

Care Collaborative COVID-19

Q&A

QUESTION

ANSWER (by Dr. Robert Moser unless otherwise indicated)

Supporting resources specific to rural. This site will continue to be updated with additional resources.
<https://www.kansashealthsystem.com/for-professionals/education/training/safety>

<p>1. I've heard a lot of talk about BVM vs. intubation. What are current thoughts toward airways such as combis or kings if a patient was in severe distress if intubation isn't immediately available?</p>	<p>Properly performed BVM breathing can be done for extended periods of time but not without risks (air filling stomach and regurgitation/aerosolization risks) which is the same for other airway management devices. See previous discussions regarding CPAP and BiPap (bi-level non-invasive ventilation) as alternatives in patients able to tolerate but that also raise risk of aerosolization so proper PPE in place prior to placement when patient in imminent risk respiratory failure.</p>
<p>2. Do you have any recommendations regarding testing? My understanding is the specificity and sensitivity are not well-established so it may only be warranted in very ill patients and healthcare workers or for epidemiological purposes (as opposed to testing anyone/everyone</p>	<p>Until testing supplies and availability becomes a reality at a more local level, continue to screen according to KDHE guidelines. At some point it would be nice to have some surveillance testing going on to see what the prevalence is in our communities. Until then, assume everyone is a carrier and protect yourself and make sure you're not taking it home on hands/clothing. http://www.kdheks.gov/coronavirus/toolkit/COVID-19_Testing_Priorities_3-22.20.pdf</p>
<p>3. Please comment if you can, on people making their own masks with material. The news is showing how many people are sewing their own. Are these useful?</p>	<p>Not approved by CDC/FDA that they would provide the protection of N95 or greater. Some of the vo-tec centers and others can use 3-D printers to make masks and the filters may be more readily available. If any device that is made isn't fit tested, it likely gives a false sense of security. https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhcp%2Frespirator-supply-strategies.html</p>
<p>4. What are your suggestions for providers that may be exposed while not protected- how long would they need to self-isolate?</p>	<p>If providers are exposed to a likely COVID-19 patient and didn't have proper PPE on, they need to self-quarantine for up to 14 days. Some centers are allowing them to come back at 7-10 days if not developing symptoms. No need to test unless symptomatic as even if + and w/o symptoms you will need to be out the 2 weeks.</p>

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	<p>https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html</p> <p>http://www.kdheks.gov/coronavirus/toolkit/Caring for COVID-19 Infected People and Preventing Transmission in Homes.pdf</p> <p>Consider changing clothing at work, double bagging clothes worn at work if you are taking home and placing directly into washer and starting wash then wiping down surfaces that might have been touched. Wash your hands before any other activity at home.</p>
<p>5. is there any contraindication to place a spinal for a covid labor patient?</p>	<p>Not that has been reported in the literature; with proper prep and patient selection risk shouldn't be any higher for the patient but they should be masked etc. to protect staff caring for the patient.</p>
<p>6. Do you have any specific recommendations for the laundering of items, including clothing, of persons infected or in contact with an infected individual? Thank you so much for answering our questions!</p>	<p>There are some guidelines from the Univ. of Nebraska Medical Center, KDHE and CDC. https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html</p> <p>If someone in your household is ill, follow these guidelines from the CDC when washing laundry.</p> <p>Wear disposable gloves when handling dirty laundry from an ill person and then discard after each use. If using reusable gloves, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other household purposes. Clean hands immediately after gloves are removed. If no gloves are used when handling dirty laundry, be sure to wash hands afterwards.</p>
<p>7. Follow up on the question about interfacility transfers, what is the recommended time for EMS to wear an N95 mask?</p>	<p>Updated PPE recommendations for the care of patients with known or suspected COVID-19: Facemasks are an acceptable alternative until the supply chain is restored. Respirators should be prioritized for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to HCP. Eye protection, gown, and gloves continue to be recommended.</p>

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	<p>If there are shortages of gowns, they should be prioritized for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of HCP. When the supply chain is restored, fit-tested EMS clinicians should return to use of respirators for patients with known or suspected COVID-19. https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html Updated guidance about recommended EPA-registered disinfectants to include reference to a list now posted on the EPA website.</p>
<p>8. What is the progression of the COVID patient that is on the Vent?</p>	<p>Depends on underlying medical conditions to a large part and how the patient is managed. Still a good deal of discussions going around on best management strategies and some literature that provides some guidance on those who tend to not do as well as others in general (Case fatality for patients who developed respiratory failure, septic shock, or multiple organ dysfunction was 49% from the China studies and this was from ARDS which was more common if >65 years old, underlying DM, HTN) Up-to-date is another good resource for latest information.</p>
<p>9. Does KU have a post mortem policy they would be willing to share</p>	<p>Most everyone is using the KDHE guidance – see attached which matches up closely to the CDC guidance https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html</p> <p>NEW INFORMATION: I have asked KDHE to weigh in on this as the KS Funeral Home directors are the ones putting out what looks like forms that were used when we were dealing with Ebola. They are asking that patients have all clothing removed, have a mask placed and that facilities provide the mortician PPE and they will place cotton in all orifices and assistance to place in a body bag. All this is significantly more than required for a droplet transmission infectious disease but then again, we all need to work together and education to remove misinformation is critical.</p>
<p>10. I have an issue and would like the information sent to me on the recommendation of cleaning rooms that have had Possible COVID 19 pt's in it. I</p>	<p>It's been a fairly common one which usually means there might be more than one source for guidelines or suggestions. We have been staying consistent with CDC</p>

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<p>have went on to CDC and KDHE websites and can not find the information I need. My EVS has recommendations that state you are not to enter the room to clean for 24 hours and that is not feasible in a small town hospital. I know listening to the talk yesterday that this is not how KU is handling this and any information would be helpful when I talk with them today we can get this issue resolved</p>	<p>and other facilities experienced with managing droplet and even airborne infectious agents. One other great source is the advance infectious disease patient management center in Nebraska (they are where the Ebola patients were sent). https://www.nebraskamed.com/providers/covid19/door-to-door-user-guide/cleaning-the-room</p> <p>I think a few have confused Coronavirus with Ebola in some situations, but you certainly don't need to wait 24 hours to enter a room to clean – this isn't practical and when in proper PPE, cleaning staff can enter within an hour to deep clean and prep a room to get ready for use.</p>
<p>11. We are concerned about the situation we may be in if regional medical centers are overwhelmed and not able to take our critically ill patients. Is there a statewide surge plan? Should we be prepared to keep ventilated patients if we have the means</p>	<p>We expect that the more urban areas could be hit harder with a pandemic than rural settings and therefore, regional medical centers could certainly run out of capacity and not be able to accept more patients from rural practices. In pandemic planning, the state has developed some contingencies including bed availability tracking and regional healthcare coalitions that are part of a regional emergency preparedness structure that feeds up to the state level. I believe Jodi Schmidt mentioned that there is work currently going on to better track bed and supply availability, including ventilators and ICU beds. Since all disasters are local, as they say, I would recommend you establish a good working relationship with your local emergency preparedness director (LEPD) as any local resource needs, including medical would need to go through them. The state does have a strategic stockpile of equipment and supplies, but to get those released requires several things to happen, but most important is the request has to come from the LEPD. Visit with your regional medical center CMO/CNO to understand what they are doing and to be part of the preparedness discussion – I don't know if Hays has reached out yet or not but I would find out what they are doing to prepare so you have contacts to rely on if needed.</p>

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	<p>Now, my biggest concern as a rural provider was similar to yours and bore out with the H1N1 pandemic when supplies of the vaccine were distributed based on population. Tribune had 4 physicians and 3 non-physician providers and received “one” vaccine with the initial distribution. This told me rather quickly that we have to make the best plans possible to manage our local health care need, even if that expanded what we typically didn’t manage. There are a couple of good resources on the KDHE website: http://www.kdheks.gov/coronavirus/toolkit/COVID-19_Toolkit.pdf Also attached a couple of documents to look at which the latter is in the COVID19 toolkit I believe (KS Pandemic Plan and Guidelines for the use of modified health care protocols in acute care hospitals during public health emergencies).</p> <p>I believe centralizing the more critically ill at the regional centers is the best approach and they need to prepare to expand that capability. Many are stopping or reducing elective procedures and developing bed space to manage surge capacity. Worse case scenarios are developing criteria for who gets a ventilator both at the regional and local level. It appears that only about 4% of those affected require hospitalization and 1% will require ICU/ventilation. Once they require ventilatory support, they will often be on the vent for over a week – something that would quickly overrun a small facility staffing and skills capabilities. It would be better to have relationships established with your closest regional hospitals and perhaps reach out to visit with their Chief Medical Officer or Chief Nursing Officer on what they are planning to do to expand their ICU capabilities. In some cases, discussions are occurring where some patients could be transferred out to the smaller hospitals to free up beds for more critical patients at the regional hospital. This will require some great coordination and a high demand on EMS to move patients around. Checking with other regional hospitals, particularly those that haven’t been impacted as severely is another consideration when the time comes.</p>
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	<p>We had a couple of the pressure-set ventilators in our local stockpile when we were able to purchase equipment after 9/11 and federal funds were available to support it. Our intent was only to use those to save staff from having to bag an intubated patient for prolonged periods of time while we found a spot for them. Challenging possibilities but now is a good time to consider the various scenarios and start considering how you might want to approach them – including community volunteers to assist with patient screenings/triage, help pass meds/meals/laundry/environmental cleaning etc...</p>
<p>12. Even though we don't have the capacity/staffing to manage a ventilator at our rural hospital should we try to obtain a transport vent that would at least give us support temporarily if needed since we are a long distance from tertiary hospital?</p>	<p>Worth looking at how you would manage a variety of scenarios and since these patients can deteriorate quickly, having some capability to manage someone who needs intubated prior to transport. You have some considerations however. If your transport options include ALS with transport vent, you can manage ventilation manually until they arrive and connect the patient. If that isn't available, then you can look at your own transport vent with focus on training to set and recognize need for returning to service – delay that may prevent the next patient needing it having it available (worse case scenario)</p>
<p>13. Please repeat the care management aspects from the last week's webinar.</p>	<p>Not sure what this means unless it's looking for a protocol to adapt to local realities. We are working on one of those but for rural health systems with no ICU/ventilator, consider how you want to triage patients. Green – Possible Covid-19 patient those with influenza like illness and exposure fit screening criteria from KDHE as well as those with no known exposure but both test negative for Influenza A/B and respiratory viral panel a. While waiting on Covid-19 testing results, if able to self-quarantine at home, send them home with symptomatic treatment and clear instructions on what to monitor that should prompt return (worsening symptoms despite conservative treatment, especially shortness of breath and/or increasingly severe fever/aches/pain). Make sure the isolate to their "own" room keeping dishes, clothing, bedding, towels and such separate from others use or intermingled and keep mask on when out of room in other areas of the house. Keep contact surfaces wiped down and all in household should be very careful about</p>

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	<p>Care Collaborative QUESTION ANSWER (Dr. Robert Moser unless otherwise indicated) frequent hand washing and symptom monitoring. Yellow – those ill enough to warrant hospitalization (shortness of breath/cough/fever needing O2 supplement to maintain O2 >90% or with other underlying comorbidities needing to be addressed. These patients might be possible Covid-19, either from history of travel/exposure or front-line staff, or with influenza-like illness that test negative for Influenza A/B and negative respiratory viral panel and/or Covid-19 tests pending. If admitting, place on monitor, maintain O2 sats >90, but if requires more than 6 l/min by NC or non-rebreather, likely need to send to higher level of care. If able to manage O2 levels and symptom treatment, when hospitalizing, start hydroxychloroquine. No restrictions on NSAIDs but hold of steroids unless managing ARDS which is unlikely in rural setting. Red – those with progressing shortness of breath and impending respiratory failure or significant underlying comorbidities. More to come on these criteria</p>
<p>14. We need rural appropriate protocols and care plans</p>	<p>Working on those but you can start with a triage like above – those you are admitting, we will have some order sets/protocols to consider. Note your capacity of negative airflow rooms and capability of cohorting possible/positive Covid-19 patients so that dedicated staffing is possible to keep from possible crosscontamination across other hospitalized patients/staff. If that would quickly stress your system and you would not be able to manage the day-to-day operations, consider arranging cohorting +Covid-19 patients at your usual referral regional medical centers. This patients can deteriorate quickly so careful monitoring is important. Most centers start on hydroxychloroquine if they admit them to the ICU but worth starting on +Covid-19 if admitted to your facility. Starting this on “possible” Covid19 awaiting results is challenging if they aren’t sick enough for hospitalization, but consider options if these are front-line medical/first responder members.</p>
<p>The following questions are from the CMO meeting call 3/23</p>	<p>The following answers are from the CMO meeting call 3/23 The answers here are from Dr. Moser and pertain more to the rural perspective and do not represent the answers</p>

QUESTION	ANSWER (Dr. Robert Moser unless otherwise indicated)
	given at the KC Regional CMO conference call. KHA will have those Q&A's posted for your review.
15. Would the criteria to test for COVID-19 be any different for newborns and pediatrics?	Same as for adults – per KDHE guidelines at present.
16. Is it possible to sanitize masks (especially N95) and feel comfortable reusing them if we're short in supply?	<p>There are several recommendations for this and included on the KDHE website. Recommended not to reuse if contaminated with fluids and no more than 5 times and no longer than 8 hours at a time. UV treatment is the preferred measure as chemicals would impact the function of the mask.</p> <p>https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html</p> <p>http://www.kdheks.gov/coronavirus/toolkit/Strategies_for_Optimizing_Facemasks.pdf</p>
17. Do we have any idea yet what the sensitivity and specificity of the current COVID-19 tests are	Like any testing it depends on your pre-test predictability that the patient has the condition and the type of test being performed (technique and methodology), so continue the current KDHE guidelines for screening. the current testing sensitivity.
18. Communication and coordination of care and providers as hospitals get overwhelmed - with the curve flattening not happening yet, how does KC loop in other hospitals with in the area, like LMH Health, TUKHS St. Francis Campus, and Stormont Vail Health?	<p>For rural areas with regional referral medical centers, it's important to have ongoing discussions about their capabilities and capacity and regular touch point meetings would no doubt be helpful. Discuss how to arrange transfers whether COVID-19 or not, how to arrange telemedicine support if it's available, how to manage the other usual medical/trauma issues that are still occurring.</p> <p>Regarding possible COVID 19 patients; it's important that if patients are screened at the rural center and not ill enough to require hospitalization, while waiting on getting the test results back- have them self-quarantine at home with all the CDC guidelines on how that should be accomplished to lower risk of spread to others in the household. For those ill enough to be admitted but not in respiratory distress, admit at the rural hospital and monitor closely as they can deteriorate quickly – in general if you're having to support oxygenation >3-4L/min to maintain sats >90% and patient isn't</p>

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	responding to therapy, transfer to regional center. Make sure you are working with you local and regional EMS providers to help manage interfacility transfers.
19. Have we looked at tele-ICU for hospitals without a deep pool of ICU physicians?	More of these capabilities are being developed – some of those previously in existence are likely to be the first to be overwhelmed perhaps so consider how you might arrange for that support depending on your capabilities.
20. How are you handling quarantine of staff at different levels of exposure?	Staff that are exposed should be self-quarantined and they should monitor their symptoms. If asymptomatic by day 7-10, some centers are allowing them back into patient care at different levels. If they become ill and +Covid 19, as per guidelines they should not expose others until 7 days following the last day they had a fever that wasn't while taking an antipyretic.
21. How and when to transport patients to a higher level of care with known fast transition to ARDS and when to start hydroxychloroquine (Plaquenil)?	Rural health centers should likely transfer their COVID 19 patients who require hospitalization. If they admit locally for fluids and symptom management as the patient isn't in respiratory distress and doesn't require any much O2 support to maintain O2 sats >90%, or their CXR appears normal, they should be closely monitored for increasing O2 requirements and not responding to conservative care to ID those to transfer before more severe. It is known that when they deteriorate, it is typically around day 5 once they develop symptoms and they can progress to ARDS etc. quickly. If you are hours away from a higher level regional system with ICU, you likely need to have a triage protocol agreed upon with your regional referral center on how to manage likely or +Covid-19 patients.
22. Are you including daily temperature assessment for screening employees and visitors? If so, how do you make use of this information?	YES – I know this is occurring in facilities where there is known community spread and a good measure to put in place, perhaps even if you don't have a local case but want to help monitor how your staff are doing and to limit spread to vulnerable populations. Most have limited visitation to only 1 and they are checked for temp of 100 or more to exclude and refer for assessment.
23. Please share the criteria used to group patients in to "green," "yellow," and "red" categories. Since test results are taking such a long time, grouping patients into these categories would help us make faster decisions for our lower-risk patients when we're still waiting for a test result.	Green could be those possible COVID 19 with influenza like symptoms whether they traveled to a known area of outbreak or not but have a negative Influenza screening and you are waiting on getting their screening tests back for other respiratory viral pathogens and COVID-19. If they are well enough to manage at home in self-quarantine, these would be the green group.

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	<p>Yellow would be the same but more symptomatic/ill and likely admitted for symptomatic treatment, but they would not have respiratory distress.</p> <p>Red is those in respiratory distress (for rural it might be an abnormal chest x-ray and/or O2 requirements >3-4 l/min to keep sats >90%) who need to be admitted where ICU capabilities exist.</p>
<p>24. What are your thoughts on staff that may be immunocompromised, i.e. autoimmune meds in care of COVID-19 patients?</p>	<p>Develop a treatment/management protocol with your care teams and consulting pharmacist. Until more is known about the value of using any treatment after exposure, there are no recommendations at present. For those with known exposure and influenza like illness awaiting test results, they might be candidates for some of the medications currently being considered as effective – yes there are patients who take hydroxychloroquine for rheumatologic conditions and we could quickly use up all the local supply, but if this is effective treatment remember that in a disaster we are trying to provide the most good for the most people we can.</p>
<p>25. There have been some concerns with cardiomyopathy in COVID patients. Any recommendations such as echocardiogram in patients with underlying shock?</p>	<p>Not likely something that needs to be addressed in a rural setting – manage sepsis as per your usual protocol and recognize that if you have to use vasopressors to maintain MAP >65 or lactate >4, you likely need to transfer to higher level as it is.</p>
<p>26. What strategies have you put in place for transporting patients to radiology / CT scanning?</p>	<p>Patients should have a mask on, have their hands washed, clothing removed and gowned to prevent transmission across surfaces on their movement through the facility.</p>
<p>27. Any thought of prophylaxis treatment for health care providers or early treatment for providers that have had exposure?</p>	<p>No value of prophylaxis has been identified to recommend at this time.</p>
<p>28. Is a level #3 mask the same as a N95 mask?</p>	<p>No – the N95 is fit tested ideally to ensure its effectiveness against airborne particles.</p>
<p>29. Can KU/St Luke’s make their COVID treatment protocol available to us?</p>	<p>Yes, both The University of Kansas Health System and Saint Luke’s Health System responded affirmatively that they will share treatment protocols with other hospitals in Kansas and Missouri. (KHA and MHA will help with dissemination of information discussed during the call.)</p>
<p>Following questions were submitted after the 3.31 call</p>	

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<p>30. Do you have criteria for intubation already set forth? Also, do you have criteria for intubation?</p>	<p>Depends on rapidity of symptom onset but in general, if patient RR >35-40 bpm, or PaCO₂ > 50 with pH <7.30 in non-COPD patient, or PaO₂ <65 mm HG or O₂Sat >92% on Non-rebreather</p>
<p>31. For those larger CAH in the state who may be able to keep a few ICU/ventilated patients, who is collecting that information or how do we ensure other organizations are aware of our potential capacity? For example, we have hospitalists on staff and 6 ventilators with capacity to ventilate 12 patients at a time. Therefore, we may be able to accept transfers from other smaller CAH instead of them having to transfer to the tertiary care centers. Is the collaborative collecting that information and distributing it?</p>	<p>That's a good question and something that should be addressed with a regional healthcare coalition (https://www.kshcc.com/) that is usually defined by the particular public health region you are in- yours is NEK. You might check out access to the KDHE WebEOC (http://www.kdheks.gov/it_systems/WebEOC/PHP_WebEOC_Brochure.pdf) and check with your health system Preparedness Director or CNO. Contacting your usual regional referral centers to help coordinate patient movement prior to a crisis would be good planning for now plus it can help the regional health systems understand what resources are available at your facility as they could assist with coordinating appropriate patient movement.</p> <p>For your facility, you may want to develop a triage protocol that helps select those patients appropriate for you capabilities. For example, some COVID-19 patients have acute renal failure where it's unsure if that's a direct effect of the coronavirus or patient response to the infection, but dialysis would be necessary. Hospital bed capacity is tracked through a federal program and all hospitals participating in CMS are required to submit data that the state uses for situational awareness. ICU beds are distinguished with the HavBed program so if your hospital includes that information, the state should be aware but can't say the same for the surrounding smaller hospitals so provider to provider outreach might be the best approach.</p>
<p>32. What level should your procedure/surgical mask be??</p>	<p>I'll try to answer this as I understand the question. If I don't cover it as you have asked, let me know.</p> <p>If you are not directly in contact with a patient but gowned/gloved/face masked up you can be in the room with just a surgical mask on. Some are covering their N95 with a surgical mask to protect it from gross contamination. Any direct work with a positive COVID 19 patient where there is no aerosolization (patient coughing/using nebulizer treatment/on</p>

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	<p>NIV etc.) you should have on at least the N95 according to current CDC and KDHE guidelines. If there's a risk of aerosolization, PPAR is preferred. See chart here:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">PPE</th> <th style="width: 25%;"></th> <th style="width: 25%;">Use</th> <th style="width: 25%;">Pros and Cons</th> </tr> </thead> <tbody> <tr> <td>Surgical or medical masks</td> <td></td> <td>- Droplet precautions-block large particles (>5 μm)</td> <td>- Widely available - Does not require fit testing</td> </tr> <tr> <td>N95 mask respirator</td> <td></td> <td>- Filter at least 95% of aerosols (<5 μm) and droplet-size (>5μm) particles</td> <td>- Requires fit testing</td> </tr> <tr> <td>powered air-purifying Respirator (PAPRs)</td> <td></td> <td>- Provide high level protection from common airborne viruses that exceed N95 face masks</td> <td>- Does not require fit testing - Provides head and neck protection</td> </tr> <tr> <td>Gloves</td> <td></td> <td></td> <td>- Does not require fit testing</td> </tr> <tr> <td>Gowns</td> <td></td> <td></td> <td>- Does not require fit testing</td> </tr> </tbody> </table>	PPE		Use	Pros and Cons	Surgical or medical masks		- Droplet precautions-block large particles (>5 μm)	- Widely available - Does not require fit testing	N95 mask respirator		- Filter at least 95% of aerosols (<5 μm) and droplet-size (>5μm) particles	- Requires fit testing	powered air-purifying Respirator (PAPRs)		- Provide high level protection from common airborne viruses that exceed N95 face masks	- Does not require fit testing - Provides head and neck protection	Gloves			- Does not require fit testing	Gowns			- Does not require fit testing
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<p>33. What is your recommendation of asking patients to wear a mask or homemade mask when entering the facility?</p>	<p>Appropriate action to take as you are evaluating the patient and ascertaining the likelihood, they might be a COVID 19 patient. Mask are primarily to prevent ill patients from transmitting to others. Recently there has</p>
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	<p>been some guidance and suggestions that the CDC should revisit guidance on face masks for the population in general and for healthcare workers to wear surgical masks when working. This is somewhat controversial as you are more likely to touch your face to adjust the mask, it gets wet from breathing and that lessens its effectiveness and worse, it can give you a false sense of security that you won't be as conscious about protecting yourself from cross-contamination/exposures.</p>
<p>34. In regards to OB care - what precautions should I take trying to avoid cross contamination from seeing sick COVID patients and then needing to deliver a baby in the same day?</p>	<p>Challenging in a rural setting where you can't assign providers and nursing staff dedicated to remain with COVID patients while others manage the usual health care needs in the community to lessen the risk of cross-contamination. Constant attention to proper PPE, even shoe covers and frequent clothing changes might have to be considered and in a PPE shortage situation like we are dealing with, donning and doffing a clean cloth base coverall after carefully removing PPE and washing up, then applying mask/gloves prior to seeing the OB patient might be considered. I hope you have the time to make that work but babies don't always work into our schedules.</p>
<p>35. How long does it take for the droplets to drop from the air to the surfaces?</p>	<p>Depends on the size of the droplets but most from a sneeze or cough are large enough (>8microns) that they fall to the floor in less than a minute and travel less than 6 feet – because they are heavy enough droplets to do this and the virus is contained within the droplets, not free. Granted, some report that the measles virus can last in the air up to 2 hours after an infected person leaves the room – but we really don't know for certain about the coronavirus. Dr. Stites did a good job in a couple of presentations discussing aerosolization from coughing and sneezing and that the provider infection rate in Italy dropped when they started appropriately using Gowns/Gloves/Masks PPE. The reports you see/hear about the virus last “days” on surfaces and such are that they can detect the genetic material (it hasn't degraded yet) but it doesn't speak to “infectivity” – can you really get the illness or not. Meanwhile, if you are going to be exposed to a patient where aerosolization is likely, please keep your N95 mask and other appropriate PPE on.</p>

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36. Is there any situation in which you would recommend prophylactic use of plaquenil in patients with immunocompromise?

I'm sure you've seen the CDC guidance regarding treatment approaches (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html>)

Some centers have established their own criteria related to the use of Plaquenil and we have included those in an order set for possible/positive COVID 19 patients for the Collaborative – those come from Mass General and Univ. of Washington. Mass General recommends that it should be considered for those immunocompromised (category 1 risk group) who also have a couple of criteria for category 2 (similar to someone with a positive sepsis screening as noted below)

Table 2: Risk Factors for Severe COVID-19 Disease		
<i>Epidemiological – Category 1</i>	<i>Vital Signs – Category 2</i>	<i>Labs – Category 3</i>
Age > 55	Respiratory rate > 24 breaths/min	D-dimer > 1000 ng/mL
Pre-existing pulmonary disease	Heart rate > 125 beats/min	CPK > twice upper limit of normal
Chronic kidney disease	SpO2 < 90% on ambient air	CRP > 100
Diabetes with A1c > 7.6%		LDH > 245 U/L
History of hypertension		Elevated troponin
History of cardiovascular disease		Admission absolute lymphocyte count < 0.8
Use of biologics		Ferritin > 300 ug/L
History of transplant or other immunosuppression		
All patients with HIV (regardless of CD4 count)		

For patients with moderate or severe disease (patients with at least one Category 1 and one Category 2/3 feature on floor or any patients in ICU or with progressive disease)	With guidance from Infectious Diseases, can consider adding hydroxychloroquine (400 mg BID x2 followed by 400 mg daily while hospitalized, up to 5 days). Note chloroquine has activity but limited supply so hydroxychloroquine preferred	Check ECG prior to initiation given risk of QT prolongation. Risk is increased in patients on other QT-prolonging agents.
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37. Does it make sense for the KDHE to have the sole responsibility in regards to who does or does not get tested for COVID-19? Guidelines are guidelines. We will miss positive cases if the practitioners who are testing patients have no input on whether KDHE will actually run the test.

I guess the determining factor here early on and even at present is limited test capacity/capabilities and now a shortage of the swabs for collecting the specimens. Therefore, they had to focus first on those who appeared sick (especially with the background being our usual influenza season in Kansas) so that appropriate therapy could be instituted (some antiviral options with influenza while coronavirus really has no FDA approved therapy available at present). KDHE is going to be ramping up more population-based screenings to understand what

QUESTION	ANSWER (Dr. Robert Moser unless otherwise indicated)
	<p>the true prevalence of coronavirus SARs-nCOV-2 is. If all we have is convalescent serum therapy, then at least being able to understand the prevalence and identifying those who have had it and recovered, that gives us something to hope for until a vaccine is available</p>
<p>38. We have a mobile mammography truck, mobile MRI truck, and ultrasound that travel around to multiple facilities. Do we continue to offer these services or should they be referred to a larger facility that has these capabilities on site? My concern is that these services may come from an area with a larger population and more widespread COVID-19 and may bring it to our CAH.</p>	<p>Like elective surgeries, this may be something you want to consider postponing if possible. It depends on how the services are managing their staff and environmental cleaning of the equipment prior to and after patient care. If done properly, it probably is relatively safe so I'd at least check with the services. I know I would hate to not be able to get tests locally and if patients had to travel, it defeats the "stay at home" mindset that appears to be making a dent in the rise in new cases. The tracking of data that reflects how well a population is staying at home had shown KS was doing fairly well last week but by 4/1, we had C Grade.</p>
<p>39. Any further update on the sens/spec of the PCR test and/or sens/spec of the clinic POC tests coming out? When to start using serology/Antibody tests to check immunity and get say at least healthcare workers back to work?</p>	<p>Great questions – the sens/spec really depends on the quality of the specimen, which the posterior nasopharyngeal swab technique is fraught with challenges, primarily patient discomfort preventing adequate specimen. Because it is a PCR and with more labs coming on board with their specific testing, the pre-test probability becomes more important. Specificity is key in doing a reliable job of ruling out someone who doesn't have the disease as well as the sensitivity in ruling in someone who does. Together the combination is pretty good if the patient has influenza-like symptoms and the influenza a/b test is negative.</p> <p>Work is currently going on for the antibody detection though still some question of does antibody confer complete protection and is it lifelong? It would help in getting frontline and critical infrastructure (police/fire/sanitation etc) back active. The staff taking care of Covid19 patients at KU hospital utilize the following regarding hospital discharge and return to work guidance.</p> <p>Regarding testing to get out of isolation on a test-based strategy, we know and are fairly certain the one can have viral shedding for 21, 28 up to 35+ days. Therefore, the</p>

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	<p>KU providers don't believe it reasonable to test at the shorter 7d guidance mark as given by CDC.</p> <p>In addition, as we are not yet in a workforce crunch, and with assistance available, employee return to work policy is for 14 days after symptom onset because of the known/suspected prolonged shedding. As/If we get into a workforce crunch, we may have those people return to work sooner as indicated by the 7d or 72hrs of fever free whichever is longer. This is the same guidance KDHE has stated on their calls.</p> <p>The 7d and 14d differences being recommend is discordant. 14d quarantine is likely based on fact that, under current knowledge, 98% of patients with symptoms become symptomatic within 11 days of exposure, while missing a person with exposure who truly has COVID 19 after 14d is about 1/10,000.</p> <p>CDC guidelines regarding this approach are below.</p> <p style="padding-left: 40px;">The decision to discontinue Transmission-Based Precautions should be made using a test-based strategy or a non-test-based strategy (i.e., time-since-illness-onset and time-since-recovery strategy). Meeting criteria for discontinuation of Transmission-Based Precautions is not a prerequisite for discharge.</p> <p style="padding-left: 80px;">1. Test-based strategy.</p> <p style="padding-left: 120px;">a-Resolution of fever without the use of fever-reducing medications and</p> <p style="padding-left: 120px;">b-Improvement in respiratory symptoms (e.g., cough, shortness of breath), and</p> <p style="padding-left: 120px;">c-Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay</p> <p style="padding-left: 160px;">for detection of SARS-CoV-2 RNA from at least two consecutive nasopharyngeal swab specimens collected ≥ 24 hours apart (total of two negative specimens)</p>
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	<p>2. Non-test-based strategy.</p> <p>a-At least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); and,</p> <p>b-At least 7 days have passed since symptoms first appeared</p> <p>When a Testing-Based Strategy is Preferred</p> <p>Hospitalized patients may have longer periods of SARS-CoV-2 RNA detection compared to patients with mild or moderate disease. Severely immunocompromised patients (e.g., medical treatment with immunosuppressive drugs, bone marrow or solid organ transplant recipients, inherited immunodeficiency, poorly controlled HIV) may also have longer periods of SARS-CoV-2 RNA detection and prolonged shedding of infectious recovery. These groups may be contagious for longer than others. In addition, placing a patient in a setting where they will have close contact with individuals at risk for severe disease warrants a conservative approach.</p> <p>Hence, a test-based strategy is preferred for discontinuation of transmission-based precautions for patients who are</p> <p>a-Hospitalized or b-Severely immunocompromised or c-Being transferred to a long-term care or assisted living facility</p> <p>If testing is not readily available, facilities should use the non-test-based strategy for discontinuation of Transmission-Based</p>
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	<p>Precautions or extend the period of isolation beyond the non-test-based-strategy duration, on a case by case basis in consultation with local and state public health authorities.</p>
<p>40. Should EMS staff wash/change clothes after entering the residence of a possible COVID-19 patient prior to responding to other calls.</p>	<p>Yes – assume all patients they come into contact with could be Covid-19 patient so proper PPE should be used as per CDC guidance which had recently been updated.</p> <p>Summary of Key Changes for the EMS Guidance:</p> <p>Updated PPE recommendations for the care of patients with known or suspected COVID-19:</p> <p>Facemasks are an acceptable alternative until the supply chain is restored. Respirators should be prioritized for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to HCP.</p> <p>Eye protection, gown, and gloves continue to be recommended.</p> <p>If there are shortages of gowns, they should be prioritized for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of HCP.</p> <p>When the supply chain is restored, fit-tested EMS clinicians should return to use of respirators for patients with known or suspected COVID-19.</p> <p>Updated guidance about recommended EPA-registered disinfectants to include reference to a list now posted on the EPA website.</p> <p>Background</p> <p>Emergency medical services (EMS) play a vital role in responding to requests for assistance, triaging patients, and providing emergency medical treatment and</p>

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	<p>transport for ill persons. However, unlike patient care in the controlled environment of a healthcare facility, care and transports by EMS present unique challenges because of the nature of the setting, enclosed space during transport, frequent need for rapid medical decision-making, interventions with limited information, and a varying range of patient acuity and jurisdictional healthcare resources.</p> <p>When preparing for and responding to patients with confirmed or possible coronavirus disease 2019 (COVID-19), close coordination and effective communications are important among 911 Public Safety Answering Points (PSAPs)— commonly known as 911 call centers, the EMS system, healthcare facilities, and the public health system. Each PSAP and EMS system should seek the involvement of an EMS medical director to provide appropriate medical oversight. For the purposes of this guidance, “EMS clinician” means prehospital EMS and medical first responders. When COVID-19 is suspected in a patient needing emergency transport, prehospital care providers and healthcare facilities should be notified in advance that they may be caring for, transporting, or receiving a patient who may have COVID-19 infection.</p>
<p>41. What about DNR patients that get admitted to rural hospitals but then get sicker and request is made to transfer the patient? Obviously the patient may end up needing intubated which then would use up the resources of vents. So how do we help the rural hospitals have those discussions with pt/family that maybe not appropriate to transfer</p>	<p>That’s a great question and not uncommon unfortunately. Frank discussions between the provider and patient/family are important primarily about the prognosis and fact that the patient will be removed from their social support system when moving on to a higher level of care. Larger systems need to help by not having a “blanket policy” of just accepting all transfers and discuss the case in enough detail that if they need to speak with the patient/family to tell them the likely projected course of the illness so they hear it from both the local provider and the receiving facility. We are going to have some palliative care folks on the call next week so this will be a great time to bring this back into the discussion.</p>
<p>42. What are other rural hospitals without active COVID in their communities doing with surgery schedules at this time?</p>	<p>The majority of Kansas hospitals have suspended elective procedures as they too are dealing with shortages of gowns and masks. KDHE has discussed this on a couple of calls I know and KHA has covered the importance of doing</p>

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	this as supporting the state-wide effort to be prepared for the worse.
43. Did anyone talk about the new request from VP Pence re: capacity bed/vent info	KDHE/KHA have the HavBed tracking system in place – though not every hospital was using as well as they should but hopefully that’s improved lately. It does cover ICU beds and types but not sure that it tracks ventilators.