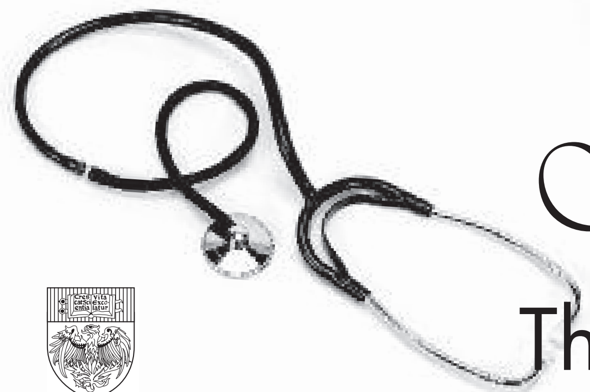

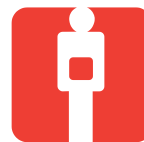

Gastro-Intestinal RESEARCH FOUNDATION

The Inside Tract Newsletter

Spring, 2008 ❖ Vol.3 No.1

LETTER FROM THE MEDICAL EDITOR

Our Health, Our Lives, Our Future

Dear Patients and Friends,

This issue of *The Inside Tract* gets personal. Not that every prior issue hasn't included our personal best in terms of news about your health, advice from patients, and exciting advances in our field. This time, our regular feature "One Patient's Story" is *my* story. There is a well known aphorism attributed to the famous physician, Sir William Osler, "A physician who treats himself has a fool for a patient." In my case, it became relevant after an injury in our home. In an instant I was the patient, and admittedly my judgment was impaired in my own care. You can read my version of the events, and probably more accurately, my wife's version of these events, in this issue.

Part of having a near-death experience is the subsequent reflection on what is meaningful in your day to day existence and whether your life is on track the way you envisioned it. For me, this event also offered a glimpse of the medical center from the inside, the experience some of our patients have often. My experience was overall very good thankfully and I was fortunate for many reasons, not the least of which because I had good health insurance at the time of the event, but in the subsequent follow-up too.

However, I realize that for many patients, their experience with healthcare and with the hospital interface is bad or impossibly complicated. And for far too many Americans, the medical care is curtailed or unavailable due to under-insurance or no insurance, a crisis that has spiraled out of control and threatens to bankrupt our government and the future of healthcare in this country. The truth is really apparent, whether my

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Sicko?

I recently organized and co-chaired our first Department of Medicine 4-day course on Internal Medicine. We had speakers from all of the Sections in the Department for an intensive review of updates for primary care physicians. I listened to 40 presentations from all medical specialties. At the conclusion of the symposium I was struck by a singular, overwhelming, observation. Probably 60% of the most important diseases that can impact a person's lifespan are preventable or modifiable. Furthermore, the lineages of causation are clear for all of the preventable diseases as the known risks and causes for most of these illnesses have intersecting roots.

Let's start with heart disease, the #1 killer of American men and women. The risk factors are well known….obesity, high blood pressure, diabetes and smoking. Obesity is also the most important risk factor for diabetes and high blood pressure. These also contribute to what is known as the "metabolic syndrome," which comprises central obesity (abdominal fat), diabetes, hypertension and heart disease. Obesity is also associated with sleep apnea that raises blood pressure as well as the risk of heart attacks.

Furthermore, many types of cancer are also preventable. It is of interest that while lung cancer is declining in men, it has been found to be increasing in women…as more men quit and more women continue to smoke. Other cancers related to smoking include those of the mouth, throat, esophagus, pancreas and colon...comprising the largest conglomerate of lethal cancers. Other factors related to colon cancer include obesity and high fat diets, which tie back to the earlier mentioned lifespan-altering diseases.

Smoking is almost the solitary cause of

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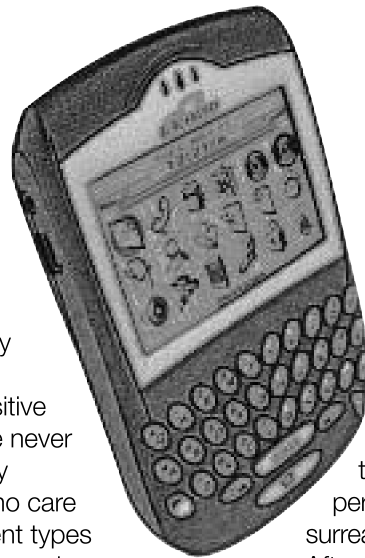
A Doctor as Patient: Lessons Learned

by David T. Rubin, MD



I am frequently asked when performing colonoscopy whether I have ever had one myself. This stems from both the natural curiosity of patients and because people often believe that if a physician has personally been through the procedure he is performing, he is more likely to be sensitive to the experience of his patients. I have never believed this to be true. There are many examples of outstanding physicians who care for patients with heart attacks or different types of cancer who clearly have not had to experience those conditions themselves to be compassionate, sensitive physicians. However, I do admit that since becoming a parent eight years ago, I have developed increased empathy for the parents of children with medical problems.

My recent experience in our emergency department has also heightened my appreciation for the patient's perspective in health care.

While getting ready for work one morning, I slipped in our bathroom and hit my head against our shower door handle. Although I did not lose consciousness, I suffered a laceration (deep, long cut) to my neck that required immediate emergency attention. While I initially argued with my caring wife that I didn't need an ambulance to get to the hospital and that she could drive me, after looking in the mirror at my injury, I changed my mind.

I was aware enough to call my secretary to arrange coverage for my patients that day. Though, in all my planning, I hadn't considered the possibility that the ambulance may not be able to find my house. Apparently, this was a problem. My poor wife had to run out to the street to flag down the ambulance whose sirens were nearby, but unsuccessfully locating our address. After a quick evaluation and a comment from one paramedic: "that looks bad" (not something I wanted to hear!), I climbed into the ambulance and we headed to the University of Chicago Medical Center, along the familiar route that I have walked and driven daily for seventeen years. Only in the back of the ambulance did I recognize how bumpy the streets had become and I thought about my patients' bowels being rattled along the way.

While waiting to be seen in the ER, a lot of thoughts went through my mind like: "how will I look?" "will I need surgery?", "who is going to pick up the children from school?", "did I pay our bills this month?" and "will my Blackberry work in the emergency room?"

I am guessing that many reading this article can relate to those pertinent and yet tangential thoughts that can run through a person's head while awaiting evaluation and the surreal uncertainty of a medical crisis.

After all of the trauma and stress of getting to the hospital, I was so grateful to encounter a compassionate and pleasant nurse (despite forgetting to introduce herself) and relieved when I saw the familiar face of an emergency department physician whom I had known for many years. I was scheduled for a CT scan of the neck and head, and while being wheeled to the radiology suite, I counted the ceiling tiles in the hallway while considering what I might expect as a hospital patient.

In the radiology department, a place I had spent a great deal of time throughout my career, while lying on a gurney, it felt very different to me. A competent and friendly technician explained every step of what I would soon encounter and reassured my wife and me that the exam would not take very long. I was grateful for someone realizing what this must be like for the loved one of a patient.

After having been stranded in radiology awaiting transportation back to the emergency room, the doctor came looking for me as the surgeon was now waiting to assess my neck. A competent, no-nonsense surgical resident administered a local anesthetic to my neck and stitched up the wound while I received a tetanus shot and IV antibiotics. I was discharged home shortly thereafter.

Many people were surprised to learn that I allowed a resident to perform the procedure to repair my neck. I honestly believe in our medical education system, and the way it is designed to work. Our trainees are adequately supervised and appropriately

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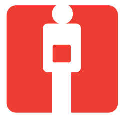
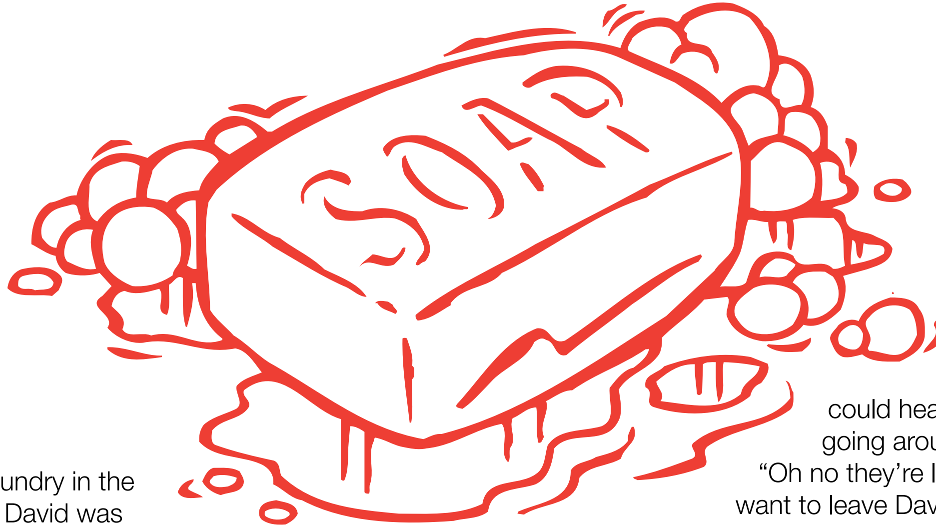


The Other Side of the Shower Door

by Becky Rubin

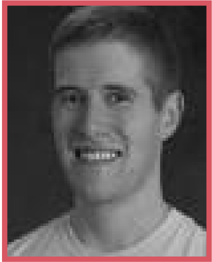


I was folding laundry in the master bedroom; David was getting into the shower. I heard a crash and a scream. My first thought was that our glass shower door had fallen off the track and landed on his foot. I ran into the bathroom and saw David lying naked, flat on his back, holding a towel to his neck. I yelled, "What happened?" David removed the towel. My husband's neck was completely open as if he had been mauled by a tiger. I could see muscles and arteries that should only been viewed in a sterile operating room. Except we were in our bathroom and I am not a physician or a nurse.

I don't handle blood well. Even so much as a bloody nose makes me woozy. I have to cover my eyes during graphic scenes on *Grey's Anatomy*. But what was happening was not TV. It was real life and I had to stay calm. I called 911, telling them that my husband had cut his neck getting in the shower, although at the time I still wasn't clear on how this had happened. I told the operator to listen carefully to the directions to our house because it was difficult to find. David continued to tell me that he didn't need 911 but he hadn't seen what I had seen. There was no way I could drive him. I'm not a great driver under the best circumstances. I would never be able to concentrate while worrying if he was going to pass out from loss of blood or have a seizure. We needed the paramedics and I needed to get David dressed. I helped him put on a pair of sweatpants and grabbed a button down flannel shirt (we couldn't pull a t-shirt over his head). It felt like it was taking the paramedics forever to get to our house. I was praying they weren't lost. Soon, I heard a siren in the distance and thought, "Thank God they're here!" but the siren wasn't getting closer. I could hear the sirens going around the block. "Oh no they're lost!" I didn't want to leave David but I had to get the paramedics. I ran out to the street and flagged them down.

David may have been worrying about his Blackberry, but my momentary ridiculous concern was over the messy state the house was in and how that would look to the paramedics! As they took over, I was so relieved to have professionals taking care of him. The paramedics said they needed to take David to Cook County Hospital, because that was where 911 adult traumas go. I told them that they had to take him to the U of C medical center because that is where he works, that is where we knew everyone, that is where he belonged. I told the skeptical paramedics that they could blame me if they got in trouble.

As I drove to the ER, I was imagining what it would have been like to have David in the car with me as he had wanted. Every pothole I hit, I winced. Every red light I came to my stomach tightened. My heart raced as I realized I didn't know exactly where the ER was. Soon enough, though, I had found it and ran inside. I was feeling grateful that the paramedics had rolled David straight in, bypassing the waiting room and triage. It wasn't until we got to the ER that I learned how injured he really was. The ER doctor and the plastic surgeon told me that he was millimeters away from cutting his carotid artery. If that had happed he would have bled out in about two minutes before the paramedics could even have arrived at our house. I can't let my mind go there. Yet, every time I go into our bathroom or look at David's scar, I am reminded of how life can change in a moment.



One Patient's Story

by Markus Boos

I was diagnosed with Crohn's disease in the winter of 2001, shortly after graduating from college. Like most people, my diagnosis came as a shock: I had never even heard of Crohn's Disease, and didn't know what it was, or what it meant for my life in the future. Compounding my situation was my lack of most physical symptoms—unlike most people with Inflammatory Bowel Disease (IBD), I hadn't had any feelings of weakness or pain, I simply woke up one morning finding blood where there shouldn't have been. As a result, the diagnosis of a "chronic disease" came seemingly out of nowhere and at first, seemed to change everything for my future.

After my diagnosis, I fell into the trap that many patients do when told they have a chronic disease: either out of ignorance or unwillingness, I refused to believe that I would have to deal with it for the rest of my life. As a result, I didn't watch what I ate or try to avoid "trigger" situations that set off a Crohn's flare; I also stopped taking my medication as soon as I started feeling better, which inevitably led me back to feeling ill again. Eventually I faced the facts: I would be on medication for the rest of my life. I would always have to watch what I do and what I eat. My life wouldn't be the same.

But how much different would I let my life become? Would my future be radically different from what I had planned? In fact, there was an upside to my initial ignorance (or obstinacy). I promised myself that I would live as normal a life as possible, and that I would not let my Crohn's dictate my decisions about my life. This attitude has gotten me through rough times when my disease flares, and has allowed me to accumulate many memories that I would not have made, had I let my diagnosis dictate my life's course. Additionally, it has given me perspective: everyone has their own unique challenges, but it is how you approach and react to these obstacles that dictates how your life will progress.

Since accepting and dealing with my Crohn's, I have had the good fortune of leading a fulfilling life. Although I'd love to claim that this is all the result of personal fortitude, much of this is due to the outstanding care that I have received from the good doctors at the University of Chicago Medical Center Section of Gastroenterology, Hepatology and Nutrition. As I have managed to maintain my health, I have gone backpacking alone through Australia, climbed the Inca Trail with my dad, gotten married, and this coming year

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Sicko?

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emphysema and contributes to blood clots in women taking birth control pills or estrogen replacement. Excess alcohol leads to cirrhosis and further contributes to obesity whereas other forms of liver disease are most often related to intravenous drug abuse (hepatitis C) or are sexually transmitted (hepatitis B).

While politicians and Michael Moore debate how to impact our health care system in order to accommodate an aging population and an increase in the number of treatable, chronic diseases, we need to take our personal health into our own hands. By combating childhood obesity, we would have taken a large step towards improved health into adulthood and old age. So what has society done? We've supersized our meals such that a serving of hamburgers or french fries is now ***double*** the portion size from that of the 1960s. Sugar, (high fructose) corn syrup, modified corn starch or "enriched" flour are pervasive calories that we find added to nearly all processed foods.

Drs. Roizen and Oz have emphasized that if we remove these simple ingredients (sugar, fructose, enriched flour) along with "hydrogenated" or saturated fats from the first five ingredients, we will markedly improve the healthiness of our diets. Let's encourage exercise in our children's schools and educate them (and each other) about maintaining healthy lifestyles. Remember my editorial from several issues ago. When considering your diets, try to eat mostly fruits and vegetables, and not too much. Add 30 minutes of exercise to your daily routine. Stop smoking and moderate alcohol consumption. Let's age gracefully and healthfully, together.

One Patient's Story

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will be receiving my Ph.D. in Immunology (perhaps one of the greatest ironies of my life is that shortly after deciding to pursue a career in Immunological research, I was diagnosed with an autoimmune disease myself). Two years from now I will also be receiving my M.D., and I know that my experience in dealing with my Crohn's Disease will only enhance my abilities as an empathic physician.

Perhaps one of the greatest benefits of my diagnosis with Crohn's and receiving care from the U of C GI section, however, is having become involved with the Gastro-intestinal Research Foundation (GIRF). Through GIRF, I have found a way to combine my passions (including the maintenance of good personal health, competition and helping others with GI diseases) by participating in athletic contests to help raise money for research into GI diseases. In 2005, my wife and I ran the Chicago Marathon together, and I recently completed the 2007 Men's Health Chicago Urbanathlon on October 20. These competitions have been extremely rewarding for me, as they have allowed me to help raise money for an organization that is very dear to me, while hopefully also demonstrating to others that living with Crohn's Disease does not have to limit your quality of life or the things you can accomplish. To me, this is perhaps the most important message I can convey: what you do with your diagnosis is up to you, but having Crohn's Disease does not mean you have to give up everything you love, or anything you aspire to be.

Editor's Note: *Being the complex root of both genetic and environmental factors, Crohn's Disease still holds a degree of uncertainty with respect to its pathological development. With a disease as complex as Crohn's, as well as other forms of Inflammatory Bowel Disease (IBD), there is certainly a large amount of research being conducted into the causes and cures of these illnesses. That is the reason why the Gastro-intestinal Research Foundation, GIRF for short, exists. It is an organization made up of patients, their families and friends, and physicians committed to advancing our knowledge and subsequently improving the methods of treatment for gastrointestinal disorders like Crohn's Disease and other forms of IBD, not to mention the myriad disorders in the areas of hepatology, nutrition, and gastroenterology. They contribute to this end by raising funds to support both gastrointestinal research as well as education to raise public awareness of these disorders and overall digestive health.*

U.S. News and World Report Ranks UCMC Favorably among Nation's Top Digestive Diseases Sections

Congratulations to the entire medical team in the section of Gastroenterology, Hepatology & Nutrition for once again helping the University of Chicago Medical Center attain a top position in *US News and World Report*'s best hospitals in the area of digestive disorders. This year, the department of digestive disorders has ascended to the rank of sixth among 5,462 hospitals evaluated in 16 different specialties. The University of Chicago Medical Center as a whole has been ranked at 17 and has been yet again placed on the elite list of "Honor Roll" hospitals, the only Illinois hospital ever to do so. Keep up the good work!

Ready to Get Involved?

If you're reading this newsletter you already know that the Section of Gastroenterology, Hepatology and Nutrition at the University of Chicago Medical Center provides a level of patient care and expertise that is truly unsurpassed. In addition, the studies being conducted by investigators there are the kind of cutting-edge research that is continuously adding to our understanding of GI diseases with the hope that soon, cures for Crohn's Disease, Ulcerative Colitis and other GI afflictions will be found.

The Gastro-Intestinal Research Foundation (GIRF) is committed to supporting the work of the GI Section at the UCMC. In fact, the Gastroenterology section there is the ***only*** entity we fund! GIRF provides grants to support investigators and young physicians who seek solutions to all kinds of gastrointestinal illnesses, affecting the esophagus, the stomach, the small intestine, the large intestine, the liver, the gallbladder, and the pancreas. GIRF has provided money for research projects, laboratory equipment, capital campaigns, fellowships, a medical library, and the world's largest IBD (inflammatory bowel disease) registry, and has contributed key funding for vital research at critical times. In fact, our financial support is more critical than ever with the reduction in government grant funding over the past few years.

Here are ways you can be involved to help GIRF in its mission to support the physicians in the Section of GI:

- **Join our Board of Directors.** Or, consider joining the Women's Board or Associates Board. With three Boards organized around the same cause, we know you will find one that matches your interests.

- **Support GIRF by attending one of our exciting fundraising events!** The GIRF Ball is a fundraiser the likes of which you've never seen. Complete with a lavish reception, dinner, entertainment, live auction, dancing, and orchestra music, this event is a perfect way to support the GI Section and have a marvelous evening in the city! The Women's Board Fashion Show and Associates Board fundraiser also offer fabulous opportunities to support GIRF.

- **Contribute to GIRF.** Consider a donation to our annual campaign, the Friends of GIRF. Or, have the GIRF office send a tribute card out the next time you wish to honor or congratulate someone. Simply call the GIRF office @ (312) 332-1350, to make your donation and we will notify the recipient with a letter.

- **Consider including GIRF in your estate plans.** We also accept donations of stock.

- The more people who know about GIRF, the better job we can do to support these great doctors in the Section of Gastroenterology, Hepatology and Nutrition at the University of Chicago Medical Center.

"Ask an APN" – Who am I?

by Anca Bulgariu, APN, CNP

My name is Anca Bulgariu, an Advanced Practice Nurse and Certified Nurse Practitioner, and I am pleased to join the GI/IBD (Inflammatory Bowel Disease) group at the University of Chicago Medical Center.

The path that has ultimately led to my position as nurse practitioner in the section of Gastroenterology at the University of Chicago Medical Center has been a long one, wrought with many twists and turns. My professional career began having earned a masters degree in Hydrotechnical Engineering from the University of Civil and Hydrotechnical Engineering in Bucharest, in my native Romania. After graduation from my hydrotechnical engineering program, I served as a design engineer in the modeling, analysis, and design of electro-mechanical systems, including seismologic engineering for the next four years. Yet, having long desired a new life in the United States, I was eventually able to reach the U.S., and Chicago, in 1992. Adapting to integrate myself into a new life and culture was certainly a challenge, but it was of the utmost importance that I focus my professional life on the pursuit of medicine, which would satisfy both my interest in the pursuit of scientific inquiry as well as the ability to interact with other people. In light of these goals, I chose a career path in nursing, which presented me with rigorous intellectual challenges and would present me with the opportunity to involve myself in both science and the care of other people.

With the opportunity to start over, I chose to pursue medicine and began working as a medical assistant. After working there for a short while, I was encouraged to earn a bachelors degree in nursing—I came to learn that its practice was vastly different between the U.S. and Romania. Then not so long after graduating from nursing school, I began work as a registered nurse at Northwestern Memorial Hospital. Although, a few years later, I enrolled in DePaul University's Adult Nurse Practitioner Program because I desired a change in my area of practice, to expand the realm of medicine that I was capable of practicing. DePaul's Master of Science in Nursing was designed to prepare nurses for practice in an advanced role in assisting patients from mid-adolescence onward in promoting, maintaining, and regaining an optimal level of health. Another attraction I had to the specific curriculum was its strong scientific basis, which prepared the nurses to integrate education, research, and leadership into their clinical role.

In sum, Nurse Practitioners are trained to provide high quality primary, acute and specialty healthcare services similar to those of a physician. A Nurse Practitioner can bring a unique perspective to health services in that he or she has the ability to tie together both the emotional care of patients and the search for the overall cure of the illness. This merger of patient and disease care overshadows each of their many duties. Nurse Practitioners order, perform and

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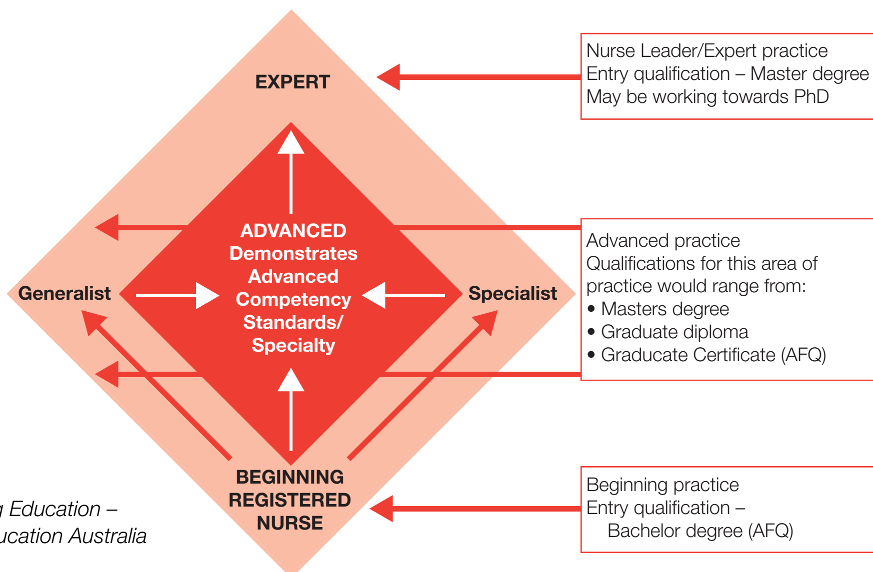

Nat'l review of Nursing Education – 2002 ANP Dept of Education Australia

"Ask an APN"

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interpret diagnostic tests such as lab tests, x-rays, and procedures; obtain medical histories and perform physical examinations; prescribe medications and other treatments; work in collaboration with physicians to effectively diagnose and manage their patient's care; and also participate in medical research and the publishing of related literature.

After successfully completing the rigorous national certification examination and also earning my license to practice in the state of Illinois, I was honored to be offered the position of GI/IBD Nurse Practitioner by Dr. Stephen Hanauer. I find this position offered me an opportunity to work closely with top academic and research physicians at the University of Chicago Medical Center in the section of Gastroenterology, Hepatology and Nutrition. I am working collaboratively with five physicians and other multidisciplinary healthcare members to provide quality management of patient care of maladies such as inflammatory bowel disease, which includes ailments such as Crohn's disease and ulcerative colitis.

As a Nurse Practitioner, I am responsible for direct patient care, consultation, and education. I work independently to obtain medical histories, to perform appropriate physical assessments and examinations, and to collaboratively formulate a plan of care for the patient population that this department serves.

After having served as APN for nearly nine months, I still find my new role intellectually challenging and personally satisfying. I have continued to develop my professional knowledge, skills, and confidence through the expertise and guidance of Drs. Hanauer, Cohen, Hanan, Harrell and Rubin. In turn, I trust that my diverse professional and personal experiences will make a positive contribution to our team. At this point, I am now able to see patients on my own and I feel as though I am having an impact on the lives of these people. Now looking back upon the winding path that has led me here to the University of Chicago, I can truly see how far I've come.

And it is my honor to have become a member of a clinical team with such excellent communication, collaboration, support, and interaction that will surely continue to facilitate the superb delivery of exceptional healthcare that our patients have come to expect from the department of Gastroenterology, Hepatology and Nutrition at the University of Chicago Medical Center.

A Doctor as Patient: Lessons Learned

(...continued from page 2)

credentialed. I would be hypocritical to request special treatment or demand that the attending physician do my procedure when I encourage my patients to share their experiences and care with my fellows and students every day.

Fortunately, my ongoing recovery has been fairly uneventful, but I have indeed reflected on many of my patients who I am sure have shared similar experiences and in many ways have had worse.

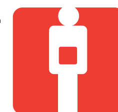
This event in my life emphasized some valuable lessons:

- When your bath mat is in the washing machine, put a towel on the floor.
- If your spouse or loved one thinks they should call 911 for you, don't argue.
- Have an emergency plan in place for your children and to handle unexpected absences from work.
- If possible, make sure the fire department knows where your house is!
- Encourage everyone who comes to see you in a health care setting to introduce themselves.

If you are worried whether your Blackberry will work in the ER when you are a patient in the ER, you are working too hard.

Our health care system is not perfect, but there is no substitute for competent and caring professionals doing their best

This experience has deepened my appreciation and understanding of what my patients experience and also reaffirmed my faith in our health care system here and the wonderful people who constitute its various parts. I am even prouder now than ever to be and work as a part of the system here at the University of Chicago Medical Center.



Friend or Foe:
Bowel Disease Genes

by Clara Abraham, MD

Two genes that play a role in our ability to respond to bacteria have recently been identified to be associated with inflammatory bowel disease (IBD), which includes both Crohn's disease and ulcerative colitis. It has long been a mystery as to how the immune system of the intestine maintains the delicate balance between tolerating resident bacteria (e.g. good bacteria) while simultaneously reacting to harmful bacteria. The bacteria residing within the intestine are crucial for the maintenance of a healthy intestinal immune system. However, in its relationship with resident bacteria, the intestinal immune system must also keep the bacteria from entering the body beyond the intestine through a very controlled response. Excessive reactivity can cause inflammation of and damage to the cells lining the intestine. In IBD this delicate balance is lost. The result is chronic intestinal inflammation. A poor understanding of the causes of IBD has limited the development of therapies. However, identification of genes contributing to IBD is now increasing our insight into the causes, and ultimately, treatment of IBD. Mutations in NOD2 lead to an increased risk of developing Crohn's disease, while mutations in IL-23 receptor lead to protection from IBD.

NOD2 (nucleotide oligomerization domain 2) is a protein expressed in many cells of the body that recognizes a component of the bacterial cell wall. When NOD2 recognizes a bacterium, it instructs cells to produce proteins that help in defenses against bacteria and in controlling their spread. Subsequently, NOD2 mutations result in a loss of the ability of cells to properly produce antibacterial proteins, which dampens a cell's ability to eliminate harmful bacteria. Because NOD2 is expressed in many different cells and many antibacterial proteins might be affected, researchers are trying to understand the specific immune problem present in those people with Crohn's disease and NOD2 mutations. At this point, most studies on NOD2 have been done in mice; however, to better understand the role of NOD2 in human intestinal immune function, it is important that the focus of these NOD2 studies eventually shift to humans. At the University of Chicago, which had a leading role in identifying the first NOD2 gene mutations associated with Crohn's disease, researchers are beginning to compare cells from people with normal NOD2 and those with NOD2 mutations. By conducting further research into NOD2 gene mutations, medical researchers will gain a greater insight into the consequences of NOD2 mutations in humans. This will result in an improved understanding of the importance of this protein in normal intestinal immune responses and why its malfunction triggers the autoimmune activity seen in Crohn's, helping to identify new pathways to target for therapy in those individuals with NOD2 mutations.

While there are gene mutations that can lead to IBD, research from numerous centers including the University of Chicago have also uncovered mutations in another gene, that of the IL-23 receptor, that has been found to protect an individual from developing IBD. The IL-23 receptor serves as a sensor for the protein IL-23 (interleukin 23). People need a very precise balance of IL-23 and IL-23 receptor in order to help clear bacterial infections from their system. However, too much of these proteins have now been found to cause tissue inflammation evident in a number of diseases, including IBD, psoriasis and multiple sclerosis. Further, this highlights the fact that inflammation in the intestine can result from too little or too much of the critical proteins needed to control resident and harmful bacteria (e.g. IL-23). Researchers are now trying to understand what the consequences of the mutations in the IL-23 receptor are and how they lead to protection from IBD. These findings may allow for more appropriate targeting of IL-23 in select individuals, inducing IBD protection, in the future.

The identification of genes associated with IBD provide tremendous opportunities to understand the processes essential for maintaining the delicate balance of the intestinal immune system in the face of ongoing bacterial exposure, and how these processes are disrupted as a result of disease. These genes also present a deeper insight into the physiological progression of IBD. Effective management of IBD will depend on tailoring treatments for individuals based on their own unique genetic pathways that are disrupted. Furthermore, many inflammatory disorders have shared causes. Therefore, discoveries of and about genes associated with IBD may well lead to greater understanding of these same gene associations in other important autoimmune and inflammatory diseases.

Celiac Disease Update

A Guide for Patients

by Elizabeth Wall, MS, RD, CNSD and Carol Semrad, M.D.

Elizabeth Wall, MS, RD, CNSD

Carol Semrad, MD

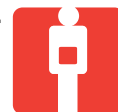
Celiac disease is a common inherited inflammatory disorder that primarily affects the small intestine. When those who are genetically predisposed to this disease consume gluten (a protein found in wheat, rye, and barley grains), their small intestines become inflamed, which can further lead to atrophy of the intestinal lining. This would decrease their intestine's ability to properly absorb nutrients. The severity of a person's disease would depend on both the degree of inflammation and how much of the small intestine (12-20 feet) is affected. Historically people with celiac disease are diagnosed after developing severe diarrhea, weight loss, or failure to grow (seen in children). However, with improved recognition of early gastrointestinal and non-gastrointestinal (anemia, bone disease, neurologic) symptoms and antibody screening of family members, the disease can now be diagnosed much earlier.

About one percent of the Caucasian population in the United States has celiac disease. The disease is most prevalent in people whose families originate in Europe, North Africa, the Middle East, India, and South America. Fewer people of African American, Hispanic, or Asian heritage have celiac disease. First degree relatives (parents, siblings, and children) of people with celiac disease have a higher than normal risk (10-20%) of developing the disease. Others at risk for celiac disease include second degree relatives (aunts, uncles and cousins), those with auto-immune diseases (including type I diabetes mellitus, thyroid disease, primary biliary cirrhosis) and Down's and Turner's syndromes.

At present, only those people at increased risk for celiac disease are screened. A simple blood test for specific antibodies associated with celiac disease (tissue transglutaminase and endomysial antibodies) is used for screening. It is also prudent to obtain a blood Immunoglobulin A (IgA) level, as up to 2% of those with celiac disease have IgA deficiency. Having such a deficiency would make the primary blood antibody study unreliable for that individual. If the antibody test is positive, an upper endoscopy with biopsy of the small intestine is warranted to obtain a secure diagnosis. If the small bowel biopsy shows characteristic inflammatory changes, then a gluten-free diet is recommended. Individuals with gastrointestinal symptoms, anemia, bone disease, neurologic symptoms or Dermatitis Herpetiformis require small intestinal biopsy independent of antibody screening to check for celiac disease. Rarely, individuals with a positive screening antibody test have a normal intestinal biopsy. In such cases a genetic test for the HLA DQ2 or DQ8 gene may help to determine whether there is a high risk for developing intestinal inflammation in the future. The genetic test is also useful in predicting which family members are at risk for developing celiac disease. Family members who lack the DQ2 or DQ8 gene virtually never develop the disease.

The only known treatment for celiac disease, at present, is a strict, life-long, gluten-free diet. Response to a gluten-free diet assures that the diagnosis of celiac disease based on an abnormal intestinal biopsy was correct. To maintain a glutten-free diet, a person must avoid eating all foods that contain wheat, rye, or barley and any derivatives of these grains. Uncontaminated oats are tolerated by most, but not all. The gluten-free diet is balanced and healthy, allowing for plentiful fruits, vegetables, meat, fish, poultry, and a variety of non-gluten containing grains (breads and cereals made from rice, corn, potato, legume, and soy flours to name a few). Although many gluten-free products are available in local grocery stores it is important that patients newly diagnosed with celiac disease meet with a registered dietitian (RD) who has expertise in gluten-free diet therapy. The RD can educate the patient on potential sources of gluten contamination as well as provide strategies for eating a healthy gluten-free diet both in and outside of the home.

In addition to meeting with a knowledgeable RD, newly diagnosed celiac patients should seek support from local and national celiac organizations. The University of Chicago's Celiac Disease Center provides care packages for new patients. The care package includes written information on celiac disease, gluten-free diet and survival strategies for life without gluten; gluten-free cookbooks and grocery product lists as well as medication lists; and information on support groups and specialty stores that sell fresh gluten-free foods. The University of Chicago Celiac Disease Center also publishes a newsletter, sponsors gluten-free social events, provides a yearly free screening for family members, and supports celiac disease related research with the goal of alternative therapies in the future. For more information regarding celiac disease or the gluten-free diet visit the Celiac Disease Center's website, www.celiacdisease.net, or call 773-702-7593.



Welcome New GI Fellows

by Sam Gavzy

Top row: Yvette Leung, Venu Nanda, Jonathan Rosenberg, Orlando Lopez-Roman
Bottom row: Shamita Shah, Joel Pekow, Poonam Mishra
Not pictured: Jennifer Chennat

The section of Gastroenterology, Hepatology and Nutrition would like to extend a warm welcome to its newest fellows. Every year virtually hundreds of residents apply for around 10 fellowship positions amongst the prestigious faculty physicians in the University of Chicago Medical Center GI section. As always, the new editions to our GI fellow team have left indelible marks upon their own medical communities and will no doubt do the same within our own community here at the UCMC.

Joel Pekow oversaw HIV-related education in a clinic, area teen center, nursing home, homeless shelter, prison, and two local schools while serving in Americorps. Pekow then went on to graduate at the top of his medical school class at the University of Illinois, Chicago and continued on to complete his residency at Mass General in Boston.

Jonathan Rosenberg has performed research into the bacteria, *H. pylori*'s relationship to cancer as well as *E. coli*'s relationship with the proteins found in the junctions between the mucosal cells of the human colon. Rosenberg completed both his medical degree and residency at the University of Illinois, Chicago.

Nanda Venu graduated at the top of his class from Kasturba Medical College in India. He went on to complete residencies at Indira Gandhi Hospital, Annamalai University, and Washington University in St. Louis. He has also worked on research in epithelial cell biology, the layer of cells that separate the majority of the colonic tissue from the gastrointestinal cavity through which digested materials travel. Additionally, he has performed research into the pharmaceutical agent, Indolamine dioxygenase, in Inflammatory Bowel Disease.

Jennifer Chennat has done a host of research into GI disorders through a variety physiological modalities including oncology, pancreatic activity, endoscopy/ endoscopic ultrasound, and disease specificity in the female patient. Chennat graduated from Jefferson Medical College, completed her residency at Thomas Jefferson University, and completed a fellowship at Loyola University.

Shamita Shah graduated from Louisiana State University and completed her residency at the Louisiana State Health Sciences Center where she earned the Resident Teaching Excellence Award for her pedagogical achievement. While serving as a GI/Hepatology fellow at Ochsner Medical Center, Shah helped to set up the hospital's IBD center.

Yvette Leung graduated from the University of Calgary in Canada, completing her residency at the University of British Columbia in Family Practice Medicine and later in Internal Medicine. Leung then went on to finish her fellowship at the University of Calgary. Her research focus was in gender issues in IBD.

Mishra Poonam graduated from Netaji Subhash Chandra Bose Medical College in India and completed his residency at the Brooklyn Hospital Center/Weill Medical College as part of Cornell University. Poonam participated in a community Polio vaccination program while still in India and currently has been delving into clinical research into the treatment of Hepatitis C.

Orlando Lopez-Roman graduated from the University of Texas Southwestern Medical College and completed his residency at the hospital there His clinical research interests lie in the field of Hispanic patient care.

Letter From the Medical Editor:

(...continued from page 1)

recent experience has allowed me new insight into it or not, "we *are* all in this together" [emphasis mine] (my apologies for the "High School Musical" reference!). What we do today to deliver care primarily to a preferred payer mix of patients and maintain financial solvency for our Medical Center may help the University of Chicago survive this long dark night, but I believe we *all* have a greater moral and professional obligation to address this situation. Improving our current medical environment can take many shapes and should involve all of us. It can start very locally with patience in our waiting room, courtesy in the elevators and public spaces in the clinic and hospital, and expand to advocacy and involvement in legislative efforts to reform healthcare. Too complicated you say? Overwhelming? A freight train run amok? Start simple. Make sure you engage in preventive health care strategies and encourage those around you to do the same. Getting up to date on cancer prevention, taking your maintenance medications (don't miss doses!) and asking your doctor about other proven healthy habits will improve your health and reduce the likelihood of costly complications of disease and hospitalizations. Once you take care of yourself and those close to you, make sure you VOTE for elected officials who promise and can deliver healthcare reform and who acknowledge this as one of our national priorities.

For my medical colleagues, I believe our obligation as professionals requires delivery of care to underinsured and under-served patient populations. This is also easier said than done, as it's considered as fraudulent to underbill patients as it is to overbill them. So simply writing off care when patients can't pay isn't an option, nor is it fiscally possible. There are many other challenges facing this obligation, including the increased costs of overhead to run medical practices, the problem of shrinking reimbursements, and the huge debt burden of medical education (many medical students choose their specialties based on how they are going to pay back their loans and support their family). Dr. Lydia Dugdale, Dr. Mark Siegler and I recently proposed in a position paper that physicians in training should be offered credit toward their debt burden by serving in areas of greatest need for a period of time after graduation.[1] This incentive could address two major problems in one federally subsidized program-reduction of the individual debt loads students carry (average amount of debt for graduating medical students in 2006 was $130,571[2]) and the vast numbers of underinsured or uninsured Americans (recent estimates are that 14.8% of Americans are uninsured or about 42 million people, this doesn't include UNDER-insured).

However we do it, there is little doubt that it's time to act. Your personal goal for your next healthcare visit is to reflect on your current situation, what you have to be thankful for, and what you'd like to change if you could. Then step outside yourself and ask,"what can I do for the community we all share?" And let's get to work together. My near-death accident may have awoken me to some realities, but let's not wait for other literal, figurative or financial near-death situations to enlist the rest of us in positive change.

My sincerest wishes for your (and our) good health,

David T. Rubin, MD
Medical Editor

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