

Q&A: Discussion on COVID-19 and Impact on Pediatric Cancer Patients

As our world faces the Novel Coronavirus pandemic, it's vital that we address key topics important to children & families in the Pediatric Cancer Community

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Expert Discussion Leaders:

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Hosted by: Solving Kids' Cancer

GENERAL INFORMATION

- The Centers for Disease Control and Prevention (CDC) website addresses many common questions people may have about COVID-19:
<https://www.cdc.gov/coronavirus/2019-ncov/faq.html>
- The World Health Organization (WHO) website holds useful information, as well:
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Information and responses below are subject to change based upon a rapidly evolving pandemic. Please consult with your child's primary medical team for any and all medical advice and your child's hospital for its up-to-date hospital policies regarding COVID-19.
- Please understand that not all respiratory symptoms are due to SARS-CoV-2, the virus that causes COVID-19. Currently at Nationwide Children's Hospital, rhinovirus (common cold virus) and metapneumovirus are very common. However, if your child exhibits fever, cough or shortness of breath (current screening symptoms for COVID-19), then he or she will likely be tested for SARS-CoV-2.

COVID-19 VIRUS IN THE ENVIRONMENT

- 1. What are actual time frames that surfaces may hold the virus? Please advise on most common surfaces and the timing the virus stays active on them.**

The virus may “live” on surfaces for days. To properly disinfect surfaces, please refer to the CDC guidelines on “Clean and Disinfect”

https://www.cdc.gov/coronavirus/2019-ncov/prepare/cleaning-disinfection.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcommunity%2Fhome%2Fcleaning-disinfection.html

- 2. Can warm weather slow the spread of COVID-19?**

The short answer is no – countries in warm climates are experiencing the pandemic, as well. Another underlying question may be “Will the virus be seasonal?” This gets into how some respiratory viruses like RSV and influenza typically start in late fall and peak in mid-winter before reducing in incidence by late winter/early spring. It’s hard to say if the COVID-19 virus, SARS-CoV-2, will have a seasonal incidence. At this time, the virus is acting like a parasite, infecting whatever person it can find – thus, the current pandemic.

- 3. Can wind move the virus to another location? If so, will it enter our noses when we breathe? When a child with COVID-19 walks outside, does the virus go into the air? Is the virus polluting the environment?**

Probably so, but the wind is likely the least cause for spreading the virus. Direct contact with a person having COVID-19 is the most likely form of virus spread. Additionally, coming into contact with contaminated surfaces, then touching your face, is also a cause. So try to get some fresh air every day, stay active (exercise) and practice good personal hygiene. Please refer to the CDC website regarding answers to questions about how the virus spreads.

https://www.cdc.gov/coronavirus/2019-ncov/faq.html#anchor_1584386553767

- 4. There was mention of aerosol transmission. Can you clarify for a layperson? Does that mean that someone can cough or sneeze in a public place and walking through that space minutes later may cause transmission?**

The virus mainly spreads in small droplets that have “weight” and thus, after lingering in the air a bit (since the weight is quite small), fall onto surfaces, whereas aerosol means the *virus itself can float through the air and be transmitted through air ducts etc.* It isn’t thought to really have significant aerosol transmission. That said – Yes, a person can cough or sneeze in a public place, generating airborne droplets, and walking through there shortly thereafter could cause transmission before all of the droplets clear from the air. Another good reason for “stay at home” and “shelter in place.”

- 5. If a person touches your food and later gets tested positive for coronavirus, does the food become spoiled?**

The food may not get spoiled, but it could be “contaminated” by coronavirus. As the virus can live on many different surfaces.

6. If in the case someone in your household was diagnosed with Covid-19, how long after are they still contagious?

The index case (person infected) is believed to be contagious up until his/her symptoms have resolved. Ideally, that person would be tested for the virus and found to be negative as well. However, testing will likely not be available in such a scenario; as testing is currently focusing on diagnosis. In general, expect symptoms to last for at least 14 days. Refer to the CDC link for more information.

<https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html> and
<https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-your-home.html>

7. Since other kids are able to infect others for 27 days after infection, should we take it to mean that when other kids are allowed to go back to school, we should keep our kids out for longer just in case?

It is anticipated that schools will have return policies in place to direct when students should return to school. As is common with many viruses, children can shed viruses. The choice to keep your child from returning to school is a personal one that can be guided by our child's primary medical team.

8. Does Lysol work?

Yes. A great website for approved disinfectants for SARS-CoV-2 is from the Environmental Protection Agency (EPA)

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

Please refer to this website as well as the CDC website for safe ways to disinfect your home - <https://www.cdc.gov/coronavirus/2019-ncov/prepare/cleaning-disinfection.html>

9. Can we use N95 masks more than once?

This is a great informative PDF on masks versus N95 from the CDC:

<https://www.cdc.gov/niosh/npptl/pdfs/UnderstandDifferenceInfographic-508.pdf>

10. What additional precautions other than basic hand washing etc. should leukemia children (maintenance phase) be taking?

Good personal hygiene including basic hand washing, social distancing, and taking all medications are advised.

CONCERNS FOR CHILDREN WITH CANCER

1. Are there any known leukemia patients being treated?

To date (March 24, 2020), one pediatric (8 year old) T-cell ALL Chinese patient has been reported through social media. To date, no pediatric oncology patients with COVID-19 have been published in the medical literature.

2. I'd like to know about going into the hospital for LP treatments, particularly if they have to be put under, and risk of infection. Logic is that this is shared space with all cancer kids and also sick kids and not as isolated as the oncology clinic.

Most hospitals have algorithms of care including the use of PPE (personal protective equipment) for trying to reduce exposure to COVID-19 within the hospital. If your child has any respiratory symptoms, he/she will likely have his/her procedure deferred until resolution in symptoms. If your child is asymptomatic, then he/she will have the procedure as long as the usual protocol criteria are met.

3. If a child needs a 3 month surveillance MRI, is it better to delay than risk taking him/her to hospital for MRI?

Some children with cancer who are off-therapy are having their off-therapy visits or procedures postponed unless they have symptoms of concern. Please confer with your child's medical team.

4. If a child is two years post-treatment, are they still at greater risk to get the virus and are they still considered immunocompromised?

The child is likely not considered immunocompromised unless he/she is still requiring prophylaxis or receiving medications like intravenous immunoglobulin (IVIG). Please refer to your child's primary medical team to confirm.

5. Can you comment on the high possible inflammatory response when contracting COVID-19? Also discuss if Ibuprofen is actually contraindicated?

Great question. Some adult patients with severe COVID-19 exhibit a high level of inflammation in response to the virus. To date (March 24, 2020), this phenomena has only been described in a 8 year old Chinese patient with T-cell ALL via social media. So not all patients who get COVID-19 (vast majority) will have a high inflammatory response. For those patients who have a high inflammatory response, certain drugs targeting cytokines or chemicals that induce inflammation in the body (e.g., tocilizumab targets IL-6) are being used with anecdotal success.

Great question on Ibuprofen. First, usually we discourage the use of Ibuprofen in oncology patients, given its effect on platelet function. So we generally recommend using acetaminophen (Tylenol) for fever. Second, for COVID-19, there are some mixed messages for ibuprofen use. The World Health Organization (WHO) originally discouraged its use, but now has revised its recommendations.

<https://www.sciencealert.com/who-recommends-to-avoid-taking-ibuprofen-for-covid-19-symptoms>

TREATMENT FOR THE VIRUS

1. If a patient is on Valganciclovir is that helpful for prevention since it's an antiviral?

No, as Valganciclovir does not target SARS-CoV-2, the virus that causes COVID-19.

2. Any trials for pediatric patients?

We assume the question is inquiring about treatments for COVID-19 in pediatric patients. Please see the CDC website for additional information.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html>

3. Are there therapies OUTSIDE of America? If so, what is the effectiveness?

There are no therapies that have been approved by the FDA or European equivalent for COVID-19. However, several drugs that have been used for other disease indications like malaria and HIV are being considered. However, every drug has side effects, so using these drugs outside a clinical trial is not advised. Please see the CDC website for additional information.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html>

4. Is there any indication that people who received their annual flu shot have “boosted” their immune system to help fight against COVID-19?

No, as the flu vaccine is specific to the influenza virus.

MOVING FORWARD

1. What are some ways this outbreak can end?

Great question, and if we knew the answer, we would certainly work to end the pandemic. Unfortunately, the most practical answer is that the end of the pandemic will coincide with a significant decrease in the number of infected people. How long that will take is unknown. But if we look at how long it took China, one would assume at least 4 months from initial exposure to decrease in new cases. Ultimately, it might take the development and widespread use of an effective vaccine to really put an end to this on a worldwide scale as it may otherwise continue to circulate to unexposed areas.

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2. What can world leaders do?

Work together to share experiences and information and to provide uniform and consistent messaging. The world economy will only continue with a healthy workforce. Therefore, the top priority should be people's lives, the economy should ultimately rebound.