**REACH* Clinic Information Sheet for Parents**

**Multichannel Intraluminal Esophageal Impedance pH Testing pH Impedance Test**

As part of our follow-up of your child after surgery to repair esophageal atresia, we do some testing to make sure everything is going well and to detect any problems that may need attention.

**One of the tests we perform is called pH impedance.**

This test can tell us a number of things that are important to know as we continue to follow your child’s health. It can help us to know:

- how well the esophagus (the tube that connects the mouth to the stomach) is working after surgical repair.
- if stomach contents are backing up into the esophagus (reflux), and if so, how far.
- whether the reflux contains stomach acid or not – stomach acid can be damaging to the lining of the esophagus.
- whether prescribed medications to reduce stomach acid are working well or if they need to be adjusted.
- Possible causes of pain or other symptoms such as coughing.

Parents and caretakers can be of great help in assuring a successful pH impedance test so that your medical team has the best information possible to diagnose and treat your child.

The following information explains what you need to know about the 24 hour pH impedance test and how you can help. The success of the test depends on the tube remaining in place at all times.

- It is helpful to have two adults at home for the 24 hours of the test to make sure the tube isn’t pulled out and to carry the monitor as the child moves around.
- An older child can carry the small monitor around in a backpack.
- Be sure there is a safe set up for the monitor while the child sleeps and check in on the child during naps and when sleeping at night.

REACH= Researching Esophageal Atresia in Children
How the pH Impedance test is done:

A very thin, flexible tube is gently placed in the nose and passed down the esophagus (the tube that connects the mouth to the stomach) to just above the opening to the stomach. The tube is taped to the child’s cheek to keep it in place during the 24 hour test. The tip of the tube that is near the stomach has a sensor in it that will detect acid juices in the area and send the information to a small computer unit (see pictures below).
One end of the probe is in the lower part of the esophagus and the other end of the probe is connected to a computer unit called a **pH Impedance Monitor** (see picture below). Sensors in the probe send information to the monitor during the 24 hour test period.

**The pH Monitor:**

You will press buttons located at the bottom of the monitor whenever your child eats, sleeps, takes medication, or has symptoms during the time of the test.

You will be given instructions about:
- Pressing the buttons on the monitor
- How to keep a chart of events such as eating, sleeping, medications, and symptoms.

![Image of Digitrapper pH-2 device]

**Care of the Monitor:**
- The unit should be kept in its protective case at all times.
- **Do not** disconnect or turn it off for any reason.
- **Do not** press any buttons unless instructed to do so.
- No showering, bathing, or swimming until the test has been completed and the tube has been removed.

**Activity during the testing period:**
- Your child should continue with activities as usual during the testing period.
- **Babies and toddlers** may keep their regular sleeping, eating, and playing activities.
- They may nap/sleep in their usual position.
- **Older children** may spend their day upright - sitting, standing, or walking.
Eating during the testing period:
   Infants and toddlers – meals and snacks as usual.
   Older children – Keep meals to 3 per day and limit snacks to 2 per day.
   Please help the child to finish a meal/snack within 20 minutes.

No:
   Juices
   Sodas or carbonated drinks
   Drinks with caffeine – coffee, tea, sodas
   Chocolate flavored drinks
   Candy, gum or “sticky” foods like peanut butter
   or marshmallows
   Food with tomato sauce – like pasta or pizza

Medications
   Follow any instructions from your physician about medications.

Instructions about medications:

You will be called by a nurse the day before the test between the hours of 12 noon and 5pm to give you instructions for the day of the test and to answer any questions you may have. Instructions about arrival at the hospital for the procedure and instructions about feeding will be addressed by the nurse during the call.

The probe will be removed the following day at a clinic visit. Your doctor will call you within a week to discuss your child’s test results. Please feel free to call if you have not heard within a week.

Contact information:
Dr. Middlesworth 212-242-8585   Dr. Khlevner 212-305-5900
Outside of normal 9am to 5pm business hours, call 212-305-2418 (PACU/Post-Anesthesia Care Unit). Alternatively, the answering service will reach the physician on call.