COVID-19 Treatment Update

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Disclosures

Nothing to disclose

Two Arms of Treatment

Supportive

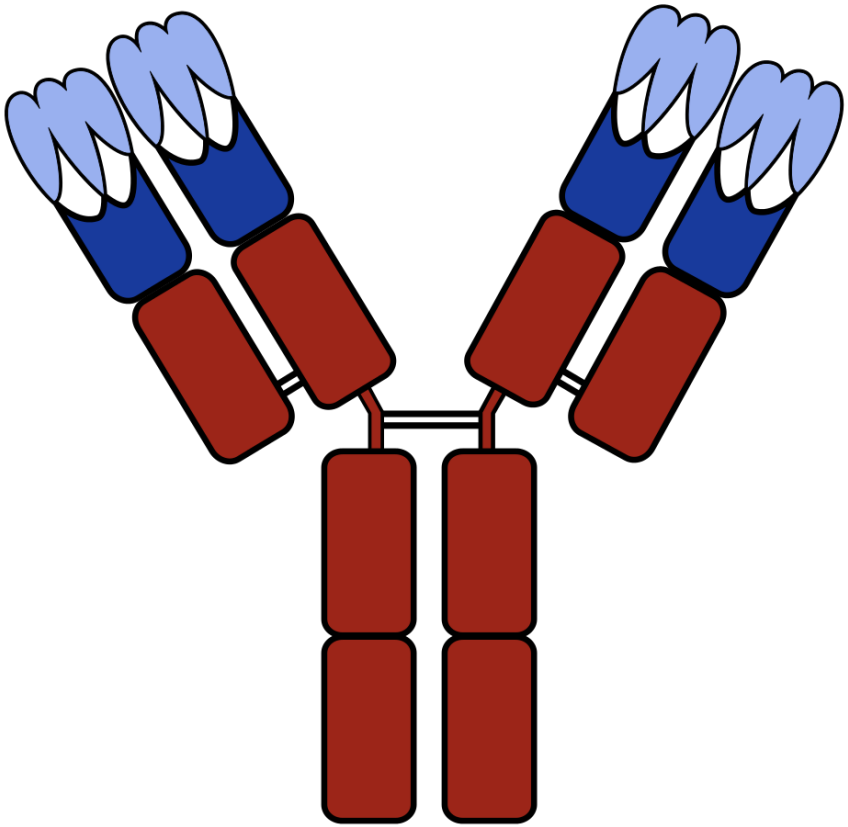
Pharmacologic

Acute Infection

- Asymptomatic
- Mild/Moderate; Outpatient
- Mild/Moderate; Hospitalized
- Moderate to Severe; Non-ICU
- Severe/Critically Ill
- Post-COVID Syndrome

Monoclonal Antibodies

- **Man-made anti-SARS-CoV-2 neutralizing antibodies**
- **Bamlanivimab(+etesevimab)**
  - Neutralizing antibody for patients diagnosed with COVID-19 and not in the hospital
  - Age 12 – Adult
  - Consider for high risk for severe disease; but not on 02 or in hospital
  - Treat as soon as possible after confirmation of COVID-19 via testing
  - May prevent worsening of disease
  - Do NOT use in severe COVID/ ambulatory only
- C**asirivimab/Imdevimab**
  - Monoclonal antibody combination



Remdesivir

- Anti-viral medication; only approved drug by FDA
- Suggest use only severe COVID-19; requiring 02
- Impact on mechanical ventilation is not clear.

Dexamethasone (steroid)

- Recommend use with hospitalized patients with hypoxia
- Recommend use for severely ill, such as ICU
- Recognize that multiple treatments may not have been studied to demonstrate synergistic improvement

Tocilizumab

- Recombinant humanized anti-interleukin (IL)-6 receptor monoclonal antibody
- Suggested use only for hospitalized patients with hypoxia (including ICU); with caveat that consider if do not respond to steroids alone AND patients accept risk of drug given minimal data on mortality improvements
- CRP $\geq$75mg/L

Baricitinib

- JAK-inhibitor
- Only for patients hospitalized with 02, unclear impact on those requiring mechanical ventilation
- Use in combination with Remdesivir in patients who cannot tolerate steroids
- Lack of data on baricitinib + remdesivir + steroids, therefore not recommended

Consider Use In Clinical Trial Only

- Convalescent plasma
- Famotidine
- Baricitinib + corticosteroids + remdesivir
- Ivermectin
- Toci with other medications also limited in scope

Drugs NOT Recommended for Use

- Hydroxychloroquine
- Hydroxychloroquine + azithromycin
- Lopinavir + ritonavir

Acute Infection - Asymptomatic

- Quarantine, even if vaccinated
- Vaccines do not remove all risk of this level of infection
- No specific therapy otherwise needed

Acute Infection – Mild/Moderate; Outpatient

- Bamlanivimab; Casirivimab/Imdevimab - not routinely recommended; evaluate for high risk for severe disease patients only

Acute Infection – Mild/Moderate; Hospitalized

- Considered in this category if no supplemental 02 needed; or none above baseline 02 requirements
- No pharmacologic treatments are recommended

Acute Infection – Moderate to Severe; Non-ICU

- Requiring supplemental 02
- Recommended to use:
  - Dexamethasone, suggest remdesivir; use baricitinib if cannot give dexamethasone
  - Consider Tocilizumab if cannot tolerate steroids, not studied with other medications

Acute Infection - Severe/Critically Ill

- Requiring supplemental 02
- Recommended to use:
  - Dexamethasone, suggest remdesivir;
  - Bari + remdesivir without adequate data if mechanically ventilated
  - Consider Tocilizumab if cannot tolerate steroids, not studied with other medications.

Post-COVID Syndrome: AKA 'Long COVID'

- Rising clinics throughout the country due to persistent symptoms > 6-8 weeks post-acute infection
- No specific pharmacologic therapy known to prevent this yet
- Specific care for ICU patients given similarities to PICS

Resources:

- https://www.idsociety.org/practice-guideline/covid-19-guideline-treatment-and-management/
- https://www.covid19treatmentguidelines.nih.gov/
- https://www.nebraskamed.com/for-providers/covid19
  - https://www.nebraskamed.com/for-providers/covid19/hospital-inpatient-ed
- https://icap.nebraskamed.com/

COVID-19 Region 7 Webinar for Critical Access Hospitals and Outpatient Facilities

Presented by Nebraska Medicine and the University of Nebraska Medical Center in collaboration with the Centers for Disease Control (CDC) through NICS (National Infection Control Strengthening for Small and Rural Hospitals)

University of Nebraska Medical Center

Nebraska Medicine

Today's topic: Updated COVID-19 Treatment

Guidance and responses were provided based on information known on 3/2/2021 and may become out of date. Guidance is being updated rapidly, so users should look to CDC and jurisdictional guidance for updates.

Margaret Deacy, Moderator

Panelists:

Dr. Kelly A. Cawcutt, MD	kelly.cawcutt@unmc.edu
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Acknowledgement:

Today's presentation is produced in cooperation with Nebraska ICAP (Infection Control Assessment and Promotion Program)

New day…new opportunities!

- *NICS/ICAP thanks you for your participation in our bi-weekly webinars for small rural hospitals and outpatient centers through the past year. We have been honored to bring you information on a variety of infection control topics, mainly focusing on bringing you great expert information on how to keep your staff and patients safe throughout the ongoing COVID-19 response.*

- *Nebraska ICAP will begin offering a webinar on Wednesday's, beginning March 24th, 2021 from noon to 1 pm.*

- *Target audience: all acute and outpatient facilities.*

Additional opportunities:

- College of Public Health ECHO group: This cohort will be focused on small and rural hospitals across Nebraska. The focus of this project will include a wide range of topics and will be scheduled once a month on Tuesdays at noon. If you would like more information on this program, please contact Krista Brown via email krista.brown@unmc.edu.

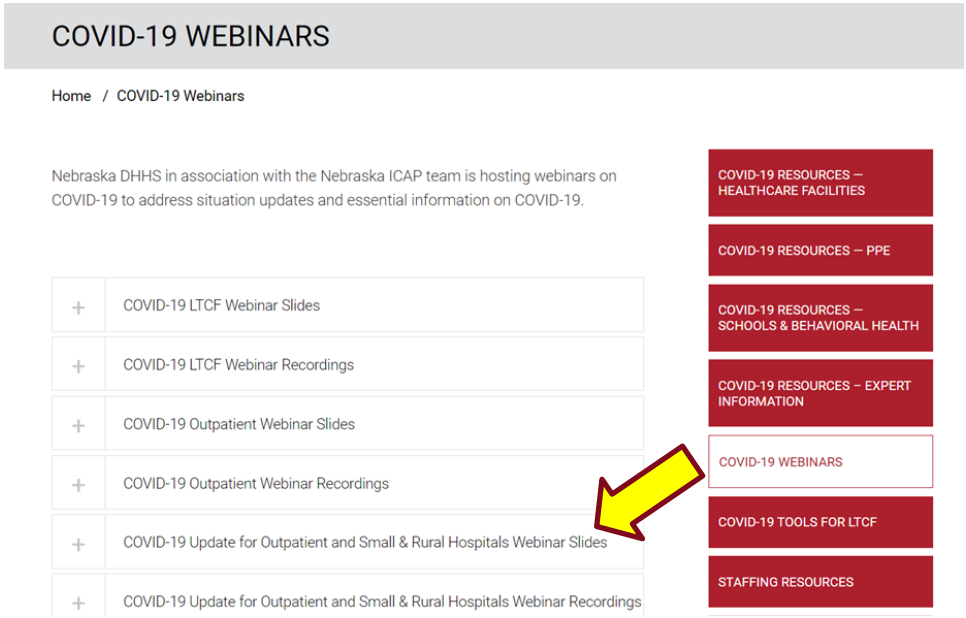
- As part of our ongoing work with the CDC and Project Firstline [https://www.cdc.gov/infectioncontrol/projectfirstline/index.html]] we are developing some great new self-assessment and self-help platforms that will greatly assist you in advancing your facility's infection control program.
    - More information will be coming soon as well as directions on how to access it through a newly-developed dedicated website.
    - We will update you all via email as new services are developed and available.

Questions?

Please submit through the Q&A feature

Question and Answer session

Use the QA box in the webinar platform to type a question. Questions will be read aloud by the moderator; in the order they are received. A transcript of the discussion will be made available on the ICAP website



Infection Prevention and Control Office Hours

Monday – Friday
8:00 AM – 10:00 AM Central Time
2:00 PM -4:00 PM Central Time
Call 402-552-2881

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NETEC – NICS/Nebraska DHHS HAI-AR/Nebraska ICAP
Small and Critical Access Hospitals-Outpatient Region VII Webinar on COVID-19 3/2/2021

1. **Are there percentages out there for the types of acute infections. What are you seeing? This would be asymptomatic versus mild versus severe.**

   Dr. Cawcutt said that historically, in this pandemic, prior to treatment, 80-90 percent of patients had asymptomatic or mild disease. Ten to 15 percent had moderate to severe disease, and 5 percent had severe disease. These numbers are changing with evolving treatments and access to vaccines. Dr. Brailita thanked Dr. Cawcutt for her information, and noted that our knowledge of treatment during COVID has been evolving. CDC has tried to gather some data and we are only reporting about 1 in every 4.2 symptomatic illnesses and 1.9 hospitalizations anyway. Obviously this depends on the age group but if you look at the most recent data (on his graphic, which is an extrapolation, not absolute data) you will see that symptomatic data will depend on the age group and also rates of hospitalization is much different by age group. Symptomatic illness does not necessarily mean severe illness, and the question from the attendance was how many asymptomatic versus mild versus severe and Dr. Brailita assumed the question is about how many we are seeing at Nebraska Medicine. One thing he would like to point out is something Dr. Cawcutt already mentioned, that you are talking about asymptomatic, you have to understand what is truly asymptomatic and what is pre-symptomatic. If we look at the data, we could go as high as 50-60 percent of transmission from asymptomatic individuals. However, at least 20-30 percent of those individuals were really pre-symptomatic individuals.

2. **I know the monoclonal antibodies are being given in facilities for high risk. But if someone in the general public who is higher risk, were tested and called their primary care provider(PCP), would the PCP suggest that they would receive that as a treatment? What would the specific criteria be for a PCP to suggest that?**
   Dr. Cawcutt shared a table to provide the answers to the question. (link: https://www.idsociety.org/globalassets/idsa/practice-guidelines/covid-19/treatment/figure-02.pdf) The realities of giving this medication is that given PCP has access to it; have they reviewed this information; and frankly, is the organization in which the medication is going to be infused fully aligned with these guidelines or have they adopted some adjustments based on access to the medications or not? It is not a simple question because there are many moving caveats to that, but these would at least be what is considered high-risk for discussion about potentially receiving that medication. She would hope that primary care providers would want to engage in that discussion with their patients. Again, it really comes down to access, very heavily, in regards to treatments being offered. Dr. Brailita noted that there was a question posed through the chat box which was related to this which was transferred to the Q & A. Now that we have been using this Bamlanivimab, especially in facilities, nursing homes, etc, ICAP actually had one of the goals to identify many patients as possible who might be able to given this as possible, to provide for better outcomes to stop progression in facilities and we have a strong program for that, led by the pharmacists here who work with ICAP. Knowing now that it

can be done in outpatient facilities with help from their own pharmacists, and their own medical directors, the question was, "Can you expand that for patients who may not be symptomatic but their PCP might want them to get the 'bam' or the other cocktail of antibodies, and how would you identify that?". This has been done. The table that Dr. Cawcutt put up still stands. Obviously, this is the medication that was approved under EUA. If you see a patient with all those comorbid conditions, or at least one of them, then you have an excellent candidate. There are some patients who would meet more than one criteria and the more they have, the more critical it is to give the medication to them. He thinks that applies not only to high-risk facilities where everybody is more than 65, but it's very useful if you have a strong program and administer this in outpatient settings where everybody can be identified in real time. If you identify them at Day 10 of illness, it's no longer useful.

3. **Is proning still part of the recommended treatment guidelines? We have seen complications with our pts that have foley catheters and are proned such as decreased urinary output and increase sediment in the urine. Do you have any recommendations for managing or preventing these complications?**
   Dr. Cawcutt says that if you look at the study from *Critical Care Medicine*, proning was shown to have profound mortality benefit in patients with ARDS. In the summary of recommendations for management of COVID patients and ARDS, prone ventilation is still under the "consider therapy" with mild to severe ARDS. If you have severe disease and they are truly struggling, prone ventilation is still in the realm of things to consider. Many of us, she said, in the ICU, will go ahead and prone their patients, because of the mortality benefit and we do certainly do see patients with clinical improvement. For the patients who are on supplemental oxygen, we will still frequently encourage self-proning for similar reasons and frankly, because we have many patients with moderate to severe ARDS, that we are not intubating at this point. We have definitely seen impact on HAIs related to this and with devices, there are certainly some concerns as to the impact that proning can have on that. There are strategies with central lines and how to mitigate some of those risks as much as possible with positioning, with foam padding or other supports to try to prevent kinking of catheters for urinary output issues. There are a lot of clinical reasons that there is decreased urinary output in general in many of these patients, particularly because when we are proning them we try to keep them very, very volume deplete, which can lead to some of the output and sediment-related issues, also. The question really becomes, "what is most important for that patient at that time?" Is it managing their hypoxia and ARDS, or are they not as severe and the management of their catheters is more critical? That's going to be an individualized decision for each patient and there is not necessarily outside of positioning, clear guidance on how to manage some of the impact on HAIs, other than to try to minimize device days as much as we can and to continue to try to enter cares as much as we can despite the proning. That might not be a satisfactory answer, but it is where we are currently.

4. **Kate from ICAP asked if Dr. Brailita or Dr. Cawcutt could comment on the availability of the drugs discussed for smaller and rural hospitals. Are these things that are pretty widely available that hospitals can get ahold of, or are they pretty difficult to obtain?**

Dr. Brailita said he does know there were some occasional shortages, but in general he thinks the Remdesivir and dexamethasone supplies have been managed quite well during the pandemic. He is curious himself if there are current problems of if we foresee problems with any of those in the rural hospitals. He would point out that in the guidelines, it is allowable to use other types of steroids, if you don't have dexamethasone. He does know we got into a dexamethasone shortage a while ago and using Prednisone, higher that 40 mg was an option at that point, as well as other steroids.

5. **Kate asked Dr. Cawcutt a question because she mentioned a clinic that's coming together for people who have extended symptoms of COVID over time. How would people have access to that clinic?**

   Dr. Cawcutt said that more information will be coming out. Direct access will be available through referral; they're potentially contacting the clinic directly. The exact start date of the clinic is not yet available, so she doesn't have another way to give people that information for contacting quite yet. But she knows that Nebraska Medicine will be putting out more information when the clinic is launching and how to get connected into it if you have patients whose symptoms would ultimately value being seen. There are not a lot of clinics in the Midwest right now that are seeing patients. Look for more information, hopefully with the month, on the launch of that clinic.