



# FOCAS Trial Information Sheet

## Caregiver Version

Please read below for detailed information about the FOCAS Trial.

### 1. What is the study's title?

Focal Cerebral Arteriopathy Steroid (FOCAS) Trial

### 2. What is a stroke? What is focal cerebral arteriopathy or FCA?

Blood vessels called arteries bring oxygen and nutrients to the brain. If an artery to the brain is narrowed or blocked, then part of the brain does not receive the blood it needs. This can cause permanent brain injury, called a stroke, or temporary brain injury, called a transient ischemic attack (TIA). Although strokes are much more common in adults, they can also happen in children, even previously healthy children. Strokes in children can be caused by diseases, by injury of the arteries to the brain, or by blood clots in the heart that travel to the brain and block an artery. Either way, part of the brain does not receive enough blood, which can cause a stroke.

In otherwise healthy children, the most common cause of a stroke is a rare condition called "focal cerebral arteriopathy," or FCA. In FCA, the wall of an artery in the brain becomes inflamed. As the inflammation gets worse over days, the artery becomes more and more narrow, making it harder for the blood to get to the brain.

### 3. Why is the FOCAS study being done?

The purpose of the FOCAS trial is to compare two steroid treatment options to determine the best time to treat children who may have FCA. Pediatric stroke doctors commonly treat FCA with steroids to try to stop the progression of the disease and protect a child's brain from more injury. But they do not know the best time to start the steroid treatment because there have been no clinical trial studies of FCA treatment.

### 4. Why am I being asked to participate in this study?

We are looking for volunteers to take part in the study. You and your child are being invited to participate because doctors believe your child might have FCA. By joining the study, you and your child will help doctors learn the best time to start steroids for children in the same situation in the future.

### 5. Why enroll in this study?

By participating in the FOCAS study, you will help doctors learn how to best to treat future patients like your child. The data from FOCAS can also potentially be used to optimize your child's clinical care. Your child may benefit from extra pictures of the brain, called MRI scans, paid for by the research study. These scans could give your doctors additional information about your child's brain and blood vessels.

In addition, the study will test for some viruses that may play a role in causing FCA. This may help you and your doctors understand why this happened to your child. Right now, doctors do not know why some healthy children develop this rare disease and participating in FOCAS can help doctors understand why.



## 6. How many participants will be in this study? Who is leading the study?

About 80 children and adolescents who may have FCA will participate in this study. They will be recruited from about 25 children's hospitals in the U.S. and Canada. The study is being led by a pediatric stroke neurologist at the University of California, San Francisco, and StrokeNet, the stroke clinical trials network funded by the National Institutes of Health.

## 7. What happens if I agree to participate in this study?

If you agree to participate in this study, the following will happen:

- While in the hospital and after their stay, your child will complete extra things outside of their regular care
  - The study will last up to 12 months and include only one required return visit to the hospital; that required visit is for imaging and a check-up in 1 month after your child's stroke
- Your child will be randomly assigned to either treatment option A or B by a computer
  - **Option A:** the "just in case" approach: Start steroids right away just in case your child has FCA. This might help prevent any worsening.
  - **Option B:** the "wait and see" approach: Doctors will follow your child's exam closely and repeat pictures of the brain and arteries in about 5 days. If your child's arteries get more narrow, the doctors will know your child has FCA and start the steroids.
- An MRI / MRA machine will take pictures of your child's brain and blood vessels
  - An MRI / MRA scan will be done within 5 days of stroke diagnosis to determine disease progression
  - An MRI / MRA scan will be done at the 1-month follow-up to determine which treatment option is best
  - If no MRI scan is ordered by your doctors for clinical reasons, then your child will have an extra research scan done at the 5 day and 1-month timepoint. Research scans are the same as clinical scans—the only difference is that the study pays for research scans because they are not needed for clinical care
- There will be two required blood collections for all participants. One will be collected at time of enrollment, and one will be collected at the 1-month follow-up visit
- We will ask you questions about your child's medical history
- If your child gets steroid treatment, we will ask you questions about whether it is causing any side effects and whether your child has missed any doses of the study drug, and why.
- Your child will have follow-up visits at the 1-month, 6-month and 12-month time-point
  - The 1-month follow-up visit is required and must be completed in-person because your child will also get an MRI scan at that time
  - The 6- and 12-month follow up visits will be done when you return for clinic visits; they can also be done by phone or video if your child does not have a clinic visit
  - The 12-month visit is optional, but strongly encouraged
- Compensation will be available to help cover the costs of your time and travel for study visits.

## 8. What is the difference between Option A & Option B? Do I get to pick which treatment option my child receives?

Doctors do not know which is better—Option A or Option B—which is why we are doing this study. If your child enrolls into the FOCAS study, a computer will randomly decide which option they get. This is

called “randomization.” Your child will have an equal chance of either Option A or Option B, just like flipping a coin. You and your child’s doctors will not decide which treatment option your child receives.

- **Option A, the “just in case” approach:** Doctors will start the steroid treatment as soon as possible (within 24-hours) after randomization. This means your child would definitely get steroid treatment, whether or not they actually have FCA.
  - **Pros:** If they have FCA, it might be better to start the steroids right away and prevent the disease from getting any worse.
  - **Cons:** But if they have another cause for your stroke, then they will have gotten high doses of steroids without needing them, and steroids can have serious side effects.
  
- **Option B, the “wait and see” approach:** Doctors will only start steroids if the disease worsens, making the doctors sure your child has FCA.
  - **Pros:** Your child will only get steroids if they need it.
  - **Cons:** If doctors wait until the disease gets worse before starting steroids, there is a chance your child could have more injury to the brain.

With either Option, *if your child has FCA, they will get treated with steroids.* The difference is that, with Option A, they will get it sooner, before doctors are sure of the diagnosis. And with Option B, they will get them later, after doctors are sure of the diagnosis.

## 9. Why are you studying the two different treatment options?

Doctors do not want to give steroids to someone who does not need them because they can cause side effects. For that reason, doctors often wait to start steroids until they are *certain* a child has FCA. They can be certain when the disease gets worse, meaning the arteries get narrower, within about 3 to 7 days. But doctors also worry that if they wait for the FCA gets worse, the child might have more injury to the brain.

Doctors simply don’t yet know which option is best, so the FOCAS trial will help doctors better understand which treatment option they should use for future patients like your child.

## 10. What are the side effects of steroids?

There are different types of steroids. The ones used to treat FCA are called “corticosteroids.” In FOCAS, the children who get steroids will first receive high-dose steroids through an IV, meaning directly into the blood stream, for 3 days. After that, they will take steroid pills by mouth for 28 days that they can continue to take at home. Children experience more side effects from steroids when they are receiving the high doses through an IV. The side effects are less when receiving the low dose and go away when the steroids are stopped. Prior reports of corticosteroids for the treatment of FCA have not described any bad side effects and suggests serious side effects are rare.

Some side effects include:

- Change in mood or behavior. Children can become more irritable, short-tempered, moody, or tearful
- Sleep disruption
- Increased appetite
- Increased water retention

- Irritation to the stomach lining, which can cause stomach pain and even stomach bleeding
  - Doctors can use other medications to prevent or treat stomach irritation
- High blood pressure, called hypertension
  - Very high blood pressures can increase the risk of bleeding into the brain in a person with a recent stroke.
  - Doctors can use other medications to control blood pressure, if needed, and this side effect goes away when steroids are stopped.
- Reduce the body's ability to fight off infection
  - Doctors can use antibiotics and other medications to help fight infection, if needed.

Patients may also experience some side effects after they stop the steroids. This is because the body makes steroids on its own and may decrease its natural steroid production while on steroid medication. After the patient stops the medication, their body's natural steroid levels may be lower (called "adrenal insufficiency") until the body ramps up its own steroid production. During that time, someone may experience side effects like fatigue, nausea, and loss of appetite.

## **11. Are there any benefits to participating in this study?**

By participating in the FOCAS study, your child may experience some of the following benefits:

- You and your child will help doctors learn how best to treat future patients like your child
- Information learned from the study may help us better understand when doctors should begin steroid use in children with a stroke
- The data collected from FOCAS can also potentially be used to optimize your child's clinical care
- Your child may benefit from extra pictures of the brain paid for by the research study, that could give your doctors additional information about your child's brain and blood vessels. The study will pay for some of your time and travel expenses to return for the 1-follow-up. This may benefit you if your child needs to return at that time for a doctor's appointment or another test ordered by their doctor
- Your child may also benefit from the advice of the FCA experts who are the doctors leading the study. If requested by your doctors, the FCA experts will review your child's imaging and speak to your doctors confidentially about your child's case

## **12. How much time do I have to decide whether or not to participate in the study?**

To participate in FOCAS, a child must be within 96 hours (4 days) of the onset of their stroke or TIA. It is best to decide as soon as possible so that your doctors will know which treatment option to use. The study team at your hospital will let you know the deadline for enrollment based on your child's particular situation.

## **13. Will I be paid to participate in this study?**

Compensation will be available to help cover the costs of your time and travel for study visits.

## **14. What else should I know about the research study?**

There are a few final things that we would like you to know about the FOCAS study.

- Someone on the study team at your hospital will explain this research study to you and your



child and answer your questions

- Whether or not you decide to participate in this study is up to you and your family
- Participating in this study is optional and will not affect the rest of your child's care
- You can agree to participate and change your mind at any time and withdraw
- Your decision will not be held against you or your child
- You can ask all the questions you want before you decide
- You can talk about your decision to participate with anyone you would like (family members, friends, etc.) before you make your decision
- There is no cost to you or your child for taking part in the study
- All other aspects of your child's care will follow usual care and are the same in either Option A or Option B. Your child will be treated with aspirin, which has mild blood thinning effects and is a usual medication to prevent stroke. Throughout hospitalization, your child will also be monitored closely and given fluids through an IV to keep them well hydrated

### **15. What are alternative procedures if I choose not to participate in the FOCAS study?**

Your child's treatment plan will be up to your doctors, but some options may include:

- Usual care for children and adolescents with stroke or TIA
- Usual care for children and adolescents with suspected FCA, which means your child's doctors will decide whether to start steroid therapy, and when. Since pediatric stroke doctors already use steroids to treat FCA and try to prevent stroke, your child may receive steroids for treatment of FCA even without participating in the FOCAS study.