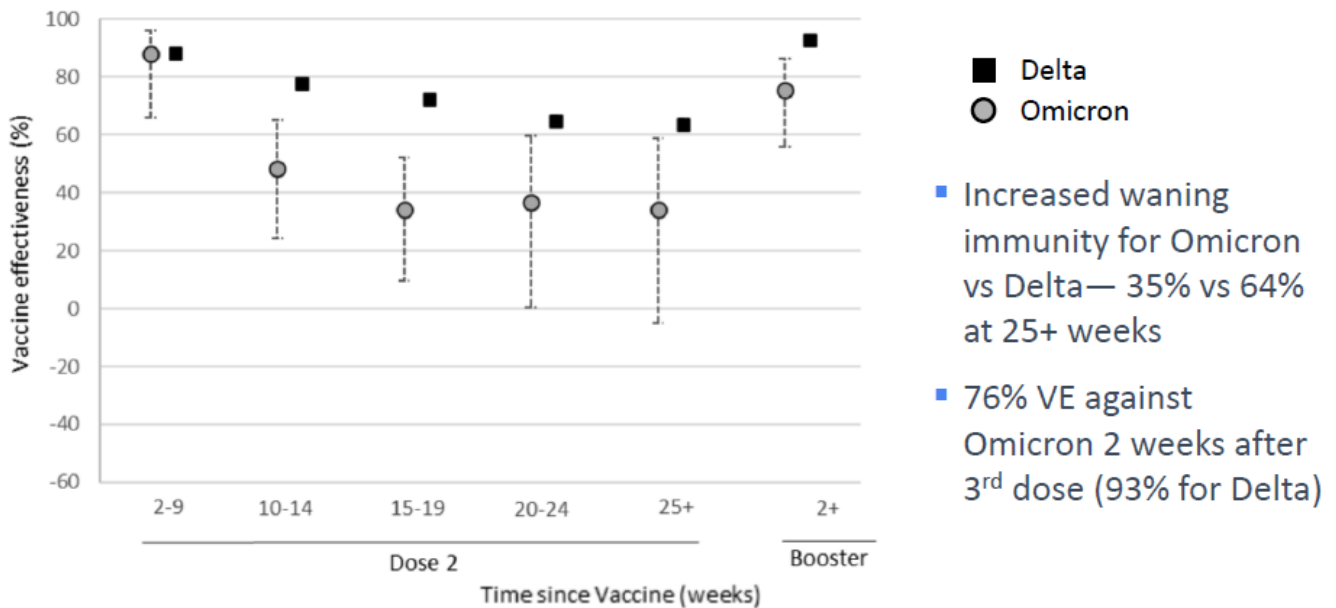
Region 5 – Most Recent Variants (OH, MI, IN, IL, WI, MN)



Neutralization of Omicron Variant by Sera from Vaccinees

- Fifteen preliminary studies of vaccinee sera using both pseudoviruses and live viruses shows 11-fold reduction compared with Delta (15-127 fold reduction compared to wild type SARS-CoV-2)
- Neutralization of Omicron below the limit of detection for most individuals who received two doses of mRNA or one dose of Janssen vaccines
- Neutralization of Omicron above the limit of detection in many vaccinated people who received a booster or who were previously infected
- Given limits of detection of assays, difficult to evaluate with laboratory tests whether people have the level of antibodies needed to protect against severe disease

Pfizer mRNA vaccine effectiveness (VE) against infections with Delta and Omicron United Kingdom



COVID-19 Epic Research with “Slicer Dicer” on EpicResearch.org

- Source of real time data evaluation
- Opportunity for regional data on therapeutics and breakthrough cases

Questions from Crisis Standard of Care (CSC) Regional Committee Chair (Dr. Diller)

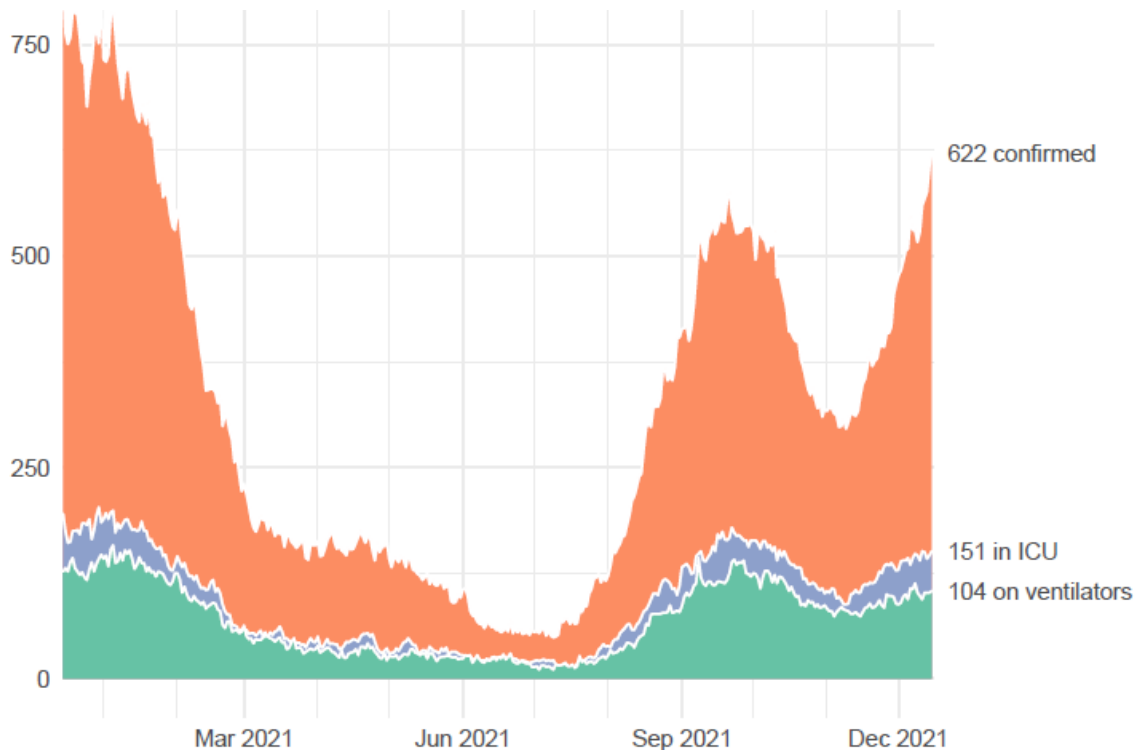
- Have you activated your hospital system CSC committee?
- Are you actively using the Region 6 CSC Protocol? Any modifications?

New Monoclonal Antibody – *Evusheld* (tixagevimab / cilgavimab) AstraZeneca

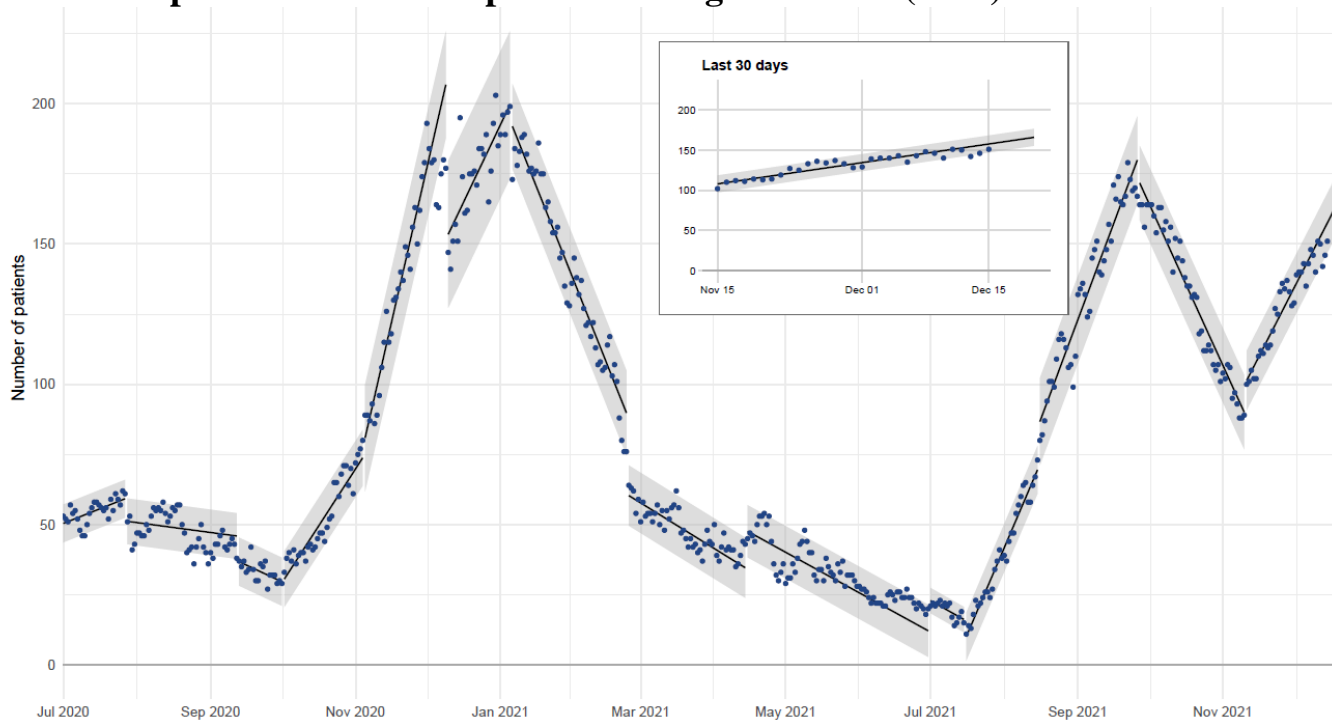
- Dosing tixagevimab 150 mg / 1.5 ml IM injection PLUS cilgavimab 150 mg / 5 ml IM injection.
- Monitor for one hour post injection (like the others)
- Indication: Pre-exposure prophylaxis for COVID-19 for age ≥ 12 years (at least 40 kg) who are not currently infected with SARS-CoV-2 and who have not had a known recent exposure – with moderate to severe immune compromise (medical condition or immunosuppressive medication)
- For whom vaccination with any available COVID-19 vaccine is not recommended
- NOT indicated for treatment OR post-exposure prophylaxis
- Give at least two weeks post COVID-19 vaccine (if patient received vaccine)
- Listed on ODH distribution but not yet distributed. Concern that individuals will request instead of vaccination.

Next Zoom Call ... **Thursday, December 30** (12:30 – 1:00 pm)

Number of COVID positive patients in Region Six hospitals



Number of positive COVID-19 patients in Region 6 ICUs (27%)



At Capacity Reports

Mercy Health – West:

- 12/13/2021 11:12:31 PM
- 12/14/2021 10:29:56 PM

UCMC:

- 12/14/2021 3:06:27 PM
 - DIVERT ALL BUT TRAUMA, BURNS, STROKE, AND OB IN LABOR
- 12/14/2021 11:07:34 PM
 - ED AT CAPACITY- DIVERT ALL EXCEPT BURN, TRAUMA, STROKE, AND OB LABORING. WILL REEVALUATE AT 0700
- **12/15/2021 7:04:57 AM** – currently at capacity
 - UCMC ED is AT CAPACITY. requesting EMS to divert except for traumas, strokes, burns & OB in labor. Will reassess at 11AM

The Jewish Hospital

- 12/14/2021 6:41:10 PM

Mercy Clermont:

- 12/14/2021 8:05:58 PM
- 12/15/2021 12:38:36 PM
- 12/15/2021 3:14:05 PM

UCMC:

- 12/15/2021 3:22:01 PM
 - STILL ACCEPTING TRAUMA, BURNS, STROKES AND OB LABOR. WILL REASSESS AT 7PM

The Christ Hospital

- 12/15/2021 7:31:16 PM
 - Still accepting STEMI's

Mercy West:

- 12/16/2021 12:32:33 AM