









# COVID-19 FAQs

For Children with Solid Organ Transplant or Heart failure

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**NOTE:** This document was developed during the COVID-19 quarantine and may not reflect recent and local/ state regulations and quidance. This is an abbreviated version, edited on September 15, 2020.

# COVID-19 and Children

#### Is there any published data about pediatric patients with COVID-19?

A very important study of over 2143 pediatric patients that tested positive for COVID-19 in China was recently published in the journal, Pediatrics.

#### Can children get COVID-19?

Children of all ages can get COVID-19. Boys and girls are equally likely to get it. The symptoms of COVID-19 are similar in children and adults, but children tend to have milder cases or no symptoms at all. Children with symptoms tend to have fever, runny nose, cough and sometimes vomiting and diarrhea (CDC). Because children with COVID-19 often have no symptoms, they may play a major role in spreading the virus.

#### What symptoms do children experience?

In a study of over 2000 pediatric patients that tested positive for COVID-19 in China, more than 90% of the children either had no symptoms or mild/moderate cases.

#### Are children in general at risk of becoming very sick or dying from COVID-19?

Based on what we know so far, children are much less likely than adults to get severely ill from COVID-19. In a study of over 2000 pediatric patients that tested positive for COVID-19 in China, only one child died. Most cases were mild, with far fewer severe and critical cases in children (5.9%) compared to adults (18.5%). Very few had difficulty breathing or low blood oxygen levels (0.5%). Very few experienced ARDS or multiorgan system dysfunction (0.6%).

#### Why does it seem that children do better with the virus?

We do not fully understand why children do not get as sick as adults. The data that is emerging from China, Italy, Europe and Seattle are reassuring. Children are not being admitted to the hospital or developing severe disease nearly as often as adults.

#### Are children with transplants at higher risk?

There is still much more to be learned about how the disease impacts children, especially those with underlying medical conditions. For children with transplants, we do not have specific information on whether COVID-19 infection will be more severe. However, other viruses often cause more severe disease in people whose immune system is low, such as transplant recipients. The limited existing reports in the pediatric transplant population provide some cautious optimism that transplant children have a similar disease course as non-transplant children.

#### Are there any pediatric transplant cases that we know of?

There are very few reported cases in pediatric transplant recipients. But it is still too early to know for sure if children with transplants are at increased risk for severe disease. There are 3 reported cases of children with transplants in Italy who tested positive for COVID-19. None of those children developed lung disease. At least one very young child in the United States required ICU care but this is not yet published. It is unclear whether the small number of cases reported is because they are not severely affected, or because the families have been more rigorous about self-isolation.

A study of 87 mostly adult heart transplant recipients in China found that prevention and quarantine efforts led to a low rate of COVID-19. Even though most resided in Hubei and many had recently traveled to Wuhan, the center of the COVID-19 outbreak, all cases were mild, especially thanks to five prevention/ quarantine efforts:

- Self-quarantining at home for more than 1 week
- Wearing a mask
- Washing hands
- Sanitizing
- Monitoring body temperature and symptoms daily

Until we know more, we strongly recommend good hand hygiene and social distancing for the families of children with transplants. Teach your children to become health heroes by reading our "Wanna be a Health Hero" handout!

### Are there any current cases of pediatric transplant recipients with COVID-19 that show clinical outcomes thus far?

There are very few reported cases of COVID-19 in pediatric transplant recipients, and it is still too early to know for sure if children with transplants are at increased risk for severe disease. There are isolated

case reports from North America about transplanted children with other comorbidities who have been infected. Outcome reports are not yet available from those cases. A widely circulated study of 700 pediatric liver transplant patients in Bergamo, a city located in the "red zone" of the Italian outbreak of COVID-19, was recently published in the journal *Liver Transplant*. The 700 children were in various stages after liver transplant, including three patients who received their transplant within the last two months, ten currently in-patients, 100 with autoimmune liver disease, and three under chemotherapy for hepatoblastoma (inpatients). Although the city of Bergamo was experiencing an extremely high incidence of COVID-19, only three of the 700 children tested positive for COVID-19, and none developed severe symptoms or pneumonia. The researchers thus concluded that "available data on Coronavirus past and present outbreaks suggest that immunosuppressed patients are not at increased risk of severe pulmonary disease compared to the general population."

#### Do we know how COVID-19 affects the kidneys?

For patients who get extremely sick from COVID-19 and need a ventilator in the ICU, serious kidney problems can occur, often because of the extreme severity of the effects on the lungs/heart, which then affects the kidneys. Some published research suggests that COVID-19 can directly harm the kidney(s), which may explain the increased frequency of kidney dysfunction in COVID-19 infection compared to infections by other respiratory viruses. There is also evidence that muscle damage (rhabdomyolysis) in kidney transplant recipients infected with COVID-19 may lead to kidney damage. Again, these impacts are understood within adult COVID-19 populations, and the limited existing research on pediatric transplant recipients suggests that severe cases are rare.

#### Can COVID-19 cause long-term damage to children's lungs?

Because COVID-19 is such a new illness, nobody knows much about the long-term effects of the disease. However, we know that kids tend to be less seriously affected than adults, and that the long-term effects would probably be the greatest among those who get the sickest.

#### How do children spread COVID-19?

Since most children have no symptoms or mild cases of COVID-19, children may play a major role in spreading COVID-19. Sneezes, coughs, and poop can spread COVID-19. It's important to know that children who are not toilet-trained could possibly spread the disease to people who change their diapers.

# How to Protect Yourself and Your Family

#### What should I do to keep my child and family safe?

As the parent or caregiver of a child with a transplant, your family should already be careful about protecting yourselves from germs and infections. It's important to continue healthy habits and take extra precautions.

#### Encourage your family to be health heroes!

- Ensure your child takes all of their normal medicines. Because pharmacies might get crowded during this time, make sure you have 4 weeks of medication on hand.
  - Please use mail-order pharmacies, if possible. You can also contact your local pharmacist to discuss and understand the local supply for medications.
- If you leave your home, use "social distancing." That means keeping more distance—at least 6 feet between yourself and other people. When you get back home, change your clothes and wash your hands.
- Follow CDC and state orders regarding the appropriate use of masks.

- Don't touch your face or rub your eyes.
- Wash your hands for 20 seconds while singing "Happy Birthday!"
- Encourage your family to be more careful than normal to prevent unnecessary injuries and doctor visits.

#### Why social distancing?

Social distancing is a very important way to slow down the spread of the coronavirus and "flatten the curve." We recommend staying home. If you must leave your home, use "social distancing." That means keeping more distance—at least 6 feet—between yourself and others.

#### How much medication/prescriptions should we keep on hand?

If possible have at least 4 weeks of your medications (if insurance allows) remaining at all times. Check to see if your insurance will allow for a 90-day supply. Try having medications mailed to your home, delivered or picked up by a caregiver so your family can avoid crowded places.

### If we must report to work for an essential service (like healthcare or grocery store operations), what should we do when arriving at home?

If it is possible for working family members to work from home, this is preferred. If this is not possible, you should adhere to the following practices for trying to avoid infection:

- Frequently wash or sanitize your hands.
- Don't touch your face or rub your eyes.
- Maintain 6 feet between yourself and others.
- When you get home, it might also be smart to put your clothes in the laundry and change into fresh clothes. You could also spray disinfectant like Lysol spray on your shoes and leave them outside your door or in a separate plastic container.

### Am I eligible for FMLA benefits to help my child during the COVID-19 outbreak?

If you are concerned about protecting your child from COVID-19, you might be wondering about the FMLA (Family Medical Leave Act). The FMLA provides certain employees with protection to take unpaid leave for specific family and medical reasons. It is often useful for families when a family member requires care at home. More recent laws specific to the COVID-19 pandemic—specifically the Families First Coronavirus Protection Act (FFCPA)—have expanded FMLA and paid sick leave options for many people and may apply to your particular situation. However, in general, these laws do not allow employees to take leave from work due to concern about acquiring COVID-19 at the workplace. If you wish to explore your options for taking leave from work under these laws, please consult with your healthcare team.

#### What type of mask should we wear if we want to wear a mask?

The CDC recommends that all people wear face masks when in public. Before putting on a mask, always clean your hands with hand sanitizer with 60% or more alcohol or wash your hands with soap and water. Try not to touch the mask while using it. Replace the mask with a new one if it becomes damp. Don't reuse single-use masks. If you sew or create your own mask, always wash it after you wear it.

The CDC currently recommends that NIOSH-approved N95 respirator masks be reserved for healthcare professionals working on the front-lines of the coronavirus pandemic. There is a shortage of N95 respirators in the U.S., and it's important that hospital workers can get access to these more protective masks, which filter out 95% of very small bacteria and virus particles.

Remember unlike N95s, face masks are loose-fitting and provide only barrier protection against bacteria and virus droplets. Facemasks don't require fit testing or seal checking. Most facemasks can filter out large respiratory particles, but don't effectively filter small particles from the air and do not prevent leakage around the edge of the mask. The CDC recommends wearing face masks in public settings to help slow the spread of COVID-19.

#### How can I help my children cope mentally?

ACTION and PHTS have created a printable handout for children. It shows them how to be "health heroes" during the coronavirus pandemic. Be sure to download the handout and go over it with your children.

Share truthful information with your child based on their age and try to avoid overwhelming them. UNICEF suggests: "Children have a right to truthful information about what's going on in the world, but adults also have a responsibility to keep them safe from distress. Use age-appropriate language, watch their reactions, and be sensitive to their level of anxiety. If you can't answer their questions, don't quess. Use it as an opportunity to explore the answers together. Websites of international organizations like **UNICEF** and the World Health Organization are great sources of information. Explain that some information online isn't accurate, and that it's best to trust the experts."

Adjust the information you share based on the age of your child:

#### Early elementary

- Basic information about what germs are and how to stay healthy
- Helpful things to remember about health and lots of simple examples.

#### Upper elementary/early middle school

- Real facts of the sickness to help them separate truth from other false information they may see on the internet
- Talk about what their schools and other groups are doing to help
- · More detailed information on what they can do

#### Upper middle/High school

- Can discuss it more in depth
- Share more resources for them to review; which sites can be trust/helpful (help them feel like they have some control).
- Understand the real importance of healthy habits and social distancing

#### How can I help my children cope emotionally?

Remind your children that it is okay to feel sad, worried, angry, or even happy with all the changes happening. All of us need to practice patience and understanding during these changes. Here are some great ways you can support your child during this time:

- Validate or give "names" to feelings, but do not dwell on things too much.
- Engage in healthy routines. Develop daily schedules together.
- Help your child to find positive, distracting activities when negative feelings take over. Limit news/media exposure. Together as a family, think of something good that happened each day.
- Encourage relaxation strategies, like deep breathing, mindfulness exercises, and yoga.
- · Challenge those negative thoughts! Ask: Is this thought true? Is it helpful? Is there a more helpful thought I can focus on?
- Model healthy coping and take time to address your own feelings.

#### How can I cope?

Before talking with your child, talk with a friend, family member, coworker, or healthcare provider over the phone about your own anxieties so that you avoid increasing fear in your child by sharing all of your worries with them. Try to maintain routines, even if you're at home. If you have any concerns, reach out to your primary care or mental health provider.

#### Can COVID-19 be transmitted from a mother to her baby?

The American Academy of Pediatrics (AAP) recently published initial <u>quidance on the management of</u> infants born to mothers with COVID-19. The AAP notes that there is limited data for pregnant women and newborns with COVID-19, but that a few small cases suggest that COVID-19 can be, although infrequently, transmitted from the pregnant mother to the newborn before or after birth. Children of all ages are susceptible to COVID-19, and infants under 1 years old are at risk for severe disease, though this is still a relatively rare outcome.

### In Case of an Outbreak

## If someone in our home contracts COVID-19, is there any hope of preventing the spread? How do we do that?

We understand that having someone in the home diagnosed with COVID-19 will be stressful. Start by reading the CDC's recommendations for cleaning your home if someone gets COVID-19. There are several ways to help prevent spread to other family members within the household.

#### The infected household member must:

- Stay home except to get medical care. Do not use public transportation. Do not go to work or school.
- Distance yourself, or self-quarantine, as much as possible. Sleep in a separate room and try to stay in that room and eat your meals there.
- Designate a bathroom for the infected person, if possible. Do not let any other family members use that bathroom.
- Keep your child in a separate room and bathroom from the sick family member.
- Avoid sharing personal household items (cups, forks, towels, blankets etc.) with other people in the home.
- Clean and disinfect objects and surfaces that you touch during the day. Use household cleaner or wipes. Then use disinfectant spray. Be sure to follow instructions on the disinfectant and make sure you allow the spray to sit on counters and objects as long as the package recommends to ensure you are fully disinfecting.
- If you do have a mask available the infected family member should wear a mask if they need to interact with others in the household. Masks can help contain droplets from the infected individual.

#### Everyone in the home can:

- Frequently wash your hands throughout the day and before you eat.
- Wash for 20 seconds with soap and water.
- If hands are not visibly dirty, you can use hand sanitizer.
- Avoid touching your face.
- Clean and disinfect objects and surfaces that are frequently touched during the day using household cleaners or wipes.

# If my husband got exposed on Monday to one of his workmates who showed signs of COVID-19 but did not yet test positive, should he proactively isolate himself in another room at home?

The plan should depend on the exposure. How long was he around the person? How close was he to the infected person? There are many ways to approach this situation. The most conservative approach, if possible, would be to have the person who was exposed self-isolate while awaiting the test results. This is not always possible. There may be no tests available in your city or you may not be able to isolate yourself from your family. Each family is going to handle it differently. If you need guidance your local healthcare team may be able to help assess the risk.



Will there be potential supply issues for patients who are on peritoneal dialysis? At this time, we haven't heard about supply issues for patients on peritoneal dialysis.

# Symptoms and Testing

#### When should we call PCP and when should we call transplant team?

If you or your child experiences a cough, sore throat, runny nose, shortness of breath, or fever above 99.6° F, call your primary care provider (PCP) and your transplant team before going into the Emergency Department (ED).

Primary care providers can play different roles in a transplant patient's healthcare after surgery. Their role varies by institution, the location of your child from the transplant center, and even the PCP's familiarity with transplant-related issues. If you have any doubt about who to call, we always encourage you to talk to your transplant team for guidance. We know this is a time of great uncertainty. We are always here for you.

#### Should we still call the transplant team just like we would before coronavirus?

You should still call your transplant team for symptoms like fever, elevated blood pressure, and vomiting just like you would before coronavirus. These guidelines will differ between institutions. We suggest you touch base with your transplant team about their specific guidelines and recommendations.

# For those who live 1 to 3 hours away from our transplant center, should we triage at a local hospital or PCP or head straight for the transplant center if our child experiences symptoms of COVID-19 or if they have troubling signs for transplant?

Always call before heading into an Emergency Department (ED), primary care office, or urgent care center. Recipients with a positive COVID-19 test should contact their transplant center to discuss where to go for evaluation, management or even whether to stay home. Based on early adult data, not all transplant recipients will require hospitalization. It's important to know that if your child is very sick, getting to the nearest medical center may be more important than traveling to your transplant center.

#### What is the probability of a false positive or false negative result with a coronavirus test?

10% of the results from current COVID-19 tests are false negatives, meaning that the test comes back negative but the patient does, in fact, have COVID-19. False positives are very rare. False positive and false negative results can occur due to many factors. To decrease the risk of a false negative test, it is important that the sample is collected and stored optimally. A nasopharyngeal swab is generally uncomfortable and is more than just a simple swab of the front of the nose. Ask questions to ensure that an appropriate sample is collected. Most people without disease will have a negative test. Testing is continuously being improved

to reduce both the number of false positives and false negatives. We don't know if/how this is altered in transplant patients, but it should be similar based on our use of other routine tests to evaluate for viruses in transplant patients.

# Are symptoms different in immune-suppressed people? For example, some immunesuppressed people don't tend to generate a fever?

We don't have enough information yet to know the answer to this question.

# **Higher Risk**

# When the media says that people who are immunocompromised are at a higher risk, does that definitely include liver transplant children by virtue of being on immunosuppressants or no since doctors can technically control amount of immunosuppression?

The blanket term "immunocompromised" does include those with liver transplants. However, this statement is based on observations in *adult patients*. To date, there simply is not enough data to know whether immunocompromised children are at similarly increased risk. Because we do not know, out of caution, we recommend strict adherence to self-isolation.

#### Should we change our child's immunosuppressant dosage?

While it is still early, COVID-19 does not appear to behave intuitively. The interaction between COVID-19 and immunosuppressants is still unknown at this point. Do not change your immunosuppressant medication without your transplant doctor's instruction. Decreasing your child's medication could lead to rejection, which itself could lead to hospitalization and potential exposure to COVID-19. You can be assured that if your child with a transplant develops COVID-19, your transplant doctors will consider whether to decrease the dose of immunosuppressive medications on a case-by-case basis.

# Does having multiple comorbidities (i.e. post-transplant, hypertension, ESRD) put them at exponentially higher risk?

Older adult patients with existing comorbidities are at the highest risk of becoming very sick from COVID-19. There is not enough data to know whether *children* with comorbidities are at increased risk. Out of caution, we recommend that you strictly adhere to self-isolation until more is understood.

#### Are there cases of other types of immune-suppressed kids being affected yet?

There have been very limited numbers of immunosuppressed children being infected with COVID-19.

### My daughter had a liver transplant and has asthma. We are concerned how she would handle this virus.

It is very natural to be anxious about this global pandemic. However, many people, including some transplant recipients, have handled this infection similar to people without transplants. At this point, it is not clear if *children* with transplants will have more trouble than other children without immunosuppression or without asthma.

To help keep your child from getting infected, we recommend avoiding crowds, avoiding people who are sick, staying healthy at home as much as possible, and washing your hands frequently. We strongly recommend social distancing and avoiding touching things that other people have touched.

In a pre-published study on a dialysis center in China, most infected patients had a mild case and they surmised that the immune suppression in Chronic Kidney Disease (CKD) might actually have helped these patients. Do we have any information to support or refute this?

The study on hemodialysis patients with COVID-19 notes some indications that immunosuppressed patients are not at higher risk than the general population. We have not seen additional reports about dialysis patients, but this report from China would fit with the other emerging data on immunosuppressed patients.

# Treatment and Vaccination

### If our transplant kids test positive, is there a different treatment for them compared to other kids?

Currently, we would not treat transplant children with mild COVID-19 differently from how we would treat other children. Most children with COVID-19 have mild symptoms that can be treated at home. If hospitalization is required, the current approach is to provide supportive treatments such as fluids to reduce dehydration, medication to reduce fever, and supplemental oxygen in more severe cases. Many centers are considering treatment based on ongoing studies and/or off-label or compassionate use.

# Are there any proposed COVID-19 treatment medications (such as Remdesivir) that are viable for transplant patients? Would any of the above interfere with Prograf or Cellcept? And are there other risks in taking those meds for transplant patients?

Currently, we would not treat transplant children with COVID-19 differently from how we would treat other children.

Some medications that may be used to treat COVID-19 can interact with immunosuppressive medications. Many of these can be anticipated, and modifications can be made if needed. You can ask your healthcare team how they are working together to ensure that drug-drug interactions and other potential side effects are minimized

#### I have heard that COVID-19 could cause complications if you are on ACE Inhibitors?

There has been much speculation on whether ACE inhibitors (ACE-I), angiotensin receptor blockers (ARBs) or ibuprofen might have an effect on COVID-19 infections. At this time, there is no basis for a recommendation on this issue because some experts have speculated a protective effect from ACE inhibitors, while others think the opposite. We therefore recommend continuing your current treatment for now and discussing this issue with your provider at regular intervals as additional information becomes available. If you become ill with COVID-19 symptoms, your provider will assess this decision on a case-bycase basis since ACE-I/ARBs are often held in the setting of dehydration/acute kidney injury.

#### I have heard that COVID-19 could cause complications if you are getting Ibuprofen?

Several physicians in the news have recommended avoiding ibuprofen (and other NSAIDS like naproxen) based upon the observation that some patients who were taking ibuprofen experienced severe forms of COVID-19 pneumonia. However, this is not supported by any reliable information and the observations may or may not indicate a real risk.

At the same time, since acetaminophen (Tylenol) is felt to be safe for COVID-19 infections, it is recommended that people use acetaminophen to relieve symptoms if they are able to do so, and only use ibuprofen if they do not obtain relief from acetaminophen. Children with transplants or VADs do not take NSAIDS anyway due to the effects on the kidneys and the coagulation system.

# Is it possible that a vaccine will be available sooner than Feb 2021? Will it be a "dead" vaccine that our transplant children can receive?

There is currently no vaccine for COVID-19. It is too early to tell which vaccine-candidates will make it through the clinical trials process and be effective. However, vaccines currently in development are "dead" vaccines. Public health officials have indicated that a vaccine will not be publicly available until 12-18 months from now.





# Are treatment recommendations for transplant patients any different from the general population?

For pediatric kidney transplant patients with any kind of illness, the risk of dehydration is higher, so drinking lots of fluids would be more important than for the general population. A kidney transplant patient might need to have labs checked sooner than an otherwise healthy child to make sure levels are OK. Otherwise there would probably not be significant differences in the treatment and care for COVID-19 in liver transplant patients.

For children with liver transplants who get COVID-19, it will be important to pay careful attention to fluid balance by checking their weights regularly and monitoring their urine output. While adequate hydration is helpful, COVID-19 may well come with a significant amount of acute kidney injury (AKI) and associated fluid overload. Laboratory tests for children with liver transplants and COVID-19 may therefore look acutely worse than their baseline, and overhydration that results from fluid retention in AKI could make respiratory compromise from COVID-19 worse. For children with kidney transplants, it's important to work in close collaboration with your transplant team to manage suspected or actual COVID-19.

# Changes in Healthcare

#### What is telehealth?

Just like FaceTime calls or phone calls to your family and friends, now you get to virtually meet with your doctor online too. Talking with your doctor and healthcare team on the phone or computer is called telehealth." It's a great way for us to stay connected and have our usual appointments and conversations: without risking the spread of the coronavirus. There are times where telehealth will not be satisfactory and you will need a physical exam. In addition, your child will need to get scheduled lab work to monitor how they are doing.

### How possible is at-home testing (like the ones offered at Seattle Children's) for our centers to check basic lab work?

While the at-home blood spot testing offered by Seattle Children's can be useful in certain situations, it can only check creatinine and tacrolimus levels at this time. This means that while this type of testing is possible, it's also quite limited and may only be appropriate when other labs are not needed. These tests may or may not be available at your local lab. If these tests are available at your lab, your medical team will determine which situations may be appropriate to us this test instead of the regular laboratory testing that you are used to.

#### How might things be different in the hospital at this time?

If you need to visit the hospital during the coronavirus outbreak, there are some differences you should expect.

- When you enter the hospital, you might be screened for illness.
- The Emergency Department (ED) may be more crowded. Always call your healthcare team before going into your ED.
- You may notice different masks and gowns worn by healthcare team members.
- You might be in a different area or unit of the hospital than you are normally.
- Food offerings may be different.
- There may be different visitor policies.

#### If transplant patients require a hospital visit, do we do anything different?

This depends on the reason for your visit:

- If your child is ill, call your Transplant Team first before going to the Emergency Department.
- If your child has a routine visit, check with coordinators first to determine if it can be delayed or if telehealth or getting labs locally will be enough.

# Are transplants deemed essential surgeries and will they still be done during this pandemic despite the change in the hospital systems?

As of March 24, 2020, CMS has deemed transplant surgeries as essential care. According to this guidance, transplant surgeries should be considered high priority and should not be postponed during the COVID 19 pandemic. The situation is being continually assessed both at the program level and also at the national level. Each case will be reviewed closely with consideration of urgency and the risk to the patient.

### Are we exposing our child when we go to get labs? How can we protect them?

Here's what you can do to protect yourself and your child while at the lab:

- Wear face masks if available.
- Stay at least 6 feet away from other individuals waiting.
- Wipe the armrests of chairs you or your child are using.
- Avoid touching doorknobs or other objects if possible.
- Wash your hands frequently.

## Is the hospital isolating specific rooms for transplant patients or other immune suppressed patients?

This will vary hospital to hospital depending on the amount of virus circulating in the community and the number of patients in the hospital.

# How is the pediatric heart failure and transplant community coming together during this pandemic?

Our medical societies are actively working together to come up with answers to all of your questions. We are using weekly calls and message boards to share our learnings. We are also collectively accumulating data to learn in real time, since the coronavirus pandemic changes rapidly day-to-day. We have contacts in the states and in the countries that have been the epicenters of the pandemic. We are learning from many of the providers and families that have been through the worst of this weeks to months before us. The societies working together to bring these Questions & Answers together are ACTION, PHTS, and the Starzl Network.

#### What data is available on COVID-19 in children?

- NPC-OIC Research Explained Special Report
- CDC MMWR Report released April 6, 2020

# Have a question?

Is there something you are concerned about that hasn't been answered? Send your questions to:

✓ info@actionlearningnetwork.org

# Special thanks to the following for providing answers:

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