Let's Talk About...

Hemolytic Uremic Syndrome (HUS)

Hemolytic (hee-mo-LIT-ik) **Uremic** (yoo-REE-mik) **Syndrome**, or **HUS**, is a rare disorder that affects children, most often under the age of five. HUS outbreaks usually happen during the summer months, in clusters. Infected children have stomach pain, vomiting, and severe, bloody diarrhea. Even after the vomiting and diarrhea stop, they may still be pale, tired, and irritable.

What causes HUS?

Most often, HUS is caused by eating food contaminated with E-coli bacteria. We all have many forms of E-coli in our digestive tract, but some rare forms of the bacteria are much worse than others. One form of E-coli infects the intestines and makes a poison, which gets into the blood.

Blood flows to the kidneys, which filter waste materials and extra fluids from the blood. This product is called urine. Poison clogs small blood vessels in the kidneys. Red blood cells are damaged as they try to squeeze through the clogged blood vessels. The kidneys have to work harder to remove wastes and extra fluid from the body, and may stop working well. The kidneys may not make as much urine.

Urine is stored in the bladder, where it leaves the body during urination. If the kidneys don't work well, fluid stays in the body and can cause high blood pressure. It can also pool in different places, often the hands and feet, and causes a kind of swelling that is called edema (ed-EE-ma).

How is HUS treated?

Your child will be hospitalized until her kidneys work well and her nutrition is good. The average hospital stay is 10 to 14 days, depending on the seriousness of the disease.

Your child's doctors and nurses will watch her carefully to help her get well. Monitors will tell them how her body is working. A tiny tube, called an IV catheter, will be inserted in a vein.

Her nurses will check that she has enough fluids in her system, make sure the kidneys are working, replace blood if needed, manage high blood pressure, help control possible seizures, and give her proper nutrition.

Fluids

Your child will get fluids through an IV catheter. The amount of fluid will be balanced so she will have the right amount of salts and water.

Blood Replacement

Infants and children with HUS lose lots of red blood cells. This condition is called anemia (ah-NEE-mee-a). Your child's red blood cell count will be watched carefully. If it is low, she may be given more red blood cells. This process is called transfusion. Most children only need to receive a few transfusions.

Blood Pressure Management

Half of the children with HUS get high blood pressure. It usually comes and goes. Your child's blood pressure will be checked often. If needed, medicine is used to lower her blood pressure.

Nutrition

When your child is feeling better, a dietitian will help her maintain a healthy diet. Not eating well will lead to poor nutrition. Poor nutrition can lead to more infections and complications.

Total Parenteral Nutrition (TPN)

Liquid nutrients will be given through an IV if your child can't eat enough food for good nutrition.

Nasogastric tube (NG)

If the digestive system is not working well enough, nutrition can be given through a tube placed into the nose and guided to the stomach.

As vomiting and diarrhea lessen, a dietitian will design a diet that is best for your child. A special diet will be important after she leaves the hospital.

Seizure Control

Seizures occur in a very small number of HUS patients. Your child will be given an anti-seizure medicine to protect her if she has a seizure. To keep your child safe, this medicine may be given even if she has not yet had a seizure.

Dialysis

If your child's kidneys do not work, she will need dialysis, which is a general word to describe ways to remove waste from the bloodstream. Your doctor will discuss it further with you if it is needed.

Medicines and follow-ups

After leaving the hospital, your child will be cared for through the Outpatient Renal Clinic. Your child's condition will be carefully followed by the clinic's staff.

At home, your child may need medicines to control seizures and high blood pressure. Lab tests will be done to watch how well her kidneys work and if her fluids are balanced. Her blood will be checked for salt, nutrient, and waste levels.

Call your doctor if your child...

- Looks very pale
- Has a bad headache
- Has nausea or vomiting
- Has blurry vision

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