Dr. On Topaz of the Department of Internal Medicine’s Division of Cardiology and Dr. William Moskowitz of the Department of Pediatrics and Internal Medicine were among the first to use an excimer laser on a five-month-old baby suffering from pulmonary atresia with intact ventricular septum (hypoplastic right heart syndrome). This condition is rare and leads to high pressure in the right heart's chambers and low blood oxygenation.

Drs. Moskowitz and Topaz applied the new procedure after obtaining IRB approval. The smallest laser available (0.9 mm) was passed through a catheter positioned immediately against the underside of the pulmonary valve plate and was used to “burn” an opening in the baby’s imperforate pulmonary valve. Subsequently, the physicians were able to insert progressively larger balloon catheters, which upon inflation enlarged the hole in the valve. This allowed the right ventricular pressure to fall, more blood to go to the lungs, and the blood oxygen level to rise.

“The use of this new technique may improve the situation for infants and children with this as well as other severe heart defects that currently have limited treatment options and outcomes,” said Dr. Moskowitz.

The collaboration between the two experts was a perfect match: Dr. Topaz is an internationally recognized authority on excimer laser surgery and the Director of Interventional Cardiology at McGuire VAMC, and Dr. Moskowitz is a specialist in congenital heart disease and the Director of the Pediatric Cardiac Catheterization Laboratory at MCVH.
New technology has recently brought real advantages in the treatment of gallstones. Earlier this year, Medstone Corporation approached the DOIM’s Division of Gastroenterology with an offer to participate in a nationwide study on their non-invasive shock wave treatment (gallstones lithotripsy) system.

At least 20% of women and 8% of men over 40 years of age have gallstones. The standard treatment is to remove the gallbladder surgically, but it is risky for the patient and involves considerable cost. Shock wave machines have been available for a few years now, but they were much less effective and normally several treatments were needed. The new system refines old technology: shock waves are stronger and better controlled, and that would allow patients to have about an hour-long outpatient gallstone removal procedure. Dr. Ahvin Zialas, the Director of Endoscopy in the Division of Gastroenterology, says: ‘In the future, we will be able to become a center not only for the treatment of gallstones, but also stones in the pancreas and liver.’

“We in the department are committed to innovation that is both safe and effective,” said Richard P. Wenzel, M.D., M.Sc., chair of the Department of Medicine.

The new treatment is currently available only in New York and Houston, and will probably become available at MCVH this fall.

Internal Medicine Faculty to Begin New Treatment for Gallstones

Dr. Ahvin Zialas

New Endoscopic Procedure

Dr. Jay Kuemmerle, Associate Professor in the Gastroenterology Division of the Department of Internal Medicine, recently performed an innovative endoscopic procedure to relieve heartburn caused by acid reflux. The new technique, called endoluminal gastroplication, involves sewing plaits at the junction of the esophagus and stomach to prevent the reflux of gastric acid into the esophagus and causing heartburn.

Gastroesophageal reflux, which commonly is characterized by heartburn and regurgitation, affects about 15 million Americans. Until now the treatment options for reflux included over-the-counter and prescription medications to control stomach acid. In patients requiring continuous medication to control their reflux symptoms, surgery could be performed to wrap the upper portion of the stomach around the esophagus to elongate and strengthen the lower esophageal sphincter.

“Our goal with this new endoscopic approach to controlling reflux is to get patients off of their medication, while offering a less invasive alternative to current surgical procedures,” said Dr. Kuemmerle. Endoluminal gastroplication allows 75-80% of patients undergoing the procedure to either stop or significantly reduce the amount of medicine they take for heartburn.

Endoluminal gastroplication marks the beginning of a new era in the endoscopic management of gastro-intestinal disease and will have the same impact on endoscopic surgery as laparoscopic techniques had on traditional surgery. Currently, VCU Health System is one of only a few academic medical centers in the country and the only hospital in the Commonwealth of Virginia where this new procedure has been performed.

On the Wards

Dear Colleagues:

The privilege of managing the care of inpatients while teaching housestaff and students defines a critical mission at academic medical centers. It is one that many of us eagerly anticipate because of the intense learning environment, the vista of modern illnesses and new therapies, and the challenges facing an urban hospital.

The cornerstone of excellence and quality of care is a superior housestaff. Dedicated young men and women working 80 hours a week make life and death decisions in a compassionate manner. They manage a rapid turnover of patients with complex multi-system diseases. In July 2001, while on the wards, I was a witness to their skills, industry, dedication, and excellence.

The average length of stay for patients in Internal Medicine is 4.75 days. Our patients carry approximately six diagnoses each, and many are prescribed 10 or more unique medications. All have at least one intravenous line, most have Foley bladder catheters, many have wounds that need routine dressings, and others with respiratory illnesses require every four hour nebulizers to ease their breathing. Today’s nurses are working at a frenetic pace to juggle the duties required in managing illnesses in contemporary hospitals. In Internal Medicine, we are fortunate to be working shoulder to shoulder with the modern day Florence Nightingales.

Almost half of our inpatients have substance abuse issues. There is a raging epidemic of Hepatitis C in the community, and a surprising number of patients with HIV infections are not receiving prophylactic medications to prevent opportunistic infections. Cigarette smoking accounts for much of the debilitating, chronic heart and lung diseases affecting our patients. Many patients arrive with huge unmet social and psychological needs, taxing the clinicians, nurses, social workers, pharmacists, and support staff. Most leave the hospital vastly improved despite our average 4.75 days length of stay. During that brief encounter, our patients continually remind us of our society’s values, strengths, shortcomings, and needs.

There are vast arrays of safe new options for managing congestive heart failure, deep venous thrombosis and pulmonary emboli, and community acquired pneumonia. Furthermore, enhanced, non-invasive imaging techniques are a welcome addition for diagnosis. We have in Internal Medicine outstanding clinicians and nurses in our coronary care unit, medical respiratory ICU, and dialysis unit when illnesses become critical. We have a team approach to manage the physical, social, and psychological needs of our patients. This fact serves to emphasize that quality of care is a direct function of recruiting and retaining excellent housestaff, nurses, support staff, and faculty clinicians. To recognize this, one just needs a brief time on the wards.

Richard P. Wenzel, M.D., M.Sc.
William Branch Porter Professor and Chairman

Honors, Awards

Dr. George Vetrecz, chair of the Division of Cardiology, was recently recognized by MCV Foundation for the success of the Heart Center campaign and development of the Cardiology Consortium program. He was the first to receive the W. Robert Iby, M.D., Award for Philanthropic Leadership, which honors the MCV Campus faculty member demonstrating a stellar commitment to the development of private resources in order to strengthen his or her department. The award carries the name of the late Dr. Iby who served the Department of Internal Medicine for 40 years and also was a longtime MCV Foundation board member with a special skill for raising endowment funds.