Glucagon/Arginine Stimulation Test

Due to concerns about your child’s growth, his health care provider has requested that your child have a GROWTH HORMONE STIMULATION TEST. This test involves giving medicine to stimulate the pituitary gland to release growth hormone. The two medicines are called glucagon and arginine.

The following specific instructions and details are to help your child and family prepare for the day of the test.

Preparation for Testing Day:

1. Your child will need to fast (have nothing to eat or drink, except water, after midnight the night before the test). **Tell the scheduler if your child has a condition that does not allow fasting. A nurse will call you with instructions.**

2. If your child is taking medication(s), the nurse may ask that you not give the medicine(s) the night before or the morning of the test. **In that case, tell the scheduler so the nurse to call you to review your child’s medication(s) and how to use them before the test.**

3. Your child may bring items such as DVDs, books, toys, blanket, etc. for entertainment and comfort during the test.

4. Have your child wear comfortable, warm clothing.

5. Arrange for your child to be excused from school and any team sports and exercise on the day of the test.

Testing Day:

1. An IV will be placed in your child's arm or hand. An IV is a small catheter (tiny tube) that is placed in your child's vein. It allows us to take frequent blood samples during the test without hurting your child each time.

2. A baseline blood sample will be drawn from the IV.

3. Glucagon will then be given to your child by injection (shot) into his muscle. **The most common side effects of this medication are:**
   - Nausea and vomiting, for small children
   - Late hypoglycemia (low blood sugar)

4. Blood samples will be drawn from the IV every 15-30 minutes over the next 2 1/2 to 3 hours. About 2 teaspoons of blood will be taken during the test.

5. Arginine will be given either at the beginning or 1 1/2 hours into the test. This medicine will be given through the IV over 30 minutes. **We rarely see side effects of this medication. Special precaution will be used if your child has liver or renal disease.**
6. After the test is finished, your child will be allowed to eat. Juice and crackers will be provided, but you may bring food from home should your child desire.

7. The IV will be taken out after three hours and when your child is awake enough to eat a small snack.

8. There may be some bruising, redness, or pain at the site of the IV. Warm compresses will help relieve any discomfort.

After the Test:

- Your child should not attend school and should be excused from any team sports and exercise for the remainder of the day of the test.

- You may call your endocrine nurse for test results two business days after the test. (Test results will not be available during the weekend or on holidays.)

- Your nurse will share the results with the doctor and will contact you with recommendations.