Greetings from Charles J. Lockwood, MD, The Anita O’Keeffe Young Professor of Women’s Health and Chair of Obstetrics & Gynecology

It gives me great pleasure to share with you the latest issue of Yale Advancing Ob/Gyn. As has become our tradition, inside you will find reports of recent clinical developments and research in progress.

While it is exciting to break new clinical or scientific ground that improves the quality of our patients’ lives, there are other, more immediate ways that can make a difference. As published in the May issue of the American Journal of Obstetrics & Gynecology (see page 2 of this newsletter), Christian Pettker, MD, Edmund Funai, MD, and their colleagues designed and implemented successful clinical patient safety interventions that dramatically affected outcomes while positively impacting patient satisfaction and staff morale.

Dr. Funai summarized it best when he said, “Interventions of this sort involve fundamental culture change . . . but the benefits to our patients are priceless.” I agree, and hope that this and other topics covered in our newsletter will serve as a stimulating resource to our colleagues in Women’s Health. As always, we welcome your comments and suggestions.

Charles J. Lockwood, MD
A major patient safety initiative has transformed the way clinicians care for women in labor at Yale, with results so favorable that similar changes are planned for its operating rooms. In a study published in May in the American Journal of Obstetrics & Gynecology, Christian Pettker, MD, Assistant Professor in the Section of Maternal-Fetal Medicine, presented the results of a comprehensive patient safety initiative on the Labor and Birth (L&B) unit. Consisting in part of new ways for staff to speak up about imminent mistakes, the initiative has led to improvements in both patient safety and team satisfaction on L&B.

“We’re one of the first units in the country, if not the world, to show that all these different patient safety efforts implemented as a program really can have an impact in obstetrics,” said Dr. Pettker.

In late 2002, in the face of skyrocketing malpractice premiums and the Institute of Medicine’s provocative report on the high prevalence of preventable medical errors, the department invited a pair of consultants to come to the L&B unit to assess opportunities to improve patient safety. The team helped target several areas, and by 2004, the first of what would become eight major changes in L&B practices was put into place. After three years of data collection, Dr. Pettker and his colleagues were able to demonstrate a steady and significant decrease in adverse outcomes such as uterine rupture and the need for blood transfusions, as well as a greatly increased perception among caregivers – from 16% to 89% on the part of nurses – that there is a “good teamwork climate” on the unit.

Dr. Edmund Funai, Professor in the Section of Maternal-Fetal Medicine and Chief of Obstetrics, initiated and nurtured the safety initiative and is pleased with the results. “Interventions of this sort involve fundamental culture change, requiring enormous effort and persistence,” Dr. Funai said, “but the benefits to our patients are priceless.”

The changes, many requiring a year or more to implement, included the creation of a patient safety nurse position and patient safety committee, team training to overcome “silo” barriers among different kinds of caregivers, standardization of language to describe fetal monitor tracings, and a set of protocols for common clinical situations, including oxytocin administration, epidural anesthesia and thromboembolism prophylaxis. Hundreds of staff took part in most aspects of the program.

The patient safety nurse, a position held since its creation by Cheryl Raab, RN, is responsible for the formal evaluation of adverse outcomes. Ms. Raab reviews logs and meets with personnel, then initiates investigations to uncover root causes of error and presents her findings to a patient safety committee and hospital leadership.

Mandatory team training seminars are another of Ms. Raab’s responsibilities. Modeled on similar initiatives within the airline and defense industries, team training brings together all parties in seminars that teach them better communication skills. Communication among team members – from physicians to housekeeping workers – is emphasized, since research by the Joint Commission on Accreditation of Hospital Organizations has found that 70% of errors leading to sentinel events are due to miscommunication. Team members with very different training are taught to use shared mental models for patient care, as well as how to challenge one another in a non-threatening manner. Specific
language tools are taught – “structured and standardized things,” said Dr. Pettker, “to help us overcome some of the differences we have in our training.” For example, the CUS mnemonic, for Concerned-Uncomfortable-Scared, allows a nurse to titrate his or her level of alarm in communicating a worrisome finding to a physician. If the nurse chooses the word “scared,” the message is clear – the physician needs to act immediately.

Language is also central to a reform that the department implemented in electronic fetal monitoring (EFM) assessments, which previously lacked a standardized terminology. “People had their own unique and fascinating ways of describing tracings,” said Charles Lockwood, MD, The Anita O’Keeffe Young Professor of Women’s Health and Chair of Obstetrics & Gynecology & Reproductive Sciences. Those variations were eliminated through training and mandated testing that ensured everyone understood each other.

Other components of the safety initiative include the creation of a Yale On-Call Attending physician position to ensure consistent floor coverage and resident supervision; the use of The Peminic Incident Manager, a Web application that allows anonymous reporting of adverse events or hazards; and a Safety Attitudes Questionnaire administered periodically to caregivers.

“All of these things together have turned us from a culture of blame to a culture of safety,” said Dr. Pettker, who noted that if a caregiver errs, the department now focuses on how it can help people avoid repeating the mistake.

Future changes planned for the L&B unit include standardized patient handoff procedures, as shift changes can lead to miscommunications; antepartum and postpartum care initiatives; and the ongoing development of new protocols. The department has been contacted by other hospitals for advice on how to reform their own practices, and Dr. Pettker said that it may begin to offer formal consultation services.

With clear improvements in L&B care in hand, the department is turning its attention to the main operating rooms. Reforming OR culture, said Dr. Lockwood, will be more difficult. Many errors there have their roots in diagnostic shortcuts that take place before the day of surgery. Personalities in the OR are more heterogeneous and unpredictable than in the close-knit social environment of L&B, since the OR nursing staff may rotate in from other departments, and disruptive behavior by surgeons has traditionally been tolerated. Lockwood expects that standardized checklists and team training will help address many of these causes of errors.

If surveys are any indicator, at least the Ob/Gyn clinicians will be behind him: the Safety Attitudes Questionnaire has revealed five straight years of improvement in clinicians’ assessment of patient safety on L&B. The doctors and nurses seem to be much happier for these interventions as well, said Dr. Lockwood. “It’s a much more comfortable environment up there. When you walk on the floor, you see people smiling. They’re relaxed; they’re happy.”
What to Do About H1N1 and Your Pregnant Patients

As of October 29, 2009

H1N1 appears to have more serious effects on pregnant women than on other adults, including higher risk of hospital admission, serious morbidity and even death. The CDC has established an excellent web resource for information, which we urge you to check regularly at http://www.cdc.gov/h1n1flu/ for the most current information. Likewise, the CDC provides specific guidance on pregnant women at http://www.cdc.gov/h1n1flu/clinician_pregnant.htm, which is also regularly updated. Additionally, ACOG has been providing fellows with regular updates. A recent letter from ACOG President Dr. Gerald Joseph noted that pregnant women were four times more likely to be hospitalized for the H1N1 influenza virus and that 6% of confirmed H1N1 deaths have occurred in pregnant women.

At the time of this writing, there are no evidence-based recommendations addressing the triage of suspected H1N1 in pregnancy, care of a mother and newborn if a mother is delivered at the time of acute H1N1 infection, and breastfeeding.

Therefore, we have the following suggestions, which we are employing at Yale Ob/Gyn, for you to consider for your practice and your hospital. While new information may indicate the need for modifications, at this time we suggest the following VETIN strategy for clinicians caring for pregnant women:

**Vaccine**
- Provide the inactivated seasonal flu vaccine to all pregnant women regardless of trimester.
- Contact your local health department to obtain a free supply of H1N1 vaccine when available and vaccinate pregnant women ASAP.

**Educate**
- Ensure that each of your pregnant patients is educated about H1N1 symptoms and the benefits of hand-washing.

**Treat**
- The CDC advises that you do not need to confirm influenza to initiate treatment. Assume that pregnant women with bona fide flu symptoms, such as fever, muscle aches, GI upset and sore throat, are infected.
- Treat those with flu-like symptoms with a therapeutic course of oseltamivir (75 mg twice daily for five days).
- Treat flu exposure with a prophylactic course of oseltamivir (75 mg once daily for 10 days commencing with the time of exposure).

**Isolate**
Create an alternative space to evaluate women with suspected H1N1 infection in your hospital’s emergency department (ED). At Yale we are discouraging our providers from evaluating suspected cases in their offices or in the L&D suite. We refer patients to the ED unless they have a more significant OB-related complaint (like active labor). There they are evaluated and, if they require admission, they are masked before being transported to the floor to help prevent transmission. We think it unwise for pregnant patients with suspected H1N1 infections to share a waiting room or other close quarters with healthy pregnant women. ACOG has recently (October...
15, 2009) developed an algorithm to determine if a patient can be managed at a distance; visit http://www.acog.org/departments/resourceCenter/2009H1N1TriageTreatment.pdf.

- If it is impractical to divert suspected H1N1 cases to your local ED and you must evaluate such patients in your office, consider greeting them outside your office, giving them a face mask, and escorting them directly to an exam room (bypassing the waiting area). Clean all exam room surfaces appropriately after the evaluation.
- Maintain a low threshold for hospital admission for suspected H1N1 cases in pregnancy.
- For those patients not admitted to the hospital, consider daily phone contact with you or a staff member to help identify rapid disease and morbidity progression.

Newborns
- Following delivery of a mother suspected of being H1N1 infected, you should:

1. Refrain from placing the infant on the mother’s chest and in close contact. If the mother desires close contact, she must wear a mask (both N95 and surgical masks appear to be effective?) and limit contact to a few minutes.

2. Admit the infant to the well newborn nursery and do not allow contact with the mother while she continues to have symptoms.

3. No family members with suspected H1N1 should visit the newborn.

4. If a mother refuses to allow the infant to remain in the nursery, the infant should “room in” and not be transferred back and forth from the nursery.

- Breastfeeding recommendations for suspected maternal H1N1 include:

1. All patients should be aware that while giving the baby breast milk may help protect the baby from infections, including H1N1, it is not known if the virus is found in breast milk or if latching on to the breast may increase the chance of infection. We do not recommend that a healthy baby latch on to the breast of a symptomatic mother.

2. Sick women who are able to express their milk for bottle feedings by a healthy family member should be encouraged to do so. Antiviral medication treatment or prophylaxis is not a contraindication for breastfeeding.

3. We recommend that, if the mother chooses to breastfeed, a lactation consultation should be initiated.

4. We recommend the mother begin pumping as soon as possible. Initial colostrum should not be discarded but saved for the infant. A patient request for “no formula” should be honored unless medically contraindicated.

5. When pumping, the mother should don a mask, complete meticulous hand hygiene, and apply gloves. She should cleanse the area around the areola with soap and water and allow it to dry prior to pumping. Bottles should be wiped with an appropriate solvent prior to leaving the mother’s room.

6. If a mother becomes symptomatic with H1N1 following delivery and has had extensive contact with her baby, that baby should room in and feed at the breast if possible.

References:


Introducing the Robotic Surgery Team

Robotic surgery using the da Vinci® Surgical System is an effective, minimally invasive treatment alternative for a range of gynecologic conditions. At Yale Obstetrics, Gynecology & Reproductive Sciences, eight board-certified physicians are specially trained in robot-assisted laparoscopic surgery, including Dr. Masoud Azodi, Dr. Dan-Arin Silasi, Dr. Peter Schwartz, Dr. Tom Rutherford, Dr. Hugh Taylor, Dr. Beth Rackow, Dr. Alessandro Santin and Dr. Elisabeth Erekson.

To date, these specialists have performed more than 600 robotic surgeries, including surgery for endometrial cancer, cervical cancer, pelvic organ prolapse, uterine fibroid tumors and reversal of sterilization, among others.

Robotic Gynecologic Surgery at Yale

The patient was diagnosed with uterine cancer and needed a complete hysterectomy. Her body mass index was 87.2, which is considered “malignant obesity,” presenting difficulties for both the surgery itself and the patient’s recovery. However, by using the da Vinci Surgical Systems robot, Yale Gynecologic Oncology physicians were able to complete the surgery successfully and the patient suffered no complications, leaving the hospital on postoperative day two.

“This case would have been almost impossible with conventional laparoscopy,” said Dr. Masoud Azodi, Associate Professor and Director of Microinvasive and Robotic Surgery at Yale Gynecologic Oncology.

When surgeons use the da Vinci Surgical Systems robot, patients experience shorter recovery times and fewer complications, such as deep vein thromboses and wound dehiscence, than with traditional open procedures. Most patients stay in the hospital only overnight, compared to four or five days with an open procedure, and almost all avoid the intensive care unit. Many are back to work within a week.

“The vast majority of our patients don’t even require pain medication,” said Dr. Dan-Arin Silasi, Assistant Professor. “Like any new technology, initially it takes a little longer to perform a case, but patient recovery is just amazing. There’s less blood loss as well.”

For the physician, using the robot offers greater dexterity, maneuverability and precision. Traditional laparoscopic instruments do not bend at their active ends, but the instruments in the da Vinci system flex like a human wrist and also filter out hand tremors. The robotic laparoscope has two cameras, one for each eye, which gives the surgeon a three-dimensional image at the console and allows the surgeon to see fine tissue planes and neurovascular bundles. The da Vinci system reduces surgeon fatigue because the surgery is done in a seated position. Also, unlike past approaches, the surgeon and the assistant see exactly the same view, which can improve the communication essential to any surgical procedure.
“Our population is gaining weight and endometrial cancer is associated with obesity because the fatty tissues synthesize estrogens,” said Dr. Peter Schwartz, Professor and Vice Chair for Gynecology. “We have a population with a greater risk of endometrial cancer, and at the same time they are at greater risk of surgical complications. Robotics is the single biggest advancement for the treatment of endometrial cancer and represents the future of gynecologic oncology surgery.”

The small incisions used in robotic surgery are a major improvement over the abdominal approach and facilitate healing in all patients, but are especially effective in obese patients. Dr. Tom Rutherford, Associate Professor and Section Chief of Gynecologic Oncology, pointed out, “A good surgeon is a good surgeon, but the da Vinci robot allows us to approach cases laparoscopically that we might not even consider otherwise. Especially in the obese population, where wound infections are so common, the small incisions and rapid postoperative mobilization of the patients are tremendous advantages.”

While oncology cases are most frequently performed with the da Vinci system in gynecology, the robot is also used for complicated benign procedures. For example, a normal uterus weighs two to three ounces, but neglected fibroid tumors can grow and cause the uterus to weigh as much as seven pounds; doctors have successfully removed them using the robot.

Yale is the only center in Connecticut to offer robot-assisted reproductive endocrine surgery, including tubal anastomosis, said Dr. Hugh Taylor, Professor and Section Chief of Reproductive Endocrinology and Infertility. His associate, Dr. Beth Rackow, Assistant Professor of Obstetrics, Gynecology and Reproductive Sciences, and of Pediatrics, added, “Patients with pelvic scarring from prior surgery or from endometriosis will also benefit from robotic approaches. The combination of magnification, 3D view and articulated joints is a tremendous advantage for fine surgery such as tubal anastomosis. We also use the robot for challenging hysterectomies and myomectomies.”

Yale is also one of only two centers in Connecticut that offers robot-assisted sacrocolpopexy, said Dr. Elisabeth Erekson, Assistant Professor in Yale Urogynecology and Reconstructive Pelvic Surgery. “The robot gives you superior visual cues to facilitate dissection and eases the surgery,” she said. “The robot holds the camera steady and offers excellent magnification. It’s a competent assistant that never gets tired.”

To date, gynecologists at Yale have performed more than 600 cases with the robot, including surgery for:

- Endometrial cancer
- Staging of uterine cancer
- Staging of ovarian cancer
- Cervical cancer
- Pelvic organ prolapse
- Uterine fibroid tumors
- Advanced endometriosis
- Reversal of sterilization

They have used it to perform these and other procedures:

- Sacrocolpopexy
- Radical trachelectomy
- Myomectomy
- Tubal anastomosis
- Radical hysterectomy
- Salpingo-oophorectomy
Uterine abnormalities are a common cause of infertility or recurrent miscarriages. Some abnormalities are congenital, such as a septate uterus; congenital anomalies are identified in three to four percent of women. Others are acquired, such as intrauterine adhesions or fibroid tumors that may distort the uterus. Surgical treatment for these abnormalities can create or restore fertility in women.

“The uterine septum can be partial or the uterine cavity can be completely divided into two smaller cavities. We can surgically fix this uterine anomaly and improve pregnancy outcomes,” said Dr. Beth Rackow, Assistant Professor of Obstetrics, Gynecology and Reproductive Sciences, and of Pediatrics. “Who needs the septum removed? Women with a history of poor reproductive outcomes and those who present with infertility. Anyone who needs fertility treatment should consider having the septum removed first; this intervention can improve the chances for a successful pregnancy.”

Although many women with uterine abnormalities can be asymptomatic, some women present with recurrent miscarriages or with pregnancies ending in preterm delivery, and they also have a higher than average rate of cesarean delivery due to fetal malpresentation.

Acquired abnormalities include uterine fibroids that can distort the uterus or grow into the uterine cavity and lead to infertility or pregnancy loss. Although there is controversy over which patients need surgery, Dr. Rackow recommends removing submucosal myomas, those just beneath the endometrium.

“When a submucosal myoma develops, some women present with abnormal uterine bleeding. Furthermore, the uterine cavity and endometrium are adversely affected, which can cause infertility or pregnancy loss,” Dr. Rackow said.

Asherman’s syndrome is another uterine abnormality caused by a build-up of adhesions, which can follow a dilation and curettage, fibroid removal or a polypectomy. It, too, can lead to infertility and recurrent miscarriage and can affect patients of all ages.

“The first step in treating Asherman’s syndrome is to restore the normal anatomy of the uterus, which is best accomplished by hysteroscopic lysis of adhesions,” said Dr. Pinar Kodaman, Assistant Professor of Obstetrics, Gynecology and Reproductive Sciences. “Then, you prevent adhesions from recurring by leaving a balloon in the uterus, treating with antibiotics and a month-long course of estrogen.”

After the balloon is removed, patients continue with estrogen and doctors monitor the endometrium by ultrasound to be sure that the lining is building up to at least six millimeters.

Uterine abnormalities are often diagnosed by various imaging studies, including ultrasound, saline infusion sonohysterography and conventional x-ray hysterosalpingograms. Dr. Shirley McCarthy, a Yale radiologist and member of our team, wrote the definitive book on diagnosing uterine abnormalities, *Diagnostic Imaging for Reproductive Failure* (1998 Parthenon Publishing), providing our patients and physicians with the benefit of her expertise.

“The strength of our program is that we are a comprehensive team that combines a real understanding of rare abnormalities with research and the expertise of performing more surgeries for uterine abnormalities than anyone in the area,” said Dr. Hugh Taylor, Professor and Section Chief of Reproductive Endocrinology and Infertility.
Twin-Twin Transfusion Syndrome (TTTS) is a major cause of morbidity and mortality in monochorionic twin pregnancies and is challenging to treat. But laser photocoagulation, a promising experimental method, is now being performed at Yale—the first Connecticut center performing such fetal surgery, and one of only several nationwide. Selective laser photocoagulation of placental communicating vessels, also known simply as laser photocoagulation, allows surgeons to examine the placenta visually and coagulate superficial arteriovenous anastomoses between twins. We performed the procedure at Yale in March and in August of 2009 on twin and triplet pregnancies with complex TTTS.

“We attempt to separate the two placental blood supplies,” said Mert O. Bahtiyar, MD, Assistant Professor of Obstetrics, Gynecology and Reproductive Sciences and Director of the Yale Fetal Surgery Program. Endoscopy for placental laser photocoagulation requires introducing a small, flexible fiberoptic scope into the uterine cavity and examining the entire placental surface. Abnormal vascular connections are identified and coagulated with a laser, thereby interrupting harmful unidirectional shunts between the siblings. Typically, three to five abnormal blood vessels are found and treated over the course of about 20 minutes.

Introduced in 1995, placental laser photocoagulation is performed at only about 15 centers in the United States. The scope requires an FDA humanitarian device exemption, and institutions must have an IRB-approved research protocol in place. Laser photocoagulation shows more promise than other treatments, including large-volume amniotic fluid reduction, expectant management (sometimes appropriate for late-developing TTTS), septostomy of the dividing membrane between the fetuses, and selective feticide. A 2008 Cochrane review found lower rates of overall, perinatal and neonatal death in laser-treated fetuses as compared with amnioreduction-treated fetuses, and more neurologically intact babies at six months. Neurological outcomes are critical because in twins with TTTS the rate of brain damage is as high as 35%, as compared with 3% in monochorionic twins as a group. Untreated, advanced stages of TTTS carry an over 80% mortality rate.

“This approach seems to be the best available method to preserve the overall health of both twins,” said Dr. Joshua Copel, Professor and Vice Chair for Obstetrics, adding, “We are pleased to be able to offer it to our patients.”

Added Dr. Bahtiyar, “The endoscopic technique employed in laser photocoagulation holds promise for the prenatal treatment of other conditions such as congenital diaphragmatic hernia and amniotic band syndrome.” Fetal endoscopy may allow many different kinds of treatments that require safe access to the fetus. "This is a procedure that I have always believed should be available at Yale,” said Dr. Bahtiyar. “I look forward to the advances that tomorrow will bring.”
Preserving Fertility for Women

Women may delay childbearing for a variety of reasons, among them career needs, lack of a partner or a serious illness. Cryopreservation of embryos has been the gold standard for women who want to delay pregnancy and try to have a child in the future. But what are the options for women who do not choose to create an embryo for personal or religious reasons, who do not yet have a partner and do not wish to use anonymous sperm, or who cannot put off medical treatment such as chemotherapy?

If time allows, cryopreservation of their own eggs is increasingly used as a way to preserve fertility in women who do not wish to freeze embryos, said Dr. Pasquale Patrizio, Yale Fertility Center Director.

Egg harvesting takes a minimum of two to three weeks. Once retrieved, the eggs are then carefully cryopreserved using new techniques including slow freezing and vitrification. While still considered experimental, frozen eggs have resulted in hundreds of human live births worldwide.

Many patients undergoing treatment for cancer do not have the time necessary for egg harvesting, however, and may become menopausal as a result of the chemotherapy. For these women, the next best option is ovarian tissue cryopreservation, in which cortical strips of the ovary are frozen. When the patient completes chemotherapy, the ovarian cortical strips can be thawed and retransplanted onto the existing scaffold of the ovary in an effort to rebuild the ovary.

However, ovarian cortical strip freezing has serious limitations. The strips are grafted without vascular anastomosis and are completely dependent on the establishment of neovascularization after grafting. As a result, the cells in the graft undergo significant ischemic and reperfusion damage, which can cause a high rate of follicular loss. To address these limitations, the Yale Fertility Center has begun freezing entire ovaries, a breakthrough in fertility preservation research.

“The problem with ovarian cortical strips is that, even if successfully revascularized, the cortex does not last more than a couple of years,” Dr. Patrizio said. “If you can freeze an entire ovary, you may have more of a chance for prolonged fertility preservation.”

Cryopreservation of the whole ovary with an intact pedicle and vascular supply may be superior to freezing cortical strips because reperfusion will occur immediately after restoration of the retransplanted ovary’s blood supply.
At Yale, doctors have successfully frozen a whole human ovary and its vascular pedicle using a Multi-Thermal Gradient device and slow cooling, followed by rapid thawing. Doctors obtained the ovaries for research purposes from women who were having them removed for other reasons. Upon examination, the thawed ovaries were histologically the same as fresh ovaries.

“We are learning to freeze the ovary and are waiting for the right case to try the retransplantation,” Dr. Patrizio said.

Although no human cases of whole ovary retransplantation after freezing have been performed to date, preliminary studies in both animal and human models have been encouraging and it is likely that whole ovary freezing will be a viable treatment in the future.

“Time is of the essence in fertility preservation,” said Dr. Emre Seli, Director of the Egg Donation and Surrogacy Program at Yale Fertility Center. “We treat every case as an emergency and see patients the same week that they are referred,” Dr. Seli said. “Yale offers clear counseling and we give patients the hard facts and scientific data without any bias. We offer all the treatments that are undergoing research throughout the world.”

Although frozen embryos offer the greatest chance for success right now, it is not yet clear which will be the superior form of fertility preservation, frozen eggs or whole ovaries, said Dr. Hugh Taylor, Section Chief of Yale Reproductive Endocrinology and Infertility. Yale has more resources devoted to the study of fertility preservation and more researchers interested in the topic than any other program in the Northeast, offering a comprehensive program for women who need treatment immediately.

The Yale Fertility Center offers all these experimental procedures under research protocols approved by its institutional review board.

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**News Briefs**

**Oncology Learning Online**

Yale CME has received a grant from Merck & Co. to produce online learning in Oncology. Of 12 lectures planned, six represent offerings from Yale’s Department of Obstetrics, Gynecology & Reproductive Sciences. To view the lectures, visit the Yale CME website: http://transact.med.yale.edu/cme/online_courses/welcome.html.

**Press Ganey Patient Satisfaction Survey**

In the most recent (June 2009) Patient Satisfaction Survey from Press Ganey, the national leader in patient satisfaction measurement, three of our practices scored above 90 in Overall Site Rating:

- Yale Urogynecology (92.4)
- Yale Maternal Fetal Medicine (90.9)
- Yale Gynecologic Oncology (91.1)

**Yale Ob/Gyn Physicians on Top Docs Lists**

In New York Magazine's 12th annual “Best Doctors” issue, five physicians from Yale's Department of Obstetrics, Gynecology & Reproductive Sciences were recognized:

- Masoud Azodi, MD (Gynecologic Oncology)
- Joshua Copel, MD (MFM)
- Michael Paidas, MD (MFM)
- Pasquale Patrizio, MD (REI)
- Hugh Taylor, MD (REI)

Closer to home, Connecticut Magazine identified eight of our physicians as “Top Docs” in their 2009 annual survey:

- Joshua Copel (MFM)
- Edmund Funai (MFM)
- Charles J. Lockwood (MFM)
- Urania Magriples (MFM)
- Pasquale Patrizio (REI)
- Hugh S. Taylor (REI)
- Thomas J. Rutherford (Gynecologic Oncology)
- Peter E. Schwartz (Gynecologic Oncology)
Dr. Elisabeth A. Erekson

Elisabeth A. Erekson, MD, MPH, joined the Section of Urogynecology and Reconstructive Pelvic Surgery as Assistant Professor in August. She attended the University of Illinois School of Medicine, served her residency at Saint Louis University School of Medicine and completed a fellowship in Female Pelvic Medicine & Reproductive Surgery at Brown University, concurrently earning a Master of Public Health.

Dr. Erekson's clinical interests include robotic surgery and other minimally invasive treatments for correction of prolapse and urinary incontinence. She researches the relationship between pelvic organ prolapse and obstructive bowel symptoms.

Dr. Antonette Dulay

Antonette Dulay, MD, joined the Section of Maternal-Fetal Medicine in July. She graduated magna cum laude from Barnard College in 1998, earning her MD from NYU School of Medicine, where she also completed her Ob/Gyn residency. She received multiple teaching awards and the NYU Shenker Award for best resident research.

As a Yale Maternal-Fetal Medicine fellow, Dr. Dulay had 18 research articles, chapters and reviews published, presenting two studies at the Society for Maternal-Fetal Medicine’s Annual Meeting. During her third fellowship year, she received the prestigious SMFM/AAOGF Scholarship Award for three years of mentored research training.

Dr. Sonya S. Abdel-Razeq

Sonya S. Abdel-Razeq, MD, joined the faculty of the Section of Maternal-Fetal Medicine in September. After graduating summa cum laude from St. John’s University, she attended SUNY Buffalo School of Medicine, receiving the Clyde B. Randall Award for best thesis in obstetrics and gynecology. She remained there for her Ob/Gyn residency, earning the Robert J. Patterson Memorial Award for Patient Care.

Dr. Abdel-Razeq came to Yale as a Maternal-Fetal Medicine fellow and then entered Yale’s fellowship in Surgical Critical Care and Surgical Emergencies. Her research interests include fetal inflammation and evaluation and prognosis of renal disease in the critically ill.

For more detailed physician bios, please visit www.yaleobgyn.org/advancing.