

FMIGS 2-YEAR STANDARDIZED NATIONAL DIDACTIC EDUCATION CURRICULUM

This document includes: Full 2 year schedule, learning objectives, readings, and videos

YEAR ONE	TOPIC
July	Abdominal and Pelvic Anatomy & Retroperitoneal Dissection
August	Menstrual Cycle Physiology & AUB
September	Perioperative Management
October	Principles of Energy Sources
November	Essentials of Hysteroscopy & Hysteroscopy Complications
December	Essentials of Laparoscopy & Robotic Surgery
January	Essentials of Vaginal Surgery
February	Fundamentals of Hysterectomy
March	Prevention, Diagnosis, Management Surgical Complications (General, Infectious, Neuropathic)
April	Prevention, Diagnosis, Management Surgical Complications (Vascular, Vaginal Cuff, Bleeding)
May	Prevention, Diagnosis, Management Surgical Complications (Urological, Bowel)
June	Uterine Leiomyoma & Myomectomy

YEAR TWO	TOPIC
July	Tissue Retrieval and Extraction
August	Endometriosis (Medical)
September	Endometriosis (Surgical)
October	Adenomyosis
November	Acute Pelvic Pain
December	Chronic Pelvic Pain
January	Adnexal Pathology & Surgery
February	Congenital Anomalies of the Urogenital Tract
March	Cesarean Scar Defects/Isthmocele
April	Surgery in Special Populations & Risk Reducing Surgery
May	Pelvic Floor Disorders
June	Professionalism, Ethics, Accountability, and Communication & Emerging Topics

LINKS TO FULL RESOURCES: [FMIGS Education Objectives](#) | [FMIGS Reading Curriculum](#) | [FMIGS Video Curriculum](#)

ABDOMINAL AND PELVIC ANATOMY & RETROPERITONEAL DISSECTION

OBJECTIVES	ARTICLES	VIDEOS
<p>Physiology</p> <ul style="list-style-type: none"> - Demonstrate knowledge of abdominal and pelvic anatomy including genital, urinary, gastrointestinal, musculoskeletal, and bony structures. - Describe: <ul style="list-style-type: none"> - The vascular, lymphatic, and nerve supply to each of the pelvic organs and structures. - The anatomy of the anterior abdominal wall, including nerve and vascular supply. - The embryological origin of the pelvic viscera as relates to congenital anomalies. <p>Evaluation/Diagnostic Tests</p> <ul style="list-style-type: none"> - Elicit a history, PE, and diagnostic testing to identify normal and abnormal anatomy. - Understand appropriate imaging to identify anatomic variations. 	<p>Abdominal and Pelvic Anatomy</p> <ol style="list-style-type: none"> 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. <p>Retroperitoneal Dissection</p> <ol style="list-style-type: none"> 6. Rogers RM, Pasic R. Pelvic Retroperitoneal Dissection: A Hands-on Primer. J Minim Invasive Gynecol. 2017 May - Jun;24(4):546-551. doi: 10.1016/j.jmig.2017.01.024. Epub 2017 Feb 17. 7. Selçuk İ, Ersak B, Tatar İ, Güngör T, Huri E. Basic clinical retroperitoneal anatomy for pelvic surgeons. Turk J Obstet Gynecol. 2018 Dec;15(4):259-269. doi: 10.4274/tjod.88614. Epub 2019 Jan 9. Review. 8. Cosma S, Ferraioli D, Mitidieri M, et al. A simplified fascial model of pelvic anatomical surgery: going beyond parametrium-centered surgical anatomy [published online ahead of print, 2020 Jun 11]. Anat Sci Int. 2020;10. 	<p><u>Basic Pelvic Anatomy</u></p> <p><u>Laparoscopic Approach to the Pelvic Sidewall</u></p> <p><u>Principles and Techniques of Expert Laparoscopic Surgical Dissection</u></p> <p><u>Laparoscopic Techniques for Ureter Identification and Ureterolysis</u></p>

Year 1 | August

MENSTRUAL CYCLE PHYSIOLOGY & AUB

OBJECTIVES	ARTICLES	VIDEOS
<p>Menstrual Cycle Physiology</p> <ul style="list-style-type: none"> - Demonstrate an understanding of the normal menstrual cycle including the follicular, ovulation, and luteal phases and the physiologic changes in the menstrual cycle that occur over the lifespan. - Describe: <ul style="list-style-type: none"> - The histologic changes of the endometrium during the menstrual cycle. - The physiologic changes of the cervix and vagina during the menstrual cycle. - Demonstrate how the phases of the menstrual cycle impact the timing of medical and surgical interventions and treatments. <p>Evaluation/Diagnostic Tests</p> <ul style="list-style-type: none"> - Elicit a comprehensive menstrual history, perform a focused and age-appropriate PE, interpret lab and imaging studies indicating abnormalities of menstrual function. <p>AUB</p> <ul style="list-style-type: none"> - Describe the definition of AUB - Provide full differential for etiologies of AUB - Elicit a comprehensive menstrual and medical history, perform a focused PE, obtain appropriate laboratory tests and imaging, perform endometrial evaluation as indicated. <p>Management</p> <ul style="list-style-type: none"> - Discuss and counsel regarding non-surgical treatments. - Discuss and counsel regarding interventional and surgical treatments such as IR procedures, endometrial ablation, myomectomy, hysterectomy. 	<p>Menstrual Cycle Physiology</p> <ol style="list-style-type: none"> 1. Farage MA, Neill S, MacLean AB. Physiological changes associated with the menstrual cycle: a review. <i>Obstet Gynecol Surv.</i> 2009 Jan;64(1):58-72. 2. Iacovides S, Avidon I, Baker F. What we know about primary dysmenorrhea today: a critical review. <i>Human Reproduction Update</i>, Vol.21, No.6 pp. 762–778, 2015. 3. Al-Safi ZA, Santoro N. Menopausal hormone therapy and menopausal symptoms. <i>Fertil Steril.</i> 2014;101(4):905-915. <p>Abnormal Uterine Bleeding</p> <ol style="list-style-type: none"> 4. Munro MG, Critchley HOD, Fraser IS; FIGO Menstrual Disorders Committee. The two FIGO systems for normal and abnormal uterine bleeding symptoms and classification of causes of abnormal uterine bleeding in the reproductive years: 2018 revisions. <i>Int J Gynaecol Obstet.</i> 2018 Dec;143(3):393-408. 5. Bradley LD, Gueye NA. The medical management of abnormal uterine bleeding in reproductive-aged women. <i>Am J Obstet Gynecol.</i> 2016 Jan;214(1):31-44. 6. Doherty MT, Sanni OB, Coleman HG, Cardwell CR, McCluggage WG, Quinn D, Wylie J, McMenamin ÚC. Concurrent and future risk of endometrial cancer in women with endometrial hyperplasia: A systematic review and meta-analysis. <i>PLoS One.</i> 2020 Apr 28;15(4):e02322. 	<p><u>FIGO Leiomyoma Subclassification System</u></p> <p><u>Background, Significance and FIGO AUB System 1</u></p> <p><u>FIGO AUB System 2, the PALM-COEIN System for Classification of Causes</u></p>

Year 1 | September

PERIOPERATIVE MANAGEMENT

OBJECTIVES	ARTICLES	VIDEOS
<p>Physiology</p> <ul style="list-style-type: none"> - Describe the impact of mode of anesthesia on patient physiology and surgical management. - Describe the impact of fluid absorption, pneumoperitoneum, and trendelenburg on patient physiology. <p>Preoperative management</p> <ul style="list-style-type: none"> - Elicit a comprehensive medical history to identify gynecologic and nongynecologic issues that may impact preoperative, intraoperative, and postoperative care and perform a comprehensive physical exam. - Describe the indications, risks, and benefits of preoperative bowel preparation, antibiotic prophylaxis, and venous thromboembolism prophylaxis. - Describe appropriate patient positioning. <p>Intraoperative management</p> <ul style="list-style-type: none"> - Identify indications for initiation of and/or continuation of antibiotic prophylaxis. - Discuss methods of minimizing negative effects of fluid absorption, pneumoperitoneum and Trendelenburg position. - Identify and manage intraoperative complications. <p>Postoperative management</p> <ul style="list-style-type: none"> - Counsel patients regarding an expected postoperative course. - Describe and perform routine postoperative care, such as management of intravenous fluids, diet, and pain following surgery. - Identify and manage postoperative complications and critically evaluate complications for quality improvement. 	<ol style="list-style-type: none"> 1. St Clair CM, Shah M, Diver EJ, Lewin SN, Burke WM, Sun X, Herzog TJ, Wright JD. Adherence to evidence-based guidelines for preoperative testing in women undergoing gynecologic surgery. <i>Obstet Gynecol.</i> 2010 Sep;116(3):694-700. 2. ACOG Practice Bulletin No. 195 Prevention of Infection Procedures. <i>Obstet Gynecol.</i> 2018 Jun;131(6):e172-e189. 3. Rebecca Stone, Erin Carey, Amanda N. Fader, Jocelyn Fitzgerald, Lee Hammons, Alysha Nensi, Amy J. Park, Stephanie Ricci, Rick Rosenfield, Stacey Scheib, Erica Weston, Enhanced Recovery and Surgical Optimization Protocol for Minimally Invasive Gynecologic Surgery: An AAGL White Paper, <i>Journal of Minimally Invasive Gynecology</i>, Volume 28, Issue 2, 2020, Pages 179-203. 	<p><u>Proper Patient Positioning for Gynecologic Laparoscopic Surgery</u></p>

Year 1 | October

PRINCIPLES OF ENERGY SOURCES

OBJECTIVES

- Utilize correct terminology for energy used in surgery.
- Understand the principles of radiofrequency electrical energy use in surgery.
- Explain the differences between monopolar, bipolar, ultrasonic, and laser instruments.
- Describe factors that determine the tissue effects of each form of energy.
- Describe technological advances in energy sources used in minimally invasive surgery.
- Cite risks to patients associated with energy sources, including thermal injury and fire risk, and their prevention.
- Apply these principles to safely use different energy sources in open, vaginal, laparoscopic, robotic, and hysteroscopic surgery.
- Consider the cost-effectiveness of various energy sources and apply this to their appropriate utilization.

ARTICLES

1. Law KS, Lyons SD. Comparative studies of energy sources in gynecologic laparoscopy. J Minim Invasive Gynecol. 2013 May-Jun;20(3):308-18.
2. Vilos GA, Rajakumar C. Electrosurgical generators and monopolar and bipolar electrosurgery. J Minim Invasive Gynecol. 2013 May-Jun;20(3):279-87.
3. Lyons SD, Law KS. Laparoscopic vessel sealing technologies. J Minim Invasive Gynecol. 2013 May-Jun;20(3):301-7.
4. Law KS, Abbott JA, Lyons SD. Energy sources for gynecologic laparoscopic surgery: a review of the literature. Obstet Gynecol Surv. 2014 Dec;69(12):763-76.
5. Munro MG, Abbott JA, Vilos GA, Brill AI. Radiofrequency electrical energy guidelines for authors: what's in a name? J Minim Invasive Gynecol. 2015 Jan;22(1):1-2.

VIDEOS

[Surgical Techniques and Applications of Monopolar Energy](#)

[Use of a Chicken Thigh Model To Teach Laparoscopic Electrosurgery](#)

ESSENTIALS OF HYSTEROSCOPY & HYSTEROSCOPY COMPLICATIONS

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation</p> <ul style="list-style-type: none"> - Obtain a history, PE, and indicated laboratory and imaging studies to evaluate patients' gynecologic signs and symptoms that may necessitate hysteroscopy. - Counsel patients on the risks, benefits and alternatives of this procedure. - Determine who is an appropriate candidate for an in office vs. operating room procedure <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Understand techniques to facilitate cervical dilation. - Understand timing of procedure relative to menstrual cycle and/or pre-operative adjuvants. - Understand and be able to perform removal of retained products of conception or foreign bodies, lysis of synechiae, metroplasty, polypectomy and myomectomy. <p>Postoperative care</p> <ul style="list-style-type: none"> - Describe the role of intra-uterine balloons, barriers, antibiotics and/or hormonal therapy prior to and after hysteroscopy to facilitate improved patient outcome. <p>Potential complications</p> <ul style="list-style-type: none"> - Demonstrate knowledge and skill to prevent, recognize and manage problems and complications including uterine access and perforation, hemorrhage, issues related to adjuvant medications or distention media, gas embolism, and intrauterine synechiae. 	<p>Essentials of Hysteroscopy</p> <ol style="list-style-type: none"> 1. AAGL Advancing Minimally Invasive Gynecology Worldwide, Munro MG, Storz K, Abbott JA, Falcone T, Jacobs VR, Muzii L, Tulandi T, Indman P, Istre O, Jacobs VR, Loffer FD, Nezhat CH, Tulandi T. AAGL Practice Report: Practice Guidelines for the Management of Hysteroscopic Distending Media: (Replaces Hysteroscopic Fluid Monitoring Guidelines. J Am Assoc Gynecol Laparosc. 2000;7:167-168.). J Minim Invasive Gynecol. 2013 MarApr;20(2):137-48. 2. Bosteels J, Kasius J, Weyers S, Broekmans FJ, Mol BW, D'Hooghe TM. Hysteroscopy for treating subfertility associated with suspected major uterine cavity abnormalities. Cochrane Database Syst Rev. 2015 Feb 21;2:CD009461. 3. Salazar CA, Isaacson KB. Office Operative Hysteroscopy: An Update. J Minim Invasive Gynecol. 2018 Feb;25(2):199-208. doi: 10.1016/j.jmig.2017.08.009. Epub 2017 Aug 10. 4. Yin X, Cheng J, Ansari SH, Campo R, Di W, Li W, Bigatti G. Hysteroscopic tissue removal systems for the treatment of intrauterine pathology: a systematic review and meta-analysis. Facts Views Vis Obgyn. 2018 Dec;10(4):207-213. 5. Valentine, L. N. and L. D. Bradley (2017). "Hysteroscopy for Abnormal Uterine Bleeding and Fibroids." Clin Obstet Gynecol 60(2): 231-244. <p>Hysteroscopic Complications</p> <ol style="list-style-type: none"> 6. Munro MG, Christianson LA. Complications of Hysteroscopic and Uterine Resectoscopic Surgery. Clin Obstet Gynecol. 2015 Dec;58(4):765-97. 	<p><u>Hysteroscopy: Entry and Landmarks</u></p> <p><u>Advanced Hysteroscopy</u></p>

ESSENTIALS OF LAPAROSCOPY & ROBOTIC SURGERY

OBJECTIVES	ARTICLES	VIDEOS
<p>Essentials of laparoscopy</p> <ul style="list-style-type: none"> - Obtain a history, PE, and indicated lab/imaging studies to evaluate patients that may need laparoscopic surgery. - Identify absolute and relative contraindications to laparoscopy. - Describe physiologic changes which occur with laparoscopy related to increased ICP, absorption of CO2, and trendelenburg. - Understand the impact of medical conditions including obesity and pregnancy on the performance of laparoscopy. - Counsel patients about risks, benefits, and alternatives to a laparoscopic approach. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Demonstrate appropriate patient positioning and preparation. - Understand and know how to perform safe abdominal access. - Perform safe ancillary port placement and utilize various types of ports (single port, hand-assist) appropriately - Understand the use, indications, risks, and benefits of various adhesion prevention strategies and apply these methods to minimize post-surgical adhesion formation and reformation. <p>Essentials of robotic surgery</p> <ul style="list-style-type: none"> - Identify patients that are appropriate candidates for robotic surgery and describe the benefits and limitations of a robotic platform. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Understand surgical equipment and demonstrate ability to troubleshoot equipment and effective port placement. - Perform docking (including center, side, parallel docking). 	<p>Essentials of Laparoscopy</p> <ol style="list-style-type: none"> 1. Ahmad G, O'Flynn H, Hindocha A, Watson A. Barrier agents for adhesion prevention after gynaecological surgery. Cochrane Database Syst Rev. 2015 Apr 30;4:CD000475. 2. Ahmad G, Gent D, Henderson D, O'Flynn H, Phillips K, Watson A. Laparoscopic entry techniques. Cochrane Database Syst Rev. 2015 Aug 31;8:CD006583. 3. Kaloo P, Armstrong S, Kaloo C, Jordan V. Interventions to reduce shoulder pain following gynaecological laparoscopic procedures. Cochrane Database Syst Rev. 2019 Jan 30;1:CD011101. doi: 10.1002/14651858.CD011101.pub2. <p>Essentials of Robotic Surgery</p> <ol style="list-style-type: none"> 4. AAGL Advancing Minimally Invasive Gynecology Worldwide. AAGL position statement: Robotic-assisted laparoscopic surgery in benign gynecology. J Minim Invasive Gynecol. 2013 Jan-Feb;20(1):2-9. 5. AAGL Advancing Minimally Invasive Gynecology Worldwide.Guidelines for privileging for robotic-assisted gynecologic laparoscopy. J Minim Invasive Gynecol. 2014 Mar-Apr;21(2):157-67. doi: 10.1016/j.jmig.2014.01.024. Epub 2014 Feb 6. PMID: 24509290 6. Varghese A, Doglioli M, Fader AN.Updates and Controversies of Robotic-Assisted Surgery in Gynecological Surgery. Clin Obstet Gynecol. 2019 Dec;62(4):733-748. Doi: 10.1097/GRF.0000000000000489. PMID: 31524659 7. Lawrie TA, Liu H, Lu D, Dowswell T, Song H, Wang L, Shi G. Robot-assisted surgery in gynaecology. Cochrane Database Syst Rev. 2019 Apr 15;4(4):CD011422. 	<p>Laparoscopic Entry</p> <p>Laparoscopic Port Placement</p> <p>Basic Steps of Laparoscopic Suturing</p> <p>Intracorporeal Knots made Ridiculously Simple</p> <p>Steps to Tying Extracorporeal Knots</p> <p>Reproducible Side Docking of the Robotic System</p> <p>Robotic Single Incision Surgery: Umbilical Incision Technique and Docking Procedure</p>

Year 1 | January

ESSENTIALS OF VAGINAL SURGERY

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation, patient selection, surgical indications</p> <ul style="list-style-type: none"> - Obtain a history, PE, and indicated lab/imaging studies to evaluate patients that may need vaginal surgery. - Identify absolute & relative contraindications to vaginal surgery. - Identify which clinical situations are best approached vaginally as opposed to other routes. - Appropriately counsel patients about the risks, benefits, and alternatives to vaginal procedures. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Identify the technical challenges to the vaginal approach such as limited exposure, achieving hemostasis, removal of the adnexa, and describe techniques to overcome these challenges. - Be able to obtain access to the anterior & posterior cul de sacs. - Demonstrate knowledge of how and when to vaginally debulk a uterus using bivalving, coring, & other morcellation techniques. - Understand how to close the vaginal cuff and support the vaginal apex at the time of hysterectomy. - Understand the risks and benefits of laparoscopic assistance during a vaginal procedure. - Understand how to perform cystoscopy when indicated. <p>Postoperative care</p> <ul style="list-style-type: none"> - Understand the risks of urinary retention and describe the diagnostic and treatment algorithm for management. <p>Potential complications</p> <ul style="list-style-type: none"> - Minimize the risk of, identify and manage postoperative complications such as neurologic injuries from patient positioning and vaginal cuff evisceration. 	<ol style="list-style-type: none"> 1. Kulkarni MM, Rogers RG. Vaginal hysterectomy for benign disease without prolapse. Clin Obstet Gynecol. 2010 Mar;53(1):5-16. 2. Kovac SR. Route of hysterectomy: an evidence-based approach. Clin Obstet Gynecol. 2014 Mar;57(1):58-71. 3. Occhino JA, Gebhart JB. Difficult vaginal hysterectomy. Clin Obstet Gynecol. 2010 Mar;53(1):40-50. 	<p><u>Total Vaginal Hysterectomy and Uterosacral Ligament Suspension</u></p> <p><u>Total Vaginal Hysterectomy with Morcellation</u></p> <p><u>Sacrospinous Ligament Fixation</u></p>

Year 1 | February

FUNDAMENTALS OF HYSTERECTOMY

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation, patient selection, surgical indications</p> <ul style="list-style-type: none"> - Obtain a hx, PE, and indicated lab/imaging studies to evaluate patients that need hysterectomy as a treatment. - Cite indications for hysterectomy and risks, benefits and non-surgical alternatives. - Discuss the risks/benefits of ovarian retention, unilateral or bilateral oophorectomy and/or salpingectomy. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Perform safe entry for each route. - Secure vascular supply, ensure safety of adjacent organs, and create colpotomy or transect cervix. - Perform vaginal cuff closure. - Understand the role of cystoscopy and perform when indicated. <p>Potential complications</p> <ul style="list-style-type: none"> - Describe the incidence of vaginal cuff dehiscence and methods of reducing this risk. - Perform evaluation, management and repair of vaginal cuff dehiscence and associated bowel or bladder concerns. - Describe the incidence of urinary tract injury, identified intraoperatively or postoperatively. 	<ol style="list-style-type: none"> 1. Gallo T, Kashani S, Patel DA, Elshawi K, Silasi DA, Azodi M. Robotic-assisted laparoscopic hysterectomy: outcomes in obese and morbidly obese patients. JSLS. 2012 Jul-Sep;16(3):421-7. 2. ACOG Committee Opinion No. 444: choosing the route of hysterectomy for benign disease. Obstet Gynecol. 2009 Nov;114(5):1156-8. doi: 10.1097/AOG.0b013e3181c33c72. 3. AAGL practice report: Practice Guidelines on the Prevention of Apical Prolapse at the Time of Benign Hysterectomy. J Minim Invasive Gynecol. 2014 Sep-Oct;21(5):715-22. doi: 10.1016/j.jmig.2014.04.001. Epub 2014 Apr 25. 4. AAGL practice report: practice guidelines for laparoscopic subtotal/supracervical hysterectomy (LSH). J Minim Invasive Gynecol. 2014 Jan-Feb;21(1):9-16. doi: 10.1016/j.jmig.2013.08.001. Epub 2013 Aug 15. 5. AAGL Practice Report: Practice guidelines for intraoperative cystoscopy in laparoscopic hysterectomy. J Minim Invasive Gynecol. 2012 Jul-Aug;19(4):407-11. doi: 10.1016/j.jmig.2012.05.001. 6. Surgical approach to hysterectomy for benign gynaecological disease. Cochrane Database Syst Rev. 2015 Aug 12;8:CD003677. 	<p>Step-by-Step Approach to Hysterectomy</p> <p>The Basics of TLH and BSO</p> <p>Developing the Bladder Flap at the time of TLH</p>

Year 1 | March

SURGICAL COMPLICATIONS: GENERAL, INFECTIOUS, NEUROPATHIC

OBJECTIVES	ARTICLES	VIDEOS
<p>Physiology</p> <ul style="list-style-type: none"> - Understand the normal healing process and expected timeline for recovery after surgery. - Understand how patient comorbidities and intraoperative factors impact risk for postoperative complications. <p>Evaluation</p> <ul style="list-style-type: none"> - Perform a timely, comprehensive history to detect risk and presence of postoperative complications. - Perform a focused exam based on patient history, symptoms, timing, and surgery performed. - Order appropriate laboratory tests and imaging to identify postoperative complications. - Form a differential diagnosis based on history, PE, and diagnostic testing. <p>Management</p> <ul style="list-style-type: none"> - Identify postoperative complications including wound complications such as surgical site infections, hernia. - Identify neurologic complications, such as neuropathy. - Identify cardiovascular complications, including venous thromboembolism, myocardial infarction. - Discuss non-surgical treatments, interventional treatment such as IR or repeat surgery, including risks, benefits, alternatives. - Conduct counseling regarding complications, including accountability, causal events, and current actions to correct, and long-term implications. - Consider consultation with other services when appropriate. 	<p>General</p> <ol style="list-style-type: none"> 1. Mourad J., Henderson S., Magrina J. (2018) Complications of Laparoscopy. In: Gomes-da-Silveira G., da Silveira G., Pessini S. (eds) Minimally Invasive Gynecology. Springer, Cham. 2. Louie M, Strassle PD, Moulder JK, Dizon M, Schiff LD, Carey ET. Uterine weight and complications after abdominal, laparoscopic, and vaginal hysterectomy, American Journal of Obstetrics and Gynecology, Volume 219. <p>Infectious Morbidity</p> <ol style="list-style-type: none"> 3. Burgess, Adrian; Fish, Megan; Goldberg, Seth; Summers, Keziah; Cornwell, Kim; Lowe, Jason Surgical-Site Infection Prevention After Hysterectomy: Use of a Consensus Bundle to Guide Improvement, Journal for Healthcare Quality: July/August 2020 - Volume 42. <p>Neuropathic complications</p> <ol style="list-style-type: none"> 4. Deepanjana Das, Katie Propst, Mary Ellen Wechter, Rosanne M. Kho. Evaluation of Positioning Devices for Optimization of Outcomes in Laparoscopic and Robotic-Assisted Gynecologic Surgery, Journal of Minimally Invasive Gynecology. 5. Abdalmageed OS, Bedaiwy MA, Falcone T. Nerve Injuries in Gynecologic Laparoscopy. <i>J Minim Invasive Gynecol.</i> 2017;24(1):16-27. doi:10.1016/j.jmig.2016.09.004. 6. Video article: Moawad, Gaby; Wu, Catherine, Klebanoff, Jordan; Urbina, Princess; Alkatout, Ibrahim. Pelvic Neuroanatomy: An Overview of Commonly Encountered Pelvic Nerves in Gynecologic Surgery. JMIG: June 2020, pre-press. 	<p><u>Fundamentals of Patient Positioning</u></p>

Year 1 | April

SURGICAL COMPLICATIONS: VASCULAR, BLEEDING, VAGINAL CUFF

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation</p> <ul style="list-style-type: none"> - Identify patients at heightened risk of bleeding complications based on history, exam, and imaging. - Counsel patients regarding these risks and methods of risk reduction. - Discuss and counsel patients regarding alternatives to surgical management and alternative surgical procedures. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Explain intraoperative techniques employed to reduce the risk of vascular injury. - Describe and perform various entry techniques. - Describe and safely perform lysis of adhesions and retroperitoneal dissection when indicated. - Cite medical therapies, surgical techniques, and resources available to minimize intraoperative blood loss and associated complications. - Understand and describe the management of intraoperative injury and surgical emergency including the: <ul style="list-style-type: none"> - Response to vascular injury and immediate steps to prevent hemorrhage and maintain patient stability. - Response to suspected gas embolism and immediate management of the patient. <p>Postoperative care</p> <ul style="list-style-type: none"> - Discuss postoperative management of vascular injury. - Utilize a collaborative approach for management with vascular surgery. - Communicate to the patient when a complication does occur and demonstrate accountability. 	<p>Vascular injury</p> <ol style="list-style-type: none"> 1. Victoria Asfour, Edward Smythe & Rizwan Attia (2018) Vascular injury at laparoscopy: a guide to management, Journal of Obstetrics and Gynaecology, 38:5, 598-606, DOI: 10.1080/01443615.2017.1410120. <p>Bleeding morbidity</p> <ol style="list-style-type: none"> 2. Gingold JA, Chichura A, Harnegie MP, Kho RM. Peri-Operative Interventions to Minimize Blood Loss at the time of Hysterectomy: A Systematic Review and Meta-Analysis. Journal of minimally invasive gynecology. 26(7):1234-1252.e1. <p>Vaginal cuff complications</p> <ol style="list-style-type: none"> 3. Nezhat, Camran MD, FACS; Kennedy Burns, Megan MD, MA; Wood, Michelle DO; Nezhat, Ceana MD; Nezhat, Azadeh MD; Nezhat, Farr MD Vaginal Cuff Dehiscence and Evisceration, Obstetrics & Gynecology: October 2018 - Volume 132 - Issue 4 - p 972-985 doi: 10.1097/AOG.0000000000002852. 4. Ucella S, Malzoni M, Cromi A, Serrachioli R, Ciravolo G, Fanfani F, Shakir F, et al. Laparoscopic vs transvaginal cuff closure after total laparoscopic hysterectomy: a randomized trial by the Italian Society of Gynecologic Endoscopy. Am J Obstet Gynecol. 2018 May;218(5):500.e1-500.e13. 	<p><u>Laparoscopic Repair of a Major Vascular Injury</u></p> <p><u>Intraop/Postop Complications - Vaginal Cuff, Disclosing to Patients, Mitigations Risk</u></p>

Year 1 | May

SURGICAL COMPLICATIONS: UROLOGIC, BOWEL

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation</p> <ul style="list-style-type: none"> - Identify patients at heightened risk of visceral injury based on history, exam, and imaging. - Counsel patients regarding these risks and methods of risk reduction. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Explain intraoperative techniques employed to reduce the risk of urinary tract and bowel injury. - Explain the role of intraoperative cystoscopy and perform this procedure as indicated. - Explain the role of intraoperative rectal assessment and perform assessment of rectal integrity as indicated. - Understand the management of intraoperative visceral injury and perform repair when appropriate, including cystotomy, ureteral injury, bowel injury. <p>Management</p> <ul style="list-style-type: none"> - Identify genitourinary complications, such as ureteral and bladder injury, urinary retention, and urinary tract infection. - Identify gastrointestinal complications, such as enterotomy, ileus, small bowel obstruction. <p>Postoperative care</p> <ul style="list-style-type: none"> - Discuss postoperative management of urinary tract injury and bowel injury. - Reach out to consult services as clinically appropriate - Discuss and disclose complications with the patient appropriately and consult risk management where appropriate. 	<p>Urologic injury</p> <ol style="list-style-type: none"> 1. Dallas, Kai B. MD; Rogo-Gupta, Lisa MD; Elliott, Christopher S. MD, PhD Urologic Injury and Fistula After Hysterectomy for Benign Indications, <i>Obstetrics & Gynecology</i>: August 2019 - Volume 134 - Issue 2 - p 241-249 doi: 10.1097/AOG.0000000000003353. 2. Smith AP, Bazinet A, Liberman D. Iatrogenic ureteral injury after gynecological surgery. <i>Can Urol Assoc J.</i> 2019;13(6 Suppl4):S51-S55. doi:10.5489/cuaj.593. 3. Wong JMK, Bortoletto P, Tolentino J, Jung MJ, Milad MP. Urinary Tract Injury in Gynecologic Laparoscopy for Benign Indications: A Systematic Review. <i>Obstet Gynecol.</i> 2018 Jan;131(1):100-108. doi: 10.1097/AOG. <p>Bowel injury</p> <ol style="list-style-type: none"> 4. Eisner, Isabel S.; Wadhwa, Ruchi K.; Downing, Keith T.; Singhal, Pankaj K. Prevention and management of bowel injury during gynecologic laparoscopy: an update, <i>Current Opinion in Obstetrics and Gynecology</i>: August 2019 - Volume 31 - Issue 4; p 245-250 doi: 10.1097/GCO.0000000000000552. 5. Glaser, Laura M. MD; Milad, Magdy P. MD, MS Bowel and Bladder Injury Repair and Follow-up After Gynecologic Surgery, <i>Obstetrics & Gynecology</i>: February 2019 - Volume 133 - Issue 2 - p 313-322 doi: 10.1097/AOG.0000000000003067. 6. van Goor H. Consequences and complications of peritoneal adhesions. <i>Colorectal Dis.</i> 2007 Oct;9 Suppl 2:25- 34. 	<p><u>Urinary Tract Complications and Repair Strategies in TLH at Kurashiki Medical Center</u></p> <p><u>Laparoscopic End-to-End Anastomosis of Midsegment Ureteral Transection</u></p> <p><u>Laparoscopic Bowel Surgery for the Benign Gynecologist</u></p>

UTERINE LEIOMYOMA & MYOMECTOMY

OBJECTIVES	ARTICLES	VIDEOS
<p>Uterine leiomyoma</p> <ul style="list-style-type: none"> - Describe the pathophysiology of fibroids and the relationship between symptoms, location, and size of fibroids, effects on fertility and pregnancy. - Perform a focused PE: uterine size, mobility, location of fibroids. - Obtain appropriate labs/imaging including pelvic US, MRI, endometrial biopsy and/or hysteroscopy as indicated. - Discuss risks, benefits, alternatives of non-surgical, procedural (UAE, MRI guided US focused ablation, radiofrequency ablation), and surgical (hysteroscopy, myomectomy, hysterectomy) management options. <p>Myomectomy</p> <ul style="list-style-type: none"> - Determine which patients are appropriate for hysteroscopic, laparoscopic, robotic, or open approach for myomectomy and counsel patients on risks, benefits, alternatives of each including methods of tissue extraction. - Counsel patients regarding the risk of malignancy. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Hysteroscopic approach: understand the maneuvers to maximize complete resection. - Laparoscopic, robotic, open approach: <ul style="list-style-type: none"> - Understand how to create a hysterotomy - size, location, direction of incision(s) to minimize bleeding, adhesions, and uterine hematoma. - Understand techniques to identify entry into the uterine cavity. - Perform a multilayer closure and describe suture options. - Describe interventions to minimize intraoperative bleeding including medical and mechanical <p>Postoperative care and potential complications</p> <ul style="list-style-type: none"> - Describe methods to control postoperative bleeding or intrauterine adhesion prevention (intrauterine catheter, estrogen therapy) - Counsel patients who desire future fertility including timing of conception, risk of uterine rupture, and need for CS when appropriate. 	<p>Uterine Leiomyoma</p> <ol style="list-style-type: none"> 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. 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. <p>Myomectomy</p> <ol style="list-style-type: none"> 5. Barakat EE, Bedaiwy MA, Zimberg S, Nutter B, Nosseir M, Falcone T. Robotic-assisted, laparoscopic, and abdominal myomectomy: a comparison of surgical outcomes. Obstet Gynecol. 2011 Feb;117(2 Pt 1):256-65. 6. Falcone T, Parker WH. Surgical management of leiomyomas for fertility or uterine preservation. Obstet Gynecol. 2013 Apr;121(4):856-68. 7. Gargiulo AR, Srouji SS, Missmer SA, Correia KF, Vellinga TT, Einarsson JI. Robot-assisted laparoscopic myomectomy compared with standard laparoscopic myomectomy. Obstet Gynecol. 2012 Aug;120(2 Pt 1):284-91. 8. Haber K, Hawkins E, Levie M, Chudnoff S. Hysteroscopic morcellation: review of the manufacturer and user facility device experience (MAUDE) database. J Minim Invasive Gynecol. 2015 Jan;22(1):110-4. 9. Carranza-Mamane B, Havelock J, et al; Society of Obstetricians and Gynaecologists of Canada. The management of uterine fibroids in women with otherwise unexplained infertility. J Obstet Gynaecol Can. 2015 Mar;37(3):277-88. 	<p>Methods to Reduce Blood Loss during Laparoscopic Myomectomy</p> <p>Laparoscopy - The Retroperitoneal Approach to a Broad Ligament Fibroid</p> <p>Minilaparotomy: Abdominal Myomectomy</p> <p>Submucosal Resection of at Type 2 Myoma by Hysteroscopic Morcellation</p> <p>TLH for the Wide Fibroid Uterus with Control of the Uterine Artery From its Origin</p> <p>TLH and BSO for a 6095-g Fibroid Uterus</p>

Year 2 | July

TISSUE RETRIEVAL AND EXTRACTION

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation</p> <ul style="list-style-type: none"> - Obtain a history, PE, and indicated lab/imaging studies to evaluate patients’ underlying gynecologic problem that may indicate a need for tissue extraction and retrieval as part of another surgical intervention. - Recognize potential limitations of tissue extraction techniques in relation to the patient’s body habitus, anatomy, and co-morbidities - Counsel patients on all of the risks, benefits and alternatives of tissue extraction techniques. - Discuss the benefits and risks of open power morcellation, potential risk of spill and dissemination, and potential risk of upstaging an unrecognized malignancy. - Be familiar with evidence-based rates of occult malignancy and risks of incomplete pathologic evaluation of morcellated specimens. - Determine which patients are appropriate for vaginal, laparoscopic, minilaparotomy versus an open approach. <p>Essentials of surgical technique</p> <ul style="list-style-type: none"> - Understand and perform various specimen removal techniques such as posterior colpotomy, contained power morcellation, and scalpel morcellation of solid tissue masses – via abdominal and vaginal approaches - Understand management and disclosure of a torn specimen - Demonstrate knowledge and skill to prevent, recognize and manage complications, such as port site hernia, nerve entrapment, impaired wound healing and infection, retained tissues and disseminated disease. 	<ol style="list-style-type: none"> 1. Morcellation during uterine tissue extraction: An Update. J Minim Invasive Gynecol. 2018 May - Jun;25(4):543- 550. 2. Siedhoff, Matthew T. MD, MSCR; Cohen, Sarah L. MD, MPH Tissue Extraction Techniques for Leiomyomas and Uteri During Minimally Invasive Surgery, Obstetrics & Gynecology: December 2017 - Volume 130 - Issue 6 - p 1251-1260. 3. Multinu F, Casarin J, Hanson KT, et al. Practice Patterns and Complications of Benign Hysterectomy Following the FDA Statement Warning Against the Use of Power Morcellation. JAMA Surg. 2018;153(6):e180141. 4. Uterine Morcellation for Presumed Leiomyomas: ACOG Committee Opinion, Number 822. American College of Obstetricians and Gynecologists. Obstet Gynecol 2021; 137(3):e63-e74. <p><i>Supplemental</i></p> <ol style="list-style-type: none"> 5. 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 metaanalysis. Gynecol Surg. 2015;12(3):165\177. 6. Hartmann KE, Fonnesebeck C, Surawicz T, Krishnaswami S, Andrews JC, Wilson JE, et al. Management of uterine fibroids. Comparative Effectiveness Review No. 195. AHRQ Publication No. 17(18)-EHC028-EF. Rockville (MD): Agency for Healthcare Research and Quality; 2017. Available at: https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/cer-195-uterine-fibroids-final_0.pdf. 	<p><u>Contained Laparoscopic Power Morcellation for Large Pelvic Masses</u></p> <p><u>Contained Hand Morcellation in a Novel FDA-Approved Bag</u></p> <p><u>Contained Vaginal Tissue Extraction for Fibroid Uterus</u></p>

Year 2 | August

ENDOMETRIOSIS MEDICAL MANAGEMENT

OBJECTIVES	ARTICLES	VIDEOS
<p>Background</p> <ul style="list-style-type: none"> - Describe the pathogenesis, symptomatology, visual appearance, various subtypes (such as superficial, deeply infiltrative and ovarian, typical and atypical) and different methods of classification of endometriosis. - Explain the effects of endometriosis on fertility and pain. - Describe the incidence of and risk factors for malignant transformation of endometriosis. <p>Evaluation</p> <ul style="list-style-type: none"> - Elicit a comprehensive medical and menstrual history, including symptoms of pain such as dysmenorrhea, noncyclic pelvic pain, dyspareunia, dysuria, and dyschezia, subfertility, and other symptoms associated with endometriosis. - Perform a focused PE, including evaluation of pelvic pain and findings suggestive of endometriosis. <p>Diagnostic tests</p> <ul style="list-style-type: none"> - Order appropriate laboratory tests and imaging, such as pelvic ultrasound and/or MRI. <p>Management</p> <ul style="list-style-type: none"> - Counsel patients regarding medical therapies, such as NSAIDs, hormonal suppression and their various routes of administration. 	<ol style="list-style-type: none"> 1. Stratton P, Berkley KJ. Chronic pelvic pain and endometriosis: translational evidence of the relationship and implications. Hum Reprod Update. 2011May-Jun;17(3):327-46. 2. H. S. Taylor, L. C. Giudice, B. A. Lessey, M. S. Abrao, J. Kotarski, D. F. Archer, et al. Treatment of Endometriosis-Associated Pain with Elagolix, an Oral GnRH Antagonist. New England Journal of Medicine 2017 Vol. 377 Issue 1 Pages 28-40 3. Agarwal, S. K., Chapron, C., Giudice, L. C., Laufer, M. R., Leyland, N., Missmer, S. A., Singh, S. S. and Taylor, H. S. 2019. Clinical diagnosis of endometriosis: a call to action. Am J Obstet Gynecol 220 (4) 354.e1-354.e12 4. Zondervan KT et al. Endometriosis. N Engl J Med 2020; 382:1244-125 <p><i>Supplemental</i></p> <ol style="list-style-type: none"> 5. Taylor HS, Kotlyar AM, Flores VA. Endometriosis is a chronic systemic disease: clinical challenges and novel innovations. Lancet. 2021 Feb 27;397(10276):839-852. doi: 10.1016/S0140-6736(21)00389-5. PMID: 33640070. 	<p><u>Long-Term Management and Treatment Strategies for Endometriosis</u></p>

Year 2 | September

ENDOMETRIOSIS SURGICAL MANAGEMENT

OBJECTIVES	ARTICLES	VIDEOS
<p>Procedural Management Endometriosis</p> <ul style="list-style-type: none"> - Describe current evidence-based surgical treatment options such as excision and/or ablation of endometriosis, adnexal surgery including optimal performance of ovarian cystectomy, hysterectomy, presacral neurectomy, and management of endometriosis involving bowel, bladder and other distant organs. - Describe and counsel patients on the role of post-surgical medical therapy. <p>Other considerations:</p> <ul style="list-style-type: none"> - Review the impact of fertility desires on treatment options including the potential impact of treatment options on ovarian reserve. - Consider the long-term cost effectiveness and overall health impact to patients of treating a chronic illness. - Consider consultation with other specialists when appropriate, such as Reproductive Endocrinology and Infertility, Urology and/or Colorectal surgery. - In patients who have failed treatment, identify possible reasons why a chosen treatment may not have been successful, identify potential misdiagnosis, and counsel about alternative options. 	<ol style="list-style-type: none"> 1. Leonardi, M., Gibbons, T., Armour, M., Wang, R., Glanville, E., et al 2020. When to Do Surgery and When Not to Do Surgery for Endometriosis: A Systematic Review and Meta-analysis. J Minim Invasive Gynecol. Volume: 27 (2) 390-407.e3. 2. Working group of ESGE, ESHRE, and WES, Keckstein J, Becker CM, Canis M, Feki A, Grimbizis GF, Hummelshoj L, et al. Recommendations for the surgical treatment of endometriosis. Part 2: deep endometriosis. Hum Reprod Open. 2020 Feb 12. 3. Horne, A. W., Daniels, J., Hummelshoj, L., Cox, E. and Cooper, K. G. 2019. Surgical removal of superficial peritoneal endometriosis for managing women with chronic pelvic pain: time for a rethink? Bjog. 126 (12) 1414-1416. 4. 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):3146-5. <p><i>Extrapelvic disease</i></p> <ol style="list-style-type: none"> 5. Andres MP, Arcoverde FVL, Souza CCC, Fernandes LFC, Abrão MS, Kho RM. Extrapelvic Endometriosis: A Systematic Review. J Minim Invasive Gynecol. 2020 Feb;27(2):373-389. <i>Urologic disease</i> 6. Leonardi M, Espada M, Kho RM, Magrina JF, Millischer AE, Savelli L, Condous G. Endometriosis and the Urinary Tract: From Diagnosis to Surgical Treatment. Diagnostics (Basel). 2020 Sep 30;10(10):771. <i>Colorectal disease</i> 7. 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. 	<p><u>Techniques to Optimize Excision of Superficial Endometriosis</u></p> <p><u>Conservative Laparoscopy for Obliterated Posterior Cul-De-Sac</u></p> <p><u>Tackling the Difficult Ureterolysis</u></p> <p><u>Discoid Resection of Invasive Rectosigmoid Endometriosis</u></p> <p><u>Excision of Deep Rectovaginal Endometriosis</u></p>

Year 2 | October

ADENOMYOSIS

OBJECTIVES

Evaluation

- Describe the clinical presentation of adenomyosis.
- Elicit a comprehensive medical and menstrual history, including symptoms of pain such as dysmenorrhea.
- Perform a focused PE.

Diagnostic tests

- Order appropriate laboratory tests and imaging, such as pelvic ultrasound and/or MRI.

Management

- Counsel patients regarding medical therapies and surgical options.

ARTICLES

1. Oliveira MAP, Crispi CP Jr, Brollo LC, Crispi CP, De Wilde RL. Surgery in adenomyosis. Arch Gynecol Obstet. 2018 Mar;297(3):581-589. doi: 10.1007/s00404-017-4603-6. Epub 2017 Dec 2. PMID: 29197987.
2. Chapron C, Vannuccini S, Santulli P, Abrão MS, Carmona F, Fraser IS, Gordts S, Guo SW, Just PA, Noël JC, Pistofidis G, Van den Bosch T, Petraglia F. Diagnosing adenomyosis: an integrated clinical and imaging approach. Hum Reprod Update. 2020 Apr 15;26(3):392-411. doi: 10.1093/humupd/dmz049. PMID: 32097456.
3. Osada H. Uterine adenomyosis and adenomyoma: the surgical approach. Fertil Steril. 2018 Mar;109(3):406-417.

VIDEOS

- [Laparoscopic Surgical Management of Juvenile Cystic Adenomyosis](#)
- [Excision of Uterine Adenomyoma](#)

Year 2 | November

ACUTE PELVIC PAIN

OBJECTIVES	ARTICLES	VIDEOS
<p>Physiology</p> <ul style="list-style-type: none"> - Describe the pathophysiology of acute pain versus chronic pain. - Understand the contribution of gynecologic, urologic, gastrointestinal, musculoskeletal, neurologic, and vascular systems and the pathophysiology of each. <p>Evaluation</p> <ul style="list-style-type: none"> - Elicit a comprehensive medical history, including a directed history regarding the acute pain symptoms. - Assess for pertinent comorbidities, such as diabetes and age, and understand how they can impact the acute pain presentation. <p>Diagnostic tests</p> <ul style="list-style-type: none"> - Order appropriate laboratory tests and imaging, such as cervical cultures, pregnancy tests and pelvic ultrasound. <p>Management</p> <ul style="list-style-type: none"> - Determine the acuity of the patient’s condition and triage as appropriate. - Counsel patients regarding acuity of presentation, need for immediate versus delayed intervention, and the risks, benefits, and alternatives of non-surgical and surgical management options. 	<ol style="list-style-type: none"> 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. <i>Ultrasound Q.</i> 2015 Nov 19. 2. Kruszka PS1, Kruszka SJ. Evaluation of acute pelvic pain in women. <i>Am Fam Physician.</i> 2010 Jul 15;82(2):141- 7. 3. Mol F, van Mello NM, Strandell A, et al. European Surgery in Ectopic Pregnancy (ESEP) study group. Salpingotomy versus salpingectomy in women with tubal pregnancy (ESEP study): an open-label, multicentre, randomised controlled trial. <i>Lancet.</i> 2014 Apr 26;383(9927):1483-9. 4. Capmas P, Bouyer J, Fernandez H. Treatment of ectopic pregnancies in 2014: new answers to some old questions. <i>Fertil Steril.</i> 2014 Mar;101(3):615-20. 5. Cheung VY. Local Methotrexate Injection as the First-line Treatment for Cesarean Scar Pregnancy: Review of the Literature. <i>J Minim Invasive Gynecol.</i> 2015 Jul-Aug;22(5):753-8. 	<p><u>Laparoscopic Oophoropexy: Treatment for Recurrent Ovarian Torsion</u></p> <p><u>Surgical Management of Interstitial Ectopic Pregnancy</u></p> <p><u>Laparoscopic Resection of Cesarean Scar Ectopic Pregnancy and Isthmocele Repair</u></p>

Year 2 | December

CHRONIC PELVIC PAIN

OBJECTIVES	ARTICLES	VIDEOS
<p>Physiology</p> <ul style="list-style-type: none"> - Define the diagnostic criteria of chronic pelvic pain. - Understand the contribution of gynecologic, urologic, gastrointestinal, musculoskeletal, neurologic, and vascular systems to chronic pelvic pain and the pathophysiology of each. <p>Evaluation</p> <ul style="list-style-type: none"> - Elicit a comprehensive medical history, including menstrual, sexual, social and mental health history. - Perform a focused PE, including localization of the pelvic pain, evaluation of possible neurologic, visceral, dermatologic, and musculoskeletal components. <p>Diagnostic tests</p> <ul style="list-style-type: none"> - Order appropriate laboratory tests and imaging based on the patient's history and physical exam, such as genitourinary cultures, ultrasound, MRI and mental health screening tests. <p>Management:</p> <p><i>Non-surgical</i></p> <ul style="list-style-type: none"> - Counsel patients regarding medical therapies for organ specific causes of chronic pelvic pain. - Counsel patients regarding the risks of long-term narcotic use. <p><i>Procedural</i></p> <ul style="list-style-type: none"> - Describe interventional treatments for chronic pelvic pain, such as injections, laparoscopy, presacral neurectomy, adhesiolysis, and hysterectomy, including the efficacy, risks, benefits, and cost-effectiveness of each. 	<ol style="list-style-type: none"> 1. Shoja MM, et al. Neuroanatomy of the female abdominopelvic region: A review with application to pelvic pain syndromes Clinical Anatomy 26:66–76. 2013. 2. Andrews J, Yunker A, Reynolds WS, Likis FE, Sathe NA, Jerome RN. Noncyclic Chronic Pelvic Pain Therapies for Women: Comparative Effectiveness. 3. Shin JH, Howard FM. Management of chronic pelvic pain. Curr Pain Headache Rep. 2011 Oct;15(5):377-85. 4. Brawn J, Morotti M, Zondervan KT, Becker CM, Vincent K. Central changes associated with chronic pelvic pain and endometriosis. Hum Reprod Update. 2014 Sep-Oct;20(5):737-47. 5. Tu FF, Hellman KM, Backonja MM. Gynecologic management of neuropathic pain. Am J Obstet Gynecol. 2011 Nov;205(5):435-43. 6. Gyang A, Hartman M, Lamvu G. Musculoskeletal causes of chronic pelvic pain: what a gynecologist should know. Obstet Gynecol. 2013 Mar;121(3):645-50. 7. Hanno PM, Erickson D, Moldwin R, Faraday MM; American Urological Association. Diagnosis and treatment of interstitial cystitis/bladder pain syndrome: AUA guideline amendment. J Urol. 2015 May;193(5):1545-53. 8. Steege JF, Zolnoun DA. Evaluation and treatment of dyspareunia. ObstetGynecol. 2009 May;113(5):1124- 36. 9. Siedhoff MT, Carey ET, Findley AD, Hobbs KA, Moulder JK, Steege JF. Post-hysterectomy dyspareunia. J Minim Invasive Gynecol. 2014 Jul-Aug;21(4):567-75. 	<p><u>The Evil Quadruplets: Its Not Just Endometriosis</u></p> <p><u>Surgical Treatments for Chronic Pelvic Pain</u></p>

Year 2 | January

ADNEXAL PATHOLOGY & SURGERY

OBJECTIVES	ARTICLES	VIDEOS
<p>Pathophysiology</p> <ul style="list-style-type: none"> - Describe the etiology of physiologic and pathologic adnexal masses, including association with age, reproductive status, and pregnancy status. <p>Evaluation</p> <ul style="list-style-type: none"> - Elicit a comprehensive medical and menstrual history, including family history of ovarian, breast, uterine, and colon cancer. - Perform a focused PE. - Order appropriate laboratory tests and imaging, such as serum tumor markers, pelvic ultrasound, CT scan and/or MRI. <p>Management</p> <p><i>Non-surgical</i></p> <ul style="list-style-type: none"> - Identify appropriate candidates for expectant management of adnexal masses and counsel patients regarding the role of expectant management. <p><i>Surgical</i></p> <ul style="list-style-type: none"> - Identify indications and appropriate candidates for adnexal surgery. - Discuss surgical interventions for adnexal masses, such as cystectomy and oophorectomy, including risks, benefits, and cost-effectiveness - Counsel patients regarding potential intraoperative findings and postoperative outcomes including pathology, recurrence risk, and subsequent management. 	<ol style="list-style-type: none"> 1. Evaluation and Management of Adnexal Masses. Practice Bulletin PB Number 174. November 2016. 2. Liu JH, Zanotti KM. Management of the adnexal mass. Obstet Gynecol. 2011 Jun;117(6):1413-28. 3. Andreotti RF, Timmerman D, Strachowski LM, Froyman W, Benacerraf BR, Bennett GL, Bourne T, Brown DL, Coleman BG, Frates MC, Goldstein SR, Hamper UM, Horrow MM, Hernanz-Schulman M, Reinhold C, Rose SL, Whitcomb BP, Wolfman WL, Glanc P. O-RADS US Risk Stratification and Management System: A Consensus Guideline from the ACR Ovarian-Adnexal Reporting and Data System Committee. Radiology. 2020 Jan;294(1):168-185. 4. Arden D, Lee T. Laparoscopic excision of ovarian remnants: retrospective cohort study with long-term follow-up. J Minim Invasive Gynecol. 2011 Mar-Apr;18(2):194-9. 	<p><u>Benign Gynecologists' Approach to the Adnexal Mass</u></p> <p><u>Adnexal Mass Evaluation and Technique of Contained Extraction</u></p> <p><u>Laparoscopic Ovarian Cystectomy with Reconstruction of the Ovary</u></p> <p><u>Vasopressin Hydrodissection for Ovarian Cysts</u></p> <p><u>Laparoscopic Removal of Ovary Adherent to the Pelvic Sidewall</u></p> <p><u>Laparoscopic Approach to Essure Removal</u></p>

Year 2 | February

CONGENITAL ANOMALIES OF THE UROGENITAL TRACT

OBJECTIVES	ARTICLES	VIDEOS
<p>Preoperative evaluation</p> <ul style="list-style-type: none"> - Obtain a history, PE, and indicated laboratory and imaging studies to evaluate patients' underlying gynecologic problem that may indicate a need for surgical treatment of a congenital anomaly. - Cite indications for surgical management of congenital anomalies of the reproductive tract including, but not limited to: imperforate hymen, vaginal agenesis, vaginal septum, uterine septum, fallopian tube and/or non-communicating rudimentary uterine horns. <p>Surgical management</p> <ul style="list-style-type: none"> - Describe surgical management techniques for all of the above listed pathology. <p>Other considerations</p> <ul style="list-style-type: none"> - Counsel patients on the impact of congenital anomalies of the urogenital tract on fertility. - Counsel patients on the impact of pregnancy and delivery, should pregnancy occur. - Utilize a collaborative approach for management, such as consultation with adult and pediatric medical and surgical subspecialties when appropriate. 	<ol style="list-style-type: none"> 1. Ludwin A, Martins WP, Nastri CO. Congenital Uterine Malformation by Experts (CUME): better criteria for distinguishing between normal/arcuate and septate uterus? <i>Ultrasound in Obstetrics & Gynecology</i> 51, no. 1 (2018): p.101-109 ISSN: 0960-769. 2. Bhagavath, Bala MBBS; Greiner, Ellie BS; Griffiths, Kara M. MD. Uterine Malformations: An Update of Diagnosis, Management, and Outcomes, <i>Obstetrical & Gynecological Survey</i>: June 2017 - Volume 72 - Issue 6 - p 377-392. 3. Theodoros D. Theodoridis, Panagiotis D. Pappas, Grigoris F. Grimbizis. Surgical management of congenital uterine anomalies (including indications and surgical techniques), <i>Best Practice & Research Clinical Obstetrics & Gynaecology</i>, Volume 59, 2019, Pages 66-76, ISSN 1521-6934. 4. ACOG Committee on Adolescent Health Care. ACOG Committee Opinion. Number 274, July 2002. Nonsurgical diagnosis and management of vaginal agenesis. <i>Obstet Gynecol.</i> 2002 Jul;100(1):213-6. <p><i>Supplemental</i></p> <ol style="list-style-type: none"> 5. Quint EH, McCarthy JD, Smith YR. Vaginal surgery for congenital anomalies. <i>Clin Obstet Gynecol.</i> 2010 Mar;53(1):115-24. 6. Breech LL, Laufer MR. Müllerian anomalies. <i>Obstet Gynecol Clin North Am.</i> 2009 Mar;36(1):47-68. doi: 10.1016/j.ogc.2009.02.002. 	<p><u>Pelvic Landmarks in Patients with Mullerian Anomalies Undergoing Hysterectomy</u></p>

Year 2 | March

CESAREAN SCAR DEFECTS/ISTHMOCELE

OBJECTIVES	ARTICLES	VIDEOS
<p>Evaluation</p> <ul style="list-style-type: none"> - Discuss risk factors for isthmocele development and complications related to isthmocele. - Describe clinical presentation. - Obtain a history and physical exam. - Order appropriate imaging studies for diagnostic evaluation. <p>Management</p> <ul style="list-style-type: none"> - Discuss medical management options. - Discuss surgical management options including hysteroscopy vs laparoscopy. 	<ol style="list-style-type: none"> 1. Harjee, Rahana, Khinda, Jaskaran and Bedaiwy, Mohamed A. Year: 2021: Reproductive Outcomes Following Surgical Management for Isthmoceles: A Systematic Review: Journal of Minimally Invasive Gynecology Volume: 28 Issue: 7 Pages: 1291-1302.e2. 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. 	<p><u>Hysteroscopic Repair Cesarean Scar Isthmocele</u></p> <p><u>Laparoscopic Isthmocele Repair</u></p> <p><u>Laparoscopic Repair of Isthmocele with Hysteroscopic Guidance</u></p>

Year 2 | April

SURGERY IN SPECIAL POPULATIONS & RISK REDUCING SURGERY

OBJECTIVES	ARTICLES	VIDEOS
<p>Surgery in special populations</p> <ul style="list-style-type: none"> - Special patient populations to consider: morbidly obese, pregnant, adolescent, geriatric. - For the following patient populations understand potential physiologic changes associated with these populations. - Review any additional peri-, intra-, and post-operative complications that can arise. - Consider consultation with other specialties when clinically appropriate. - Identify special equipment needed during the surgery, perioperative adjuvants such as DVT prophylaxis, and surgical techniques, approach, and visualization. <p>Risk Reducing Surgery Evaluation</p> <ul style="list-style-type: none"> - Describe the impact of familial cancer syndromes on lifetime risk of gynecologic cancer. - Elicit a comprehensive medical and family history. - Order appropriate laboratory tests and imaging, such as genetic testing and serum markers, ultrasound, CT scan, and/or MRI. - Perform endometrial sampling in appropriate patients, such as those with Lynch Syndrome. <p>Management</p> <ul style="list-style-type: none"> - Non Surgical: Describe medical treatment options/surveillance and counsel patients accordingly. - Procedural: Explain the indications for, timing of, and expected risk reducing impact of procedures such as salpingectomy, oophorectomy, hysterectomy. 	<p>Special populations</p> <ol style="list-style-type: none"> 1. Casey J, Yunker A, Anderson T. Gynecologic Surgery in the Pediatric and Adolescent Populations: Review of Perioperative and Operative Considerations. Journal of Minimally Invasive Gynecology. (2016) 23, 1033–1039. 2. Dizon AM, Carey ET. Minimally invasive gynecologic surgery in the pregnant patient: considerations, techniques, and postoperative management per trimester. Curr Opin Obstet Gynecol. 2018 Aug;30(4):267-271. 3. Louie M, Toubia T, Schiff LD. Considerations for minimally invasive gynecologic surgery in obese patients. Curr Opin Obstet Gynecol. 2016 Aug;28(4):283-9. 4. Marfori CQ, Wu CZ, Katler Q, Kotzen M, Samimi P, Siedhoff MT. Hysterectomy for the Transgendered Male: Review of Perioperative Considerations and Surgical Techniques with Description of a Novel 2-Port Laparoscopic Approach. J Minim Invasive Gynecol. 2018 Nov-Dec;25(7):1149-1156. <p>Risk reducing surgery</p> <ol style="list-style-type: none"> 5. ACOG. ACOG Practice Bulletin No. 182. Hereditary Breast and Ovarian Cancer Syndrome. Practice Bulletin Number 182. September 2017. 6. Committee on Gynecologic Practice. Committee opinion no. 774: Opportunistic Salpingectomy as a Strategy for Epithelial Ovarian Cancer Prevention. Committee Opinion Number 774. April 2019. 7. Lancaster JM, Powell CB, Chen LM, Richardson DL; SGO Clinical Practice Committee. Society of Gynecologic Oncology statement on risk assessment for inherited gynecologic cancer predispositions. Gynecol Oncol. 2015 Jan;136(1):3-7. 	<p><u>Laparoscopy in the Obese: Strategies for Success</u></p> <p><u>Laparoscopic Techniques of Ovarian Cystectomy in the Second Trimester</u></p> <p><u>Tips & Tricks: Hysterectomy on Renal Transplant Patients</u></p> <p><u>Prophylactic Laparoscopic BSO for a BRCA Positive Patient</u></p>

Year 2 | May

PELVIC FLOOR DISORDERS

OBJECTIVES	ARTICLES	VIDEOS
<p>Evaluation</p> <ul style="list-style-type: none"> - Describe the normal function, innervation, and anatomy of the urinary tract, gastrointestinal tract, and pelvic support system. - Elicit a comprehensive medical and reproductive history, including associated urinary, gastrointestinal, and musculoskeletal symptoms. - Perform a focused pelvic examination, including assessment of uterovaginal support, pelvic floor, neurologic status, urethral hypermobility, presence of fistulas, and anal sphincter disruptions. - Order appropriate laboratory tests and imaging, including urodynamic testing and defecography. <p>Management</p> <p><i>Non-surgical</i></p> <ul style="list-style-type: none"> - Discuss non-surgical treatments, such as medical therapies, physical therapy, and pessaries, and counsel regarding risks, benefits, alternatives. <p><i>Surgical</i></p> <ul style="list-style-type: none"> - Discuss interventional treatments, such as sacrocolpopexy, uterosacral suspension, sacrospinous ligament suspension, colpocleisis, McCall’s culdoplasty, paravaginal repair, anterior/posterior vaginal repair, mid-urethral sling and the different surgical approaches and success rates for each. - Describe the anatomy of the retroperitoneal space, presacral space, paravesical and pararectal space. - Describe the anatomy of the bladder, bony landmarks of the pelvis, nerves of the pelvis, muscles of the pelvic floor, and ligaments of the pelvis. 	<ol style="list-style-type: none"> 1. Nager CW, Brubaker L, Litman HJ, Zyczynski HM, Varner RE, Et al. Urinary Incontinence Treatment Network. A randomized trial of urodynamic testing before stress-incontinence surgery. N Engl J Med. 2012 May 24;366(21):1987-97. 2. Collins CW, Winters JC; American Urological Association; Society of Urodynamics Female Pelvic Medicine and Urogenital Reconstruction. AUA/SUFU adult urodynamics guideline: a clinical review. Urol Clin North Am. 2014 Aug;41(3):353-62. 3. Weber AM, Richter HE. Pelvic organ prolapse. Obstet Gynecol. 2005 Sep;106(3):615-34. 4. Maher C, Feiner B, Baessler K, Schmid C. Surgical management of pelvic organ prolapse in women. Cochrane Database Syst Rev. 2013 Apr 30;4:CD004014. 5. Slade E, et al. Primary surgical management of anterior pelvic organ prolapse: a systematic review, network meta-analysis and cost-effectiveness analysis. BJOG: An International Journal of Obstetrics and Gynaecology: 20 Sep 2019. <p><i>Supplemental</i></p> <ol style="list-style-type: none"> 6. 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. 	<p><u>Two Methods for Laparoscopic Vaginal Vault Suspension at the Time of TLH</u></p> <p><u>Robotic Single-Site Sacrocolpopexy</u></p> <p><u>Retropubic Space Revisited: Laparoscopic Burch Suspension and Paravaginal Defect Repair</u></p>

Year 2 | June

PROFESSIONALISM/EMERGING TOPICS

OBJECTIVES	ARTICLES	VIDEOS
<ul style="list-style-type: none"> - Demonstrate respect for patient privacy and autonomy. - Demonstrate sensitivity for a diverse patient population. - Maintain ethical relationships with the pharmaceutical and medical device industry and report all relationships as dictated by current legal statutes. - Maintain appropriate relationships with ancillary staff, support staff, and trainees in order to not negatively affect training or patient care. - Provide and accept feedback in a positive manner, and adjust actions to reflect the response to that feedback. - Demonstrate self-awareness in areas of fatigue, stress, punctuality, dress, peer relationships, work hours, and timeliness for completion of duties. - Demonstrate an understanding of ethical principles and their application to patient care. - Demonstrate appropriate counseling when giving informed consent, and be inclusive of all risks, benefits, alternatives, and cost-effectiveness to proposed treatment plan. - Continue to follow and incorporate evolving evidence/treatment options into practice patterns. - Continue to critically evaluate outcomes and complications for quality improvement, both personally and institutionally. 	<p>Professionalism, Ethics, Accountability and Communication:</p> <ol style="list-style-type: none"> 1. Committee on Ethics. ACOG Committee Opinion Number 541: Professional relationships with industry. 2. Committee on Patient Safety and Quality Improvement; Committee on Professional Liability. ACOG Committee Opinion No. 681. 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. 4. Committee on Patient Safety and Quality Improvement. ACOG Committee Opinion No. 730: Fatigue and Patient Safety. <i>Obstet Gynecol.</i> 2018. 5. Behavior that undermines a culture of safety. Committee Opinion No. 683. 6. Professional use of digital and social media. ACOG Committee Opinion No. 791. 7. Community involvement and volunteerism. ACOG Committee Opinion No. 437. 8. ACOG committee opinion. Sexual misconduct in the practice of obstetrics and gynecology: ethical considerations. Number 144. <p>Emerging topics</p> <ol style="list-style-type: none"> 9. Francis N, Dort J, Cho E, et al. SAGES and EAES recommendations for minimally invasive surgery during COVID-19 pandemic. <i>Surg Endosc.</i> 2020;34(6):2327-2331. doi:10.1007/s00464-020-07565. 	<p><u>Twitter for the Gynecologist</u></p>

Additional Reading

RESEARCH DESIGN

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

4. Grimes DA, Schulz KF. An overview of clinical research: the lay of the land. *Lancet.* 2002 Jan 5;359(9300):57- 61.
5. Grimes DA, Schulz KF. Descriptive studies: what they can and cannot do. *Lancet.* 2002 Jan 12;359(9301):145- 9.
6. Grimes DA, Schulz KF. Bias and causal associations in observational research. *Lancet.* 2002 Jan 19;359(9302):248-52.
7. Grimes DA, Schulz KF. Cohort studies: marching towards outcomes. *Lancet.* 2002 Jan 26;359(9303):341-5.
8. Schulz KF, Grimes DA. Case-control studies: research in reverse. *Lancet.* 2002 Feb 2;359(9304):431-4.
9. 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.
10. Grimes DA, Schulz KF. Compared to what? Finding controls for case-control studies. *Lancet.* 2005 Apr 16- 22;365(9468):1429-33.
11. Grimes DA, Schulz KF. Refining clinical diagnosis with likelihood ratios. *Lancet.* 2005 Apr 23- 29;365(9469):1500-5.
12. McGee S. Simplifying likelihood ratios. *J Gen Intern Med.* 2002 Aug;17(8):646-9.
13. Schulz KF, Grimes DA. Generation of allocation sequences in randomized trials: chance, not choice. *Lancet.* 2002 Feb 9;359(9305):515-9.
14. Schulz KF, Grimes DA. Allocation concealment in randomised trials: defending against deciphering. *Lancet.* 2002 Feb 16;359(9306):614-8.
15. Schulz KF, Grimes DA. Blinding in randomised trials: hiding who got what. *Lancet.* 2002 Feb 23;359(9307):696-700.
16. Schulz KF, Grimes DA. Sample size calculations in randomised trials: mandatory and mystical. *Lancet.* 2005 Apr 9-15;365(9467):1348-53.
17. Schulz KF, Grimes DA. Multiplicity in randomised trials I: endpoints and treatments. *Lancet.* 2005 Apr 30-May 6;365(9470):1591-5.
18. Schulz KF, Grimes DA. Multiplicity in randomised trials II: subgroup and interim analyses. *Lancet.* 2005 May 7- 13;365(9471):1657-61.
19. Schulz KF, Grimes DA. Unequal group sizes in randomised trials: guarding against guessing. *Lancet.* 2002 Mar 16;359(9310):966-70. PubMed PMID: 11918933.

Data Collection

How to get your manuscript published