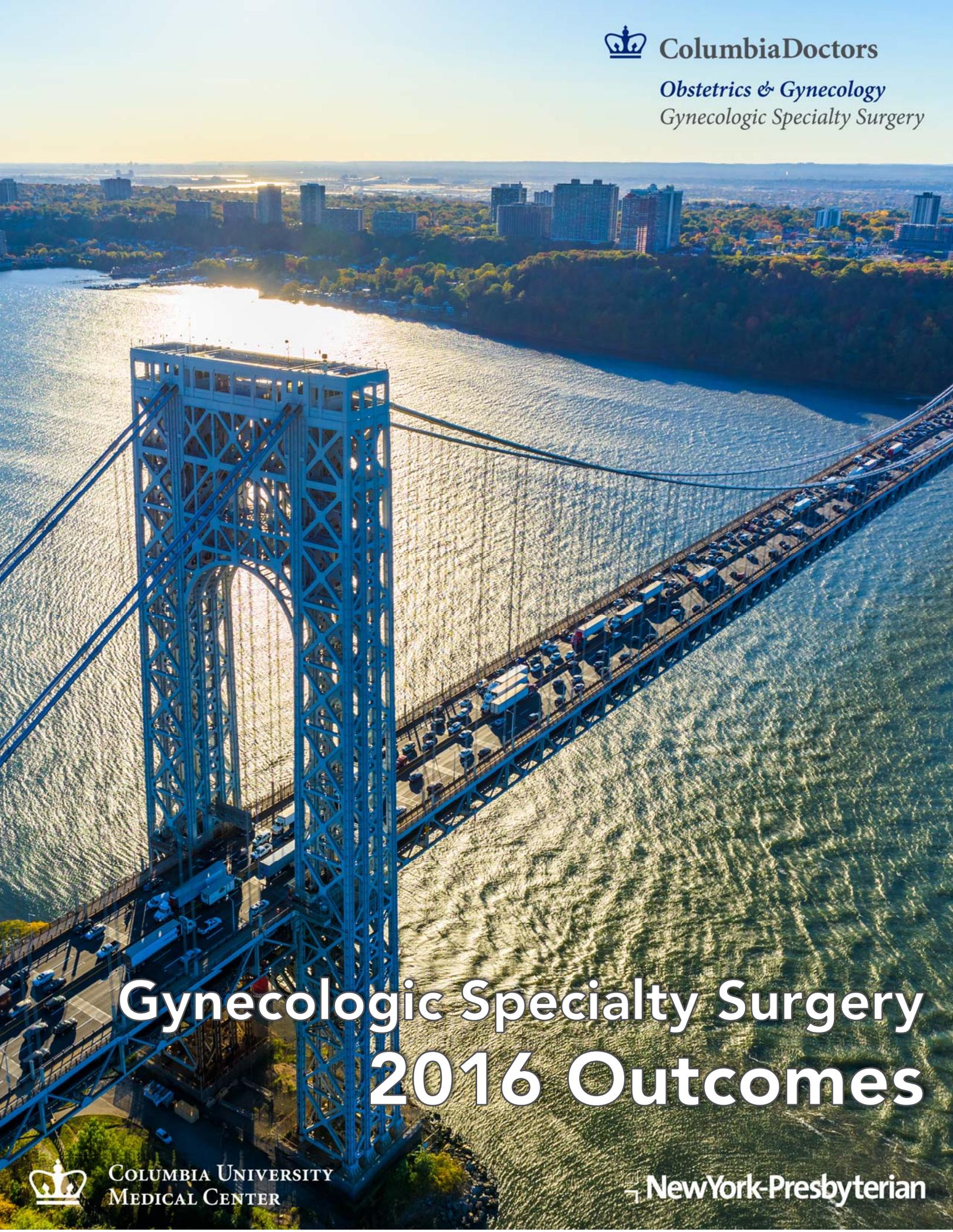




ColumbiaDoctors

Obstetrics & Gynecology

Gynecologic Specialty Surgery



Gynecologic Specialty Surgery 2016 Outcomes



COLUMBIA UNIVERSITY
MEDICAL CENTER



New York-Presbyterian



From the Chair



In our department, we aim to provide exceptional care to women across all stages of their lives in a way that optimizes their health and well-being. Our division of Gynecologic Specialty Surgery (GSS), led by Dr. Arnold Advincula, is a core partner in this effort, caring for some of our youngest and most mature patients, as well as women trying to become pregnant, but struggling with fibroids or endometriosis.

As this outcomes brochure details, this team utilizes the most cutting-edge, least invasive therapies, so that women can successfully move forward in their lives with less risk of complication and without the ongoing burden of these often debilitating gynecologic conditions. We're so proud of the GSS faculty and their contribution to ensuring that Columbia Ob/Gyn is at the forefront of advancing healthcare for women.

Regards,

Mary E. D'Alton, MD
Chair, Department of Obstetrics & Gynecology
Willard C. Rappleye Professor of Obstetrics & Gynecology
Director of Services, Sloane Hospital for Women

CONTACT US

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Dear Colleagues,

It gives me great pleasure to share with you the 2016 surgical outcomes of the Division of Gynecologic Specialty Surgery. These incredible results reflect our shared vision and team approach to offer women of all ages cutting-edge surgical care that is individualized, comprehensive, and compassionate.

By harnessing the expertise of each surgeon, patients presenting with the gamut of benign gynecologic conditions can be managed effectively and, whenever possible, in a minimally-invasive fashion. Our surgeons have subspecialty focus areas that include pediatric and adolescent gynecology, benign gynecologic surgery, menstrual disorders, and female pelvic medicine and reconstructive surgery. Members of our division are sought after clinician-educators who also lead innovative research so that our patients are exposed to the latest treatment options.

We are humbled by the trust you instill in us to care for your patients and look forward to continuing to collaborate with you to advance women's health care.

Regards,

Arnold P. Advincula, MD, FACOG, FACS
Levine Family Professor of Women's Health
Vice-Chair, Department of Obstetrics & Gynecology
Chief of Gynecology, Sloane Hospital for Women
Medical Director, Mary & Michael Jaharis Simulation Center



*The Gynecologic Specialty Surgery team gratefully
acknowledges the tremendous contributions
to research and clinical care made by
Dr. Michael Pitter, who passed away in December 2016.*

Center for Research and Advanced Fibroid Treatment

Founded by the late Dr. Michael Pitter, the mission of the Center for Research and Advanced Fibroid Treatment (CRAFT) is to provide comprehensive and innovative treatment for women with leiomyomata.

The center coordinates care among the gynecology, reproductive endocrinology, radiology, interventional radiology, and hematology services. We offer a range of treatments including hormonal management, uterine artery embolization, outpatient procedures, and complex hysterectomy and myomectomy. The expertise of the surgical team with laparoscopy and robotics in managing even the most complicated pathology has been reported in peer-reviewed literature as well as in the outcomes here. CRAFT is currently participating in an industry-funded, multicenter research protocol using oral GnRH antagonists for symptom control. Novel surgeries are also under investigation at our center.

Menstrual Disorders Program

Led by Dr. Timothy Ryntz, the menstrual disorders program was started in 2013 to focus diagnostic and treatment efforts on women with abnormal uterine bleeding (AUB). Women with AUB of all types – both structural and nonstructural – are welcomed. We place an emphasis on efficient diagnosis, including same-day evaluation with flexible office hysteroscopy. Many of our patients have complicated medical comorbidities or AUB due to inherited or acquired coagulopathies.

We tailor treatment to each patient, offering hormonal management, IUDs, subdermal implants, anti-fibrinolytic agents, multiple endometrial ablation modalities, and advanced minimally invasive surgery. Women eligible for office-based procedures such as polypectomies or IUD retrieval can be managed with minimal anesthesia at our midtown office. Dr. Ryntz is currently funded to study the myometrial contractility and endometrial perfusion in women with unexplained heavy menstrual bleeding.

Female Pelvic Medicine and Reconstructive Surgery

The urogynecology team provides expert care to women with pelvic organ prolapse and urinary incontinence. We begin with an office evaluation and discussion with each patient about her condition and goals, so that we can tailor a treatment approach specifically for her. Our extensive experience enables us to offer patients the full range of the latest evidence-based, surgical and non-surgical options.

Our team, led by Dr. Ladin Yurteri-Kaplan, has specialty training and experience in managing the full spectrum of female pelvic floor disorders. We are committed to evidence-based medicine, collaboration across specialties, and leading the treatment of these disorders into the future. We are actively involved in research networks, including the Collaborative Research in Pelvic Surgery Consortium, and leadership in our national and international societies.

Pediatric and Adolescent Gynecology

Established in 2011, this program is directed by Dr. Beth Rackow and provides innovative gynecologic care for the pediatric and adolescent population. This unique program is the first of its kind in Manhattan. The gynecologic conditions affecting young females range from the simple to complex, from short-term issues to long-term chronic disorders, and from those that need medical management to those that need surgery.

We have expertise in gynecologic issues that occur in the pediatric and adolescent population, in endocrine disorders and hormone therapies, and in reproductive surgery including minimally invasive and vaginal surgery. Our expertise allows us to provide the best possible care for these young females.

For these patients, their gynecologic health and future fertility benefit from appropriate evaluation and timely intervention, and from collaboration with other pediatric specialties.

2016 OVERVIEW

Surgical Cases Performed

Total 1,246

Simple and Complex Benign Gynecology	1,080
Female Pelvic Medicine and Reconstructive Surgery	113
Pediatrics/Adolescents	53

Visits

Total 9,743

New Outpatient Surgical Consults	2,653
Follow-Up Outpatient Visits	5,798
Emergency Department and Inpatient Gynecology Consults	1,219
Inpatient Medical Gynecology Admissions	73

Location of Surgeries

Milstein Hospital	1,062
Lawrence and Allen Hospitals	142
Morgan Stanley Children’s Hospital of New York	42

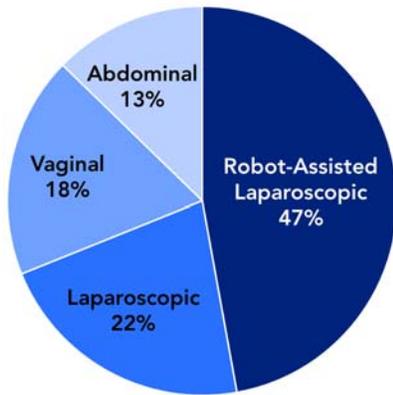
The Division of Gynecologic Specialty Surgery at **NewYork-Presbyterian Hospital/ Columbia University Medical Center** offers patients compassionate, individualized care, and access to select research and clinical trials offered only at Columbia University Medical Center. Our patients benefit from our multidisciplinary approach and state-of-the-art technologies including the latest in minimally invasive surgical techniques.

1,246—Total number of surgical cases performed



Columbia University Medical Center’s Gynecologic Specialty Surgery faculty. From Left: Dr. Beth Rackow, Dr. Ladin Yurteri-Kaplan, Dr. Arnold Advincula, Dr. Timothy Ryntz, Dr. Jeannie Kim (Photo Credit: Charles Manley)

HYSTERECTOMY

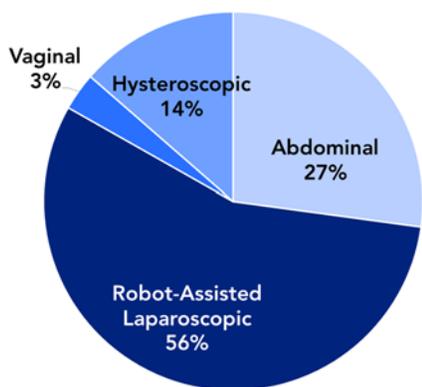


87% of hysterectomies performed were minimally invasive.

Hysterectomy Uterine Weights

	No. of Cases	Mean (g)	Minimum (g)	Maximum (g)
Robot-Assisted Laparoscopic	141	456	21	2,100
Laparoscopic	65	227	32	897
Vaginal	55	171	16	1,240
Abdominal	38	1,167	42	4,217

MYOMECTOMY



87% of patients undergoing robotic myomectomy were discharged on the day of surgery. Of those patients admitted, 90% were discharged on postoperative day 1.

Myomectomy Fibroid Weights

	No. of Cases	Mean (g)	Minimum (g)	Maximum (g)
Robot-Assisted Laparoscopic	157	264	2	1,908
Abdominal	76	567	17	3,303
Hysteroscopic	38	10	1	42

ENDOMETRIOSIS

Endometriosis

Total 130

Total Hysterectomy	28
Trachelectomy	1
Adnexal Surgery	84
Ovarian Cystectomy for Endometrioma (unilateral and bilateral)	45
Salpingo-oophorectomy (unilateral and bilateral)	23
Salpingectomy (unilateral and bilateral)	28
Excision or Ablation of Deeply Infiltrating Endometriosis	57
Lysis of Adhesions	29

94% of surgeries for endometriosis performed were minimally invasive.

GSS managed 130 patients with pathologically proven endometriosis for which a combination of the above procedures were performed.

HYSTEROSCOPY

Hysteroscopy

Total 341

Diagnostic	177
Polypectomy	109
Myomectomy	54
Endometrial Ablation	11
Septum Resection	21
Synechiae Resection	12

Diagnostic hysteroscopy is performed as both an office-based and outpatient surgery.

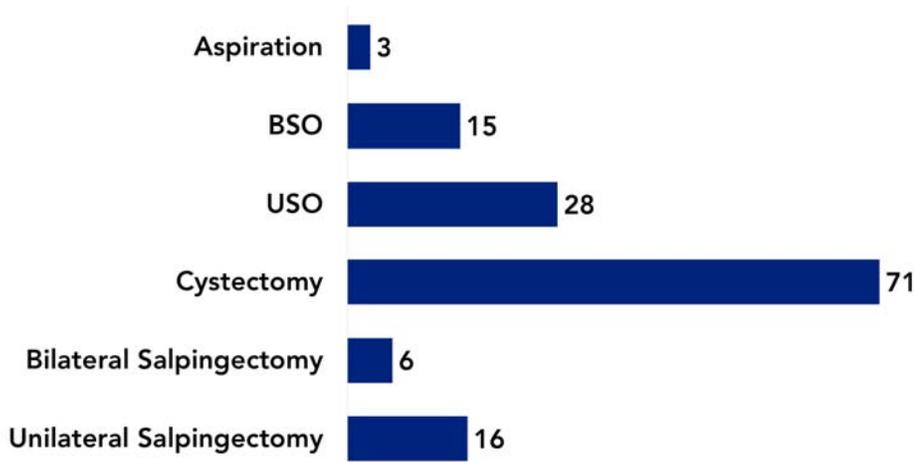
53% of diagnostic procedures were performed in the office with either local or no anesthesia.

ADNEXAL MASSES

Preservation of normal ovarian tissue is a primary goal of surgery for an adnexal mass removal whenever appropriate. Ovarian preservation was possible in 76% of all cases of adnexal torsion.

In women under the age of 50 who underwent surgery for an adnexal mass, ovarian preservation was achieved in 63% of cases.

Types of Surgery



FEMALE PELVIC MEDICINE & RECONSTRUCTIVE SURGERY

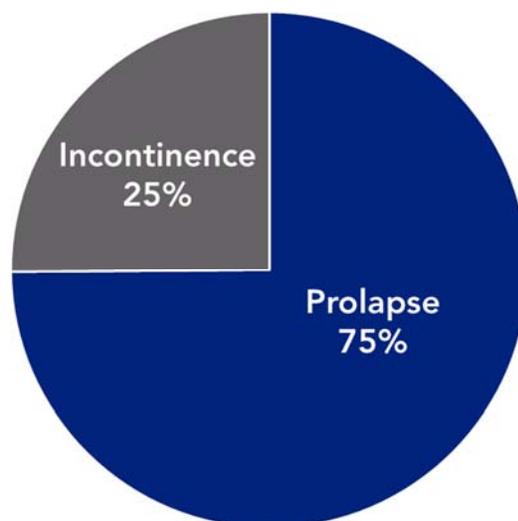
Our Female Pelvic Medicine and Reconstructive Surgery team offers botulinum toxin, bulking agents, cystoscopy, and midurethral slings for incontinence.

Pessaries are available for those patients who prefer non-surgical management of prolapse. Vaginal apical suspension, laparoscopic sacrocolpopexy, fistula repair, and diverticulum repair are also offered. The surgical team has expertise with both native and synthetic tissues for repair.

Total Surgeries: 207

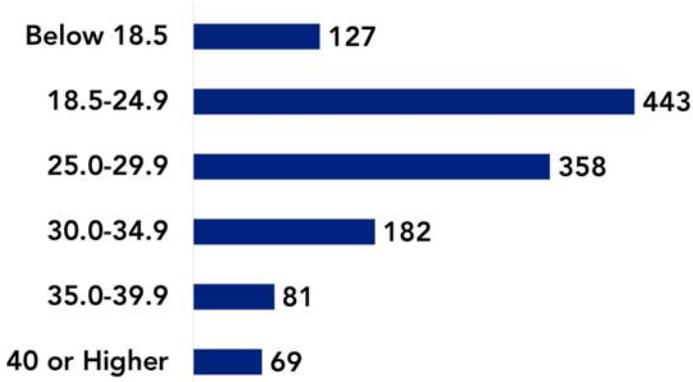
Prolapse: 155

Incontinence: 52

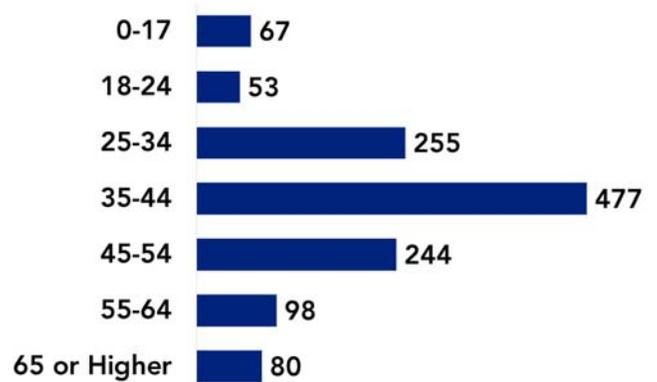


PATIENT DEMOGRAPHICS

BMI Range of Patients



Age of Patients

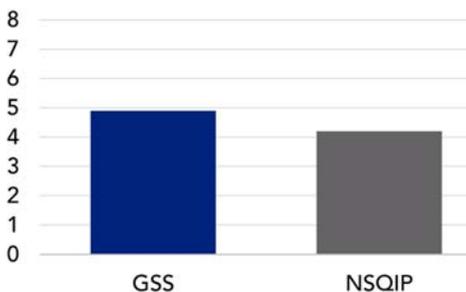


GSS patients had an average BMI of 27.5; 28% of GSS patients were overweight (BMI > 25), 14% were obese (BMI > 30), and 12% were morbidly obese (BMI > 35).

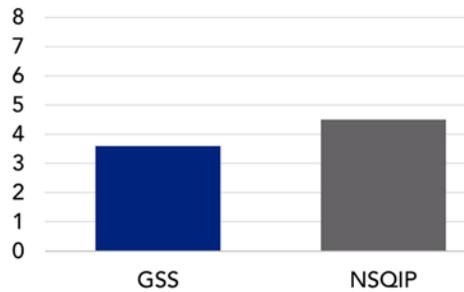
QUALITY IMPROVEMENT

The American College of Surgeons National Surgical Quality Improvement Program measures risk-adjusted surgical outcomes and quality measures from more than 600 participating hospitals nationwide. Rates are reported per procedural code. GSS demonstrated equivalent outcomes to those expected for any complication, defined as occurrences of pneumonia, cardiac events (MI, cardiac arrest), surgical-site infection, urinary tract infection, venous thromboembolism, readmission within 30 days, return to the operating room within 30 days, death, and discharge to nursing or rehab facility.

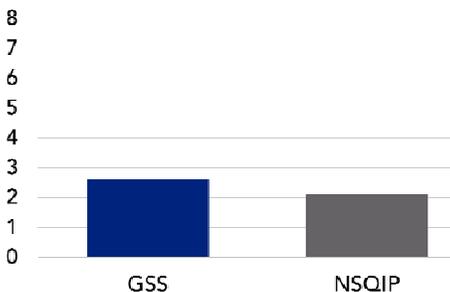
Laparoscopic Hysterectomy < 250gm



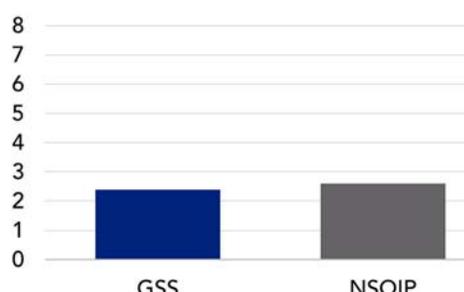
Laparoscopic Hysterectomy > 250gm



Laparoscopic Myomectomy < 5 Fibroids



Laparoscopic Myomectomy 5+ Fibroids



Surgical complication rates matched those expected by the NSQIP.

FACULTY

Arnold P. Advincula, MD is the Vice Chair and Levine Family Professor of Women's Health in the Department of Obstetrics & Gynecology at CUMC. He brings extensive experience in treating complex and challenging cases of endometriosis, uterine fibroids, and pelvic masses. He is a leader in minimally invasive gynecologic surgery and a pioneer in the use of robotic technology for advanced pelvic surgery.

Jin Hee (Jeannie) Kim, MD is Assistant Professor of Obstetrics & Gynecology at CUMC and Co-Director of the Minimally Invasive Gynecologic Surgery Fellowship Program. She is trained in the field of advanced laparoscopy and robotics. In addition to specializing in gynecologic endoscopic surgery, she collaborates with CUMC's fertility experts to provide comprehensive care for patients with fertility needs. She regularly presents at conferences, and has worked to establish laparoscopic training programs in Ghana and Rwanda.

Beth W. Rackow, MD is Assistant Professor of Obstetrics & Gynecology and Pediatrics at CUMC, as well as the Director of the Pediatric and Adolescent Gynecology Program. She is a leader in the field, an expert reproductive surgeon and a reproductive endocrinologist who cares for children, adolescents and women with gynecologic and reproductive disorders that require medical and/or surgical intervention.

Timothy Ryntz, MD is Assistant Professor of Obstetrics & Gynecology at CUMC. Dr. Ryntz has practiced gynecology for over a decade, bringing together his experience from teaching hospitals and surgery centers throughout the northeast. He is actively involved in teaching and mentoring residents and fellows and is an integral member of the departmental Quality Assurance Committee. He was recently named Medical Director of the Menstrual Disorders Program.

Ladin Yurteri-Kaplan, MD is Assistant Professor of Obstetrics & Gynecology at CUMC. She leads the Female Pelvic Medicine and Reconstructive Surgery team in the division.

Mary-Jane McEaney, NP, PhD is Assistant Professor of Clinical Nursing at Columbia University School of Nursing. She served as the Director of the Women's Health NP master's program from 2006-2013. Her services include health promotion and preventive care for women, routine gynecological care, peri- and post-menopausal care, as well as family planning, hormonal issues assessment, and pessary management.

Kyleen Swords, NP is a certified Family Nurse Practitioner. Kyleen sees patients for evaluation of fibroids, endometriosis, pelvic pain, abnormal bleeding, post-menopausal concerns, family planning, and post-operative care.

SELECTED PUBLICATIONS

Siddiqui NY, Tarr ME, Geller EJ, **Advincula AP**, Galloway ML, Green IC, Hur HC, Pitter MC, Burke EE, Martino MA. Establishing benchmarks for minimum competence with dry lab robotic surgery drills. *J Minim Invasive Gynecol*. 2016 May-Jun;23(4):633-8.

Simpson KM, Advincula AP. The essential Elements of a robotic-assisted laparoscopic hysterectomy. *Obstet Gynecol Clin North Am*. 2016 Sep;43(3):479-93.

Evans EC, Matteson KA, Orejuela FJ, Alperin M, Balk EM, El-Nashar S, Gleason JL, **Grimes CL**, Jeppson P, Matthews C, Wheeler TL, Murphy M, Society of Gynecologic Surgeons Systematic Review Group. Salpingo-oophorectomy at the Time of Benign Hysterectomy: A Systematic Review. *Obstet Gynecol*. 2016 Sep; 128(3):476-85.

Olivera CK, Meriwether K, El-Nashar S, **Grimes CL**, Chen CC, Orejuela F, Antosh D, Gleason J, Kim-Fine S, Wheeler T, McFadden B, Balk EM, Murphy M, Systematic Review Group for the Society of Gynecologic Surgeons. Nonantimuscarinic treatment for overactive bladder: a systematic review. *Am J Obstet Gynecol*. 2016 Jul;215(1):34-57.

Truong M, Kim JH, Scheib S, Paztkowsky K. Advantages of robotics in benign gynecologic surgery. *Curr Opin Obstet Gynecol*. 2016 Aug;28(4):304-10.

Perez M, Xu S, Chauhan S, Tanaka A, **Simpson, K** Abdul-Muhsin H, Smith R. Impact of delay on telesurgical performance: study on the robotic simulator dv-Trainer. *Int J Comput Assist Radiol Surg*. 2016 Apr;11(4):581-7.

Holst D, Kowalewski TM, White LW, Brand TC, Harper JD, Sorensen MD, **Truong M, Simpson K**, Tanaka A, Smith R, Lendvay TS. Crowd-sourced assessment of technical skills: Differentiating animate surgical skill through the wisdom of crowds. *J Enourol*. 2015 Oct;29(10):1183-88.

Smith R. **Truong M**. Comparative analysis of the functionality of simulators of the da Vinci surgical robot. *Surg Endosc*. 2015 Apr;29(4):972-83.

Pitter MC. Srouji SS, Gargiulo AR, Kardos L, Seshadri-Kreadon U, Hubert HB, Weitzman GA. Fertility and symptom relief following robot-assisted laparoscopic myomec-tomy. *Obstet Gynecol Int'l*. 2015;2015:967568.

Non-Industry, PI-Initiated

Kim, JH	Ovarian pathology in breast cancer patients undergoing oophorectomy to facilitate cancer treatment with aromatase inhibitors
Grimes, CL	Treatment of refractory overactive bladder with OnabotulinumtoxinA vs. PTNS
Grimes, CL	Pelvic floor disorders research registry (PFDR-R)
Grimes, CL	Evaluation of ureteral patency in the post-indigo carmine era
Grimes, CL	Accuracy of intra-operative frozen gynecologic specimens
Grimes, CL	Validation of electronic (web-based and smartphone) administration of measures of pelvic floor dysfunction
Grimes, CL	Feasibility of prophylactic salpingectomy during vaginal hysterectomy
Rackow, B	Prevalence of mullerian anomalies in a pediatric and adolescent population with urinary tract anomalies
Kim, JH / Young, CA	Assessing activity and recovery following benign gynecologic surgery using validated tool sets and novel technology
Ryntz, T	Can dynamic MRI offer insight into underlying pathophysiology of idiopathic menorrhagia?

Industry Funded

Kim, JH	Clinical study protocol M12-817: A Phase 3 study to evaluate the safety and efficacy of Elagolix in combination with Estradiol/Norethindrone Acetate for the management of heavy menstrual bleeding associated with uterine fibroids in premenopausal women
Grimes, CL	Postmarket study PS130044/ Uphold LITE / U8090: A prospective, non-randomized, parallel cohort, multi-center study of Uphold LITE vs. native tissue for the treatment of women with anterior/apical pelvic organ prolapse
Ryntz, T	A comparison of CO2 absorption during gynecologic laparoscopy using the AirSeal® valveless trocar system versus standard insufflation trocars at intra-abdominal pressures of 10 mmHg and 15 mmHg – a randomized controlled trial

Completed, Closed, and Inactive Studies

Kim, JH	M14-702 - A Phase 3 study to evaluate the safety and efficacy of Elagolix in combination with Estradiol/Norethindrone Acetate in subjects with moderate to severe endometriosis-associated pain
Kim, JH	Extension study to evaluate the efficacy and safety of Elagolix in premenopausal women with heavy menstrual bleeding associated with uterine fibroids
Rackow, B	Video game proficiency and surgical robotic skills
Kim, JH	A randomized, double-blind, placebo-controlled study to evaluate the safety and efficacy of Elagolix in subjects with moderate to severe endometriosis-associated pain

About Columbia University Medical Center

Columbia University Medical Center provides international leadership in basic, preclinical, and clinical research; medical and health sciences education; and patient care. The medical center trains future leaders and includes the dedicated work of many physicians, scientists, public health professionals, dentists, and nurses at the College of Physicians & Surgeons, the Mailman School of Public Health, the College of Dental Medicine, the School of Nursing, the biomedical departments of the Graduate School of Arts and Sciences, and allied research centers and institutions. Columbia University Medical Center is home to the largest medical research enterprise in New York City and State and one of the largest faculty medical practices in the Northeast. The campus that Columbia University Medical Center shares with its hospital partner, NewYork-Presbyterian, is now called the Columbia University Irving Medical Center. For more information, visit cumc.columbia.edu or columbiadoctors.org.

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