

## The Channel A COOK NEWS PUBLICATION ISSUE 2, 2011

## A Major Step Forward in Duodenal Stenting Now Available in the U.S.

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Evolution

Innovations in stent delivery and performance can impact the quality of patient care. That fact has long been the driving force behind the stent products Cook Medical develops. The Evolution® Duodenal Stent continues that commitment to pioneering minimally invasive clinical solutions. The stent, which has been well received internationally since 2009, has now received FDA clearance, making it available in the US.

Evolution-the only stent delivery system with controlled release and recapturability-represents a major step forward in duodenal stenting, offering an innovative alternative to traditional deployment systems. With excellent control and maneuverability, Evolution allows clinicians to more precisely deliver a stent designed for enhanced, evenly distributed radial force and better wall apposition-potentially reducing post-placement risks.

Evolution Duodenal stent gives clinicians an important new option for primary and secondary gastroduodenal cancers. In this issue of The Channel, you'll find a clinical case study on page 3 in which the Evolution Duodenal stent enhanced the care of a patient. And, on page 10, you can read how this new stent has become part of an established ERCP practice.

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## Histology in Echoendoscopy Two points of view, one common goal





The 1st Spanish Symposium on "Histology in Echoendoscopy" was held June in Santiago de Compostela, Galicia, Spain. The event, which attracted 12 echoendoscopists and 13 pathologists from the surrounding region, was aimed at exploring the potential of histology from two different points of view: the pathologist and the echoendoscopist.

Echoendoscopist Dr. Julio Iglesias and pathologist Dr. Ihad Abdulkader–both with the University Hospital of Santiago de Compostela–were course directors for the symposium, which highlighted a number of key issues, including: the implications of sample size, the importance of robust collaboration between echoendoscopists and pathologists, the value of sample manipulation and the use of the EchoTip® ProCore™ HD Ultrasound Biopsy Needle.

Symposium attendees reviewed 12 clinical cases in which histology was integral to diagnose and treat patients. "The bigger the sample," says Dr. Iglesias, "the easier it is to get a real core, providing more information about the characteristics of the lesions being studied, including architecture, etc. But sample size is also important because it can allow you to perform many different studies with the sample, including immunohistochemistry, molecular analysis and more."

Reviewing the ProCore needle, Dr. Iglesias adds: "It is an excellent needle, as easy to use as the standard cytology needles. It is a real step forward."

The symposium concluded with an enthusiastic open discussion on the reviewed cases, followed by a delicious traditional Galician meal. "All attendees were very appreciative," says Dr. Iglesias. "They enjoyed the symposium and found the format was very interesting. In fact, we are considering organizing at least two more meetings in the next months."

## Resolving Gastric Outlet Obstruction



**COOK**<sup>\*</sup>

MEDICAL



Dr. Douglas Howell Director, Pancreaticobiliary Center Director, Advanced Interventional Endoscopy Fellowship Maine Medical Center Portland, Maine

Duodenal obstruction complicates the late course of pancreatic head cancer in at least 10 percent of patients. The following case illustrates placement of the new flexible Evolution<sup>®</sup> duodenal stent to resolve gastric outlet obstruction and permit restoration of oral intake.

A 72-year-old patient initially presented in the fall of 2010 with obstructive jaundice. CT imaging revealed a large pancreatic head mass, producing an obvious bile duct stricture and deemed unresectable due to vascular encasement. ERCP was successful in accessing a short, malignant, periampullary stricture and a positive intraprocedural forceps SMASH protocol tissue diagnosis of adenocarcinoma was made. A Zilver® (10 x 40 mm) uncoated SEMS was placed at the close of the ERCP. The patient subsequently underwent palliative chemoradiation therapy with an excellent response.

Ten months later, the patient presented with bloating, vomiting, recurrent jaundice and rapid weight loss. Repeat CT confirmed duodenal obstruction at the level of the periampullary mass. Repeat ERCP revealed high-grade duodenal obstruction with frank invasion of the duodenal lumen. The previous stent was enveloped by the surrounding mass. (Figure 1)

To reestablish biliary drainage, the biliary lumen was "hooked" from above using a DASH 25 and the preloaded Metro .025-inch wire guide was advanced through the previously placed stent. A new very flexible Zilver 635® (10 x 60 mm) was then advanced over the wire guide, positioned precisely with the bottom of the stent flush with the duodenal wall, and deployed. Excellent biliary drainage was noted.

Without requiring duodenal dilation, the wire guide was then advanced well down the duodenum into the jejunum. A new through-the-endoscope Evolution (22 x 120 mm) duodenal stent was positioned using both direct vision and fluoroscopic guidance. (Figure 2) Due to the low position of the stricture, the upper aspect of the stent was left in the duodenum and rapid expansion confirmed complete expansion in the distal bulb again under direct vision. (Figure 3) Spot radiography also documented good positioning. (Figure 4) The patient experienced no complications and no significant pain. Vomiting rapidly resolved, a diet was resumed, and jaundice cleared. He was discharged to home 24 hours after placement.

Two weeks later, significant weight gain was noted and upper GI barium study revealed full expansion, optimal positioning and complete patency. (Figure 5)

This case demonstrates that rapid resolution of combined biliary and duodenal obstruction due to late stage pancreatic cancer following a single outpatient ERCP procedure can be well tolerated. Further experience is anticipated.



## ASGE Ambassador Program Treatment for those who might otherwise do without

"You have worked hard and it shows. You are a leader with a thriving practice or academic career.... You are at a point where you can see the fruits of your labors and you are ready to do more. It's time to give back. Time to share your knowledge. Time to treat those who might not otherwise get treatment. Time to reach beyond your comfort zone. **It's time to become an ASGE Ambassador.**"

### How to become an ASGE Ambassador and future Ambassador opportunitites

ASGE Ambassador physicians must be active or international members of ASGE for a minimum of five years.

The first ASGE Ambassador Program for 2012 is scheduled for February 4-11, 2012 in Taipei, Taiwan. If you would like to apply to be an ASGE Ambassador, visit: http://www.asge.org/ ambassador.aspx That is the inspiring challenge to members of the American Society for Gastrointestinal Endoscopy (ASGE) to participate in a philanthropic initiative designed to export two of the Society's greatest assets–endoscopic medical care and training expertise–to centers around the world in need of such care. The call-to-action also says: "Educating and training physicians in underserved countries provides an opportunity for ASGE and its Ambassadors to have an enduring effect in these areas."

Prof. Ian Gralnek (Chief of Ambulatory Services at Rambam Medical Center, Haifa, Israel, and Chair of the ASGE International Committee) says: "This is an outstanding philanthropic program that has had an overwhelming response from gastroenterologists who offer to train overseas. We have had many applications from our ASGE members. The selections are highly competitive. Members who have attended find the experience very worthwhile.

"Also, we have had many excellent grassroots proposals from institutions abroad who want the endoscopy training program," Prof. Gralnek continues. "The selection has become very competitive. Many of the physicians who are being trained may not have had the means to attend an international conference."

To date, eleven ASGE professionals (all physicians) have participated in the Ambassador Program. Five participated in a pilot program in Cairo, Egypt; six participated in a Vietnam program. More than 60 physicians in those countries have been trained in endoscopic techniques. In addition, those who have been trained can now train others who were unable to participate in the program. A third program has been scheduled for Cuenca, Ecuador this November. In December, a fourth Ambassador Program will be held in the Solomon Islands in conjunction with the Soloman Islands Living Memorial Project.

### Cairo, Egypt February 19-26, 2010

In Cairo, the one-week program covered topics related to upper GI bleeding-one of the most common gastrointestinal afflictions facing developing nations in Africa today. The extensive curriculum incorporated didactic sessions as well as hands-on training as physicians and trainees treated patients.

John M. DeWitt, MD, FASGE (Indiana University Medical Center) participated in the Cairo, program. DeWitt was joined by David H. Robbins, MD (Center for Advanced Endoscopy, Lenox Hill Hospital, New York) and Virendra Singh, MD (Postgraduate Institute of Medical Education and Research, Chandigarh, India). The three endoscopists helped train not only Egyptian gastroenterologists but also GIs and surgeons from Kenya, Sudan and Nigeria.

"I was struck by the passion of the training center director, Dr. Ibrahim Mostafa of the Theodor Bilharz Research Institute, Cairo for teaching physicians," says Dr. DeWitt. "It was contagious and clearly something he enjoyed. Also clearly evident was the gratitude the trainees had for the chance to learn and improve their skills.

"Some physicians coming to train had very little experience prior to the sessions," Dr. DeWitt continues. "The trainees were not the only ones to benefit from the program. For example, I gained further experience with cyanoacrylate injection which was routinely done there for gastric varices."

One trainee, Dr. Aderemi Omololu Oluyemi (Lagos, Nigeria), says, "I want to thank the Ambassadors for making themselves available to us. The program was a huge benefit. In fact, you have re-launched my endoscopy career in an interventional sense."





Dr. DeWitt adds: "Overall, this program was incredibly valuable to serving the ASGE Ambassador mission. To my fellow gastroenterologists, I would say, 'We are blessed in this country with technology and training not available elsewhere. Share that knowledge and experience with others to benefit patients in other parts of the world."

#### Vietnam

#### October 30-November 11, 2010

In Vietnam, the program focused on diagnostic and therapeutic ERCP for the treatment of bile duct stones and pancreatic cancer, both prevalent conditions in Vietnam. A second focus was endoscopic ultrasonography for the management of gastric and esophageal cancers, also common in the region.

In addition, the doctors in Vietnam were successfully trained in percutaneous endoscopic gastrostomy (PEG) placement to manage patients who are unable to eat due to head trauma. This is a common injury seen in Vietnam because of the widespread use of small motorbikes.

Dr. Andrew Q. Giap, MD, FASGE (Lakeview Medical Offices, Anaheim, California), a member of the team training in Vietnam, says, "All procedures–ERCP, EUS and PEG placement–were done in the OR, which was well equipped with C-arm fluoroscopy and well staffed with nursing staff and OR techs.

"In addition to the need for PEG placement training, we realized that there is a need for additional endoscopic training in Vietnam–especially pertaining to advanced endoscopic skills such as ERCP and EUS.

"The ASGE Ambassador Program in Vietnam was a great success. During our visit, we trained over 50 physicians in ERCP and PEG placement along with instruction in EUS. I continue to receive compliments and gratitude from these physicians for our work in Vietnam. Since then, these trainees have also passed on their knowledge and skills to their colleagues in local hospitals and universities."

Ambassadors joining Dr. Giap were Franklin Kasmin, MD, FASGE, and Jerry Siegel, MD, FASGE (both of Beth Israel Medical Center, New York); Raj Shah, MD (University of Colorado, Denver); and Kai Matthes, MD, PhD (Beth Israel Deaconess Medical Center, New York). Physicians trained came from North, Central and South Vietnam, Indonesia and Laos.

"Having good English interpreters who are well-trained in medical terminology is paramount, especially when teaching in a country with physicians who are not proficient in the English language," says Dr Giap.

#### Patient updates continue

During both programs, approximately 70 patients were treated. Many more continue to be treated as a result of the programs. ASGE has been receiving updates on patients who were treated.

Dr. Kasmin sums up his experience: "We have taught Vietnamese GIs how to do PEG placement, and those we have taught will teach others who could not attend."

Grant funding for these programs was provided by Pentax Medical Company, US Endoscopy, Olympus Corporation of the Americas and the AstraZeneca Foundation. Equipment and supplies were provided by Cook Medical, Pentax Medical Company and Olympus Corporation of the Americas.





Ductal anatomy relative to the mass



The bevel of the ProCore is clearly visible during FNA of the patient's mass.



New (Lt) Old (Rt): Cellularity at low power appears more robust with the ProCore.



New (Lt) Old (Rt): NETs are examples of "small blue cell tumors," showing uniform cells which have a round to oval stippled nucleus and scant, pink granular cytoplasm.



## Immunostaining Making a definitive diagnosis

In a recent case (summarized below), Bedford, Texas gastroenterologist Dr. Jay Yepuri, working closely with a pathologist, relied on immunostaining to obtain a definitive diagnosis. Immunostaining requires an adequately sized cytologic sample, and for that, Dr. Yepuri relied on the EchoTip® ProCore™ HD Ultrasound Biopsy Needle.

"Cytology sample size is essential for an unequivocal diagnosis," says Dr. Yepuri. "Pathologists need as much representative material as possible to make a definitive diagnosis, and often utilize sophisticated immunostaining techniques in this endeavor. Immunostaining techniques require a robust cytologic yield."

Dr. Yepuri refers to the ProCore needle as a "true asset in the endosonographer's arsenal. It is becoming my 'go to' needle for solid lesions. Its design allows for maximal yield with minimal trauma, as it minimizes the number of sticks required to obtain diagnostic cytology."



## Diagnosing lowgrade neuroendocrine neoplasm

Jay Yepuri, MD Digestive Health Associates of Texas, PA Bedford, TX

An 86-year-old otherwise healthy patient presented with complaints of mid-epigastric pain in the fall of 2009. A CT scan of the abdomen at that time was revealing for a mass in the head of the pancreas with associated pancreatic ductal dilation, but no significant biliary ductal dilation. EUS/FNA of this lesion in November 2009 was unrevealing for definitive malignancy. Tumor markers at that time were negative as well. As the patient's symptoms improved, additional evaluation was deferred.

In April 2011, the patient presented with recurrent pain and nausea. A CT scan of the abdomen was again revealing for a mass in the head of the pancreas, unchanged from the prior CT. After a thorough discussion regarding management options, the patient elected to proceed with a repeat EUS/FNA. A EUS in May 2011 was revealing for a 2.6-cm heterogeneous, hypoechoic, well-circumscribed mass with scattered calcifications in the head of the pancreas with associated pancreatic ductal dilation. The common bile duct was non-dilated. These findings were unchanged from those noted at the time of the patient's initial EUS in November 2009. FNA of this lesion was performed using a Cook 22-gauge ProCore needle. While preliminary review of the aspirate by Pathology in the procedure suite was revealing for atypia, final cytology in conjunction with immunostains was revealing for a low-grade neuroendocrine neoplasm. Per discussions with Pathology, immunostains were possible only because of the greater volume of material obtained during the patient's second FNA, and immunostains were the key to making a definitive diagnosis.

## COOK The Channel

# What's UP DOC?



Michel Kahaleh, MD, AGAF, FACG, FASGE Chief, Advanced Endoscopy Division of Gastroenterology & Hepatology Department of Medicine Weill Cornell Medical College



Savreet Sarkaria, MD Assistant Professor of Clinical Medicine Weill Cornell Medical College

Weill Cornell Medical College (WCMC) has recently seen an influx of patients with altered anatomy requiring ERCP. Typical patients in this subgroup have a history of gastric bypass surgery for obesity or liver transplantation with roux en Y anastomosis. Techniques used at WCMC by Drs. Sarkaria and Kahaleh include single balloon enteroscopy and cholangiography using long instruments, such as long retrieval balloon, sphincterotome or needle knife. The ability to do combined single balloon enteroscopy with therapeutic ERCP offers patient a new alternative to percutaneous drainage or repeat surgery.

The first patient was a liver transplant patient whose air cholangiogram appeared as seen in Figure 1.

## What type of altered anatomy is depicted?

We required the use of a needle knife to gain access into the biliary tree followed by balloon dilation and stent placement (Figure2).

The second case was also a liver transplant patient (Figure 3).

## What does this image show?

The cholangiogram appeared as seen in Figure 4. This was extracted using a biopsy forceps (Figure 5) and after gaining access and performing balloon dilation, stents were placed.

To confirm your diagnosis, click on newsletter button on endoscopy homepage of www.cookmedical.com <http://www.cookmedical.com>

We are looking for more submissions and welcome your participation. If you want to submit an image with a written case history and clinical explanation, please contact Kevin Chmura at kevin.chmura@ cookmedical.com.

Figure 2



Figure 1







# Yale University Section of Digestive Diseases

#### "An ideal endoscopic environment"

The Smilow Ambulatory Procedure Center of Yale New Haven Hospital at Yale University School of Medicine is a patient-centered tertiary referral center for advanced endoscopy with highly committed physicians and staff.

Priya Jamidar, MD, FACG (Professor of Medicine and Director of Endoscopy, Section of Digestive Diseases, Yale School of Medicine) is quick to describe the center's priority: "We try very hard to be responsive to our patients and to be highly accessible to the physicians who refer to us. We realize we are not in an ivory tower; our objective is to make life better for patients and to make a difference in people's lives with everything we offer and do."

The Yale Interventional Endoscopy team includes: Dr. Jamidar, Harry Aslanian, MD, FASGE, AGAF (Director of Advanced Endoscopic Fellowship and Associate Director of Endoscopy, Associate

Professor of Medicine, Yale University School of Medicine) and Uzma Siddiqui, MD (Director of EUS and Associate Professor of Medicine, Yale University School of Medicine). New additions to the interventional team include Nurse Practitioner Hillary Drumm and Clinical Referral Specialist Natasha Williams, who assist in streamlining patient care.

#### New, state-of-the-art endoscopy facilities

The physician team and staff recently moved to their new headquarters. The Ambulatory Procedure Center, which opened in February 2010, is on the fourth floor of the new Smilow Cancer Hospital. During the first ten months of operation, physicians there performed more than 7,500 procedures.

"It is a beautiful facility," says Cindy Dabbraccio, RN, Manager of the Center. "It is filled with color and artwork. On the seventh floor is a healing garden with a water fountain, trees and benches. It overlooks New Haven. Patient satisfaction, as measured by Press Ganey numbers, is 93.5%. It takes everyone working together to meet and exceed our patient needs."

"We have a wonderful place to practice," agrees Dr. Jamidar. "The environment is nice and bright, and we are blessed with wonderful nurses, techs and secretaries. In addition, the rooms are fully integrated for observation and teaching purposes."

There are two fluoroscopy rooms, both equipped with fixed C-arms. "It is much more convenient for patients and physicians," he says. "In our previous facility, we had to take patients to the radiology department in another area of the hospital. Now it is all done here."

Three of the five procedure rooms also are equipped for general anesthesia. "This is an important upgrade because, in the past, we called the Anesthesia Department and they brought their equipment and supplies to the old facility," says Dr. Jamidar.

"We have an excellent, state-of-the-art facility where patients find the environment comfortable and supportive," says Dr. Aslanian. "The physical environment, excellent nursing care and anesthesia all make this an ideal endoscopic environment to achieve the best results. Even parking is convenient."

Dr. Siddiqui agrees: "I find our new endoscopy suite a significant improvement from both our viewpoint and from the patients' perspective. It represents a major commitment to patient care by Yale-New Haven Hospital. In addition to being equipped for anesthesia, all the equipment is on booms, which allow for flexibility in how the rooms are arranged. We can adjust monitors and patients in any configuration that is needed and achieve the best ergonomic positions for a variety of procedures. This feature provides optimal conditions for the patient and endoscopist."

#### A wide range of expertise

"We enjoy the collaboration with our colleagues in managing complex cases including many gastrointestinal malignancies," says Dr. Aslanian. We have an excellent group of radiologists, surgeons, oncologists and a pathologist, which is an important part of an interventional endoscopy practice. Furthermore, for the past two years, there has also been an expert cytology attending and reviewing our FNA samples bedside during an EUS and are often able to provide an immediate diagnosis of malignancy."

Endoscopic research is an important priority for the Yale Interventional Endoscopy Team, which has performed and are involved in multiple clinical research studies. Dr. Jamidar's current interests include: comparisons of metal and plastic stents for preoperative biliary decompression, confocal endomicroscopy of the bile ducts and treatment of cholangiocarcinoma and Sphincter of Oddi dysfunction. In addition, he has led a double-blind study to determine if intraduodenal indomethacin can decrease the incidence of post-ERCP pancreatitis.

Drs. Aslanian's and Siddiqui's current interests include: confocal endomicroscopy of pancreatic cysts and Barrett's esophagus, endoscopic mucosal resection, and EUS-FNA, and RFA for Barrett's with dysplasia. Furthermore, for EUS-FNA of pancreatic tumors, the team's published data has shown they can obtain a diagnosis in greater than 90% of patients. They favor smaller, 25 gauge needles and benefit from having an attending cytologist at the bedside during EUS-FNA that can often provide an on-site diagnosis, which means the patient can be informed of their diagnosis before leaving the endoscopy suite. Dr. Siddiqui states, "This gives us a unique opportunity to expedite the next steps in a patient's oncologic care."

The physicians perform approximately 1,000 EUS and 600 ERCPs in addition to other advanced endoscopy procedures (RFA, EMR and palliative stenting of GI malignancies).

### Yale Advanced Endoscopy Fellowship

Drs. Jamidar, Aslanian and Siddiqui have trained one advanced fellow per year since 2002 in advanced endoscopy. "It has been



## Yale New Haven Hospital features

#### 966 beds

3,600 university and community physicians have privileges

8,580 employees

Patients in 2010:

Inpatient discharges: 56,620

Outpatient visits: 638,411

ER visits: 137,627

a very rewarding experience to see our fellows' skills and careers develop, perform endoscopic research and develop long lasting friendships," reports Aslanian.

#### Live endoscopic workshops

Twice a year, the center conducts live endoscopic workshops for up to 100 GIs and registered nurses from the Northeast region. Workshops typically feature national and international experts in EUS and ERCP. All sessions are CME-accredited.

"Workshops in our new facilities are light years ahead of our former rooms," says Dr. Jamidar. "In the recent past, we had only one room with wires everywhere. Now we have three state-of-the-art wireless rooms and multiple screens for EUS, fluoroscopy, confocal, cholangioscopy and EUS-FNA cytology views. "We perform up to ten cases in three rooms," he continues. "We are wired so we can send images and sound to a conference room across the street as well as to remote locations worldwide. The technology also allows us to interact with the audience in different clinical scenarios via closed-circuit interactive television monitors, while doing EUS and ERCP procedures. The audience is able to ask questions and hear our responses as we perform the procedures. We held our twelfth session in

## Smilow Hospital features

The Smilow Cancer Hospital is 14 stories tall, has 168 inpatient beds, 12 operating rooms and five procedure rooms. Twelve physician specialties are represented within the center.

## For more information on CME courses at Yale:

CME@Yale.edu (203) 785-4578 FAX: (203) 785-3083

September 2011 and have received excellent feedback." The conference recently received a Best Practice award from the Association of American Medical Colleges.

In addition, the center is striving for future collaborations with other academic medical centers. "In the spring of 2012," says Jamidar, "Dr. John Saltzman of Brigham and Women's Hospital in Boston and I are planning a Harvard-Yale collaborative course to be held in Bermuda. It will focus on controversies, debates and challenges in endoscopy. We have nicknamed it, 'The Course' after 'The (Yale- Harvard football) Game.""

#### On the horizon at Yale

"We want to continue to grow as a resource for gastroenterolgists and oncologists in our area, providing tertiary care in advanced endoscopy," says Dr. Jamidar. "We want to remain on the cutting edge of early diagnoses, and be at the forefront of pancreatic and biliary endoscopy. We foresee better methods of imaging, tissue acquisition and stenting. We also foresee better treatments for reflux and obesity. Ultimately, we hope to earn national and international recognition for our practice and for our training of other physicians who will then make a difference in their communities."

### About the Yale Ambulatory Service Division

The Center is located within the new Smilow Cancer Hospital. It opened in 2010 as an addition to the Yale New Haven Hospital and features:

40 MDs

- 20 RNs
- 3 Patient Care Associates

5 GI Technicians

2 Scope Technicians

2 Secretaries

7 MD fellows (one advanced endoscopy Fellow each year since 2002)

5 Procedure rooms

12 Prep/recovery rooms

Procedures:

1,000 EUS/year

600 ERCP/year Endoscopic mucosal resection

Enteral stents

Balloon dilations

Barrx

Confocal microscopy

Direct choledocoscopy

EUS-guided access procedures

Colonoscopy/EGD

There are also satellite facilities for routine colonoscopies within the Ambulatory Service Division.

#### Service Area Includes:

Connecticut and other areas in the Northeast (including New York, Rhode Island and Massachusetts). Patients come from other states and countries, as well.

#### **Press Ganey score**

93.5% high satisfaction rate.



## Montreal's ERCP and Duodenal-Stenting Innovator

At first glance, the clinical objectives seem to be in conflict: A renowned Canadian liverpancreatic surgeon, with expertise in liver transplants, is pushing the envelope to find nonsurgical, endoscopic solutions to complex medical problems.

Meet Dr. Andre Roy, Director of the Liver Transplantation Program at Hopital Saint-Luc de Centre Hospitalier de l'Universite de Montreal, known as CHUM. He also heads one of the busiest endoscopic retrograde cholangiopancreatography (ERCP) practices in the Quebec Province.

A surgeon who received training in Lyon, France, Dr. Roy began to specialize in liver surgery in London, Ontario, in the early 1990s, where he performed transplants and, simultaneously, ERCP procedures. He began his present surgical practice and endoscopic practice at St. Luc in 1993.

During his first year at St. Luc, in conjunction with a radiologist, he introduced duodenal stenting. "It went smoother than expected," recalls Dr. Roy. "It required only two hours versus a full day. Also, we had good results. The alternative was open surgery, with dangers of complications. But with the duodenal stent, the patient was able to return home the same evening.

"That same year, we did 100 ERCPs," continues Dr. Roy. "Since then, our practice has grown in size and volume, with increasing referrals and challenges. We continually see more complicated cases and we are being introduced to new, more advanced endoscopic devices."

#### Growing potential for biliary and duodenal stenting

"Today, we perform more than 1,000 ERCPs a year, with up to 15 cases a day," continues Dr. Roy. "Our procedure room has a good set up. Two nurses in the room assist me, along with one or two radiology techs, and a transportation aide to move the patients in and out."

Dr. Roy's patients come from all over the Quebec and Maritime Provinces. "Many are transfers from other hospitals," says Dr. Roy, "because ERCP is not available outside large cities in Canada. In some cases, we receive ERCP patients from other large medical centers, when the procedure was unsuccessful. Thus, we see the more complicated cases: pregnant women, patients with drainage from cysts, patients requiring duodenal and enteral stenting.

"I also use stenting for gastric cancer and proximal small bowels. Guided fluoroscopy allows us to reach difficult areas to insert metal stents. We try to push the envelope, when it is do-able and logical."



#### **Research and innovations**

Dr. Roy is involved in several registries and is about to start another one this fall. In a registry for the Cook Evolution<sup>®</sup> duodenal stent, he found that "these are amazing stents. The enlarged cuffs prevent migration and they decrease the risk of perforation. The big handle allows clinicians to control the release. It is very reliable and very steady.

"In addition, we can recapture and reposition the stent. This is very handy. I do my part, the nurse does hers; it is much easier for the nurse to release. Further, the meshing of the stent is tighter and more durable."

In addition to registries, Dr. Roy conducts research on endoscopic and liver surgery, and he has written or contributed to more than 100 journal articles. An example is "Treatment of post liver transplantation bile duct stricture with self-expandable metallic stent." This article describes a study of 21 patients diagnosed with anastomotic biliary stricture who were treated by ERCP. The conclusion: "Treatment of post-transplant biliary stenosis using a stent is a valuable option for delaying or avoiding surgery in up to 70 percent of patients."

In addition, Dr. Roy shares his knowledge through seminars in the Province of Quebec, such as a recent presentation to the Americas Hepato Pancreato Biliary Association (AHBPA).

#### Pushing the envelope

Dr. Roy has already introduced new uses for ERCP. He recalls a 44-year-old patient who had previously undergone surgery for cancer of the stomach. The patient returned eight months after surgery with cancer blocking the small bowel.

Dr. Roy explains: "The surgeon tried a bypass but was unsuccessful. The blockage was far down in the small bowel. We jointly concluded that the patient's only chance was an endoscopic bowel stent. So we worked hard to apply a stent to relieve the obstruction. It was unorthodox but successful. The patient returned home and was able to eat, and enjoyed the time he had. The stent made a big difference in his life."

In the future, Dr. Roy foresees more sophisticated stents for draining pseudocysts and duodenal cysts, and inserting more enteral stents in the proximal small bowel, which he recently performed.

"Overall, I believe we will see even more innovative equipment and that we will able to do more and more procedures that prevent the need for surgery," says Dr. Roy. "I say this because we can already insert stents in places previously inaccessible, such as deep into the liver.

"The keys to pushing the envelope are to perform procedures that are logical and do-able, and that produce good results. There are a large number of very sick patients who need these services," he concludes.



## the nurses' station



Annual Education Day Focuses on Latest Innovations in GI

One hundred and forty GI nurses and technicians recently gathered at Chicago's Westin O'Hare for the 3rd Annual Advocate Health Care "Innovations in GI: Advancing Nursing Practice" Education Day, where key opinion leaders delivered lectures, led discussions and presented cases.

Programs and presenters at this year's Education Day included: "Capnography in Colonoscopy" by Cecelia Pezdek, ADN, BS, MSHA, RN, CGRN, Julie Flamm, ADN, BS, RN, CGRN, and Karyn Pechinski, BSN, RN, CGRN; "Advanced Diagnostic Bronchoscopy: EBUS & Electromagnetic Navigation" by Sara R. Greenhill MD, FCCP; "Stop the Bleeding! Burn, Band, Bite and Other Methods for Endoscopic Hemostasis" by Dean Silas, MD; "Impact of EUS & Innovations in Therapeutic Endoscopy: A Community Perspective" by Kenneth Chi, MD; and "EUS & ERCP: A Partnership in Care" by Theresa Vos MS, RN, CGRN.

Attendees who completed the course received five contact hours of continuing education. For more information on Advocate Health Care's Annual Education Day, contact Steven Werner at Steven.Werner@advocatehealth.com or 773-296-5562.

## Capnography Helping to keep our patients safe

Cecelia Pezdek, MSHA, CGRN Manager, Endoscopy and Ambulatory Center Advocate Good Samaritan Hospital Downers Grove, IL

The impact of healthcare reform and determining what this reform will look like, developing metrics for performance outcomes, and most importantly, providing safe affordable healthcare is a monumental task in these economically challenging times. The recent change in guidelines from the American Society of Anesthesiologists (ASA) regarding monitoring standards for ventilation has resulted in providers scrambling for resources. The "Standards for Basic Anesthetic Monitoring" are as follows:

"3.2.4 During regional anesthesia (with no sedation) or local anesthesia (with no sedation), the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs. During moderate or deep sedation the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs and monitoring for the presence of exhaled carbon dioxide unless precluded or invalidated by the nature of the patient, procedure, or equipment." (ASA Standards, 2010).

This standard of care from the ASA is for anesthesiologists and would suggest that monitoring ventilation by non-anesthesiologists is reasonable (Kodali B, 2011). Many institutional structures have sedating areas as well as their operating rooms under the direction of an anesthesiologist. Therefore, provision of resources for capnography monitoring has taken on top priority for many facilities. Pulse oximetry monitoring for oxygenation levels has long been a standard of care for patients undergoing moderate sedation. The literature cautions providers about interchanging the terms "oxygenation" and "ventilation"; they are not the same. Research has repeatedly shown a delay of apnea detection with pulse oximetry as compared to capnography. The challenge of monitoring ventilation in endoscopy suites is compounded when patients receive supplemental oxygen, lighting is limited for clinical assessment, positioning of the patient is not optimal for air exchange and the use of benzodiazepines reduces lung capacity. Earlier detection results in earlier intervention and improved safety for patients. Capnography is a welcome adjunct to keeping our patients safe.

For more information, visit:

www.asahq.org/publicationsAndServices/sgstoc.htm http://www.capnography.com



## Over 2200 Participants attend Asia Pacific Digestive Week

The Asia Pacific Digestive Week (APDW) held at SUNTEC Singapore International Convention and Exhibition Centre from 1st to 4th October 2011, attracted over 2200 participants over the whole Asia Pacific Region. Supporting the event as a Bronze sponsor, Cook Medical exhibited a wide range of GI products in three work stations, targeting different procedures, namely ERCP, non-ERCP and EUS.

In addition to the important products such as Evolution Controlled-Release Stent, EchoTip® ProCore™ HD Ultrasound Biopsy Needle, Fusion® Dual Platform ERCP, Hercules® 3 Stage Wire Guided Balloon and Zilver 635® Biliary Self-Expanding Stent, two new hemostasis products - Hemospray™ Endoscopic Hemostat and Instinct™ Endoscopic Hemoclip - had been introduced in the Innovation Room. By touring and watching product demonstrations, participants were excited about the products and were looking forward to the launch in their own countries.

To provide a deeper understanding towards the hemostasis devices, Cook Medical conducted an "Advances in Hemostasis" dinner symposium on October 2nd and invited Prof. Joseph Sung who is the Vice-Chancellor and President of the Chinese University of Hong Kong as the guest speaker. With over 60 participants, Prof. Sung presented the Hemospray Endoscopic Hemostat and Instinct Endoscopic Hemoclip with clinical evidence where audiences enthusiastically exchanging ideas and asking questions throughout the event.

The Cook EUS Roundtable Meeting directed by both honorary guests: Dr. Jong H. Moon from Korea and Dr. Takao Itoi from Japan was held on 3rd October. Within this one hour session, latest information related to EUS were shared. Three lectures as well as a special case review of Pro Core by Dr. Sandeep Lakhtakia from India were given. The panel discussion at the end with the topic of EUS guided sampling technique (for better diagnosis) was also successfully involved active participants from all the attendees that concluded the event with a wider horizon of understandings on EUS technology.

## The Channel





(Top Left) Prof. Joseph Sung is pleased to have active response during the questions and answer sessions from the participants

(Top Right) Cook Medical Booth

(Bottom Right) Participants are actively involving in the roundtable discussion



## **Endoscopy and Infection Control**

Raewyn Paviour, NZNO Gastroenterology Nurses Section Treasurer, SIGNEA Director

### Introduction

The method of diagnosis and treatment of digestive diseases known as gastrointestinal endoscopy has existed for about 120 years. As the science and art of endoscopy has evolved worldwide there has been enormous beneficial interventions for patients. There has been rapid advancement of endoscopic technology with innovative instrumentation and new advanced techniques (Sivak, 2000). My own personal experience commenced just some 16 years ago when I entered endoscopy as a Registered Nurse as a parttimer while completing my Masters in Health Science. Very quickly I was drawn to this specialty and focused on the patient journey and the advancing technology in scopes, equipment and techniques and changes in cleaning and decontamination processes. My passion for the "endoscopy" specialty grew into a genuine interest in endoscopy management and infection control.

### **Endoscopy Developments**

Over the two last decades research data has supported significant changes in best practice within endoscopy and specifically with cleaning and decontamination processes. International research studies have identified infections transmitted by endoscopy procedures (Favero, 1996; Seone-Vazquez, Rodriguez-Monguio, Visaria, Carlson, 2007; Morris, Duckworth, Ridgway, 2006). Key medical and nursing leaders have driven significant changes and improvements to prevent these transmissions.

The specialty has become even more complex and to the beginner there is little appreciation of the extensive infrastructure that is now necessary for efficient and safe endoscopy procedures. According to Cotton & Williams (2006) endoscopy has become a sophisticated industry, setting up and running an endoscopy unit is a complex topic where endoscopy is a team activity that requires the collaborative talents of many people to ensure an appropriate environment and professional staff to maintain patient comfort and safety and to optimize clinical outcomes. With phenomenal increases in technical capability and scientifically derived knowledge come the challenges to ensure patient safety at all times.

Endoscopic equipment presents particularly unsatisfactory surfaces for disinfection. As we are aware, endoscopes are fragile and heat labile, channels within the endoscope are made of plastic material and are subject to trauma of biopsy forceps and therapeutic equipment, all of which may cause surface irregularity. New endoscopic equipment and accessories are a frequent occurrence within the endoscopy departments. Hence the impact on everyday practice poses a constant challenge to ensure that all endoscopic equipment is cleaned and disinfected according to best practice and that a clean safe endoscope and accessories are always presented for every patient's episode of care.

Some specific infection control challenges in everyday endoscopy practice:

- Selecting best practice national and / or international standards, protocols, policies and guidelines
- Establishing in-depth knowledge and understanding on the various types and models of endoscopes
- Ensuring sound knowledge and understanding of substantial range of endoscopic accessories and ancillary equipment from multiple companies worldwide
- Selecting national and/or international best practice standards for infection control in cleaning and disinfection, mechanical cleaning and disinfectants, drying and storing
- Ensuring ability to safely use and apply multiple types of energy sources
- Establishing appropriate staff education and training, on-going monitoring and evaluation
- Ensuring quality control measures
- Applying bacteriological surveillance as a quality marker
- Ensuring best practice standards for detailed and accurate records
- Establishing appropriate and regular equipment maintenance and records
- Ensuring staff protection, staff training, monitoring and on-going evaluation

International leaders have driven significant changes in endoscopy standards and policies, educational courses, publications and exposed current issues worldwide with the intent of ensuring best practice and patient safety. Access to communication tools of the 21st century means that international links to multiple reference sites for endoscopy best practice guidelines, standards and information are quick and easy.

Listed below are a few examples:

www.infectioncontrol.sgna.org SGNA (Society of Gastroenterology Nurses & Associates, Inc)- GI/Endoscopy Infection Control Resource Center

www.infectioncontroltoday.com ASGE (The American Society for Gastrointestinal Endoscopy)-ASGE issues Updated Infection Control Guidelines for Gastrointestinal Endoscopy

www.genca.org (Gastroenterological Nurses College of Australia) and www.gesa.org (GESA-Gastroenterologic Society of Australia)-Infection Control in Endoscopy 2010

<u>www.bsg.org.uk</u> (BSG-British Society of Gastroenterology)-BSG Clinical Guidelines

www.signea.org (SIGNEA-Society of International Gastroenterological Nurses & Endoscopy Associates-Newsletter Archives/Future technical & publication developments planned

Over the years I have had the privilege to network professionally with many of the GENCA Committee members, who have actively developed the GENCA/GESA "Infection Control Guidelines" with the newest update being the 3rd edition in September 2010. As Australia is one of our immediate neighbors we are incredibly fortunate to have excellent professional working relationships where we benefit from the outstanding work that the Australians have invested in Infection Control Standards in Endoscopy. In reality, our practices are fairly similar and the country's close proximity facilitates very good attendance of nurses and doctors at Australian Gastroenterology Conferences.

Most Endoscopy Units/Centres in New Zealand work and apply the best practice guidelines of the GENCA/GESA Infection Control in Endoscopy Guidelines. New Zealand has maintained an innovative and up to date presence in endoscopy infection control and best practice standards.

In 2001 Standards New Zealand developed the New Zealand Handbook - Microbiological Surveillance of Flexible Hollow Endoscopes (SNZ HB 8149:2001). Surveillance cultures had become increasingly popular in NZ as one of the quality control markers of effective cleaning and disinfection of flexible hollow endoscopes. As a member of the working party, the Handbook for Endoscopy Users was developed in order to further rationalize and standardize the method for testing and validate results interpretation with relevant patient outcomes. The ultimate goal was to reduce the risk of transmission of infection during endoscopic procedures in New Zealand. Hence a formal process was established with the intent for prospective evaluation of microbiological cultures in New Zealand. We are now 10 years on and we are hoping there will be an opportunity in the near future to complete this retrospective review.

Looking into the future there are further opportunities to evaluate endoscopy practice in New Zealand and make improvements in patient care delivery. Recently the Ministry of Health has announced that New Zealand will have a bowel cancer screening pilot study commencing in October 2011. This is wonderful news as bowel cancer is the most frequently diagnosed cancer and the second most common cause of cancer death in New Zealand. There have been new roles established with a Doctor and Nurse National Endoscopy Service Improvement Lead Bowel Cancer positions. These roles have the potential for New Zealand to have further endoscopic developments and improvements based on international experiences where patient care and safety are based on proven and tested best practice systems.

Over the last decade I have held various Committee roles within our New Zealand Nurses Organization, Gastroenterology Nurses Section, ranging from Chair to Editor of our Nursing Journal called the "TUBE" to, currently, the Treasurer. Since 2009 I have experienced working with the SIGNEA Directors, which again offers the most amazing collegial networking and opportunities for learning and development.

#### Summary

The significant advances we have seen in the endoscopy field are outstanding and to have been a small part of the endoscopy specialty in New Zealand has been a privilege. Management and infection control in New Zealand have taken quantum leaps for better patient care and outcomes, with more advancements to take place in the near future. Networking, nationally and internationally, has offered the most amazing connections and friendships along with significant learning and development opportunities.

The Channel

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# ADDITIONAL SIZES AVAILABLE

#### BALLOON REPLACEMENT GASTROSTOMY TUBE

#### New Triton Balloon Replacement Tube helps deliver patient care with added efficiency.

Cook Medical recently introduced the new Triton Balloon Replacement Tube. With separate lumens for inflation, feeding and delivering medications, the Triton adds convenience and efficiency to enteral feeding procedures. The dedicated medication tube accepts smaller syringes and the clear feeding tube, made of flexible, high-grade silicone, allows caregivers to easily visualize nutrient flow. The external bolster has been newly designed for patient comfort. For more information on the Triton BRT, contact your Cook representative.

GPN	Order Number	Feeding Tube Fr	Balloon Capacity cc
G56111	PEG-14-BRT-TRI	14	5
G56112	PEG-16-BRT-TRI	16	10
G56113	PEG-18-BRT-TRI	18	15
G53883	PEG-20-BRT-TRI	20	20
G56114	PEG-22-BRT-TRI	22	20
G53885	PEG-24-BRT-TRI	24	20

Available in the US only.

Components include: 1 bolster and 1 water soluble lubricant pack.

## GI 360 EDUCATIONAL PROGRAMS



Cook Medical has long understood that optimal patient care is your focus, and it continues to be our focus as well. That's why for more than twenty years we have assisted healthcare professionals in learning the latest in endoscopic GI technology and related disease information.

That tradition continues as Cook Medical, in partnership with HealthStream (an accredited provider of continuing nursing education), offers three new educational activities:

> **Business Management** of the Endoscopy Unit

Malignant Biliary Disease Management

Updates in Colorectal Cancer

Barrett's Esophagus

These activities are presented without charge by your Cook Medical district manager. Educational activity descriptions, objectives and the related accreditation information can be found at http://www. cookmedical.com/esc/educationResource. do?id=Educational\_Activity.

Contact your Cook representative for more information or to arrange a presentation opportunity.



A continuing nursing education activity sponsored by HealthStream. Grant funds provided by Cook Medical.

### **UPCOMING EVENTS**

XXXIII Endoscopy Society Spanish Congress	Madrid	Nov. 11
Interventional Endoscopy: New Frontiers	San Francisco, CA	Nov. 11-12
UCI Hands-On ERCP for GI Nurses & Techs	Orange, CA	Nov. 15-16
2nd Annual Jefferson GI Live Conference	Philadelphia, PA	Nov. 18
Frontiers in Gastroenterology	Farmington, PA	Nov. 18-19
National Endoscopy Week	Leon, Mexico	Nov. 19
Brazilian Digestive Week	Porto Alegre, Brazil	Nov. 20
XXXVIII Chilean Congress of Gastroenterology	Vina del Mar, Chile	Nov. 23
Gastroenterology National Congress	Medellin, Colombia	Dec. 1
IU ERCP Workshop for Nurses	Indianapolis, IN	Dec. 1-2
UCI Hands-On EUS for GI Nurses & Techs	Orange, CA	Dec. 6-7
26th International Workshop on Therapeutic Endoscopy	Hong Kong	Dec. 13
UCI Hands-On ERCP for GI Nurses & Techs	Orange, CA	Dec. 13-14
35th Annual NYSGE (New York Society Gastrointestinal Endo)	New York, NY	Dec. 14-17
Club Francophone d'Echoendoscopie (French Endoscopy Meeting)	Paris, France	Jan. 27-28
Pancreatic & Biliary Endoscopy - Simon Lo	Los Angeles, CA	Jan. 27-29,12
Düsseldorf International Endoscopy Symposium (Prof. Neuhaus)	Düsseldorf, Germany	Feb. 3-4
XXIVth Belgian Week of Gastroenterology 2012	Ostende, Belgium	Feb. 9-10
11th. GI Live Endoscopy Demonstration at the Chulalongkorn University Hospital in Bangkok	Bangkok, Thailand	Feb. 13-15
CDDW-Canadian Digestive Disease Week	Montreal, Quebec	Feb. 24-27
Westmead International Endoscopy Workshop	Sydney, Australia	Mar. 7-9
Journées Francophones d'Hépato-gastroentérologie et d'Oncologie Digestive (JFHOD)	Paris, France	Mar. 15-18
42. Kongress der DGE-BV	Munich, Germany	Mar. 22-23
Annual International Course in Gastroenterology and Advanced Endoscopy, WGO Training Center	La Paz, Bolivia	Mar. 26-Apr. 1
18° Congresso Nazionale delle Malattie Digestive (FISMAD)	Naples, Italy	Mar. 28-31
2nd Prague an 13th Endoscopic Day	IKEM Prague	Mar. 29
GI Roundtable	Knoxville, TN	Mar. 30-31
University Hospital Workshop	Kuala Lumpur, Malaysia	Mar. 30-Apr. 1
DDW	San Diego, CA	May 20-22
SGNA	Phoenix, AZ	May 20-22