Greetings to Selected Area Physicians!

We are seeing more and more patients in our clinic with Inflammatory Bowel Disease (IBD). IBD, a condition characterized by autoimmune-related inflammation of the intestines, includes both Crohn’s Disease and Ulcerative Colitis. Our nationally respected pediatric gastroenterologists see hundreds of pediatric IBD patients from Tennessee and the surrounding states, making our center one of the largest IBD clinics in the nation and especially in our geographic location.

Dr. Clarisa Cuevas and myself have seen and managed hundreds of complicated IBD patients over the years, while I have several ongoing research protocols concerning the disease. Dr. Alexandra Eidelwein also treats many children with the disease and recently published an article concerning IBD disease presentation and clinical course in the *Journal of Pediatric Gastroenterology and Nutrition* [2007 May;44(5):555-60]. In addition, Dr. Adam Noel is an award-winning researcher who recently joined our practice and who has a wealth of experience treating children with IBD.

As mentioned in the previous issue, we offer a comprehensive team approach to our patients’ care via the variety of services offered by the professionals in our practice. Aside from our skilled physicians, our practice offers the services of two dieticians, a psychologist, a medication infusion nurse specialist, and an in-patient nurse practitioner. Children with IBD may benefit from seeing a dietician for nutritional support and assistance, while our psychologist is able to offer support, advice, and help with issues related to childhood diseases (e.g. adjustment to illness, depression, anxiety, school attendance). We also now offer Remicade infusions in our clinic, enabling us to provide more convenient and timely infusions as well as less exposure to contagious illnesses compared to a hospital setting. As it is not unusual for an IBD patient to require inpatient care, these patients may also benefit from the services of our nurse practitioner who collaborates with our team of professionals to ensure that our patients receive thorough, comprehensive care during any hospital stay. This level of care has proven to be beneficial for our patients as they often achieve remission in a short time, and avoid dependence on long-term steroid treatment. Yet an additional service that our practice will soon offer is a support group for those with IBD in order to assist children and families with the disease.

**DIAGNOSTICS**

In addition to the above services offered by our staff, our office also has several diagnostic tools for IBD available. We have access to a freestanding, **state of the art endoscopy suite** that is staffed with pediatric anesthesiologists. Furthermore, our physicians are highly skilled in endoscopy, and their success in reaching the terminal ileum (which is typically affected by Crohn’s disease) is 98% compared to a reported 16.1% in a retrospective study of over 2000 colonoscopies (1). Our office not only offers endoscopy, but we were also the third in the nation to offer **capsule endoscopy** to pediatric patients. Capsule endoscopy is a non-invasive method of examining the mucosa of the portion of the intestines that is unreachable via traditional endoscopy. This new technology is making it possible for children with IBD to be diagnosed earlier, thereby often preventing a child’s condition from drastically deteriorating before being diagnosed. In addition, our practice offers **breath testing for carbohydrate malabsorption**, as patients with IBD may experience this and require assistance from their physician and/or a dietician.

I hope that you will consider the services we provide should they be beneficial for your patients. Please enjoy this issue, and feel free to contact us with any questions or referrals.

Have a safe and happy summer!
Inflammatory Bowel Disease in Children and Adolescents
by Gina Hummel, PhD Clinical Psychology

Gastrointestinal disorders in children have a significant impact on a child’s sense of physical and emotional well-being. Inflammatory bowel disease in particular can cause significant stress and worry in a child’s life.

Managing the symptoms of IBD (abdominal pain, fatigue, weight loss, diarrhea, cramping and joint pain) necessarily involves the assistance of a pediatric GI physician, however the effect of these symptoms on the life of a child should also be addressed. A newly diagnosed child or teen with IBD can benefit from working with a behavioral health professional by receiving assistance in the process of adjusting to this new illness. We help children and teens find ways to “pace” themselves. A behavioral health provider can assist with pain management by teaching relaxation techniques and distraction strategies, thus reducing the need for pharmaceutical pain management. Finally, the social issues related to having a chronic illness can be explored and sorted out for a child. Peers will have many questions about, “Where were you?” during lengthy hospital stays or, “Are you OK?” after a longer than usual trip to the bathroom. Many of these issues cause worry and embarrassment for kids, and having a place to talk about them and sort through ways of working out their problems rather than avoiding them enhances the long-term quality of their care.

IBD & Diet
by Sandy R. Altizer, RD, LDN

IBD, particularly Crohn’s disease, is often associated with poor digestion and malabsorption of dietary carbohydrates, protein, fat, water, and a wide variety of vitamins and minerals. Much of what a child eats may never really get absorbed into the body. While dietary habits do not cause the disease, they do play a crucial role in managing it. Nutritional complications of IBD are the same in children as in adults, with the exception of growth failure:

- Anorexia
- Malnutrition
- Weight loss
- Growth failure
- Micronutrient depletion

Vitamin and mineral deficiencies can occur:

- Vitamin B₁₂
- Vitamin K
- Folic acid
- Iron
- Vitamin A
- Calcium
- Vitamin D
- Zinc
- Vitamin E
- Magnesium

There is not one “IBD diet” for everyone; therefore it is helpful to work with a Registered Dietitian to develop an eating plan to 1) manage symptoms during the acute phases of a flare up, 2) determine what types of foods may exacerbate symptoms, and 3) help resume a healthy eating plan that will promote recovery.

REMICADE NOW OFFERED IN OUR CLINIC
By Katy McDonald, RN

Children’s Hospital Pediatric Gastroenterology office is now infusing Remicade in the office! Remicade is an intravenous medication that blocks TNF-alpha, a protein noted for causing an inflammatory response in the body. It has been approved for use in the pediatric crohn’s and ulcerative colitis population, and promotes remission in cases where other conventional treatments such as 5-ASA’s and corticosteroids have failed. Remicade has been given for over 15 years in clinical trials and has been used to treat over 2.5 million patients worldwide. It was approved for pediatric use in 2006.

Providing Remicade infusions in the office is very helpful in meeting the unique needs of our pediatric patients. In-office infusions decrease the amount of exposure to any number of contagious illnesses often found lingering in the hospital setting. School absences are minimized due to the flexibility of the office schedule. A much smoother, time-efficient infusion process can occur in an office setting. In a hospital setting, an infusion can take as long as seven or eight hours depending on the availability of pharmacy, but most office infusions average about 4 hours start to finish.

SIDE EFFECTS
While Remicade has proven to be a very helpful medication improving quality of life and keeping many patients from requiring surgical interventions, it is not without its risks and side effects. Remicade is a medication that affects the immune system and should not be given to patients who have been exposed to Tuberculosis or who suffer from Hepatitis B. In some rare cases, serious infusion reactions including anaphylaxis have occurred. There is an increased risk of developing lymphoma. The most common side effects are mild and manageable and include headache, cough, rash, stomach pain and sore throat.. Feel free to contact Katy McDonald, the Remicade infusion RN, at 546-3998 for any questions.
What to Expect from Patient Hospitalization
By Wendy Taylor, RN, MSN, CPNP

Some of your patients who are referred to our office will require a stay in the hospital for diagnosis, treatment, and management of Crohn’s Disease or Ulcerative Colitis. This can often be a scary time for both the patient and their family. Here are some things that your patients can expect, should their condition require hospitalization. Patients will often undergo various diagnostic tests such as an upper endoscopy or colonoscopy. Other radiological studies that may be helpful in these patients include abdominal and pelvic CT scans, CT with enterography, or capsule endoscopy. Patients may be hospitalized for a period of days to several weeks, depending on the severity of their condition and how quickly they respond to treatment. While our goal is to ensure these patients have as normal a life as possible, sometimes it is necessary to admit these patients. Hospitalizations are limited to the least amount of time as possible. However, patients often respond best to aggressive treatments, which require close monitoring in a hospital setting. Patients may undergo placement of a PICC line and receive Total Parental Nutrition (TPN). A patient is placed on TPN in order to allow the bowel to rest. At least for some period of time while the patient is on TPN they will not be allowed to have any other food or drink by mouth. When the patient’s condition improves, he/she will be advanced from a clear liquid diet to a regular diet. Patients may be placed on TPN for a few days up to as long as several weeks. Again the goal is to return the patient to a regular diet as soon as possible. The patients often receive intravenous steroids and antibiotics while in the hospital. Hospitalizations allow us to have access to other specialists who can assist in the care of our patients with Crohn’s Disease and Ulcerative Colitis. Please encourage patients to visit our website at www.giforkids.com to obtain more information on these diagnoses and information on a stay in the hospital.

Meet our Staff

<table>
<thead>
<tr>
<th>Ashley Rogers, MS, RD, LDN</th>
<th>Wendy Taylor, RN, MSN, CPNP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B.S. Dietetics</strong> – East Tennessee State University, Johnson City, Tennessee, 2005</td>
<td><strong>B.S. Nursing</strong> – Tennessee Wesleyan College, Athens, Tennessee, 2004</td>
</tr>
<tr>
<td><strong>M.S. Clinical Nutrition</strong> – East Tennessee State University, Johnson City, Tennessee, 2008</td>
<td><strong>M.S. in Nursing, Primary Care Specialty</strong> –Vanderbilt University, Nashville, Tennessee, 2006</td>
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**Registered Dietician (RD) – 2007**

**Other**

- Dietetic Internship – East Tennessee State University, Johnson City, TN, 2006-2007
- Graduate Assistant – East Tennessee State University, Johnson City, TN, 2006-2008
- Internship – Washington County Extension Office TNCEP, 2005

**Certifications**

- Certified as a Pediatric Nurse Practitioner in Primary Care through the Pediatric Nursing Certification Board
- Holds TN license as a Registered Nurse and Advanced Practice Nurse

**Professional Affiliations**

- American Nurses Association
- National Association of Pediatric Nurse Practitioners
- Association of Pediatric Gastroenterology and Nutrition Nurses

- Tri Cities District Dietetic Association – since 2005
- American Dietetic Association – since 2003
Obesity Reminder

We would like to provide a brief reminder about obesity— the topic of our previous issue. As children are out of school for summer vacation, it is important to encourage both parents and children to stay active and to eat right during this time. Remember that prevention is the best tool to counteract the growing epidemic of obesity!

Summer may also be a time during which overweight children and families take the initiative to achieve a healthy weight and to adopt a healthy lifestyle. Our dietician and psychologist are available for those patients you would like to refer for assistance with these issues.

Celi-act Support Group

Meetings are usually held in the Meschendorf Conference Room, Koppel Plaza, on the East Tennessee Children's Hospital campus, at 6:00 p.m. on the third Monday of every other month. Some meetings are held at other locations for special events. Please join us!

Upcoming Meetings:

- July 21

Mark Your Calendars:

- September 12 Second Annual Golf Tournament to benefit East Tennessee Children's Hospital and the Celiac Support Group. For more information visit www.etpmi.org.

www.celi-act.com Knoxville area celiac patients helping each other