Complex Benign Gynecology Fellowship (CBGF)

Curriculum

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Introduction

Virginia Mason Franciscan Health is known regionally as a center of excellence for complex gynecologic surgery. Accredited by the AAGL (American Association of Gynecologic Laparoscopists), the Complex Benign Gynecology Fellowship (CBGF) (CBGF) 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 comprehensive evidence-based education in preoperative management and counseling, surgical case selection, operative techniques, and 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 a deepened understanding of the broader healthcare context and how lean methodology can be applied in future practice settings.

Number of Positions

There are three fellows in total, with appointments of one and two fellows in alternating years.

Prerequisites for Training

Candidates must be citizens or legal permanent residents of the United States. Fellows must have completed an ACGME-accredited residency in Obstetrics and Gynecology, with eligibility for Washington state medical licensure.

Eligibility

Each 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.

Duration of Training

The planned duration of training is two years.

Training Faculty

The faculty includes CBGF-trained surgeons with expertise in the management of the minimally invasive treatment of advanced-stage endometriosis, uterine fibroids, and dysfunctional uterine bleeding; two gynecologic oncologists; and one reproductive endocrinologist. Fellows will be exposed to a full range of laparoscopic, hysteroscopic, open, and vaginal procedures. Each member of the Complex Benign Gynecology Fellowship (CBGF) 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 certified by the American Board of Obstetrics & Gynecology and has a focused practice designation in Minimally Invasive Gynecologic Surgery. She graduated from the Columbia University College of Physicians and Surgeons in New York, before completing her residency in Obstetrics & Gynecology at Beth Israel Deaconess Medical Center in Boston and fellowship in Minimally Invasive Gynecologic Surgery at Henry Ford Health System in Michigan. Dr. Dahlman's clinical specialties include advanced endometriosis and pelvic pain, uterine fibroids, abnormal bleeding, and transgender health.

Megan Loring, MD, Associate Program Director is board certified by the American Board of Obstetrics & Gynecology. She graduated medical school at the University of California, San Francisco, before completing her residency at Stanford University Hospital and her fellowship at Newton-Wellesley Hospital. Dr. Loring is a Fellow of the American Congress of Obstetricians and Gynecologists and is certified by Intuitive Surgical as a Robotic Console Surgeon. She is a gynecologist with a focused practice designation in minimally invasive gynecologic surgery (MIGS). Additionally, she specializes in operative hysteroscopy; endometriosis and pelvic pain; and fibroids and

abnormal uterine bleeding.

Elena Wagner, MD, Associate Program Director, is board certified by the American Board of Obstetrics & Gynecology. She graduated from Case Western Reserve University School of Medicine, Cleveland, before completing her internship and residency in Obstetrics & Gynecology at David Geffen School of Medicine at UCLA. Dr. Wagner completed the Complex Benign Gynecology Fellowship (CBGF) at Virginia Mason in 2018. Dr. Wagner's clinical specialties include 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. She received her medical degree from the University of California at Davis before completing her 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, and completed her residency in Obstetrics & Gynecology at Washington University and fellowship in Gynecologic Oncology at University of Southern California. Dr. Brockmeyer's clinical specialties include gynecologic cancer, minimally invasive surgery, pelvic surgery, and robotic surgery.

Parisa Khalighi, MD, is a board-certified and fellowship-trained minimally invasive gynecologic surgeon. She attended medical school at Case Western Reserve University in Cleveland, OH, and completed Obstetrics and Gynecology residency training at the University of Colorado in Denver, CO. Born and raised in Seattle, she was thrilled to come home for fellowship at Virginia Mason Medical Center in Seattle, WA, where she completed two years of fellowship training in minimally invasive gynecologic surgery (FMIGS)/Complex Benign Gynecology. Patient-centered care is at the core of Dr. Khalighi's practice, with a particular emphasis on surgical and medical management of chronic pelvic pain, endometriosis, uterine fibroids, and abnormal uterine bleeding.

Paul Lin, MD, is a board-certified in both OB/GYN and Reproductive Endocrinology and Infertility. After graduating from Columbia University in New York City, Dr. Lin graduated from Albany Medical College, completed his residency in Obstetrics and Gynecology at Tufts University Baystate Medical Center, and completed his REI Fellowship at University of Louisville School of Medicine. He currently serves at Seattle Reproductive Medicine as the Medical Director of the Seattle Reproductive Surgery Center (where egg retrievals and hysteroscopies are performed). Dr. Lin is currently the President of the Society of Assisted Reproductive Technology (sart.org) and board member of the American Society of the Reproductive Medicine. He has a special love and interest in reproductive surgery and extensive experience with laparoscopic and hysteroscopic fibroid removal; surgical management of endometriosis; and surgical management of uterine issues such as endometrial polyps, intrauterine adhesions, and uterine septums. He is the only fertility specialist in the region who still performs tubal

sterilization reversals.

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 required to attend the AAGL national conference 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 (70%), 0.5 day in clinic (10%), and 1 day of research (20%) each week.

Within the fellowship term, fellows will complete a minimum number of cases as delineated in the Program Requirements for Complex Benign Gynecology Fellowship. 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 Swedish OB/GYN residency program under the guidance of the attending physicians.

Didactics and Conferences

The fellow will attend and actively participate in conferences and meetings at Virginia Mason, to include CBGF didactic lecture series, M&M conferences, tumor board conferences,

case review 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. Call burden is distributed among the three fellows and the rotating resident(s).

Educational Goals

The goal of the fellowship is to teach/learn comprehensive clinical 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. In their own continuity clinics, 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 80% benign gynecology, 15% gynecologic oncology, and 5% 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 on a regular basis for deficiencies or remediation as needed. Cases will be logged online.

The first year fellow will be preferentially assigned to general laparoscopic cases, hysteroscopy, and vaginal hysterectomies. 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 a normal weight uterus.
3. Perform laparoscopic hysterectomy on a large (>500g) uterus, laparoscopic myomectomy, and laparoscopic adhesiolysis.
4. Competently perform laparoscopic suturing with both intracorporeal and extracorporeal knot tying.

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

1. Independently perform laparoscopic myomectomy.
2. Perform ureterolysis.
3. Identify and ligate the uterine artery at its origin.
4. Manage and excise 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 cosigned 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 Directors, 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 that must be submitted 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 online courses in research design and 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.

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.

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 at least one manuscript to peer-reviewed journals, listing self as corresponding

author.

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.

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 CBGF 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 and Assistant Program Directors

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 Complex Benign Gynecology Fellowship (CBGF) 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://aagl.org/wp-content/uploads/2022/10/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

Please refer to Common Spirit's Grievance Policy found here:

https://CommonSpiritHealth.policymedical.net/policymed/registered/docViewer?stoken=bbf566ea-2e52-41b4-8019-47866bd73f2f&dtoken=a7a8c0bc-75f5-4ea6-9642-c9282366dc4e

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: Complex Benign Gynecology Fellowship (CBGF) Core Reading List

Please refer to AAGL Reading List.