The World Health Organization (WHO) has now officially declared COVID-19 as a pandemic. In most cases, COVID-19 produces a mild respiratory infection, but in a minority of cases, the disease can be more severe and require hospitalization or even ICU care. The Vascular Anomaly Community endorses the recommendations of the Centers for Disease Control and Prevention (CDC), which are updated on a regular basis and can be accessed here.

RECOMMENDATIONS FOR THE GENERAL PUBLIC

In general, the measures to prevent transmission of COVID-19 are similar to other respiratory illnesses such as the flu. Complicated vascular anomaly patients should maintain the same degree of vigilance about infection control as they do in the typical flu season. The most important recommendations to prevent transmission of COVID-19 are:

• Avoid crowds, large group gatherings, or close contact with sick people.
• Stay home if you are sick or at high risk (see below).
• Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.
• Use alcohol-based hand sanitizer or proper handwashing frequently.
• Use facemasks only if you are sick.
• Restrict international travel and non-essential domestic travel.
• Check the CDC Travel Guidance prior to any trips.
• Practice social distancing and try to maintain a six-foot distance between people. Social distancing means remaining out of congregate settings, avoiding mass gatherings, and maintaining distance (approximately 6 feet or 2 meters) from others when possible.
FREQUENTLY ASKED QUESTIONS - GENERAL

1. What are the most common symptoms?
   • The following symptoms may occur within 2-14 days of exposure to the virus:
     o Cough
     o Fever
     o Shortness of breath

2. How is the virus spread?
   • According to the CDC, coronaviruses are thought to be spread from person-to-person through inhalation of respiratory droplets produced when an infected person coughs or sneezes.
   • A person may become ill by touching a surface or object that has the virus on it and then touching their own nose, eyes or mouth. Wash your hands regularly and try not to touch your face unless you have just washed your hands.

FREQUENTLY ASKED QUESTIONS BY VASCULAR ANOMALIES PATIENTS

3. Who is at higher risk for serious illness from COVID-19 and how can this be related to complicated vascular anomalies (VA)?
   • Older adults (greater than 60 years of age)
   • People with serious chronic medical conditions such as:
     o Diabetes
     o Heart Conditions and specific issues related to VA: pericardial effusions, pulmonary hypertension and/or other cardiac dysfunction from a vascular anomaly
     o Lung Disease and specific issues related to VA: pulmonary effusion and/or pulmonary involvement or disease from a vascular anomaly, bone disease in the ribs, sternum, upper vertebrae, history of pulmonary embolism, history of multiple pulmonary infections, VA that affect the airway, or patients on medications that can worsen respiratory symptoms
     o Hypertension (high blood pressure)

4. For patients taking Rapamune®, Zortress®, Afinitor®, everolimus, sirolimus:
   What should I do if I am on an immunosuppressant? Should I or my child stop taking this drug?
   • Based on current CDC statements and how recent influenza outbreaks were managed, it is recommended to stay on the drug unless your child/you or immediate family member or a close contact is diagnosed with COVID-19.
   • Please discuss a plan with your health care provider.
• If you or your child become ill, **include discussion about the immunosuppressant** with your health care provider along with other care instructions. Your health care provider knows you or your child best and will be able to make those decisions specifically related to the diagnosis, medication, amount of medication and risk.

• **DO NOT stop any medication unless directed to by your health care provider.**

• Follow the precautions noted below (9,10)

5. **What should I or my child do if we are on other medications or chemotherapy (steroids, Avastin®, vincristine, alpelisib, Mekenist®, thalidomide, etc.)?**

   • Based on current CDC statements and how recent influenza outbreaks were managed, it is recommended to **stay on the drug** unless your child/you or immediate family member or a close contact is diagnosed with COVID-19.

   • **Please discuss a plan with your health care provider.**

   • If you or your child become ill, **include discussion about these agents** with your health care provider along with other care instructions. Your health care provider knows you or your child best and will be able to make those decisions specifically related to the diagnosis, medication, amount of medication and risk.

   • **DO NOT stop any medication unless directed to by your health care provider.**

   • Follow the precautions noted (9,10).

6. **Are patients who are currently taking a beta blocker for an infantile hemangioma (IH) at risk? If yes, what are the recommendations for the babies and/or caregiver who either present with symptoms or test positive for COVID-19?**

   • See comment on patients at higher risk in Q3.

   • IF a patient has no underlying heart or pulmonary condition, beta blockers do not put anyone at higher risk.

   • Beta blockers are not immunosuppressive agents BUT they can worsen the symptoms of a viral illness such as wheezing. IF an infant is ill with pulmonary symptoms their health care provider should be called right away to discuss continuation of beta blockers. **DO NOT stop the medication without your health care advisors’ recommendation.**

   • If a patient has an airway hemangioma and has been exposed to COVID-19 or has symptoms their health care provider should be notified right away.

7. **What precautions, if any, are warranted for patients with Sturge Weber Syndrome (SWS) who are taking anti-seizure meds regarding COVID-19?**

   • Anti-seizure medications should be continued if you or your child has a positive exposure or symptoms unless advised otherwise by your health care provider.
• Fevers will lower a seizure threshold, so these medications are important.
• **Discuss with your health care provider prior to or if you/your child has a positive exposure or symptoms.**

8. **Are there special precautions after surgery or with open wounds? Will surgeries be delayed?**
   • The same precautions for social distancing as noted above should be followed.
   • A patient will need time to recover thus it is important to stay away from symptomatic people and as best as possible continue with good pulmonary exercises and an incentive spirometer to keep ones’ lung function at its best.
   • Standard wound policy should be continued.
   • Many institutions will be limiting surgical procedures to only the most critical cases at this time. Please contact your surgeon for questions.

9. **If I or my child get ill are there any other precautions to consider?**
   • It is very important to seek the advice of your medical provider.
   • If you are hospitalized make sure the team discusses your specific case with your vascular anomaly specialist.

10. **What precautions should people at higher risk of serious illness from COVID-19 do?**
    • The CDC recommends contacting your healthcare provider to make sure you have enough medication and supplies in case of an outbreak of COVID-19 in your community which may require you to stay home.
    • Keep away from ill individuals.
    • Avoid crowds.
    • Wash your hand often (see above).
    • If there is an outbreak in your community, stay home as much as possible and follow all local recommendations.
    • If you become ill contact your health care provider right away.
    • If you or your child are not ambulatory, and you have a vascular anomaly that puts you at a high risk for thrombosis (blood clots) please make sure your treating physicians are aware of this. (This applies if you have a history of blood clots, coagulation abnormalities, large ectatic veins).

11. **If my child or I get ill where should we go to be seen? Should we go to the Emergency Room?**
    • Please call your Primary Medical Provider if you or your child are ill and ask what the next steps will be.
• If you do NOT have a Primary Medical Provider or a Vascular Anomaly Center, you can call the emergency department or emergent care center and ask next steps.
• If you are experiencing any critical symptoms such as shortness of breath, severe chest pain, blue lips or delirium, please call an ambulance.

12. Should I wear a facemask to prevent contracting COVID-19?
• The CDC does not recommend that people who are well wear a facemask as you are at high risk of touching your face without washing your hands.
• Only wear a facemask if it is recommended by your health care provider.
• Wear a facemask if you are symptomatic to protect the risk of others getting ill.

13. Should my family members go to school or work?
• If COVID-19 is spreading in your community, The CDC recommends social distancing. Take extra measures to distance yourself. Try to be 6 feet away from others. Avoid personal contact (handshakes, hugs). Stay home as much as possible and avoid crowds or poorly ventilated places.

14. Is it safe to travel?
• According to CDC’s guidelines for individuals with high risk factor, consideration should be given to rescheduling planned trips especially to areas affected by COVID-19. (See the CDC Map of level 2 and 3 areas.)

15. Is it safe to go to clinic appointments?
• It is important to maintain regular clinical care.
• Many centers are providing virtual visits.
• Please contact your health care provider to discuss your options.

16. Do blood thinners (anticoagulants) increase my risk?
• We are not aware of any evidence that the use of a blood thinner increases your risk of acquiring COVID-19. If the reason for the blood thinner is heart or pulmonary related, or if there is pulmonary bleeding you should follow the CDC recommendations for high risk persons.

17. Is there a danger to using non-steroidal anti-inflammatory agents-NSAIDS (Motrin, Advil, Aleve) if my child/self is diagnosed with COVID-19?
• In a trial published in the British Medical Journal results indicated that patients with respiratory infections (cough, colds, sore throats) who were given a non-steroidal anti-inflammatory agent –NSAIDS (Ibuprofen®, Motrin®) vs a drug similar to
Tylenol® (acetaminophen, paracetamol) were more likely to have more severe illness and complications. This is believed to be secondary to the fact that inflammation is part of the body's response to infection. Therefore, **Tylenol® should be used to control fever and body aches**. We understand that some patients may need to be on steroids or other anti-inflammatory agents for other reasons. **It is IMPORTANT that this is discussed with your health care provider.**

**DISCLAIMER**

The vascular anomalies community advocates have jointly collaborated with our medical advisors to develop a FAQ information sheet for COVID-19 information as it relates to our population. Please remember this is for general information purposes only. It is not intended to be a substitute for professional medical advice, diagnosis or treatment. Specific situations might cause a variance in response, and if you are not sure, always seek the advice of your physician or other health care provider as they are the most familiar with your situation.

COVID-19 information is changing daily. Please consult the CDC pages referenced above for the most current information.