

Fellowship in Minimally Invasive Gynecologic Surgery

Curriculum



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Introduction

Virginia Mason Medical Center is known regionally as a gynecological center of excellence. Accredited by the AAGL - American Association of Gynecologic Laparoscopists - the Fellowship in Minimally Invasive Gynecologic Surgery (FMIGS) at Virginia Mason provides two years of hands-on, direct patient care, subspecialty education, and training across a broad spectrum of gynecologic cases. Fellows are provided with a broad and comprehensive education in preoperative management and counseling, surgical case selection, operative management, postoperative care for patients with complex benign gynecologic conditions, and systems approaches to achieving safe outcomes and reducing complications.

Virginia Mason is known nationally and internationally for its application of lean principles via the Virginia Mason Production System (VMPS) to increase patient safety and quality of care while reducing costs. The fellow will be immersed in these principles throughout the fellowship, leading to deepened understanding of the broader healthcare context and how lean methodology can be applied in future practice settings.

Number of Positions

One fellow will be appointed each year, with no more than two fellows at any given time.

Prerequisites for Training

Fellows must have completed an ACGME-accredited residency in obstetrics and gynecology, or a similar field, with eligibility for Washington state licensure.

Eligibility

Candidate's training director must provide a written attestation that the candidate is competent and qualified to perform and be credentialed in basic gynecologic procedures at an independent level. We cannot consider applicants with J1 visa status.

Duration of Training

The planned duration of training is two years.

Training Faculty

The fellow will train with a group of general and minimally invasive gynecologists with expertise in the management of gynecologic malignancies, female pelvic floor reconstruction, and the minimally invasive treatment of advanced-stage endometriosis, uterine fibroids, and dysfunctional uterine bleeding. Gynecologic oncologists complement these core faculty members. Fellows will be exposed to a full range of laparoscopic, hysteroscopic, open, and vaginal procedures. Each member of the Fellowship in Minimally Invasive Gynecologic Surgery program staff and faculty are committed to providing the best possible experience for the fellows. Our aim is to help the fellows deepen skills and take the best care of patients possible.

Marisa Dahlman, MD, MPH, Program Director, is board certified by the American Board of Obstetrics & Gynecology, and graduated from the Columbia University College of Physician and Surgeons, New York, before completing their residency in Obstetrics & Gynecology at Beth Israel Deaconess Medical Center and fellowship in Minimally Invasive Gynecologic Surgery at Henry Ford Health System. Dr. Dahlman's clinical specialties includes gynecology, minimally invasive surgery, laparoscopy, hysteroscopy, robotics surgery and transgender health.

Elena Wagner, MD, Associate Director, is board certified by the American Board of Obstetrics & Gynecology, and graduated from Case Western Reserve University School of Medicine, Cleveland, before completing their internship and residency in Obstetrics & Gynecology at David Geffen School of Medicine at UCLA. Dr. Wagner completed the Fellowship in Minimally Invasive Gynecologic Surgery at Virginia Mason in 2018. Dr. Wagner's clinical specialties includes gynecology, minimally invasive surgery, robotic and laparoscopic surgery, transgender health, and female sexual health.

Allison Barrie, MD, is board certified by the American Board of Obstetrics & Gynecology and graduated from the University of California at Davis, Sacramento, before completing their residency in Obstetrics & Gynecology at Kaiser Foundation Hospital and fellowship in Gynecologic Oncology at University of California at San Diego. Dr. Barrie's clinical specialties includes gynecologic cancer, pelvic surgery, and robotic surgery

Amy Brockmeyer, MD, is board certified by the American Board of Obstetrics & Gynecology, Gynecologic Oncology, Hospice and Palliative Care Medicine. Dr. Brockmeyer is a graduate of the Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, before completing their residency in Obstetrics & Gynecology at Washington University and fellowship in Gynecologic Oncology at University of Southern California. Dr. Brockmeyer's clinical specialties includes gynecologic cancer, minimally invasive surgery, pelvic surgery, and robotic surgery.

Alan Rothblatt, MD, FACOG, is board certified by the American Board of Obstetrics & Gynecology, and graduated from the University of California at San Diego, La Jolla, before completing their internship and residency in Obstetrics & Gynecology at University of Iowa Hospitals. Dr. Rothblatt's clinical specialties includes gynecology, minimally invasive surgery, laparoscopy surgery.

Kirsten Wolff, MD, FACOG, is board certified by the American Board of Obstetrics & Gynecology, and graduated from the University of Vermont College of Medicine, Burlington, before completing their residency in Obstetrics & Gynecology University of North Carolina. Dr. Wolff's clinical specialties includes gynecology, minimally invasive surgery, and hysteroscopy.

Training Institution

Hands-on training occurs at Virginia Mason Medical Center with the possibility of rotation to Virginia Mason Regional Medical Centers within a 25 mile radius. In rare circumstances, the fellow may observe procedures or patient care at other local institutions.

Salary

Salary and benefits are competitive at the regionally-determined PGY level. Fellows are encouraged to attend one national conference in the field annually, and will be reimbursed at the approved physician development fund rate for fellows for that year. The cost of board examination is the responsibility of the fellow and will not be reimbursed.

Experience

Over the course of two years in the fellowship, each fellow will average 3.5 days in the OR, 0.5 day in clinic, and 1 day of research each week. The fellow's time is thus divided into three key areas: 70% operative care, 10% non-operative care, and 20% research publication.

Within the fellowship term, fellows will complete a minimum number cases in hysteroscopy, laparoscopy, minimally invasive hysterectomy, and cystoscopy. (Details of cases can be found here: <https://www.aagl.org/wp-content/uploads/2020/04/Case-Minimums-FMIGS-4.12.2017.pdf>)

Fellows manage day-to-day gynecologic surgical services for both benign and oncologic patients, as well as covering emergencies and inpatient consultations. Fellows also supervise the inpatient team, which includes a PGY-3 Obstetrics and Gynecology resident rotating from the University of Washington (UW) and two physician assistants (PAs), under the guidance of the attending physicians.

In addition to direct mentorship and supervision, fellows participate in resident education at the University of Washington. Topics of education may include: discussions of basic instrumentation, including scope selection, energy sources, and trocar placement; evidence-based surgical management of ectopic pregnancy, adnexal masses, and pelvic pain; diagnosis and management of laparoscopic surgical complications; tissue extraction; discussions of data surrounding the use of the surgical robot in both benign and oncologic cases; and others, as deemed appropriate. Fellows also work with residents in the laparoscopic simulation lab.

Didactics and Conferences

The fellow will attend and actively participate in conferences and meetings at Virginia Mason, to include FMIGS didactic lecture series, M&M conferences, tumor board conferences, journal clubs, and other organizational meetings.

Call Schedule

Call is taken predominantly from home; fellows come into the hospital for emergent consults and surgeries, and to round on the weekends.

Educational Goals

The goal of the fellowship is to teach/learn comprehensive cognitive and technical aspects of minimally invasive gynecologic surgery. The fellows will be mentored and directly supervised by faculty toward achievement of objectives in six areas: surgical skill, patient care, professional, interpersonal skills, and communication; research and teaching; system-based practice, and practice-based learning.

Surgical Skill Objectives

To facilitate achievement of surgical skills objectives, fellows are directly responsible for the management of all patients hospitalized on the gynecologic surgical service, including peri-, intra-, and postoperative care. Under the preceptorship of the fellowship faculty, fellows are responsible for formulating plans of care, including selecting a surgical approach, obtaining preoperative medical clearance, and counseling the patient regarding risks and benefits of the procedure, prior to obtaining informed consent. The case mix for surgical volume is approximately 75% benign gynecology, 15% gynecologic oncology, and 10% urogynecology. Of the benign gynecologic case volume, fellows will be exposed to both major and minor cases. On occasions when a fellow and residents scrub on the same cases, the fellow will act as the primary surgeon and guide the resident through the case under the supervision of the attending physician. All surgery assignments will be reviewed by the Program Director and adjusted as needed to ensure adequate breadth of experience. Each fellow's case log will be evaluated periodically for deficiencies or remediation as needed. Cases will be logged online at: <http://caselog.aagl.org/admin>.

The first year fellow will be preferentially assigned to general laparoscopic cases, hysteroscopy and vaginal surgery, specifically vaginal hysterectomy. Once mastery of skills has

been established, more complex cases will be assigned. Experience in bedside and perineal assisting on robotic cases will be stressed in the first year to prepare fellows for console experience in the second year. The second year fellow will be directed to more advanced benign cases, urogynecology, gynecologic oncology, and console experience on robotic cases.

At the end of **Semester 1**, the fellow will be able to:

1. Thoroughly discuss pelvic anatomy, including blood supply and the anatomical course of the ureters.
2. Successfully insert trocars for laparoscopic and robotic cases.
3. Perform peritoneal insufflation safely, peritoneal entry anteriorly and posteriorly during vaginal hysterectomy.
4. Perform minor laparoscopy, such as tubal ligation and diagnostic laparoscopy at an independent level.
5. Perform uterine manipulation for robotic hysterectomy and other robotic procedures to assist in bedside procedures.
6. Independently perform diagnostic hysteroscopy and polypectomy.

At the end of **Semester 2/Year 1**, the fellow will be able to:

1. Perform total laparoscopic hysterectomy for a normal sized uterus and laparoscopic suturing of the cuff.
2. Appropriately operate the robot from the console to perform salpingectomy or bilateral salpingo-oophorectomy.
3. Perform vaginal hysterectomy.
4. Excise superficial endometriosis laparoscopically.

At the end of **Semester 3**, the fellow will be able to:

1. Identify and distinguish ureter and uterine artery from a retroperitoneal approach.
2. Perform robotic hysterectomy on normal weight uterus.
3. Perform laparoscopic hysterectomy on large (>500g) uteri, laparoscopic myomectomy, and laparoscopic adhesiolysis.
4. Competently perform laparoscopic suturing in both intracorporeal and extracorporeal knot tying.

At the end of **Semester 4/Year 2**, the fellow will be able to:

1. Independently perform myomectomy.
2. Perform ureterolysis.
3. Identify and ligate the uterine artery at its origin.
4. Manage advanced endometriosis, including obliterated cul-de-sac.
5. Manage advanced adhesiolysis and bladder adhesions.

Patient Care Objectives

To facilitate achievement of patient care objectives, clinic experiences will be precepted by faculty, with fellows predominantly seeing consultations for gynecologic problems including pelvic pain, abnormal bleeding, uterine fibroids, and cervical dysplasia. Fellows complete the workup; counsel patients on management options, including both medical and surgical interventions; and follow their own clinic patients through their operative and postoperative courses. Interested fellows may arrange, at their own initiative, additional rotations with other Virginia Mason specialists for more exposure to specialized care and procedures such as urodynamics, endoscopic bowel surgery, transplant surgery, or interventional radiology.

Fellows are directly supervised by faculty. The senior (second year) fellow acts as the leader of the gynecologic care team, aided by the junior (first year) fellow. Plans of care are approved by the patients' covering attending physicians. All hospital progress notes are co-signed and all surgical procedures are directly supervised by the attending physician who is physically present. Fellows are encouraged to formulate a plan of treatment and present it to the attending physician, who will assess their preparation for advancing to independent practice. The second year fellow supervises preparation of weekly operating room case assignments and the on-call schedule, with oversight from the Program Director.

At the end of **Semester 1**, the fellow will be able to:

1. Evaluate patients in clinic and provide a concise summary to the attending physician with appropriate understanding of physical examination and radiographic findings.

2. Provide a rough outline of the proposed surgical or nonsurgical plan, including radiographic assessment and clinical presentation that are the indications for the surgical procedure.
3. Independently manage the bi-monthly multidisciplinary tumor board conference and M&M conference.

At the end of **Semester 2/Year 1**, the fellow will be able to:

1. Evaluate patients independently in clinic.
2. Develop and present to an attending physician a surgical or nonsurgical management plan supported by medical/surgical literature.
3. Work as an integral part of the surgical team managing postoperative care for patients during their hospital stay.

At the end of **Semester 3**, the fellow will be able to:

1. Independently evaluate simple and complex gynecology patients in clinic.
2. Develop and provide an appropriate surgical plan.

At the end of **Semester 4/Year 2**, the fellow will be able to:

1. Manage complications of complex gynecologic surgery, including urinary tract injury, gastrointestinal tract injury, intraoperative and post-operative bleeding, and post-operative infection.
2. Engage meaningfully with perioperative providers, primarily the anesthesia team, including in appropriate pre-operative discussions regarding blood transfusion, anesthetic choice, and post-operative triaging of patients.

Professional Conduct, Interpersonal Skill and Communication Objectives

The fellows, throughout all semesters of the program, will:

1. Communicate effectively with patients and families in a compassionate, culturally, and gender sensitive manner, including diagnosis treatment plan and follow-up care.
2. Appropriately notify supervising attending physicians of changes in the clinical status of patients and request consultations appropriately.
3. Effectively discuss end-of-life care with patients and their families.
4. Maintain communication with charge nurses, inpatient schedulers, attending physicians, nurses, technicians, and all team members regarding patients and the surgical and clinical schedules.
5. Supervise and lead the team appropriately, demonstrating commitment to ethical principles pertaining to the provision or withholding of care, patient confidentiality, and informed consent.

Research & Teaching Objectives

The research curriculum is directed based upon the fellow's own research interests, with potential to include education, both online and in-person, in research methodology and in the conducting of clinical trials. Fellows have one day per week dedicated to research.

In consultation with the Program Director, Associate Program Director, and fellowship faculty, each fellow identifies a clinically-relevant question to research and answer during the first six months of the fellowship. Each fellow is responsible for drafting and submitting the IRB proposal, collecting data, and writing up the results for publication. Fellows prepare at least one manuscript for publication by the end of the fellowship.

Virginia Mason Medical Center also participates in the Quality Improvement Outcomes Research Network through the American Urogynecology Society. Fellows are expected to submit abstracts for presentation at the AAGL National Meeting and other meetings as appropriate, and will attend the AAGL conference annually.

All research data must be stored on a secured, shared drive. No Patient Health Information (PHI) may be placed on a flash drive or moved from the secured, shared drive in any manner. If the fellow is unable to complete a manuscript prior to completion of program appointment, authorship may change. Access to Virginia Mason's electronic medical record, including for the purpose of research, concludes when the appointment ends.

At the end of **Semester 1**, the fellow will:

1. Complete CITI GCP/Ethics training.
2. Complete free online refresher courses on statistical analysis.
3. Complete a literature review on topics of potential research interest and identify knowledge gaps in Minimally Invasive Gynecologic Surgery peer-reviewed literature.
4. Based on a literature review, propose study objectives with well-defined aims.

5. Develop study methodology, data collection tool, IRB applications for proposed studies.
6. Submit IRB application and complete initial data abstraction for a minimum of one IRB-approved research project.
7. Give a 30-minute presentation to fellowship faculty.

At the end of **Semester 2/Year 1**, the fellow will:

1. Following approval of co-authors, submit abstracts to a national meeting.
2. Identify and receive IRB approval for one to two additional, feasible research studies.
3. Finalize data collection and analysis for study/studies developed in the first semester.
4. Write and distribute manuscript(s) to co-authors for revision.
5. Give a 30-minute presentation to fellowship faculty.

At the end of **Semester 3**, the fellow will:

1. Finalize all data collection and analysis for new studies developed in the second semester.
2. Obtain final approval of manuscripts and complete tables, figures from all co-authors.
3. Submit two to three manuscripts to peer-reviewed journals, listing self as corresponding author.
4. Give a 30-minute presentation to fellowship faculty.

At the end of **Semester 4/Year 2**, the fellow will:

1. Complete all manuscript preparation, including revisions with co-author feedback.
2. Provide written summary for all existing IRB-studies.
3. Present research at a national meeting.
4. Give a 30-minute presentation to fellowship faculty.

System-based Practice Objectives

Immersion in all aspects of patient care and physician leadership provides fellows with daily opportunities to demonstrate awareness of and responsiveness to the larger context and system of health care. Fellows are expected, throughout all semesters of the program to:

1. Work effectively in various health care delivery settings and systems relevant to their clinical specialty.
2. Coordinate patient care within the health care system relevant to their clinical specialty.
3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.
4. Advocate for quality patient care and optimal patient care systems.
5. Work in inter-professional teams to enhance patient safety and improve patient care quality.
6. Participate in identifying system errors and implementing potential systems solutions.

Practice-based Learning Objectives

Practice-Based Learning and Improvement is an essential competency that facilitates learning and improvement not only during the fellowship, but throughout the practicing fellows' lifelong career. The fellows must demonstrate the ability to investigate and evaluate their care of patients, comprehend relevant information, and have a commitment to lifelong learning.

1. Identify strengths, deficiencies, and limits in one's knowledge and expertise.
2. Set learning and improvement goals.
3. Identify and perform appropriate learning activities.
4. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
5. Incorporate formative evaluation feedback into daily practice.
6. Locate, appraise and assimilate evidence from scientific studies related to their patient's health problems.
7. Use information technology to optimize learning.
8. Participate in the education of patients, families, students, residents, and other health professionals.

Teaching Methods

The principal teaching methods of the FMIGS program are case- and/or procedural-based discussions and instruction led by the attending physician. A majority of teaching will involve direct instruction in the performance of gynecologic procedures under supervision of attending physicians and may also include:

1. Modeling by attending physician
2. Direct 1:1 instruction by attending physician
3. Hands-on training supervised by attending physician
4. Participation in regularly scheduled clinical conferences
5. Attendance at annual, scheduled, and small conferences and meetings
6. Use of scientific literature and information technology
7. Preparation and delivery of Virginia Mason Grand Rounds presentations
8. Attestation of reading from core Reading List (see Appendix 1 & 2)

Evaluation and Feedback

A standard written evaluation of each fellow will be completed on a semi-annual basis. The fellows will receive written evaluations from faculty, professional staff, and patients, during the first and third semester. Second semester and annual evaluations will be evaluated by faculty only. Evaluation meetings will include discussion of the written evaluation and review of the fellow's case log, in order to ensure sufficient breadth of experience.

The methods of evaluation used for assessing fellow competence include:

1. Direct observation by teaching staff
2. Written feedback submitted to Program Director from teaching staff and non-physician members of the inpatient and outpatient care team
3. Quarterly informal evaluation meetings with the Program Director
4. Semi-annual formal written evaluation with the Program Director

Twice yearly, fellows have a specific surgical procedure observed and evaluated by the Program Director, either directly in the operating room or by watching a complete and unedited video of a single procedure. The Program Director will provide specific feedback on surgical technique, including selection and usage of instruments, efficiency of movement, care and handling of tissues, specimen extraction, and wound closure.

Fellows submit annual evaluations of teaching faculty and the program. These evaluations are distributed by and returned to the Program Director, who is responsible for maintaining the confidentiality of the results. The fellows may raise concerns or complaints directly to the Program Director. In cases where the Program Director is not available, or if the grievance involves the Program Director, the fellows may bring the issues to the Associate Program Director, Office of Graduate Medical Education, Human Resources, or the Chief of the

Department of Surgery.

Grievance Policy

The Fellowship in Minimally Invasive Gynecologic Surgery at Virginia Mason abides by the Grievance Policy under AAGL and Virginia Mason Medical Center.

Please refer to AAGL's Grievance Policy found here: <https://www.aagl.org/wp-content/uploads/2018/02/Grievance-Committee-Policy-.pdf>

Please refer to Virginia Mason Medical Center's Grievance Policy found here:

http://vnet.vmmc.org/Policies/Published/policy_F8CD09.pdf#search=grievance%20policy

Competency Assessment

Fellow competency in the following areas will be assessed on a semi-annual basis:

1. Patient care
2. Surgical Skills
3. Practice-based learning and improvement
4. Interpersonal and communication skills
5. Professionalism
6. Systems-based practice



APPENDIX 1: Fellowship in Minimally Invasive Gynecologic Surgery (FMIGS) Core Reading List

1. Abdominal and Pelvic Anatomy:

1. Nezhat F et al. Laparoscopic appraisal of the anatomic relationship of the umbilicus to the aortic bifurcation. *J Am Assoc Gynecol Laparosc.* 1998; 5(2):135-140.
2. Whiteside JL et al. Anatomy of ilioinguinal and iliohypogastric nerves in relation to trocar placement and low transverse incisions. *Am J Obstet Gynecol.* 2003. 189(6):1574-1578.
3. Hurd WW et al. The location of abdominal wall blood vessels in relationship to abdominal landmarks apparent at laparoscopy. *Am J Obstet Gynecol.* 1994;174(3):642-646.
4. Tulikangas PK et al. Anatomy of the left upper quadrant for cannula insertion. *J Am Assoc Gynecol Laparosc.* 2000; 7(2):211-214.
5. Rahn DD, Phelan JN, Roshanravan SM, White AB, Corton MM. Anterior abdominal wall nerve and vessel anatomy: clinical implications for gynecologic surgery. *Am J Obstet Gynecol.* 2010 Mar;202(3):234

2. Menstrual Cycle Physiology:

1. Farage MA, Neill S, MacLean AB. Physiological changes associated with the menstrual cycle: a review. *Obstet Gynecol Surv.* 2009 Jan;64(1):58-72
2. Iacovides S, Avidon I, Baker F. What we know about primary dysmenorrhea today: a critical review. *Human Reproduction Update, Vol.21, No.6 pp. 762–778, 2015*
3. Al-Safi ZA, Santoro N. Menopausal hormone therapy and menopausal symptoms. *Fertil Steril.* 2014;101(4):905-915

Supplemental:

1. Speroff, Leon et al *Clinical Gynecologic Endocrinology and Infertility* 6th ed. 1999 Lippincott Williams & Wilkins. Chapter 8: Regulation of the Menstrual Cycle. Available online:
<http://www.medicalcityiq.net/medlib/Clinical%20Gynecologic%20Endocrinology%20and%20Infertility.pdf>
2. <https://creogsovercoffee.com/notes/2019/3/24/the-menstrual-cycle>
3. Critchley HOD, Maybin JA, Armstrong GM, Williams ARW. Physiology of the Endometrium and Regulation of Menstruation. *Physiol Rev.* 2020;100(3):1149-1179.

3. Abnormal Uterine Bleeding:

1. Armstrong AJ et al. Diagnosis and management of endometrial hyperplasia. *J Minim Invasive Gynecol* 2012 Sep-Oct; 19(5):562-571.
2. Munro MG, Critchley HO, Broder MS, Fraser IS; FIGO Working Group on Menstrual Disorders. FIGO classification system (PALM-COEIN) for causes of abnormal uterine bleeding in nonpregnant women of reproductive age. *Int J Gynaecol Obstet.* 2011 Apr;113(1):3-13.
3. Salim S et al. Diagnosis and management of endometrial polyps: A critical review of the literature. *J Minim Invasive Gynecol* (2011) Sep-Oct;18(5):569–581.
4. Wheeler TL et al. Clinical practice guideline for abnormal uterine bleeding: Hysterectomy versus alternative therapy. *J Minim Invasive Gynecol* (2012) Jan-Feb; 19(1):81–88.

4. Cesarean scar defects/Isthmocele

1. Tower A, Frishman G. Cesarean scar defects: an underrecognized cause of abnormal uterine bleeding and other gynecologic complications. *JMIG* 2013;20:562-572.
2. Sipahi S, Sasaki K, Miller CE. The minimally invasive approach to the symptomatic isthmocele – what does the literature say? A step-by-step primer on laparoscopic isthmocele-excision and repair. *Curr Opin Obstet Gynecol*. 2017 Aug;29(4):257-265.
3. Donnez O, Donnez J, Orellana R, Dolmans MM. Gynecological and obstetrical outcomes after laparoscopic repair of a cesarean scar defect in a series of 38 women. *Fertil Steril*. 2017 Jan;107(1):289-296.

Video Topics:

1. Laparoscopic Management of Cesarean Scar Ectopic Pregnancy:
<https://www.surgery.com/detail/4024>
2. Repair of isthmocele -laparoscopic approach
3. Repair of isthmocele -hysteroscopic approach
http://s3.amazonaws.com/ctt.oasis.video/meetings/5761/5761_a484_1.mp4

5. Uterine Leiomyoma:

1. AAGL Practice Report: Practice guidelines for the diagnosis and management of submucous leiomyomas. *J Minim Invasive Gynecol* 2012 Mar-Apr; 19(2):152–171.
2. Levy G, Hill MJ, Beall S, Zarek SM, Segars JH, Catherino WH. Leiomyoma: genetics, assisted reproduction, pregnancy and therapeutic advances. *J Assist Reprod Genet*. 2012 Aug;29(8):703-12.
3. Gupta JK, Sinha A, Lumsden MA, Hickey M. Uterine artery embolization for symptomatic uterine fibroids. *Cochrane Database of Systematic Reviews*, 2014; Issue 12. Art. No.: CD005073. DOI:10.1002/14651858.CD005073.pub4
4. Pritts EA, Vanness DJ, Berek JS, Parker W, Feinberg R, Feinberg J, Olive DL. The prevalence of occult leiomyosarcoma at surgery for presumed uterine fibroids: a meta-analysis. *Gynecol Surg*. 2015;12(3):165-177.

Supplemental:

1. Martin J et al. Complications and reinterventions in uterine artery embolization for symptomatic uterine fibroids: A literature review and meta analysis. *Cardiovasc Intervent Radiol* (2013) 36:395–402.

6. Endometriosis/Adenomyosis

1. Medical management of endometriosis:

1. Vercellini P, Viganò P, Somigliana E, Fedele L. Endometriosis: pathogenesis and treatment. *Nat Rev Endocrinol*. 2014 May;10(5):261-75. doi: 10.1038/nrendo.2013.255. Epub 2013 Dec 24.
2. Stratton P, Berkley KJ. Chronic pelvic pain and endometriosis: translational evidence of the relationship and implications. *Hum Reprod Update*. 2011 May-Jun;17(3):327-46.
3. Falcone T, Flyckt R. Clinical management of endometriosis. *Obstet Gynecol*. 2018;131(3):557-571. PMID: 29420391.

2. Surgical management of endometriosis:

1. Centini G. Impact of Laparoscopic Surgical Management of Deep Endometriosis on Pregnancy Rate. *J Minim Invasive Gynecol*. 2016 Jan;23(1):113-9.
2. Raffi F. The impact of excision of ovarian endometrioma on ovarian reserve: a systematic review and meta-analysis. *J Clin Endocrinol Metab*. 2012 Sep;97(9):3146-54 (possible supplemental)
3. Kho RM, Abrao MS. Ovarian remnant syndrome: etiology, diagnosis, treatment and impact of endometriosis. *Curr Opin Obstet Gynecol*. 2012;24(4):210-214.
4. Knabben L, Imboden S, Fellman B, Nirgianakis K, Kuhn A, Mueller MD. Urinary tract endometriosis in patients with deep infiltrating endometriosis: prevalence, symptoms,

management and proposal for a new clinical classification. *Fertil Steril*, 103 (2015), pp. 147–152.

5. Abrão MS, Petraglia F, Falcone T, Keckstein J, Osuga Y, Chapron C. Deep endometriosis infiltrating the recto- sigmoid: critical factors to consider before management. *Hum Reprod Update*. 2015 May-Jun;21(3):329-39.
6. Peters A, Mansuria SM. The role of appendectomy at the time of laparoscopic surgery for benign gynecologic conditions. *Curr Opin Obstet Gynecol*. 2018 Aug;30(4):237-242.

3. Adenomyosis:

1. Struble J, Reid S, Bedaiwy MA. Adenomyosis: A Clinical Review of a Challenging Gynecologic Condition. *J Minim Invasive Gynecol*. 2016 Feb 1;23(2):164-85.
2. Garcia L Isaacson K. Adenomyosis: Review of the Literature. *J Minim Invasive Gynecol*. 2011 Jul-Aug;18(4):428-37.
3. Osada H. Uterine adenomyosis and adenomyoma: the surgical approach. *Fertil Steril*. 2018 Mar;109(3):406-417.

Video topics:

1. Excision of deep infiltrating endometriosis: <https://www.surgeryu.com/detail/1605>
2. Management of endometriomas: <https://www.surgeryu.com/detail/1456>
3. Conservative laparoscopy for obliterated posterior culdesac: <https://www.surgeryu.com/detail/723>
4. Uterine adenomyoma excision: <https://www.surgeryu.com/detail/3122>

6. Adnexal pathology:

1. ACOG practice bulletin No.83. Management of adnexal masses. *Obstet Gynecol*. 2007 Jul;110(1):201-14. Reaffirmed 2015.
2. Liu JH, Zanotti KM. Management of the adnexal mass. *Obstet Gynecol*. 2011 Jun;117(6):1413-28.
3. Sisodia RM, Del Carmen MG, Boruta DM. Role of Minimally Invasive Surgery in the Management of Adnexal Masses. *Clin Obstet Gynecol*. 2015; 58(1): 66-75.
4. Sadowski, E A., Rockall AG, Maturen KE, Robbins JB, Thomassin-Naggara I. Adnexal lesions: Imaging strategies for ultrasound and MR imaging. *Diagnostic and interventional imaging*. 2018 Aug 31. pii: S2211-5684(18)30154-2.

Video topics:

1. Removal of large adnexal masses utilizing different techniques
<https://surgeryu.com/detail/4529>
<https://surgeryu.com/detail/3936>

7. Acute pelvic pain:

1. Bhosale PR1, Javitt MC, Atri M, Harris RD, Kang SK, Meyer BJ, Pandharipande PV, Reinhold C, Salazar GM, Shipp TD, Simpson L, Sussman BL, Uyeda J, Wall DJ, Zelop CM, Glanc P. ACR Appropriateness Criteria Acute Pelvic Pain in the Reproductive Age Group. *Ultrasound Q*. 2015 Nov 19.
2. Kruszka PS1, Kruszka SJ. Evaluation of acute pelvic pain in women. *Am Fam Physician*. 2010 Jul 15;82(2):141-7.
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<https://www.surgeryu.com/detail/4164>
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Complications (general)

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- Morcellation during uterine tissue extraction: An Update. *J Minim Invasive Gynecol.* 2018 May - Jun;25(4):543-550.
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Video topics:

- ExCITE technique: <https://www.surgeryu.com/detail/4105>
- In-bag morcellation: <https://www.surgeryu.com/detail/1281>

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22. Hysterectomy:

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Video topics

None

23. Myomectomy:

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Video topics

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3. Peters, A., et al. (2020). "Tigers in the Sidewall: Surgical Approaches to Excision of Lateral Deep Infiltrating Endometriosis." J Minim Invasive Gynecol 27(2): 259.
4. "Laparoscopic anatomy of the autonomic nerves of the pelvis and the concept of nerve-sparing surgery by direct visualization of autonomic nerve bundles
5. Kanno, K., et al. (2020). "Fertility- and Nerve-sparing Laparoscopic Eradication of Deep Endometriosis with Total Posterior Compartment Peritonectomy: The Kurashiki Method." J Minim Invasive Gynecol
6. Jan, H. and V. Ghai (2019). "Ureterolysis for Laparoscopic Hysterectomy." J Minim Invasive Gynecol 26(3): 401.
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25. Surgical Treatment of Pelvic Organ Prolapse and Incontinence:

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Supplemental:

1. The American College of Obstetricians and Gynecologists and the American Urogynecologic Society INTERIM UPDATE: This Practice Bulletin is updated as highlighted to reflect the US Food and Drug Administration order to stop the sale of transvaginal synthetic mesh products for the repair of pelvic organ prolapse. Pelvic Organ Prolapse, Female Pelvic Medicine & Reconstructive Surgery: 11/12 2019 - Volume 25 - Issue 6 - p 397-408 doi: 10.1097/SPV.0000000000000794

26. Professionalism, Ethics, Accountability and Communication

1. Committee on Ethics. ACOG Committee Opinion Number 541: Professional relationships with industry. Obstet Gynecol. 2012 Nov;120(5):1243-9.
2. Committee on Patient Safety and Quality Improvement; Committee on Professional Liability. ACOG Committee Opinion No. 681: Disclosure and discussion of adverse events. Committee Opinion No. 681. American College of Obstetricians and Gynecologists. Obstet Gynecol 2016;128:e257-61.
3. Committee on Health Care for Underserved Women. ACOG Committee Opinion No. 729: Importance of Social Determinants of Health and Cultural Awareness in the Delivery of

Reproductive Health Care. *Obstet Gynecol.* 2018 Jan;131(1):e43-e48. doi: 10.1097/AOG.0000000000002459.

4. Committee on Patient Safety and Quality Improvement. ACOG Committee Opinion No. 730: Fatigue and Patient Safety. *Obstet Gynecol.* 2018 Feb;131(2):e78-e81. doi: 10.1097/AOG.0000000000002502.
5. Behavior that undermines a culture of safety. Committee Opinion No. 683. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2017;129:e1-4.
6. Professional use of digital and social media. ACOG Committee Opinion No. 791. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2019;134:e117-21.
7. Community involvement and volunteerism. ACOG Committee Opinion No. 437. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2009;114:203-4.
8. ACOG committee opinion. Sexual misconduct in the practice of obstetrics and gynecology: ethical considerations. Number 144--November 1994. Committee on Ethics. American College of Obstetricians and Gynecologists. *Int J Gynaecol Obstet.* 1995;48(2):239-242.

27. Research Design, Analysis and Interpretation:

1. Macedonia CR, Johnson CT, Rajapakse I. Advanced Research and Data Methods in Women's Health: Big Data Analytics, Adaptive Studies, and the Road Ahead. *Obstet Gynecol.* 2017;129(2):249-264. doi:10.1097/AOG.0000000000001865
2. Turrentine M. It's All How You "Spin" It: Interpretive Bias in Research Findings in the Obstetrics and Gynecology Literature. *Obstet Gynecol.* 2017;129(2):239-242. doi:10.1097/AOG.0000000000001818
3. The Lancet Handbook of Essential Concepts in Clinical Research

Supplemental:

1. Grimes DA, Schulz KF. An overview of clinical research: the lay of the land. *Lancet.* 2002 Jan 5;359(9300):57- 61.
2. Grimes DA, Schulz KF. Descriptive studies: what they can and cannot do. *Lancet.* 2002 Jan 12;359(9301):145- 9.
3. Grimes DA, Schulz KF. Bias and causal associations in observational research. *Lancet.* 2002 Jan 19;359(9302):248-52.
4. Grimes DA, Schulz KF. Cohort studies: marching towards outcomes. *Lancet.* 2002 Jan 26;359(9303):341-5.
5. Schulz KF, Grimes DA. Case-control studies: research in reverse. *Lancet.* 2002 Feb 2;359(9304):431-4.
6. Grimes DA, Schulz KF. Uses and abuses of screening tests. *Lancet.* 2002 Mar 9;359(9309):881-4. Review. Erratum in: *Lancet.* 2008 Jun 14;371(9629):1998.
7. Grimes DA, Schulz KF. Compared to what? Finding controls for case-control studies. *Lancet.* 2005 Apr 16- 22;365(9468):1429-33.
8. Grimes DA, Schulz KF. Refining clinical diagnosis with likelihood ratios. *Lancet.* 2005 Apr 23- 29;365(9469):1500-5.
9. McGee S. Simplifying likelihood ratios. *J Gen Intern Med.* 2002 Aug;17(8):646-9.
10. Schulz KF, Grimes DA. Generation of allocation sequences in randomized trials: chance, not choice. *Lancet.* 2002 Feb 9;359(9305):515-9.
11. Schulz KF, Grimes DA. Allocation concealment in randomised trials: defending against deciphering. *Lancet.* 2002 Feb 16;359(9306):614-8.
12. Schulz KF, Grimes DA. Blinding in randomised trials: hiding who got what. *Lancet.* 2002 Feb 23;359(9307):696-700.
13. Schulz KF, Grimes DA. Sample size calculations in randomised trials: mandatory and mystical. *Lancet.* 2005 Apr 9-15;365(9467):1348-53.

14. Schulz KF, Grimes DA. Multiplicity in randomised trials I: endpoints and treatments. *Lancet*. 2005 Apr 30-May 6;365(9470):1591-5.
15. Schulz KF, Grimes DA. Multiplicity in randomised trials II: subgroup and interim analyses. *Lancet*. 2005 May 7- 13;365(9471):1657-61.
16. Schulz KF, Grimes DA. Unequal group sizes in randomised trials: guarding against guessing. *Lancet*. 2002 Mar 16;359(9310):966-70. PubMed PMID: 11918933.

28. Emerging Topics:

1. Francis N, Dort J, Cho E, et al. SAGES and EAES recommendations for minimally invasive surgery during COVID-19 pandemic. *Surg Endosc*. 2020;34(6):2327-2331. doi:10.1007/s00464-020-07565-w

APPENDIX 2: FMIGS Lecture and Reading List Attestation (SAMPLE)

Date: _____

Journal/Book club: *In Shock* by Rana Awdish

30. Professionalism, Ethics, Accountability and Communication:

1. ACOG Committee Opinion No. 600: Ethical issues in the care of the obese woman. *Obstet Gynecol.* 2014 Jun;123(6):1388-93.
2. Medical Professionalism Project. Medical professionalism in the new millennium: a physicians' charter. *Lancet.* 2002 Feb 9;359(9305):520-2.
3. Committee on Ethics. ACOG Committee Opinion Number 541: Professional relationships with industry. *Obstet Gynecol.* 2012 Nov;120(5):1243-9.
4. Committee on Patient Safety and Quality Improvement; Committee on Professional Liability. ACOG Committee Opinion No. 520: Disclosure and discussion of adverse events. *Obstet Gynecol.* 2012 Mar;119(3):686-9.

I attest that I have attended this month's lecture and read the required articles.

Fellow Signature: _____

Fellow Print Name: _____

Date: _____

APPENDIX 3: FMIGS Case Minimums



FMIGS CASE MINIMUMS

Case Type		Minimum Case Number
Hysteroscopy	Non-Global Endometrial Ablation	25
	Myomectomy	
	Polypectomy	
	Lysis of adhesions	
	Septum/isthmocele resection	
	Office-Based	15
Laparoscopy	Myomectomy	15
	Adnexal Surgery	35
	Retroperitoneal Dissection	35
	Adhesiolysis	30
	Endometriosis Surgery (Stage III and IV)	35
Minimally Invasive Hysterectomy	Laparoscopic Hysterectomy +/- BSO	110
	Robotic Hysterectomy +/- BSO	
	LAVH +/- BSO	
	*Vaginal Hysterectomy +/- BSO	
Cystoscopy	Diagnostic or operative	15

* While no minimum number is required, programs must ensure competency.

Case Review Committee
Revision 4.12.17 FMIGS
Board Approved 1.23.17