

Covid-19 Webinar for Critical Access Hospitals and Outpatient

Presented in collaboration with Nebraska ICAP,
Nebraska DHHS HAI Team, Nebraska Medicine, and
The University of Nebraska Medical Center

Panelists:

Dr. Salman Ashraf

Kate Tyner, RN, BSN, CIC

Margaret Drake, MT(ASCP),CIC

Teri Fitzgerald RN, BSN, CIC

Moderated by Mounica Soma

Guest Panelist:

Dr. Mark Rupp

Professor & Chief,

Division of Infectious Diseases, UNMC

Guidance and responses were provided based on information known on 7/14/2020 and may become out of date. Guidance is being updated rapidly, so users should look to CDC and jurisdictional guidance for updates.

Questions and Answer Session

Use the QA box in the webinar platform to type a question. Questions will be read aloud by the moderator

If your question is not answered during the webinar, please either e-mail it to NE ICAP or call during our office hours to speak with one of our IPs

A transcript of the discussion will be made available on the ICAP website

<https://icap.nebraskamed.com/coronavirus/>

<https://icap.nebraskamed.com/covid-19-webinars/>

Panelists today are:

Dr. Mark Rupp

merupp@unmc.edu

Kate Tyner, RN, BSN, CIC

ltynern@nebraskamed.com

Margaret Drake, MT(ASCP),CIC

Margaret.Drake@Nebraska.gov

Teri Fitzgerald RN, BSN, CIC

tfitzgerald@nebraskamed.com

Dr. Salman Ashraf

salman.ashraf@unmc.edu

Dr. Ishrat Kamal-Ahmed

Ishrat.Kamal-Ahmed@nebraska.gov

Infection Control Considerations in Preparing for Care of Patients with COVID19

Mark Rupp, MD

Professor & Chief,

Division of Infectious Diseases, UNMC

COVID19 Resources

- <https://now.nebraskamed.com/infectious-diseases-protocols/>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

Interim Infection Prevention and Control
Recommendations for Healthcare Personnel During
the Coronavirus Disease 2019 (COVID-19) Pandemic

PREPAREDNESS FOR COVID-19 AND OTHER INFECTIOUS DISEASES

Use this page to find the most up-to-date screening tools and protocols including personal protective equipment.

Latest COVID-19 news from NOW

- Did you miss a colleague forum? Catch up here
- Who needs to wear a mask? Read our latest guidance
- Is your PPE offering the right protection? Read this message from **Mark Rupp, MD**
- Review past daily COVID-19 updates from home page image
- Do you have an innovative idea to support pandemic work? Submit your idea here
- Has your area implemented alternative practices during this pandemic? Please report those here

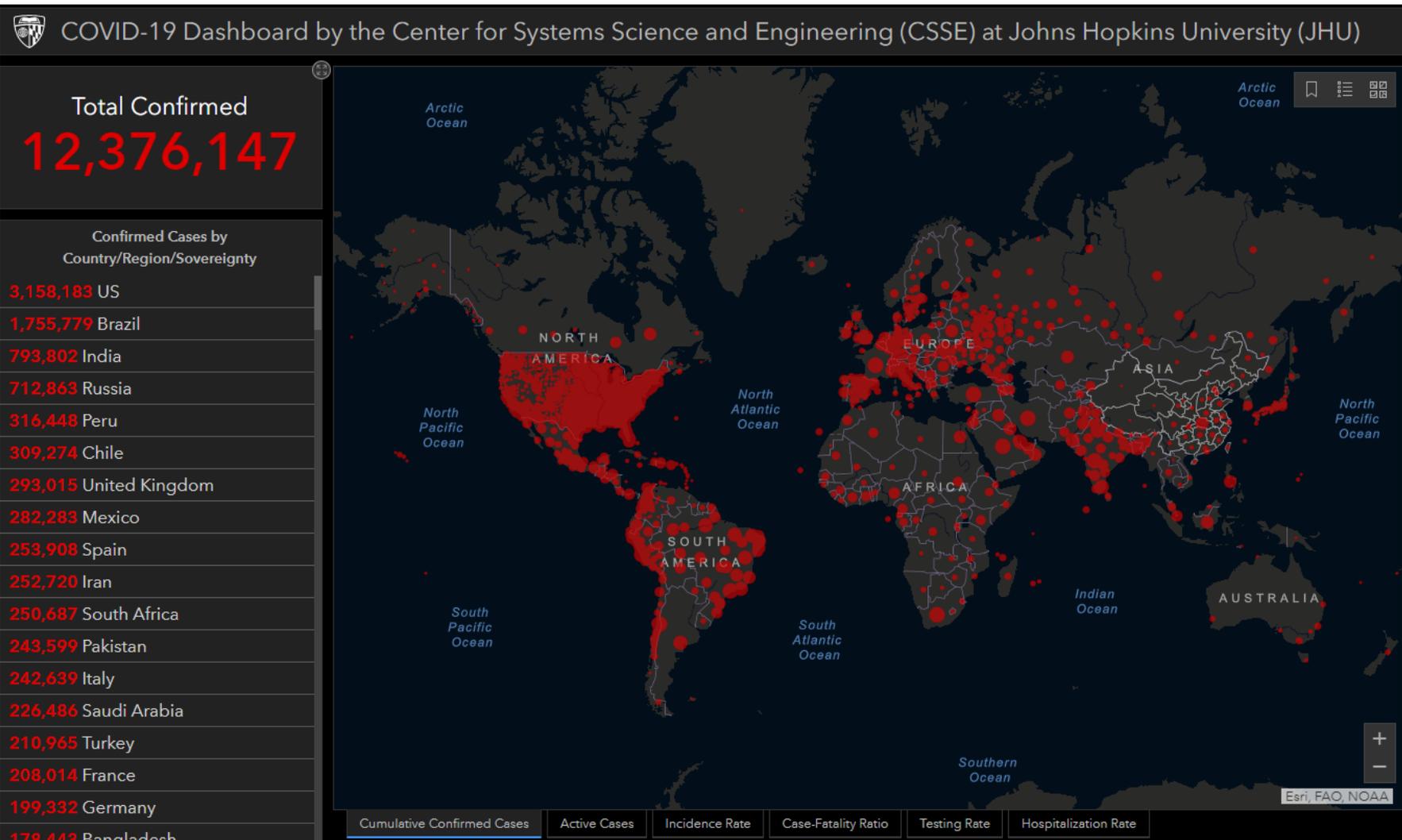
Protocol and resource categories

- Personal protective equipment
- Ambulatory
- Inpatient, ICU and Emergency Dept
- Perioperative and procedural
- Other protocols and resources
- Special populations
- Telehealth
- COVID-19 One Chart Resources
- Just in time training
- Additional resources

Visitor restriction information

- How to facilitate family visits for end-of-life patients
- Patient letter explaining visitor policy update
- Visitor policy talking points
- Visitors no longer allowed in hospital or clinic setting
- Exceptions to our visitor policy

COVID 19 Pandemic (7/10/2020)



- US/Brazil/India/Russia
- US:
 - Cases: 3.158 M
 - Deaths: 134K



Nebraska

<https://nebraska.maps.arcgis.com/apps/opstdashboard/index.html#/4213f719a45647bc873ffb58783ffef3>

Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)

Total Positive Cases

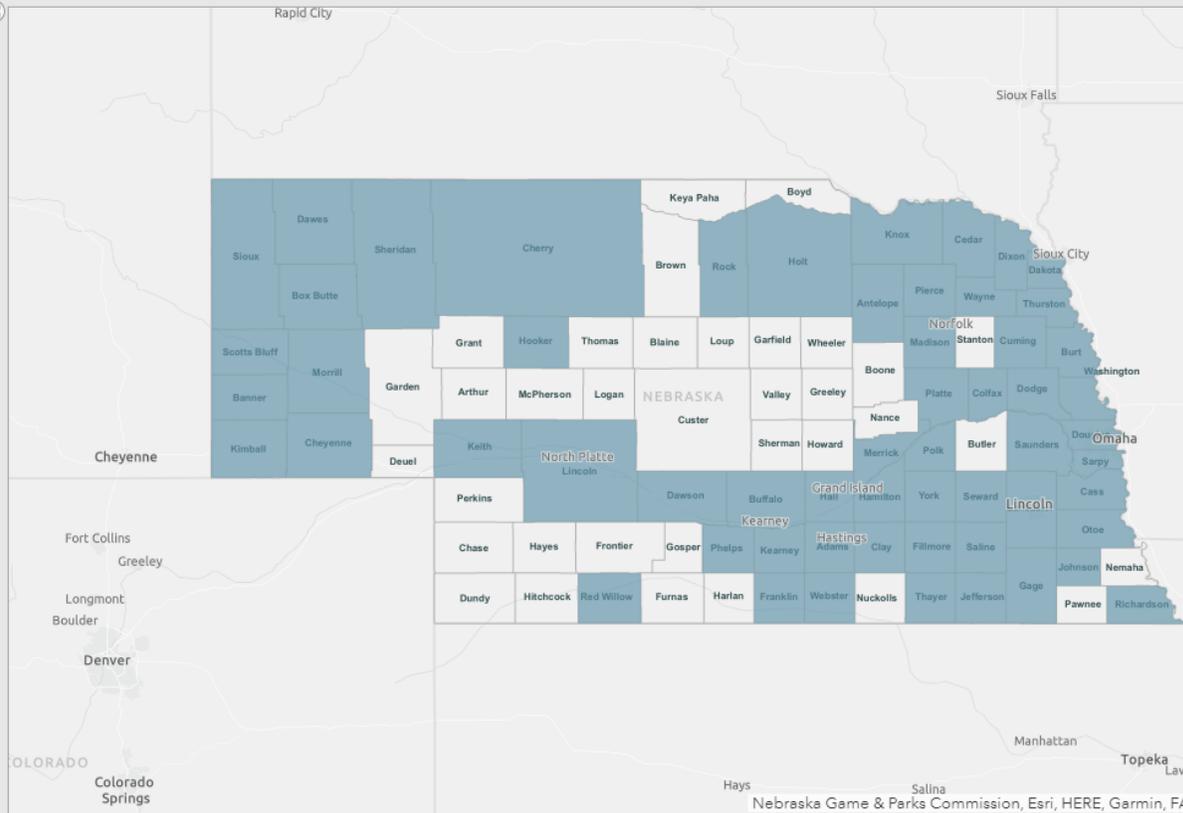
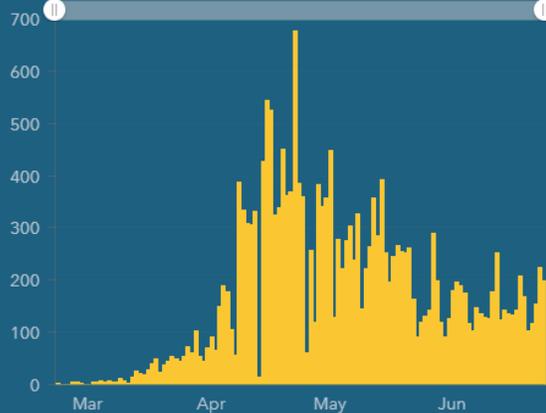
20,623

Total Tested
201,249

Tested: Not Detected
180,391
*Does not include inconclusive results

Deaths
284

New positive cases by date results were received



Last Updated: 7/9/2020, 6:00:00 PM CDT

Last 14 Day Positive Cases | Total Positive Cases | Hospital Capacity | Positive Cases | Hospitalized Cases | Recoveries | Deaths | Race | Ethnicity

Contact Nebraska Department of Health and Human Services (DHHS)

<http://dhhs.ne.gov/coronavirus>
Information Line: (402) 552-6645

Data are representative of Nebraska residents, are provisional and data reported by the local health department should be considered the most up to date.

- Douglas Co:
 - 7773
- Lancaster Co:
 - 1990
- Dakota Co:
 - 1781
- Hall Co:
 - 1608

(7/10/2020)

Preparing for COVID19

- Recommended routine infection prevention
 - Implement telehealth
 - Screen and triage all persons entering the facility
 - Universal source control
 - Face masks, eye protection, physical distancing
 - Targeted testing
 - Preprocedure screening/testing
 - Optimize Engineering controls
- Recommended IPC practices in caring for COVID19 patients
 - Patient placement/COVID Unit
 - Negative Pressure; secure access
 - PPE
 - Hand hygiene
 - Consideration for Aerosol generating procedures
 - Visitor Access
 - EVS

COVID Units at NMC

- ICU Care on 7 UT and 5 UT, overflow to 7 BCU
- Inpatient care on 7UT, 5UT, & Clarkson 7, overflow to 6 UT
- Negative Pressure – Airborne isolation
- Controlled access
- Donning & doffing areas, PPE Extenders
- Specialized personnel – leadership, nursing, EVS, etc



NMC Designated COVID19 Units



NMC Designated COVID19 Units



PPE Extended Wear and UVGI Decontamination



PPE Extended Wear and UVGI Decontamination



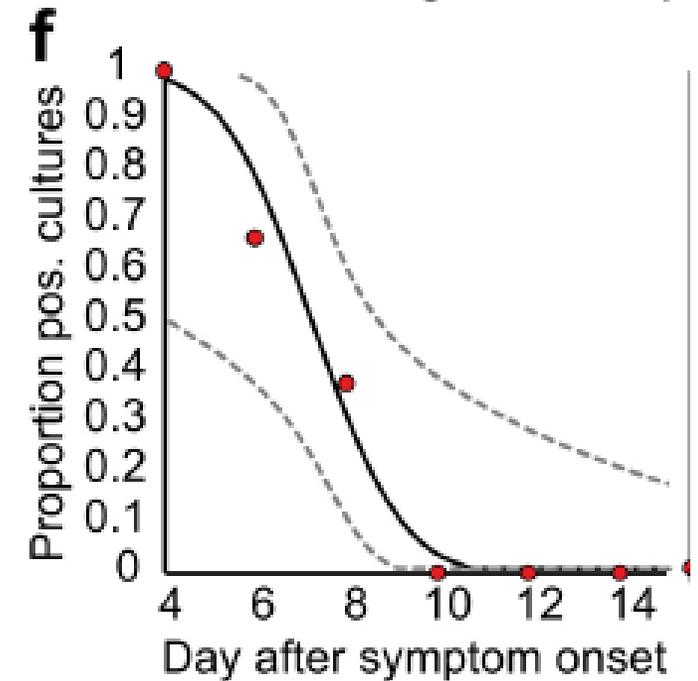
Testing and Duration of Isolation

- Symptom-based vs. Test-based
- Symptom-based
 - Can exit isolation when symptoms resolve/improve
 - CDC = can exit isolation 10 days after symptom onset and 3 days after symptoms subsidence (no fever, other symptoms improving)
 - Outpatient we are using 10 + 5 and immunocompromised 14 + 7
- Test-based
 - Require 2 tests done at least 24 hours apart to be negative
 - Inpatient we are using test-based strategy
- Evidence of prolonged viral RNA shedding (days to weeks)
 - Is this infectious virus???

Testing and Duration of Isolation

- Emerging evidence that viral shedding ceases around day 10 after symptom onset
 - Detection of viral RNA vs. Detection of viable virus
- COVID19 patients who exited isolation based on symptoms and subsequently tested positive (N=285).
 - 108 underwent viral culture and no viable virus was detected
 - 790 contacts of were traced with zero confirmed transmissions.
- 73 COVID-19 positive patients, viable virus could not be isolated or cultured after day 11 of illness.

Viral Culture Detection After Symptom Onset



“Virus has not been successfully cultured more than 9 days after onset of illness. The statistically estimated likelihood of recovering replication-competent virus approaches zero by 10 days”

Unknowns
Immunocompromised
Elderly

Wölfel, R. et al. *Nature* <https://doi.org/10.1038/s41586-020-2196-x> (2020).

<https://www.cdc.gov/coronavirus/2019-ncov/community/strategy-discontinue-isolation.html>

<https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030>

[https://www.ams.edu.sg/view-pdf.aspx?file=media%5c5556_fi_331.pdf&ofile=Period+of+Infectivity+Position+Statement+\(final\)+23-5-20+\(logos\).pdf](https://www.ams.edu.sg/view-pdf.aspx?file=media%5c5556_fi_331.pdf&ofile=Period+of+Infectivity+Position+Statement+(final)+23-5-20+(logos).pdf)

Retesting in Patients with Resolved Infection

- NMC recommendations:
- Defined COVID infection (positive molecular test) and exited isolation no further COVID testing is recommended for at least the next 3 months including pre-procedural testing and admission-based testing
- If repeat testing occurs and is positive, patients are not considered infectious, do not require transfer to the COVID unit, and no extra precautions are necessary beyond standard universal precautions (mask, eyewear)

Simulated cough during intubation and Concern for Aerosol Generating Procedures



Figure 1. Fluorescent Dye Expelled from a Simulated Patient Cough That Ended Up on the Laryngoscopist.

Updated CDC Definition in April 2020

Some procedures performed on patients are more likely to generate higher concentrations of infectious respiratory aerosols than coughing, sneezing, talking, or breathing. These aerosol generating procedures (AGPs) potentially put healthcare personnel and others at an increased risk for pathogen exposure and infection.

Development of a comprehensive list of AGPs for healthcare settings has not been possible, due to limitations in available data on which procedures may generate potentially infectious aerosols and the challenges in determining if reported transmissions during AGPs are due to aerosols or other exposures.

There is neither expert consensus, nor sufficient supporting data, to create a definitive and comprehensive list of AGP for healthcare settings.

Commonly performed medical procedures that are often considered AGPs, or that create uncontrolled respiratory secretions, include:

- open suctioning of airways
- sputum induction
- cardiopulmonary resuscitation
- endotracheal intubation and extubation
- non-invasive ventilation (e.g., BiPAP, CPAP)
- bronchoscopy
- manual ventilation

Based on limited available data, it is uncertain whether aerosols generated from some procedures may be infectious, such as:

- nebulizer administration*
- high flow O2 delivery

*Aerosols generated by nebulizers are derived from medication in the nebulizer. It is uncertain whether potential associations between performing this common procedure and increased risk of infection might be due to aerosols generated by the procedure or due to increased contact between those administering the nebulized medication and infected patients.

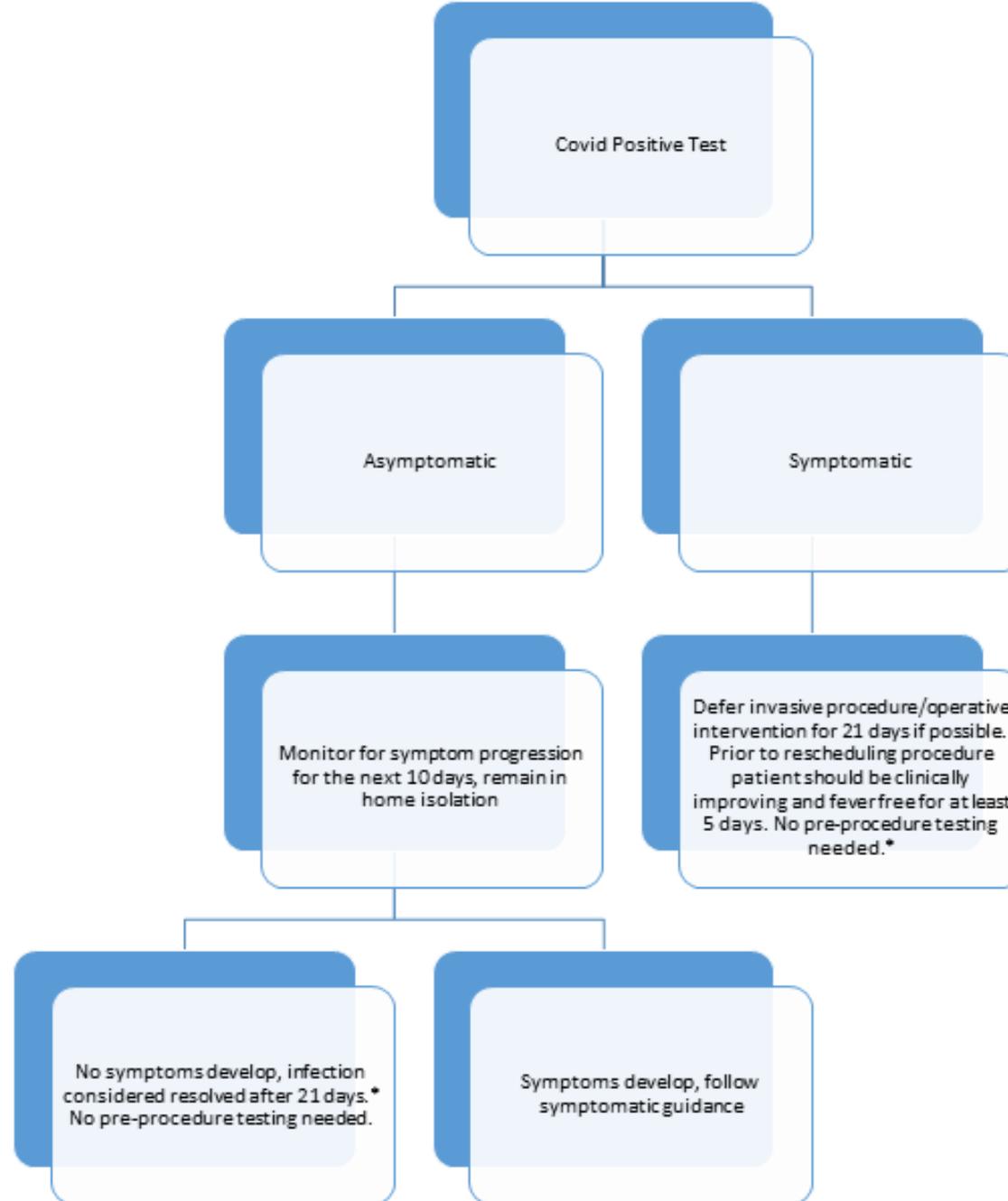
COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

Preferred PPE – Use N95 or Higher Respirator



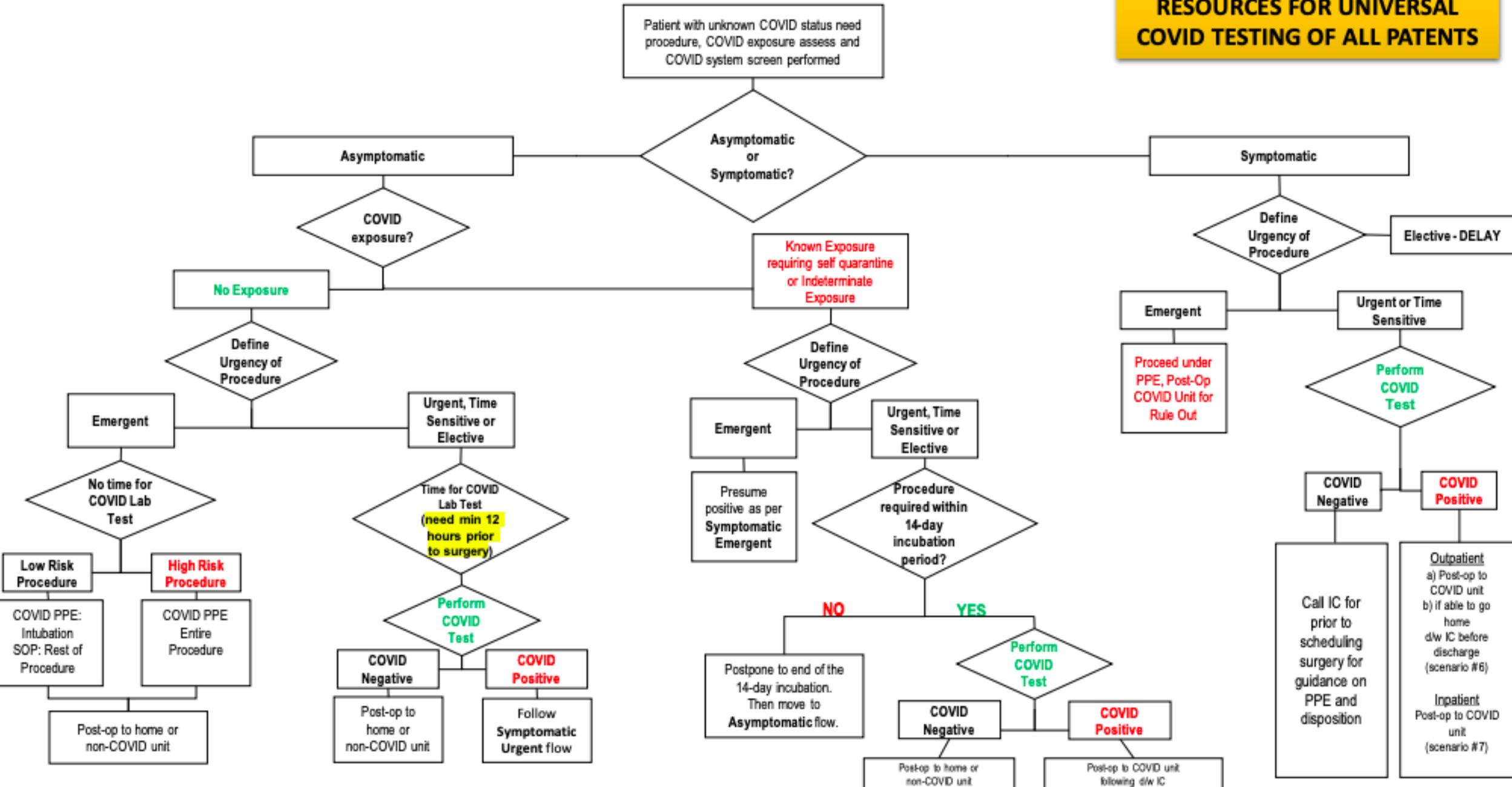
Acceptable Alternative PPE – Use Facemask





*Any procedure done within 21 days of a positive test would require COVID PPE or confirmation of 2 negative tests to document viral clearance. No repeat PCR testing should occur pre-procedure for 3 months after the initial positive test.

THESE GUIDELINES ASSUME RESOURCES FOR UNIVERSAL COVID TESTING OF ALL PATIENTS



Greatest risk – unrecognized patient and unprotected exposure

Transmission of COVID-19 to Health Care Personnel During Exposures to a Hospitalized Patient — Solano County, California, February 2020

Weekly / April 17, 2020 / 69(15);472–476

Summary

What is already known about this topic?

Health care personnel (HCP) are at heightened risk of acquiring COVID-19 infection, but limited information exists about transmission in health care settings.

What is added by this report?

Among 121 HCP exposed to a patient with unrecognized COVID-19, 43 became symptomatic and were tested for SARS-CoV-2, of whom three had positive test results; all three had unprotected patient contact. Exposures while performing physical examinations or during nebulizer treatments were more common among HCP with COVID-19.

What are the implications for public health practice?

Unprotected, prolonged patient contact, as well as certain exposures, including some aerosol-generating procedures, were associated with SARS-CoV-2 infection in HCP. Early recognition and isolation of patients with possible infection and recommended PPE use can help minimize unprotected, high-risk HCP exposures and protect the health care workforce.

<https://www.cdc.gov/mmwr/volumes/69/wr/mm6915e5.htm>



Risk Factors of Healthcare Workers with Coronavirus Disease 2019: A retrospective cohort study in a designated hospital in Wuhan China

- Ran et al. Clin Infect Dis. 2020.
- 72 HCPs at COVID 19 hospital developed COVID19
- Appropriate PPE and isolation in place
 - Contact history: Diagnosed family member (<0.01); Diagnosed patient (<0.01); Suspected patient (<0.05)
 - **No significance**: high risk operation, tracheal intubation, tracheal tube removal, CPR, sputum suction, bronchoscopy.
 - **Significant risk**: unqualified hand hygiene (<0.05), suboptimal HH before contact (<0.01), suboptimal HH after contact (<0.01), improper PPE (<0.05).



BREAKTHROUGHS FOR LIFE.®



UNIVERSITY OF
Nebraska
Medical Center

IP Office Hours

Monday – Friday

7:30 AM – 9:30 AM Central Time

2:00 PM -4:00 PM Central Time

Call 402-552-2881



Infection Control Assessment
and Promotion Program

Questions and Answer Session

Use the QA box in the webinar platform to type a question. Questions will be read aloud by the moderator

If your question is not answered during the webinar, please either e-mail it to NE ICAP or call during our office hours to speak with one of our IPs

A transcript of the discussion will be made available on the ICAP website

<https://icap.nebraskamed.com/coronavirus/>

<https://icap.nebraskamed.com/covid-19-webinars/>

Panelists today are:

Dr. Mark Rupp

merupp@unmc.edu

Kate Tyner, RN, BSN, CIC

ltynern@nebraskamed.com

Margaret Drake, MT(ASCP),CIC

Margaret.Drake@Nebraska.gov

Teri Fitzgerald RN, BSN, CIC

tfitzgerald@nebraskamed.com

Dr. Salman Ashraf

salman.ashraf@unmc.edu

Dr. Ishrat Kamal-Ahmed

Ishrat.Kamal-Ahmed@nebraska.gov

Questions 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

Kate Tyner, RN, BSN, CIC

Margaret Drake, MT(ASCP),CIC

Teri Fitzgerald RN, BSN, CIC

Dr. Salman Ashraf

Dr. Mark Rupp

Dr. Ishrat Kamal-Ahmed

Moderated by Mounica Soma, MHA

COVID-19 WEBINARS

Home / COVID-19 Webinars

Nebraska DHHS in association with the Nebraska ICAP team is hosting webinars on COVID-19 to address situation updates and essential information on COVID-19.

- + COVID-19 LTCF Webinar Slides
- + COVID-19 LTCF Webinar Recordings
- + COVID-19 Outpatient Webinar Slides
- + COVID-19 Outpatient Webinar Recordings
- COVID-19 Update for Small & Rural Hospitals Webinar Slides

COVID-19 Update for Small & Rural Hospitals Slides with Q&A
04.07.2020

- + COVID-19 Update for Small & Rural Hospitals Webinar Recordings

COVID-19 RESOURCES – HEALTHCARE FACILITIES

COVID-19 RESOURCES – PPE

COVID-19 RESOURCES – SCHOOLS

COVID-19 RESOURCES – EXPERT INFORMATION

COVID-19 WEBINARS

COVID-19 TOOLS FOR LTCF

<https://icap.nebraskamed.com/resources/>

Responses were provided based on information known on 7/14/2020 and may become out of date. Guidance is being updated rapidly, so users should look to CDC and NE DHHS guidance for updates.

NETEC – NICS/Nebraska DHHS HAI-AR/Nebraska ICAP

Small and Critical Access Hospitals-Outpatient Region VII Webinar on COVID-19 7/14/2020

1. How do you recommend designating a COVID unit or area in the rural emergency room setting where there is often limited space?

Dr. Rupp acknowledged that Nebraska Medicine's experience is not going to parallel what is happening in a smaller community hospital or critical access hospital. He said a facility should 1) try to examine its real estate and designate an area where it would be able to gain the greatest degree of physical separation as possible between patients and 2) to separate the air handling in that area as much as possible. In a smaller facility, this may just be a couple of rooms that are on a wing of a critical access/community hospital. If you are able to leave a room open between your COVID room and the rest of the hospital that will create a little bit of a physical barrier.

Your facility staff may be able to do tremendous work, if you are able to give them a little bit of guidance, for example, letting them know that you want to make two specific rooms separate from the rest of the hospital. Sometimes they will be able to close off ductwork or they can increase air supply and exhaust to a point where they are able to cause some degree of separation of air handling. You need to do the best you can. Clearly, I am in larger facility where we were able to designate full floors of the hospital for COVID care. I recognize that there are many places that won't be able to do that because they only have one wing or one floor. You do the best you can, possibly by cohorting your patients and cohorting your staff who are caring for them. You want to develop those air barriers if you can.

2. We are currently having our staff self-monitor but are seeing a trend of having screeners for staff, do you recommend we change our practices?

In a perfect world you would have screeners and people taking and monitoring temperatures. But we don't live in a perfect world and you have to ask the question, "Is the juice worth the squeeze?" Having to have temperature monitoring of your staff requires personnel and equipment. How much benefit you are going to get from that is an open question. Nebraska Medicine is not monitoring temperatures at the doors of our facility. There is a lot of temperature imprecision around temperature detection and we have asked the question, particularly at this time of year, where there are people rushing to get to work, or rushing to get to their clinic appointment and they become overheated. Now you are seeing a fever on your thermometer. Do we then have people sit to the side and wait until they cool down and then recheck it, or do we relate that now they have to get evaluated by their provider or the emergency department?

There just isn't a simple answer to that question. If you are able to have the resources to have dedicated personnel to measure and monitor patients, that's better, but it comes with a downside as well. Dr. Ashraf added that when facilities are monitoring temperatures and doing screening at the entrance one thing we have heard about is that staff are filling out a form and

may report a symptom, but there is no one looking at the report and the staff member will still come into work even with signs and symptoms. He said if you have a system of screening at the door, make sure that those reports are being monitored. That has been discussed in earlier programs. If they are taking their own temperatures, someone needs to look at the form in real time. Dr Rupp said the guidance facilities are giving to their personnel needs to be crystal clear that staff who have symptoms just cannot work at the present time. Staff needs to know that working while ill will have very real repercussions. We also need forward-looking personnel policies that don't penalize people who are ill. All those things are part of the equation. You have to have monitoring, have someone reviewing the monitoring, and have staff understand that we can't have sick people working around high-risk persons. Hopefully our HR has kept up and is not going to penalize people who are sick. They have to be evaluated and stay home until they are better.

3. Are there effective portable negative pressure devices that can be used to establish negative pressure rooms where separation on a floor is not possible?

There are large HEPA-filtering machines that can be purchased. These will establish negative air pressure within a confined area. Nebraska Medicine has areas of its hospital that have been outfitted with those kinds of portable HEPA units. You have to exhaust the air, and exhausting that air outside is best. But they do go through a HEPA air filter, so even if it cannot be exhausted outside the room, it should still be clean air. You can buy commercial units that negative air pressure and that will provide HEPA filtration. The one caveat is that they are pretty noisy (at least the ones Nebraska Medicine has used) and so they can become quite burdensome if you have to work in the environment of one of those machines or be a patient in the room with one of those running.

4. My facility has one hallway of patient rooms, with no air separation between any of them. When we have a pretty full hospital, is it acceptable to place a COVID patient next door to a non-COVID patient?

You will have to do what you have to do. You try to provide as much spatial separation as possible. We would like to get a negative air pressure environment if we can. But if that is not possible and you are left with caring for that patient, you need to do the best thing that you can, which is to put them in separate rooms. Most of the transmission from COVID-19 is thought to be from large droplet production as well as some touch contamination. When you have aerosol-generating procedures, there may be more small particle generation during those periods of time. That is when you clearly want to try to keep the room closed, to put as much space as you can between people, and to make sure that staff who are caring for that patient are wearing N95 masks.

If you were in a perfect world, you would want to have separation, to have negative pressure rooms for those COVID-19 patients, but Dr. Rupp recognizes that we are not always working in a perfect world. In that situation, having a private room and keeping the door closed may be the best that you can do and the best you can achieve. Kate Tyner asked that as Douglas County is quivering on the edge of whether we will see more cases or less, if your hospital is full and there are elective procedures being done, does Nebraska Medicine have a plan if how they would

slow the flow? Dr. Rupp explained that Nebraska Medicine does have a plan in place where elective procedures would again be put on hold. He said that all hospitals should have a contingency plan on how they generate surge capacity. He said that Nebraska Medicine already showed that it could shut its hospital down in a very short period of time and open up beds. He said that if Nebraska Medicine needs to do this again we would flip the switch and elective procedures would be cancelled. By doing that in a short period of time, you can open up capacity. He hopes it doesn't come to that but in Texas, Florida, Arizona and other places that is exactly what they are having to do.

5. Are employees required to self-report their positive COVID test or is that considered their protected health information?

Dr. Rupp did not know the legal answer to this question. It is in the best interest of both the facility and the provider to define who is COVID-19 positive. He hopes the provider would be reporting that information back to the facility so that appropriate plans could be made, including return to work decisions. It is valuable information to identify who the provider cared for and was in contact with to find potential transmission routes and make sure those people were taking appropriate precautions. All of the public health and medical reasons would be to report test results. Kate Tyner said that in ICAP's experience, especially in long-term care where there is a lot of employee testing going on, the facility can contact its local health department to request the information as it is part of outbreak containment and prevention. That works if the employee is in the same local public health department jurisdiction where the facility is located. If the employee lives in another jurisdiction, the facility may have to contact that other health department to request they share those test results. Through TestNebraska, healthcare workers who test positive are reported to the local health department, so this can be another route to sift out information quickly.

6. If an employee (in a family practice clinic) is found to be COVID positive but has been asymptomatic, we will send that person home per CDC guidelines. What do we do with the remaining staff? Should everyone be tested? Should the office be closed? (This has not happened yet, just trying to plan ahead for the potential.)

Dr. Rupp said that this is another good question without definite answers yet. He said the practice would have to make decisions based on the degree of contact the worker had with coworkers. If there were really close exposures, you might want to quarantine those other staff members during the incubation period. This is one of the reasons Nebraska Medicine has put such stress on universal precautions. All of the providers at Nebraska Medicine are wearing masks plus eye protection when they are seeing patients. Hopefully, in that office situation, the employees would have been already wearing masks, which would make the transmission from the asymptomatic employee to the other persons in the clinic much less likely. Then, the other people in the clinic would also be wearing masks, which would further decrease the risks. In that situation, if they were using universal precautions, they might be able to stay open. Staff members would carefully watch for any symptom development.

The other part of the question was on if you should do some targeted testing. There isn't real firm guidance on targeted testing. There are situations where there are many high-risk individuals, like a long-term care facility, it makes great sense to do routine testing of your

patients as well as the providers when you have known positive cases. In a clinic situation like the one being described here, Dr. Rupp would be a little less bullish on getting routine testing. If you are going to do it, Dr. Rupp suggests knowing that the incubation period is typically about 5 or 6 days, that might be the right time to do the testing, to try to pick up a person who was asymptomatic but shedding virus. But the incubation period can be as long as 14 days, so just getting a negative test at Day 5 doesn't guarantee that at Day 9 or 10, you won't start shedding virus or having symptoms, but at least it would provide some degree of reassurance and would presumably catch the majority of persons.

7. Can you offer any advice on contingency staffing plans in Critical Access Hospitals where we are usually only one deep in most positions?

In those situations where you are short-staffed what we have done at Nebraska Medicine (even though we are a large facility) some of the personnel are critical. We have (with persons who have been exposed) allowed them to continue to practice, as long as they are wearing masks and they are closely monitored for symptoms. If they develop symptoms, we would have to get them tested and excluded. But there are ways you can more safely have those people who were exposed but not sick, stay on the working line. If they are sick, they really do need to just stay home and be under quarantine. You could use your testing to bring them out of quarantine and out of isolation as quickly as you can. Or else you can just wait for the symptom-based, time-based monitoring.

That is one of a lot of good reasons that you cross train lots of people. In smaller places, lots of folks need to know how to do various tasks, so hopefully that cross training would help you bridge the gap.

Dr. Ashraf added that if someone is exposed to COVID but is still COVID-negative and asymptomatic, you have allowed them to work. But there are times when someone is asymptomatic but IS COVID-19 positive; that person needs to go through the isolation and quarantine before returning to work. People seem to be confused by the asymptomatic part - if someone is asymptomatic but not positive for COVID, if you are in a critical staffing shortage, you can allow them to keep working. It is when they are asymptomatic BUT test positive, that they need to be home in quarantine and isolated. Dr. Rupp agreed that someone who tests positive is clearly shedding virus. If they are asymptomatic, they may shed less virus, and if they are asymptomatic, they are not coughing or sneezing to aerosolize the virus. But if someone has tested positive, they are clearly shedding viable virus and they should be home getting better.

8. Is UNMC continuing to restrict visitors for inpatients and outpatients? And if so, what is the number allowed in the building?

We do continue to have restrictive visitation policy at Nebraska Medicine. This has not been popular, but based on the number people we continue to define as positive cases in Douglas County it makes a lot of sense. We have certain extenuating circumstances where we will allow visitors. Those include end-of-life considerations; when we have critically ill patients who need family around; and when there are family meetings where we clearly have to have a family representative to learn something so the patient can be discharged. In those cases we have made contingency plans to allow some visitation. Another exception has been for pediatric patients and newborns, since these are times when it makes sense to allow some visitation.

But routinely we continue to have a ban on visitation and that continues to this day. We have taken a fair amount of heat for that, but I think it is the right thing to do right now. We would love to be able to liberalize it further and Dr. Rupp anticipates that if we see falling numbers in the community we would be able to do that. Right now we are standing the line that visitation is not in the best interest of our patients or our providers at this point.