When describing the epidemiology, what defines a "child"?

Each country and state has used slightly different age brackets. Some have been granular (0-4, 5-10, 11-15, 16-20) while others very broad (0-19). For the most part, the upper limit has been between 18 and 20.

How should we manage a HCW while awaiting the results of a COVID test in their child?

The general recommendation is that the HCW can continue to work while awaiting the results if asymptomatic. For institutions that have not allowed HCW to work while awaiting results, one could ask the HCW to mask while working and waiting for results.. I say generally, as there might be exceptions. In the adult world, if the HCW works in a nursing home, there may be more restrictions. If the HCW works extensively with vulnerable populations, there may be more restrictions. For example, employee health may restrict physicians from working in the oncology clinic until the results of the COVID test are known.

When does the contagious period start for a person with this virus - before symptoms start?

We assume, based on other respiratory illnesses, viral load data, and modeling, that patients are infectious before onset of symptoms. At UVMMC, we assume individuals are contagious one day before the onset of symptoms.

How should people manage mail and groceries (and books)

There are many mixed messages about this. We can detect virus on the surfaces for some time. It is unclear how infectious the virus may be. For example, if a can of beans was placed on a shelf on Monday, could someone acquire the disease from picking up the can on Friday? The true risk from cans and mail is low. While some (some authorities on CNN) have advocated wiping down all purchased products, alternatively, one could wash their hands before buying the groceries, after buying the groceries, and after putting the groceries away. This would apply to mail as well. I do know that one library is wiping the book covers. That is reasonable and fine. I think that people who are donating items have been cautious and trying to clean the products.

What should we do with symptomatic adults of children we are seeing? How about asymptomatic adults

It would be reasonable to ask the symptomatic adult to wear a mask. A key driver of concern has been whether asymptomatic adults in the office are transmitting disease. Under condition of assumed PPE shortage, we are not routinely recommending masking those adults. Different hospitals and program have taken different approaches. If we are in a situation where PPE limitations are longer a concern, then of course these suggestions could change.

Can you comment on the efficacy of UV light box for fomites like phones, badges, and can people reuse masks if they are treated with the box?

There is keen interest in using a variety of techniques to decontaminate inanimate objects. UV seems reasonable effective based on some data on other coronavirus. Here is what the international UV association states: UV light, specifically between 200-280nm (UVC or the germicidal range), inactivates (aka, 'kills') at least two other coronaviruses that are near-relatives of the COVID-19 virus: 1) SARS-CoV-1] and 2) MERS-CoV. An important caveat is this inactivation has been demonstrated under controlled conditions in the laboratory. The effectiveness of UV light in practice depends on factors such the exposure time and the ability of the UV light to reach the viruses in water, air, and in the folds and crevices of materials and surfaces.

There are efforts ongoing to use UV light to decontaminate N95 masks. I am not familiar with UV light and surgical masks. Ironing seems reasonable for home-made masks.

What percentage of Covid + patients are febrile?

It is unclear as we have mostly tested symptomatic individuals. In symptomatic adults with COVID, fever is a very common finding (>80%) at some point in the illness

Are there materials better or worse for home-made masks?

We do not have much data on home-made masks. Some small trials looked a simply cotton masks. Overall, they are not as effective as surgical masks. I do know of one effort using a fairly non-porous material – but people could not breathe through it. I think others are looking at some materials from the OR.

Could you comment on correct COVID swabbing technique?

Currently, those people collecting the specimen can use a NP, mid-turbinate, or oropharyngeal approach. I am not familiar with time based approach but to make sure the swab comes into full contact with the site.

Are children with any level of asthma considered high risk and should be tested if symptomatic?

We have assumed that children with mild to moderate asthma are not at high risk.

Can you help reconcile the difference between the Commissioner's high level of concern based on the number of deaths in VT with our relatively flat curve?

Unfortunately, COVID is in many of our elder care facilities or older adult communities. Once in those communities, attack rates can be high and again, unfortunately, those individuals are at greatest risk for morbidity and mortality.

What about a vaccine?

There are tremendous efforts on developing a vaccine. There has not been much work on vaccines for coronaviruses as until SARS and MERS, there was little incentive as the disease was mild. If we really want to flatten the curve and prevent infection, then we need a) a vaccine and b) effective therapy, and c) excellent testing. If we develop an effective vaccine that gives durable protection, that will go a long way. Even in the absence of a vaccine, if we are able to achieve universal testing, that will also greatly improve our ability to respond to subsequent rounds of transmission which might mean that social restrictions may not necessarily need to be quite as severe as what we currently are enduring

What about GI symptoms?

Hospitalized adults with COVID have frequently had GI symptoms. However, symptomatic adults have almost always (at least usually) had other symptoms other than just GI symptoms.

Any news on testing HCW or others for immunity?

In Hong Kong and China, physicians have been using serology. There are some antibody based treatment regimens out there. We have not been doing routine serologic testing is the US. The FDA ok'd several serologic test kits but here is some thoughts about that:

It's important to note that these tests have not been reviewed or validated by the FDA, unlike those molecular tests that are included in the organization's emergency use category. Instead, the FDA "does not intend to object to the development and distribution by commercial manufacturers" of these tests, provided they meet a number of criteria, including qualifying the results of their reported test results with the following information:

> This test has not been reviewed by the FDA.
>
> Negative results do not rule out SARS-CoV-2 infection, particularly in those who have been in contact with the virus. Follow-up testing with a molecular diagnostic should be considered to rule out infection in these individuals.
>
> Results from antibody testing should not be used as the sole basis to diagnose or exclude SARS-CoV-2 infection or to inform infection status.
>
> Positive results may be due to past or present infection with non-SARS-CoV-2 coronavirus strains, such as coronavirus HKU1, NL63, OC43, or 229E.

The FDA specifically notes in its emergency use FAQ that these entities have reported their own validation of these tests, and that they won't be pursuing Emergency Use Authorization.

Are there trials anywhere going on in the asymptomatic population somewhere in the US to try to answer question about true prevalence?

To date, test kits and supplies have been in short supply. I suspect that as the availability increases, we will expand this (as was done in a few towns in Italy).