

Supplemental Guide: Gynecologic Oncology



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Milestones Supplemental Guide

This document provides additional guidance and examples for the Gynecologic Oncology Milestones. This is not designed to indicate any specific requirements for each level, but to provide insight into the thinking of the Milestone Work Group.

Included in this document is the intent of each Milestone and examples of what a Clinical Competency Committee (CCC) might expect to be observed/assessed at each level. Also included are suggested assessment models and tools for each subcompetency, references, and other useful information.

New in this version of the milestones are harmonized milestones that have been kept intentionally relatively consistent across specialties and across levels of the educational program (residency and fellowship). The CCC might be expected to find that fellows come in at a higher level (perhaps Level 3-4 rather than Level 1-2) for the harmonized milestones, as new fellows will have presumably progressed to higher levels of similar milestones prior to residency completion.

Review this guide with the CCC and faculty members. As the program develops a shared mental model of the Milestones, consider creating an individualized guide (Supplemental Guide Template available) with institution/program-specific examples, assessment tools used by the program, and curricular components.

Additional tools and references, including the Milestones Guidebook, Clinical Competency Committee Guidebook, and Milestones Guidebook for Residents and Fellows, are available on the Resources page of the Milestones section of the ACGME website.

Patient Care 1: Surgical Care of Gynecologic Cancer – Open Techniques	
Overall Intent: To have the knowledge and clinical experience necessary to safely perform and demonstrate progressive technical skill in	
open gynecologic oncology procedures Milestones	Examples
Level 1 Independently selects appropriate	Identifies patients appropriate for wide local excision, cold knife cone, and hysterectomy
procedures for benign gynecologic conditions	• Identifies patients appropriate for wide local excision, cold killie corie, and hysterectomy
Proficiently performs benign gynecologic or basic cancer-specific procedures	Performs wide local excision, cold knife cone, and hysterectomy
Level 2 Proposes appropriate cancer-specific procedures	Identifies patients appropriate for radical hysterectomy, radical vulvectomy, and cancer staging/debulking
Effectively assists during radical cancer-specific procedures	Assists with radical hysterectomy, radical vulvectomy, and cancer staging/debulking procedures
Level 3 Selects appropriate cancer-specific procedures	 Performs radical hysterectomy, radical vulvectomy, and staging / debulking procedures Performs lymphadenectomy
Performs radical cancer-specific procedures	
Level 4 Independently adapts surgical plan	Proficient with radical hysterectomy, radical vulvectomy, staging/ debulking procedures
based on unforeseen intraoperative events	 Restores normal anatomy with severe adhesions Manages unexpected intra-operative complications
Independently and proficiently performs radical cancer-specific procedures	Tivianages unexpected mad operative complications
Level 5 Independently manages complicated or	Coordinates multidisciplinary surgical team such as a reconstructive flap in conjunction
multidisciplinary procedures for patients with multiple comorbidities	with an exenterative procedure
Identifies innovative techniques and approaches from the literature or other disciplines	
Assessment Models or Tools	Direct observation
	Global evaluation Multisource feedback
	Oral examination
	Portfolio
	Simulation assessment
Curriculum Mapping	

Notes or Resources	Atlas of Pelvic Surgery. Malignant Disease: Special Procedures.
	http://www.atlasofpelvicsurgery.com/10MalignantDisease/chapter10index.html. 2021.
	National Comprehensive Cancer Network (NCCN). NCCN Guidelines.
	https://www.nccn.org/guidelines/category 1. 2021.
	• Society of Gynecologic Oncology (SGO). ConnectED. https://connected.sgo.org/ . 2021.
	Surgical textbooks

Patient Care 2: Surgical Care of Gynecologic Cancer – Minimally Invasive Surgical Techniques	
Overall Intent: To have the knowledge and clinical experience necessary to safely perform and demonstrate progressive technical skill in	
minimally invasive gynecologic oncology proced	
Milestones	Examples
Level 1 Independently selects appropriate procedures for benign gynecologic conditions	Lists appropriate route of hysterectomy based on patient and uterine factors and safely performs a vaginal and minimally invasive hysterectomy
Proficiently performs benign gynecologic or basic cancer-specific procedures	
Level 2 Proposes appropriate cancer-specific procedures	Understands indications for sentinel lymph node assessment in endometrial cancer
Effectively assists during radical cancer-specific procedures	• Functions as first assistant to facilitate safe minimally invasive surgery staging procedures
Level 3 Selects appropriate cancer-specific procedures	Identifies indications for pelvic lymphadenectomy
Performs radical cancer-specific procedures	Safely performs pelvic lymphadenectomy with supervision
Level 4 Independently adapts surgical plan based on unforeseen intraoperative events Independently and proficiently performs radical cancer-specific procedures	 Describes staging for non-mapping sentinel lymph node in endometrial cancer Independently performs minimally invasive surgical dissection (e.g., lymphadenectomy) Troubleshoots technical and logistic obstacles to performing minimally invasive surgical procedures
Level 5 Independently manages complicated or multidisciplinary procedures for patients with multiple comorbidities	Coordinates complex surgery for a patient with morbid obesity who has endometrial cancer and a large ventral hernia
Identifies innovative techniques and approaches from the literature or other disciplines	Proposes a new strategy for less invasive staging based on literature from other fields
Assessment Models or Tools	 Direct observation Global evaluation Multisource feedback Oral examination Portfolio Simulation assessment
Curriculum Mapping	

Notes or Resources	Atlas of Pelvic Surgery. Malignant Disease: Special Procedures.
	http://www.atlasofpelvicsurgery.com/10MalignantDisease/chapter10index.html. 2021.
	• NCCN. NCCN Guidelines. https://www.nccn.org/guidelines/category1 . 2021.
	• SGO. ConnectED. https://connected.sgo.org/. 2021.
	Surgical textbooks

Patient Care 3: Management Chemotherapy and Targeted Therapeutics Overall Intent: To appropriately use chemotherapy and targeted therapies to manage/treat gynecologic malignancies **Milestones Examples** Level 1 Discusses commonly used • Cites resources such as national guidelines for essential indications for cancer therapies • Is aware of dose limiting toxicities of commonly prescribed chemotherapies chemotherapy agents, targeted therapeutics, and common toxicities Level 2 Proposes appropriate options for • Selects right treatment based on stage, toxicity, and goals of therapy treatment based on guidelines **Level 3** Selects appropriate chemotherapy • Effectively reduces dose based on new patient symptoms and lab values (e.g., anticancer agents and targeted therapies for treatment toxicities) based on observed toxicities and guidelines • Uses both germline and tumor testing to develop individualized treatment plans for **Level 4** Independently adapts chemotherapy agents and targeted therapies based on recurrent ovarian cancer genetics, tumor testing, and/or toxicities Level 5 Independently manages acute and long-• Proactively works with other specialties to manage rare complications of therapy term toxicities and makes appropriate referrals to other members of the interdisciplinary team Assessment Models or Tools Clinical case reviews Direct observation Medical record (chart) audit Tumor board **Curriculum Mapping** Notes or Resources • American Society of Clinical Oncology (ASCO). Guidelines, Tools, & Resources. https://www.asco.org/practice-patients/guidelines. 2021. • NCCN. NCCN Guidelines. https://www.nccn.org/quidelines/category 1, 2021. Textbooks

Patient Care 4: Peri-Operative Care (Pre-, Intra-, and Post-) Overall Intent: To effectively avoid, identify, and manage conditions/situations/complications that impact peri-operative care **Milestones Examples** Level 1 Assesses peri-operative surgical risk • Identifies comorbid conditions (renal/heart disease, obesity, thromboembolic disease, and manages routine peri-operative care dementia) and their contribution to peri-operative risk • Identifies the appropriate use of intra-operative antibiotics • Manages the care of uncomplicated post-operative patients: fluid management, postoperative milestones • Uses institutional Enhanced Recovery After Surgery (ERAS) protocol **Level 2** Employs standardized care protocols and recognizes common peri-operative • References American College of Chest Physicians (CHEST) guidelines for venous thromboembolism prevention complications • Recognizes urinary retention or oliguria Level 3 Manages patients with complex peri- Manages urinary retention or oliquria • Manages peri-operative anticoagulation for patients with venous thromboembolism operative needs and common peri-operative complications Manages cystotomy • Understands the indications for and principles behind massive transfusion protocol Level 4 Independently manages patients with complex peri-operative needs and complex peri-• Engages in collaborative discussion with anesthesia operative complications, integrating principles of • Independently manages post-operative ureteral injury or acute abdomen critical care • Independently escalates care as appropriate Level 5 Identifies gaps in peri-operative • Coordinates multidisciplinary discussion for complex patients management and complications to be • Engages in root cause analysis addressed in quality improvement/research • Leads morbidity/mortality discussion initiatives Assessment Models or Tools Chart review Direct observation Multisource feedback Oral examination Patient care conferences **Curriculum Mapping** Notes or Resources • American College of Surgeons (ACS). ACS NSQIP Surgical Risk Calculator. https://riskcalculator.facs.org/RiskCalculator/. 2021. • National clinical guidelines Textbooks

Patient Care 5: Palliative Symptom Management Overall Intent: To assess, manage, and optimize cancer/treatment-related symptoms	
Milestones	Examples
Level 1 Takes a complete cancer and treatment-related symptom history	Assesses cancer pain and symptoms of therapy (nausea, constipation) Assesses social support
Level 2 Manages uncomplicated symptoms integrating standardized symptom assessment tools	 Proposes initial management for fatigue, neuropathy, or palmar-plantar erythrodysesthesia Uses standardized symptom assessment tools
Level 3 Manages complex symptoms	Manages refractory pain, bowel obstruction, ascites, dyspnea
Level 4 Coordinates multidisciplinary management of complex and refractory symptoms	 Coordinates a multidisciplinary team (gynecology oncology, radiation oncology, anesthesiology, pain management) to address refractory symptoms Identifies the need for nerve blocks, lidocaine infusions, palliative radiation, or G-tubes
Level 5 Applies innovative approaches to symptom management	 Creates research study to evaluate new treatment option Conducts a quality improvement (QI) project to systematically assess pain among cancer patients
Assessment Models or Tools	 Chart review Direct observation Multisource feedback Patient care conference Patient feedback
Curriculum Mapping	•
Notes or Resources	 ASCO. Guidelines, Tools, & Resources. https://www.asco.org/practice-patients/guidelines. 2021. Center to Advance Palliative Care (CAPC). Symptom Management. https://www.capc.org/training/symptom-management/. 2021. Gyn Oncology textbooks NCCN. NCCN Guidelines. https://www.nccn.org/guidelines/category 1. 2021. Palliative Care Network of Wisconsin (PCNOW). Fast Facts and Concepts. https://www.mypcnow.org/fast-facts/. 2021.

Overall Intent: Acquires and uses extensive knowledge of relevant anatomy in gynecologic cancer surgery	
Milestones	Examples
Level 1 Demonstrates knowledge of pelvic anatomy	Identifies pelvic organs, external genitalia, pelvic floor, musculoskeletal structures, vascular supply, and pelvic organ innervation
Applies knowledge of normal pelvic anatomy in the surgical setting to reduce surgical complication and morbidity	Proactively identifies the ureter and protects it from injury during hysterectomy
Level 2 Demonstrates knowledge of normal retroperitoneal and upper abdominal anatomy.	Identifies retroperitoneal, porta-hepatis, splenic, and upper abdominal anatomy
Applies knowledge of pelvic anatomy distorted by gynecologic cancer in complex surgical setting to reduce surgical complication and morbidity	 Performs ureterolysis to move the ureter into a safe position Opens pelvic spaces
Level 3 Applies knowledge of pelvic, retroperitoneal, and upper abdominal anatomy distorted by gynecologic cancer in a straightforward surgical setting to reduce surgical complications and morbidity	Removes an enlarged obturator lymph node without injury to the obturator nerve Removes an enlarged para-aortic lymph node without injuring the vena cava
Applies knowledge of pelvic anatomy, upper abdominal and retroperitoneal anatomy when reviewing diagnostic studies	Identifies point of ureteral obstruction in patient with a hydronephrosis
Level 4 Applies knowledge of pelvic, retroperitoneal, and upper abdominal anatomy distorted by gynecologic cancer in a complex surgical setting to reduce surgical complications and morbidity	Safely performs en bloc pelvic resection of uterus and sigmoid colon
Applies knowledge of pelvic anatomy, upper abdominal and retroperitoneal anatomy when planning complex surgical intervention	Uses imaging studies to plan complex surgery for removal of pelvic sidewall recurrence

Level 5 Applies knowledge of pelvic and abdominal anatomy to complex surgical cases and identifies areas for surgical innovation and quality improvement	Engages with other surgical consultants to gain novel surgical skills such as lymphovenous bypass or creation of a myocutaneous flap
Assessment Models or Tools	Case-based assessment Direct observation
Curriculum Mapping	•
Notes or Resources	 Anatomic text and gynecologic oncology texts Clinical case reviews Surgical case logs and evaluations of surgical cases Tumor board or other conferences utilizing imaging

Medical Knowledge 2: Medical Diseases in Gynecologic Cancer - Organ System Disorders Overall Intent: To have sufficient knowledge of systemic disease and comorbid conditions to safely treat gynecologic oncology patients **Milestones Examples** Level 1 Demonstrates knowledge of common • Interprets hemoglobin A1C level and diastolic blood pressure levels medical conditions that can affect patient • Recognizes acquired or inherited clotting disorders outcomes Level 2 Applies knowledge of common medical • Understands rationale for tight glucose control peri-operatively and develops effective co-morbidities to optimize patient outcomes plan • Differentiates mechanisms of action and half-life of common classes of anticoagulants and appropriately manages for safe peri-operative care • Modifies surgical plan to optimize peri-operative outcome in patients with abnormal hemoglobin A1C or blood pressure **Level 3** Demonstrates knowledge of complex • Is aware of competing effects of medical conditions (e.g., congestive heart failure, renal organ system disorders, metabolic failure, coagulopathies) and administration of chemotherapy derangements, and coagulopathies • Effectively integrates dose limiting toxicities and mechanism of clearance of anticancer therapies with coexisting medical conditions • Recognizes severe or specialized medical comorbidities that require multidisciplinary care Level 4 Applies knowledge of complex organ system disorders to optimize patient outcomes to achieve best outcomes **Level 5** Applies an evidence-based approach to • Organizes and runs multidisciplinary patient care conference for complex patient requiring innovative management of the gynecologic several specialties cancer patient with complex medical conditions • Develops strategies and implements changes to medical record to identify cross-reactions between current medications and planned chemotherapies **Assessment Models or Tools** Clinical case reviews • Observation during rounds and at time of new patient evaluations Tumor board **Curriculum Mapping** Notes or Resources Chemotherapy textbooks Gynecologic oncology textbooks

• Internal medicine textbooks or equivalent online resources

Medical Knowledge 3 Genetics, Cancer Biology, and Immunology Overall Intent: To understand and incorporate basic principles underlying cancer biology to effectively treat patients	
Milestones	Examples
Level 1 Demonstrates knowledge of basic genetics and common hereditary cancer syndromes in gynecologic cancer	Is aware of the common hereditary syndromes associated with increased risk of ovarian cancer
Demonstrates knowledge of basic carcinogens and gynecologic cancer prevention strategies	Counsels patients on risk factors for cervical cancer and can explain ways to modify risk
Level 2 Applies knowledge of basic cancer genetics to patient counseling	Takes thorough screening history for gynecologic cancers and recognizes patterns of disease suggestive of inherited risk, such as young age onset, multiple rare cancers)
Demonstrates knowledge of basic cancer biology and immunology	• Identifies common genetic aberrations in cancer and relevance of targeted therapies such as angiogenesis, oncogenes, tumor suppressor genes, immune system components
Level 3 Demonstrates knowledge of less common hereditary cancer syndromes and genetic alterations	Recognizes patterns of malignancies suggesting rare inherited syndromes such as Li- Fraumeni syndrome and is aware of pathogenic germline alternations
Demonstrates knowledge of targeted therapeutic principles and cancer immunotherapy	Demonstrates knowledge of poly ADP ribose polymerase (PARP) inhibitor maintenance therapy and treatment of patients with ovarian cancer
Level 4 Applies knowledge of hereditary cancer syndromes to optimize patient outcomes	Determines need for screening and/or preventative surgery based upon genetic syndrome
Applies knowledge of cancer biology and immunology to develop treatment plans for patients with gynecologic cancers	 Effectively develops plan for fertility preservation in high-risk familial cancer setting Expresses the rationale underlying the use of immune checkpoint inhibitors in microsatellite instability-high (MSI-H) tumors
Level 5 Investigates and applies evidence- based principles of genetics to optimize patient outcomes	Develops a translational or clinical trial investigating application of a novel targeted inhibitor in gynecologic cancers
Investigates and applies evidence-based principles of cancer biology and/or immunology to optimize patient outcomes	
Assessment Models or Tools	Clinical case reviews Tumor board presentations

	Weekly didactic problem-based learning scenarios
Curriculum Mapping	
Notes or Resources	Gynecologic oncology textbooks
	NCCN. NCCN Guidelines. https://www.nccn.org/guidelines/category1 . 2021.
	SGO white papers
	Tumor biology coursework or relevant text

Medical Knowledge 4: Radiation Therapy – Radiation Biology and Physics	
Overall Intent: To have the knowledge and clin	ical experience necessary to integrate radiation therapy in to the care of patients with
gynecologic cancer	F
Milestones	Examples
Level 1 Discusses common therapeutic radiation techniques	Knows the differences between external beam radiotherapy, brachytherapy (high-dose rate, low-dose rate), and intensity-modulated radiation therapy (IMRT)
Demonstrates knowledge of common complications of radiation therapy	Knows acute and late complications of radiation, bone marrow, diarrhea, bowel obstruction, vaginal stenosis
Level 2 Demonstrates knowledge of the indications for adjuvant and primary therapy	Identifies appropriate candidates for chemo-radiation therapy for advanced cervical cancer
	Identifies appropriate candidates for vaginal brachytherapy for endometrial cancer
Demonstrates knowledge of initial evaluation of patients with radiation toxicities	Understands importance of total radiation dose to evaluation of toxicity
Level 3 Demonstrates knowledge of basic radiation biology	 Discusses properties of specific radiation sources: electrons, protons, photons Discusses sub-lethal injury and therapeutic ratio in relation to radiation therapy Understands how fractionation reduces radiation-related injury
Demonstrates knowledge of management strategies for radiation complications	Develops a plan for vaginal dilation to reduce vaginal stenosis risk
Level 4 Applies comprehensive knowledge of radiation therapy to optimize patient outcomes	Understands the differences in long-term complications between high-dose rate and low-dose rate
	Discusses the risk/benefit of IMRT and when this should be applied
Applies knowledge of management strategies for complex radiation complications	Suggests hyperbaric oxygen therapy for management of complex pelvic fistula secondary to radiation injury
Level 5 Investigates principles of innovative radiation therapy in collaboration with a radiation oncologist	Investigates intraoperative radiation for recurrent gynecologic cancer
Investigates novel management strategies for radiation complications	Investigates a novel drug for radiation-induced diarrhea
Assessment Models or Tools	Case-based assessment
	Direct observation
	Tumor board evaluation
Curriculum Mapping	

• ASCO. Guidelines, Tools, & Resources. https://www.asco.org/practice-patients/guidelines . 2021.
American Society for Radiation Oncology (ASTRO). Clinical Practice Guidelines.
https://www.astro.org/Patient-Care-and-Research/Clinical-Practice-Statements/Clinical-Practice-Guidelines. 2021.
Gynecologic Oncology Educational Series (GYOEDU). https://www.gyoedu.org/. 2021.
NCCN. NCCN Guidelines. https://www.nccn.org/guidelines/category 1. 2021.
• SGO. ConnectED. https://connected.sgo.org/ . 2021.
SGO. ConnectED: 2021-2022 SGO Fellows Bootcamp.
https://connected.sgo.org/content/2021-2022-sgo-fellows-bootcamp. 2021.
SGO national guidelinesTextbooks

Medical Knowledge 5: Chemotherapy and Targeted Therapeutics Overall Intent: To have the knowledge and clinical experience necessary to integrate chemotherapy in to the care of patients with	
gynecologic cancer	
Milestones	Examples
Level 1 Demonstrates knowledge of commonly	Knows that carboplatin and paclitaxel is first line therapy for ovarian cancer
used systemic therapies	Knows that cisplatin is used as a radiation sensitizer in cervical cancer
Level 2 Discusses therapeutic options,	Understands dose limitations and cardiac toxicity
mechanism of actions, and common toxicities of	Understands the effects of cisplatin on renal function, and the specific dosing of
common systemic therapy based on literature	carboplatin (Calvert formula)
Level 3 Demonstrates comprehensive	Discusses third-line treatment options for an ovarian cancer patient
knowledge of systemic therapy options based	• Discusses treatment options for recurrent endometrial cancer, including hormonal options
on literature	Discusses the role of bevacizumab therapies in recurrent cervical cancer
Level 4 Applies knowledge of systemic	• Understands the replacement of paclitaxel for upfront therapy in a patient with baseline
therapeutic agents to individualize management	neuropathy
	• Discusses the risks and benefits of bleomycin treatment in a patient with advanced germ
	cell tumor
	Discusses third-line treatment options in a patient with comorbidities
Level 5 Explores emerging therapies and	• Contributes to the design of a trial to use a therapy found to be helpful in testicular cancer
extrapolates to rare or complex clinical	for women with germ cell tumor
scenarios	• Extrapolates management of breast cancer to low-grade ovarian cancer such as use of
	ribociclib
Assessment Models or Tools	Case-based analysis
	Chart review
	Direct observation
	Tumor board assessment
Curriculum Mapping	•
Notes or Resources	• ASCO. Guidelines, Tools, & Resources. https://www.asco.org/practice-
	patients/guidelines. 2021.
	• Gynecologic Oncology Educational Series (GYOEDU). https://www.gyoedu.org/ . 2021.
	Gynecologic Oncology textbooks
	• NCCN. NCCN Guidelines. https://www.nccn.org/guidelines/category1 . 2021.
	• SGO. ConnectED. https://connected.sgo.org/ . 2021.
	• Society of Gynecologic Oncology (SGO), Annunziata CM, Chu CS, Rubin SC (eds).
	Chemotherapy for Gynecologic Cancers: Society of Gynecologic Oncology Handbook. 3rd
	ed. Chicago, IL: Society of Gynecologic Oncology; 2017. ISBN:978-0-692-89793-5.

Overall Intent: To have the knowledge and clinical experience necessary to integrate appropriate diagnostic testing and make comprehensive treatment plans	
Milestones	Examples
Level 1 Demonstrates knowledge of basic diagnostic techniques to evaluate patients with gynecologic neoplasms.	 Understands the strengths and limitations of ultrasound, computerized tomography (CT) and magnetic resonance imaging (MRI) to image the reproductive organs Identifies ultrasound as appropriate initial evaluation of adnexal mass
Demonstrates knowledge of histologic characteristics of common gynecologic cancers	Lists examples of epithelial and non-epithelial ovarian cancer
Level 2 Demonstrates knowledge of diagnostic accuracy and cost of advanced imaging modalities used to evaluate patients with gynecologic neoplasms	Identifies CT as appropriate initial evaluation for metastatic disease in setting of known endometrial cancer or suspected ovarian cancer
Demonstrates knowledge of pathologic studies used to identify and subcategorize malignant and premalignant gynecologic pathology	• Identifies classic immunohistochemistry (IHC) markers relevant to gynecologic cancer such as p53, p16, CK7, CK20
Level 3 Discusses diagnostic techniques to comprehensively evaluate patients with gynecologic cancer	 Effectively uses MRI and positron emission tomography (PET)/CT in the comprehensive evaluation of cervical cancer Discusses usefulness of genetic sequencing, molecular testing, and genomic analysis
Demonstrates knowledge of tailored diagnostic pathologic, genomic, and molecular studies to facilitate comprehensive treatment planning	Recognizes implications of mismatch repair immunohistochemistry for treatment planning
Level 4 Integrates knowledge of diagnostic techniques to develop comprehensive treatment plans for patients with gynecologic cancer	Uses PET/CT to further evaluate non-specific CT findings in setting of suspected recurrence
Synthesizes results of pathologic, genomic, and molecular studies to create effective treatment plans	Uses germline and somatic testing in treatment planning for ovarian cancer
Level 5 Applies innovative evidence-based diagnostic techniques to develop treatment plans for patients with gynecologic cancers	Uses somatic testing results to match patient to eligible clinical trials

Designs research projects to further the	
application or development of innovative tumor	
testing in gynecologic cancers	
Assessment Models or Tools	Clinical case review
	Direct observation
	Oral examination
	Tumor board
Curriculum Mapping	
Notes or Resources	NCCN. NCCN Guidelines. https://www.nccn.org/guidelines/category 1. 2021.
	Salani R, Backes FJ, Fung Kee Fung M, et al. Posttreatment surveillance and diagnosis
	of recurrence in women with gynecologic malignancies: Society of Gynecologic
	Oncologists recommendations. <i>Am J Obstet Gynecol</i> . 2011;204(6):466-478.
	https://www.ajog.org/article/S0002-9378(11)00317-6/fulltext. 2021.
	SGO. ConnectED. https://connected.sgo.org/ . 2021.
	Surgical textbooks

Medical Knowledge 7: Clinical Studies Overall Intent: To interpret clinical studies and apply study results to clinical practice	
Milestones	Examples
Level 1 Describes the basics of clinical study	Describes Phase 1-3 studies.
design and levels of evidence	 Identifies the level of evidence supporting sentinel lymph node resection in endometrial cancer
Level 2 Demonstrates knowledge of study design, including statistical methods	Defines non-inferiority study
Level 3 Critically interprets the results of a clinical study, including statistical limitations	Critiques and interprets a landmark study and discusses the nuanced interpretation based on the statistical design
Level 4 Applies knowledge of clinical study design, research infrastructure, and analytical statistics and integrates into clinical practice	Integrates sentinel lymph node dissection into clinical practice based on critical review of the evidence
Level 5 Designs and proposes clinical trials	Submits clinical trial concept to NRG
Assessment Models or Tools	Clinical case reviews
	Direct observation
	Journal club presentation
	Tumor board
Curriculum Mapping	•
Notes or Resources	Statistics textbooks
	Clinical trial design workshops

Medical Knowledge 8: End-of-Life Care Overall Intent: To have the knowledge and clinical experience necessary to provide comprehensive compassionate care to patients and	
families near the end of life Milestones	Examples
Level 1 Identifies general eligibility for hospice care	 Recognizes patient cannot continue disease-directed therapy while enrolled in hospice Recognizes that patients can be full code while enrolled in hospice Knows the difference between hospice from palliative care, as well as the eligibility for each
Level 2 Addresses basic patient/family questions about hospice and death from cancer	 Sets expectations for home hospice in terms of frequency of presence of hospice staff, i.e., letting patient and family members know 24-hour care is not provided with hospice benefit Answers questions about hospice coverage of medications and durable medical equipment
Level 3 Addresses complex patient/family questions about hospice, discontinuation of disease-directed therapy and death from cancer	 Explains role of inpatient hospice and differentiates it from home hospice Recognizes and explains to families that patients can un-enroll from hospice at any time to pursue disease-directed therapy or other interventions not covered by hospice benefit Addresses questions from family about how to tell if a loved one is uncomfortable in the last hours to days of life
Level 4 Individualizes advice to patient/family about timing of hospice enrollment and appropriately sets patient/family expectations for last days to weeks of life	 Proactively counsels patients/families about expectations for last hours to days of life, including declining consciousness, skin mottling, and agonal breathing Addresses questions about inpatient hospice eligibility (highlights that a patient cannot choose inpatient hospice over home hospice by preference, and must qualify medically with untreated symptoms or imminent death) Counsels family about the option of continuing disease-modifying treatments for diagnoses other than the primary hospice diagnosis of cancer, such as diabetes treatment, cardiac treatments Individualizes counseling about available hospice services based on individual patient/family needs and goals, highlighting 24-hour registered nurse availability, bereavement services, and medication coverage
Level 5 Coordinates multidisciplinary response to complex circumstances such as family conflict and futile care near the end of life	 Arranges for time-limited trial of total parenteral nutrition paid for by hospice agency for patient and family for whom prospect of discontinuation of total parenteral nutrition was the single barrier to hospice enrollment Works with palliative care and/or ethics consult service to reach advance care planning consensus in situation where different family members initially pressured patient in different directions regarding preferred intensiveness of care near the end of life
Assessment Models or Tools	Clinical case reviews Direct observation of patient counseling

Simulation assessment
 Duska LR, Lefkowits C, Blackhall L. Palliative, and supportive care. In: Chi D, Berchuck A, Dizon DS, Yashar CM. <i>Principles and Practice of Gynecologic Oncology</i>. 7th ed. Philadelphia, PA: Wolters Kluwer; 2017. ISBN:978-1496340023. Harman SM, Bailey FA, Walling AM. Palliative care: The last hours and days of life. <i>UpToDate</i>. https://www.uptodate.com/contents/palliative-care-the-last-hours-and-days-of-life. 2021. Hui D, Dos Santos R, Chisholm G, et al. Bedside clinical signs associated with impending death in patients with advanced cancer: Preliminary findings of a prospective, longitudinal cohort study. <i>Cancer</i>. 2015;121(6):960-967. https://acsjournals.onlinelibrary.wiley.com/doi/10.1002/cncr.29048. 2021. Palliative Care Network of Wisconsin (PCNOW). Fast Facts and Concepts. https://www.mypcnow.org/fast-facts/. 2021.

Systems-Based	d Practice 1: Patient Safety and Quality Improvement (QI)
Overall Intent: To engage in the analysis and management of patient safety events, including relevant communication with patients,	
families, and health care professionals; to demo	onstrate the skills necessary to participate in quality improvement Examples
Level 1 Demonstrates knowledge of common patient safety events	Lists patient misidentification or medication errors as common patient safety events
Demonstrates knowledge of how to report patient safety events	Describes how to report errors in your environment
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes fishbone tool or PDSA (Plan, Do, Study, Act) cycle
Level 2 Identifies system factors that lead to patient safety events	Identifies lack of hand sanitizer dispenser at each clinical exam room may lead to increased infection rates
Reports patient safety events through institutional reporting systems (simulated or actual)	Reports lack of hand sanitizer dispenser at each clinical exam room to the medical director
Describes local quality improvement initiatives	Summarizes protocols to decrease surgical site infections
Level 3 Participates in analysis of patient safety events (simulated or actual)	Prepares for morbidity and mortality presentations
Participates in disclosure of patient safety events to patients and families (simulated or actual)	Through simulation, communicates with patients/families about a surgical error
Participates in local quality improvement initiatives	Participates in project identifying better throughput in the operating room
Level 4 Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)	Collaborates with a team to conduct the analysis of a surgical error and effectively communicates with patients/families about those events
Discloses patient safety events to patients and families (simulated or actual)	

Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project Level 5 Actively engages teams and processes to modify systems to prevent patient safety events	 Participates in the completion of a QI project to improve human papillomavirus (HPV) vaccination rates within the practice, including assessing the problem, articulating a broad goal, developing a SMART (Specific, Measurable, Attainable, Relevant, Time-bound) objective plan and monitoring progress and challenges Assumes a leadership role at the departmental or institutional level for patient safety
Role models or mentors others in the disclosure of patient safety events	Leads a simulation for disclosing patient safety events
Creates, implements, and assesses quality improvement initiatives at the institutional or community level	Initiates and completes a QI project to improve county HPV vaccination rates in collaboration with the county health department and shares results with stakeholders
Assessment Models or Tools	 Direct observation Global evaluation Multisource feedback Simulation assessment
Curriculum Mapping	•
Notes or Resources	 Institute of Healthcare Improvement (IHI). http://www.ihi.org/Paqes/default.aspx. 2021. IHI. IHI Open School. http://www.ihi.org/education/IHIOpenSchool/Courses/Pages/OpenSchoolCertificates.aspx. 2021. Skochelak SE, Hammoud MM, Lomis KD, et al. <i>AMA Education Consortium: Health Systems Science</i>. 2nd ed. Elsevier; 2021. ISBN:9780323694629.

Systems-Based	Practice 2: System Navigation for Patient Centered Care	
	Overall Intent: To effectively coordinate care through the navigation of the health care system, including the interdisciplinary team and other	
care providers and to provide safe and efficient		
Milestones	Examples	
Level 1 Demonstrates knowledge of care coordination	For a patient with cervical cancer, identifies the gynecologic oncologist, the radiation oncologist, home health nurse, and social workers as members of the team	
Identifies key elements for safe and effective transitions of care and handoffs	Lists the essential components of a standardized sign-out checklist and care transition and hand-offs	
Level 2 Coordinates care of patients in routine clinical situations effectively utilizing the roles of the interprofessional teams	Coordinates care with the patient's interdisciplinary team at the time of discharge from the hospital	
Performs safe and effective transitions of care/handoffs in routine clinical situations	Routinely uses a standardized sign-out checklist for a stable patient during sign-outs to call team	
Level 3 Coordinates care of patients in complex clinical situations effectively utilizing the roles of their interprofessional teams	Works to coordinate care for a medically complex, post-surgical patient that will ensure follow-up to care after discharge from the hospital	
Performs safe and effective transitions of care/handoffs in complex clinical situations	Routinely uses a standardized sign-out checklist when transferring a patient to the intensive care unit (ICU) or other services	
Level 4 Role models effective coordination of patient-centered care among different disciplines and specialties	During inpatient rotations, leads team members in approaching consultants to review cases/recommendations and arranges multidisciplinary rounds for the team	
Role models and advocates for safe and effective transitions of care/handoffs within and across healthcare delivery systems including outpatient settings	Communicates with local oncology providers to effectively transmit important changes in mutual patients care plans and update on new events (e.g., surgical procedures, changes in disease status or goals)	
Level 5 Analyses the process of care coordination and leads in the design and implementation of improvements	Leads a program to arrange for team home visits to patients at high risk of readmission	
Improves quality of transitions of care within and across healthcare delivery systems to optimize patient outcomes	Develops a protocol to improve transitions between care facilities	
Assessment Models or Tools	Assessment of quality and safety conference case presentations	

	Direct observation
	Global assessment
	Medical record (chart) audit
	Multisource feedback
	Review of sign-out tools, use and review of checklists
Curriculum Mapping	
Notes or Resources	Centers for Disease Control (CDC). Population Health Training.
	https://www.cdc.gov/pophealthtraining/whatis.html. 2021.
	Kaplan KJ. In Pursuit of Patient-Centered Care. Tissue Pathology; 2016.
	http://tissuepathology.com/2016/03/29/in-pursuit-of-patient-centered-
	care/#axzz5e7nSsAns. 2021.
	• Skochelak SE, Hammoud MM, Lomis KD, et al. AMA Education Consortium: Health
	Systems Science. 2nd ed. Elsevier; 2021. ISBN:9780323694629.

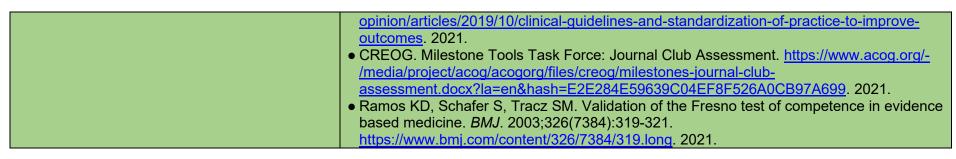
Systems-Based Practice 3: Community and Population Health Overall Intent: To effectively navigate the health care system to adapt care to a specific patient population to ensure high-quality patient outcomes **Milestones Examples** • Describes differences in patient needs based on social setting (e.g., rural versus urban) Level 1 Demonstrates knowledge of population and community health needs and disparities Level 2 Identifies specific population and • Identifies that transportation may be an obstacle in patients getting to multiple community health needs and inequities for their chemotherapy appointments local population Level 3 Uses local resources effectively to meet • Identifies a ride share service for a specific community the needs of a patient population and community • Assists to implement protocols for prescribing medications necessary for palliative care Level 4 Participates in changing and adapting practice to provide for the needs of specific needs populations Works with other healthcare providers to facilitate the availability of telemedicine options for relevant visit types and consults • Leads development of telehealth diagnostic services for a rural clinic **Level 5** Leads innovations and advocates for populations and communities with health care inequities Assessment Models or Tools Direct observation Global assessment Medical record (chart) audit Multisource feedback Quality metrics and goals mined from electronic health records (EHRs) **Curriculum Mapping** Notes or Resources CDC. Population Health Training. https://www.cdc.gov/pophealthtraining/whatis.html. 2021. • Skochelak SE, Hammoud MM, Lomis KD, et al. AMA Education Consortium: Health Systems Science. 2nd ed. Elsevier; 2021. ISBN:9780323694629.

Systems-Based Practice 4: Physician Role in Health Care Systems Overall Intent: To understand the physician role in the complex health care system and how to optimize the system to improve patient care and the health system's performance	
Milestones	Examples
Level 1 Identifies key components of the complex healthcare system	Understands the impact of health plan coverage on prescription drugs for individual patients Identifies that notes must meet coding requirements
Level 2 Describes how components of a complex healthcare system are inter-related, and how this impacts patient care	 Explains that improving patient satisfaction impacts patient adherence and payment to the health system Recognizes that appropriate documentation can influence the severity of illness determination upon discharge
Level 3 Discusses how individual practice affects the broader system	Discusses risks and benefits of same-day discharge after minimally invasive procedures
Level 4 Manages various components of the complex healthcare system to provide efficient and effective patient care	 Works collaboratively to improve patient assistance resources for a patient needing oncofertility options Integrates social worker in the management of complex patient care with limited support system
Level 5 Advocates for or leads systems change that enhances high value, efficient and effective patient care	Works with community or professional organizations to advocate for awareness of genetic syndromes putting patients at higher risk for gynecologic malignancies
Assessment Models or Tools	 Direct observation Global assessment Medical record (chart) audit Multisource feedback Patient satisfaction data Portfolio
Curriculum Mapping	
Notes or Resources	 American Board of Internal Medicine. QI/PI activities. Practice Assessment: Modules that physicians can use to assess clinical practice. 2019. https://www.abim.org/maintenance-of-certification/earning-points/practice-assessment.aspx Agency for Healthcare Research and Quality (AHRQ). Major Physician Measurement Sets. https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/physician/challenges.html. 2021.

- American Board of Internal Medicine (ABIM). QI/PI Activities. https://www.abim.org/maintenance-of-certification/earning-points/qi-pi-activities/. 2021.
- Center for Medicare and Medicaid Services (CMS). MACRA
 https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html. 2021.
- The Commonwealth Fund. Health System Data Center.

 http://datacenter.commonwealthfund.org/?ga=2.110888517.1505146611.1495417431-1811932185.1495417431#ind=1/sc=1. 2021.
- Dzau VJ, McClellan MB, McGinnis JM, et al. Vital directions for health and health care: Priorities from a National Academy of Medicine initiative. *JAMA*. 2017;317(14):1461-1470. https://nam.edu/vital-directions-for-health-health-care-priorities-from-a-national-academy-of-medicine-initiative/. 2021.
- The Kaiser Family Foundation. www.kff.org. 2021.
- The Kaiser Family Foundation: Topic: Health Reform. https://www.kff.org/topic/health-reform/. 2021.

Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice Overall Intent: To incorporate evidence and patient values into clinical practice		
Milestones	Examples	
Level 1 Demonstrates how to access and use available evidence, and incorporate patient preferences and values to care for a routine patient	 Identifies evidence-based guidelines (e.g., NCCN, ASCO, SGO Clinical Practice guidelines) Uses a smart phone app or electronic resource to obtain information and counsel a patient on cancer treatment 	
Level 2 Articulates clinical questions and elicits patient preferences and values in order to guide evidence based care, with guidance from other health care team members	Understands and appropriately uses clinical practice guidelines in making patient care decisions while eliciting patient preferences	
Level 3 Locates and applies the best available evidence, integrated with patient preference, to the care of complex patients	 Obtains, discusses, and applies evidence for the treatment of a patient with gynecologic cancer and medical comorbidities In a patient with complex medical condition, identifies and discusses potential management options and solicits patient perspective Searches and incorporates available evidence and patient's preferences to determine best treatment plan 	
Level 4 Critically appraises and applies evidence even in the face of uncertainty and conflicting evidence to guide care, tailored to the individual patient	 Accesses the primary literature to identify alternative treatments for endometrial cancer in a patient with desired fertility Searches the literature to identify treatment options for management of menopausal symptoms in a woman with estrogen-sensitive cancer 	
Level 5 Coaches others to critically appraise and apply evidence for complex patients; and/or participates in the development of guidelines	 Leads clinical teaching on application of best practices in critically ill patients with gynecologic cancer As part of a team, develops a standard clinical protocol for the management of patients with abnormal placentation limiting obstetric hemorrhage 	
Assessment Models or Tools	 Clinical case review Direct observation/clinical evaluations Fresno Test Journal club evaluation Presentation evaluation (rounds or patient care conferences, tumor board) 	
Curriculum Mapping	•	
Notes or Resources	 American College of Obstetricians and Gynecologists (ACOG) Committee on Patient Safety and Quality Improvement. Clinical guidelines and standardization of practice to improve outcomes: ACOG Committee opinion, number 792. Obstet Gynecol. 2019;134(4):e122-e125. https://www.acog.org/clinical/clinical-guidance/committee- 	



Practice-Based Learning and Improvement 2: Reflective Practice and Commitment to Personal Growth		
Overall Intent: To seek clinical performance information with the intent to improve care; reflects on all domains of practice, personal		
interactions, and behaviors, and their impact on colleagues and patients (reflective mindfulness); develop clear objectives and goals for		
improvement in some form of a learning plan		
Milestones	Examples	
Level 1 Identifies gap(s) between expectations	• Uses evaluations from nursing staff members, patients, peers, and faculty members to	
and actual performance	identify opportunities for improvement	
	Sets a personal practice goal of documenting cancer staging	
Establishes goals for personal and professional	Identifies a need to incorporate family history for cancer patients	
development	Establishes a goal to incorporate health maintenance screening for patients with	
	gynecology cancer	
Level 2 Analyzes and reflects on the factors	Integrates feedback to adjust the documentation of cancer staging	
which contribute to gap(s) between expectations	• Identifies time management skills as a contributing factor to performance, and makes a	
and actual performance	detailed plan for more timely completion of post-treatment surveillance and completion of	
	clinic notes	
Identifies opportunities for performance	When prompted, develops individual education plan to improve their evaluation of	
improvement; designs a learning plan	treatment related toxicity	
	Identifies specific knowledge base deficits and develops a detailed, structured reading	
	plan over a six-month period	
Level 3 Institutes behavioral change(s) to	Using contemporary resources, creates a personal curriculum to improve staging documentation	
narrow the gap(s) between expectations and actual performance	Completes a literature review prior to patient encounters	
actual performance	Develops calendar reminder to review patients' pathology results one week following	
Integrates practice data and feedback with	surgical procedures	
humility to implement a learning plan	Proposes a chart audit to determine the percent of patients receiving a survivorship care	
37	plan and uses the results to implement a learning plan	
Level 4 Continuously reflects on remaining	Solicits patient feedback on newly implemented clinical tools	
gap(s) and institutes behavioral adjustments to	After patient encounter, debriefs with the attending and other patient care team members	
narrow them	to optimize future collaboration in the care of the patient and family members	
Uses performance data to measure the	Completes a quarterly chart audit to ensure documentation of survivorship care planning	
effectiveness of the learning plan and adapts	in patients with gynecologic cancer	
when necessary	Assess performance at recent tumor board and prepares an updated reading schedule	
Level 5 Coaches others on reflective practice	Models practice improvement and adaptability	
	Develops educational module for collaboration with other patient care team members	
Coaches others in the design and	Assists more junior residents and medical students in developing their individualized	
implementation of learning plans	learning plans	

Assessment Models or Tools	 Chart reviews Clinical evaluations Direct observation Multisource feedback Patient care ratings
	Review of learning plan
	Semiannual evaluations
Curriculum Mapping	
Notes or Resources	 Burke AE, Benson B, Englander R, Carraccio C, Hicks PJ. Domain of competence: Practice-based learning and improvement. Acad Pediatr. 2014;14(2 Suppl):S38-S54. https://www.academicpedsjnl.net/article/S1876-2859(13)00333-1/fulltext. 2021. Hojat M, Veloski JJ, Gonnella JS. Measurement and correlates of physicians' lifelong learning. <i>Acad Med</i>. 2009;84(8):1066-74. https://insights.ovid.com/crossref?an=00001888-200908000-00021. 2021. Lockspeiser TM, Schmitter PA, Lane JL, Hanson JL, Rosenberg AA, Park YS. Assessing residents' written learning goals and goal writing skill: Validity evidence for the learning goal scoring rubric. Acad Med. 2013;88(10):1558-1563. https://insights.ovid.com/article/00001888-201310000-00039. 2021.

Practice-Based Learning and Improvement 3: Scholarly Activity Overall Intent: To identify areas worthy of investigation, design and implement a plan for investigation, and disseminate the findings of scholarly work		
Milestones	Examples	
Level 1 Identifies areas worthy of scholarly investigation	Identifies areas of interest and begins to formulate a research question	
Level 2 Designs a hypothesis-driven or hypothesis generating scholarly thesis, under the direction of a research mentor	 Creates an original research plan with a mentor With assistance of a mentor, outlines a hypothesis and plan to test two methods of teaching for a new procedure 	
Level 3 Presents products of scholarly activity at local, regional, or national meetings, and/or submits an abstract to regional, state, or national meetings	 Presents original research at the institutional level or local chapter of the American Cancer Society In collaboration with a statistician or supervisor, reviews the data collected during the study of two teaching methods, writes an abstract, and presents as a poster at a local educational forum 	
Level 4 Completes and defends a comprehensive written scholarly thesis that demonstrates advanced research methodology, design, and statistical analysis	 Presents original research at a national meeting After making a significant contribution to an educational research project, submits an abstract to a nationally recognized educational meeting Defends thesis Publishes research in a peer reviewed journal 	
Level 5 Publication of independent research that has generated new medical knowledge, education programs, or process improvement	 Mentors another resident/fellow through a research project Designs a novel research project and applies for grant funding 	
Assessment Models or Tools	 Assessment of quality of presentations and/or research Assessment of quality of publications, protocols, and/or grants Direct observation Portfolio 	
Curriculum Mapping		
Notes or Resources	 Blome C, Sondermann H, Augustin M. Accepted standards on how to give a medical research presentation: A systematic review of expert opinion papers. <i>GMS Journal for Medical Education</i>. 2017;34(1):Doc11. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5327661/. 2021. National Cancer Institute (NIH). Clinical Trials Information for Patients and Caregivers. https://www.cancer.gov/about-cancer/treatment/clinical-trials. 2021. Schünemann HJ, Wiercioch W, Brozek J, et al. GRADE Evidence to Decision (EtD) frameworks for adoption, adaption, and de novo development of trustworthy recommendations: GRADE-ADOLOPMENT. <i>Journal of Clinical Epidemiology</i>. 2017;81:101-110. https://www.jclinepi.com/article/S0895-4356(16)30482-6/fulltext. 2021. 	

Gvneco	loaic C	ncology	Supplem	nental	Guide
- j	9				

pro tria gui nav	GME requirement: Fellows must demonstrate the ability to: design and implement a spective data base; conduct clinical cancer research, especially prospective clinical s; use statistical methods to properly evaluate results of published research studies; le other learners or other personnel in laboratory or clinical oncology research; and igate the interface of basic science with clinical cancer care to facilitate translational earch
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Professionalism 1: Professional Behavior and Ethical Principles			
Overall Intent: To recognize and address lapses in professional and ethical behaviors, demonstrates professional and ethical behaviors,			
and use appropriate resources for managing pro	Examples		
Level 1 Identifies and describes potential	Understands that being tired can cause a lapse in professionalism		
triggers for professionalism lapses and how to appropriately report professionalism lapses	 Understands that being fired can cause a lapse in professionalism Understands being late to sign-out has adverse effect on patient care and on professional relationships Articulates how the principle of "do no harm" applies to a patient who may not need an 		
Demonstrates knowledge of ethical principles	operative procedure even though the training opportunity exists		
Level 2 Demonstrates insight into professional behavior in routine situations and takes	Respectfully approaches a learner who is late to sign-out about the importance of being on time		
responsibility for own professionalism lapses	 Notifies appropriate supervisor when a learner is routinely late to sign-out Acknowledge and apologizes for being late to meetings 		
Analyzes straightforward situations using ethical principles	Identifies and applies ethical principles involved in informed consent when the patient is unclear of all the risks		
Level 3 Demonstrates professional behavior in complex or stressful situations	 Appropriately responds to a distraught family member, following an unsuccessful resuscitation attempt of a relative After noticing a colleague's inappropriate social media post, reviews policies related to posting of content and seeks guidance 		
Recognizes need to seek help in managing and resolving complex ethical situations	 Recognizes that a patient may need an ethics consult for a patient needing surgery and refusing blood transfusions Recognizes need to seek help when there are concerns about medical futility and misaligned goals 		
Level 4 Consistently recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in self and others	 Actively considers the perspectives of others in stressful situation Models respect for patients and promotes the same from colleagues when a patient has been waiting an excessively long time to be seen 		
Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas as needed (and identifies system-level issues that induce or exacerbate ethical problems	Uses ethics consults for a patient who lacks capacity and is refusing a recommended procedure		
Level 5 Coaches others when their behavior fails to meet professional expectations	Coaches others when their behavior fails to meet professional expectations and creates a performance improvement plan to prevent recurrence		

Seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution	Engages stakeholders to address system level impediments to equitable care for underinsured or uninsured patients
Assessment Models or Tools	 Direct observation Global evaluation Multisource feedback Oral or written self-reflection Simulation
Curriculum Mapping	•
Notes or Resources	 ACOG. Code of Professional Ethics. https://www.acog.org/-/media/project/acog/acogorg/files/pdfs/acog-policies/code-of-professional-ethics-of-the-american-college-of-obstetricians-and-gynecologists.pdf. 2021. ACOG Committee opinion number 390. <i>Obstet Gynecol</i>. 2007;110(6):1479-1487. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2007/12/ethical-decision-making-in-obstetrics-and-gynecology. 2021. ABIM Foundation. American Board of Internal Medicine. Medical professionalism in the new millennium: A physician charter. <i>Annals of Internal Medicine</i>. 2002;136(3):243-246. https://annals.org/aim/fullarticle/474090/medical-professionalism-new-millennium-physician-charter. 2021. AMA. Ethics. https://www.ama-assn.org/delivering-care/ethics. 2021. Bynny RL, Paauw DS, Papadakis MA, Pfeil S. https://www.ama-assn.org/delivering-care/ethics. 2021. Bynny RL, Paauw DS, Papadakis MA, Pfeil S. https://medical Professionalism Best Practices: Professionalism in the Modern Era.. Aurora, CO: Alpha Omega Alpha Medical Society; 2017. https://meridan.allenpress.com/applm/article/141/2/215/132523/Professionalism-in-pathology-A-Case-Based-App

Professionalism 2: Accountability/Conscientiousness Overall Intent: To take responsibility for one's own actions and the impact on patients and other members of the health care team **Milestones Examples** Level 1 Responds promptly to requests to • Completes end-of-rotation evaluations or acknowledges when they are not completed • Responds promptly to reminders from program administrator to complete work hour logs complete tasks and takes ownership for completion of tasks and responsibilities Completes administrative tasks such as annual HIPAA modules, and licensing requirements by specified due date Level 2 Takes responsibility to complete tasks • Before going out of town, completes tasks in anticipation of lack of computer access while with appropriate attention to detail in routine traveling situations and recognizes situations that may Appropriate and timely documentation of a debulking surgery impact timely completion • Acknowledges an emergent case may disrupt plans and adjusts tumor board preparation accordingly Level 3 Performs tasks and responsibilities in a • Notifies attending of multiple competing demands for clinical coverage, appropriately triages tasks, and asks for assistance from other fellows or faculty members as needed timely manner with appropriate attention to detail in complex or stressful situations • In preparation for being out of the office, arranges coverage for assigned clinical tasks on patients and ensures appropriate continuity of care • Recognizes fatigue in a team member and coordinates coverage to ensure safe Level 4 Recognizes and takes steps to mitigate situations that may impact others' ability to performance of patient care complete tasks and responsibilities in a timely • Recognizes upcoming team absences and ensures streamlined coverage manner Level 5 Mentors/coaches other team members • Sets up a meeting with the nurse manager to streamline patient discharges and leads to ensure prioritization and completion of tasks team to find solutions to the problem Supervises and mentors more junior residents, assisting with prioritization of clinical tasks in order to achieve completion in safest, most efficient manner Assessment Models or Tools Compliance with deadlines and timelines Direct observation Global evaluations Multisource feedback Self-evaluations and reflective tools Simulation **Curriculum Mapping** • Code of conduct from fellow/resident institutional manual Notes or Resources Expectations of residency program regarding accountability and professionalism

Milestones	Examples
Level 1 Recognizes status of personal and professional well-being, with assistance	 Completes regular self-assessment of well-being With attending assistance, recognizes how a poor patient outcome effects their professional well-being
Level 2 Independently recognizes status of personal and professional well-being	 Consistently and independently identifies and communicates impact of a personal life stressor on own well-being Recognizes signs of burnout or fatigue
Level 3 With assistance, proposes a plan to optimize personal and professional well-being	With a mentor, develops a reflective response to deal with burnout or fatigue
Level 4 Independently develops a plan to optimize personal and professional well being	 Consistently and independently identifies ways to manage personal stress Builds in time for personal activities such as exercise or social outings
Level 5 Coaches others in optimizing personal and professional well-being	Assists in organizational efforts to address clinician well-being
Assessment Models or Tools	 Direct observation Group interview or discussions for team activities Individual interview Institutional online training modules Self-assessment and personal learning plan
Curriculum Mapping	•
Notes or Resources	• This subcompetency is not intended to evaluate a resident's well-being. Rather, the intensis to ensure that each resident has the fundamental knowledge of factors that impact well being, the mechanism by which those factors impact well-being, and available resources and tools to improve well-being.
	 Local resources, including Employee Assistance ACGME. Tools and Resources. https://www.acgme.org/What-We-Do/Initiatives/Physiciar-Well-Being/Resources. 2021. Hicks PJ, Schumacher D, Guralnick S, Carraccio C, Burke AE. Domain of competence: personal and professional development. <i>Acad Pediatr</i>. 2014 Mar-Apr;14(2 Suppl):S80-97 https://www.academicpedsjnl.net/article/S1876-2859(13)00332-X/fulltext. 2021.

Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication and Shared Decision Making Overall Intent: To deliberately use language and behaviors to form constructive relationships with patients, to identify communication barriers including self-reflection on personal biases, and minimize them in the doctor-patient relationships; organize and lead communication around shared decision making **Examples Milestones** • Introduces self and faculty member, identifies patient and others in the room, and Level 1 Demonstrates respect and establishes a basic therapeutic relationship with patient and engages all parties in healthcare discussion; discusses resident role within the health care family and answers basic questions about treatment planning • Identifies need for trained interpreter with non-English-speaking patients • Identifies the components of the informed consent, including the indication for the procedure, alternatives to management and risks/ benefits of management choices Avoids medical jargon and restates patient perspective when discussing chemotherapy Level 2 Identifies and reflects on personal and • Inquires whether patient needs prescription instructions written in a different language implicit biases related to communications with • Recognizes the differences in how patients absorb knowledge, such as the need for patients and families handouts with diagrams and pictures and electronic resources and videos to communicate information • In a discussion with the faculty member, acknowledges discomfort in caring for a patient with morbid obesity and uterine cancer and does not want to make lifestyle changes Level 3 Establishes therapeutic relationships in Acknowledges patient's request for an ultrasound for low-risk adnexal mass surveillance challenging patient and family encounters and and arranges timely follow-up visit to align diagnostic plan with goals of care counsels patient through shared decision-• Discusses all treatment options for a patient with cervical cancer at 18 weeks gestation and incorporates her preferences in developing a shared decision making care plan making Provides alternative management methods when providing informed consent to someone with new uterine cancer and a goal to maintain future fertility Level 4 Facilitates difficult discussions while • For an obese patient with a new pelvic mass, discusses how her obesity impacts surgical attempting to proactively minimize planning communication barriers Counsels patient with a history of uterine cancer and significant vasomotor symptoms regarding risks/benefits of hormone replacement therapy • Leads a discussion group on personal experience of moral distress **Level 5** Mentors others to establish therapeutic • Develops a residency curriculum on social justice which addresses unconscious bias relationships in challenging encounters Assessment Models or Tools Direct observation • Kalamazoo Essential Elements Communication Checklist (Adapted) Oral examination • Self-assessment including self-reflection exercises Standardized patients **Curriculum Mapping**

Notes or Resources	Laidlaw A, Hart J. Communication skills: An essential component of medical curricula.
	Part I: Assessment of clinical communication: AMEE Guide No. 51. <i>Med Teach</i> .
	2011;33(1):6-8.
	https://www.tandfonline.com/doi/abs/10.3109/0142159X.2011.531170?journalCode=imte2
	<u>0</u> . 2021.
	Makoul G. Essential elements of communication in medical encounters: the Kalamazoo
	consensus statement. <i>Acad Med</i> . 2001;76(4):390-393.
	https://journals.lww.com/academicmedicine/Fulltext/2001/04000/Essential Elements of
	Communication in Medical.21.aspx. 2021.
	Makoul G. The SEGUE Framework for teaching and assessing communication skills.
	Patient Educ Couns. 2001;45(1):23-34.
	https://www.sciencedirect.com/science/article/abs/pii/S0738399101001367?via%3Dihub.
	2021.
	• Symons AB, Swanson A, McGuigan D, Orrange S, Akl EA. A tool for self-assessment of
	communication skills and professionalism in residents. <i>BMC Med Educ</i> . 2009;9:1.
	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2631014/. 2021.
	nttpo.//www.nob.him.him.gov/pino/articlos/1 WO2001014/. 2021.

Interpersonal and Communication Skills 2: Critical Cancer Conversations Overall Intent: To sensitively and effectively conduct high-stakes conversations with patients with gynecologic cancer and their families/caregivers		
Milestones	Examples	
Level 1 Elicits pre-existing preferences related to code status, advance care planning, and medical power of attorney	Asks about and documents code status on every inpatient admission	
Level 2 Assesses patient understanding of illness including prognostic awareness	 Effectively elicits existing understanding of disease status using open-ended, non-threatening questions such as, "Can you tell me what your doctors have told you about why you are in the hospital?" or "What is your understanding of where things are at in the big picture with your cancer?" Introduces conversation about prognosis by assessing patient's prognostic awareness using questions such as, "What have you and your doctors talked about in terms of what we expect from this cancer in the long run?" or "What are you hoping for from your current cancer treatment?" 	
Level 3 Elicits patient goals & values and delivers basic prognostic information	 Effectively communicates the concept of incurable disease and responds to resultant emotion using Naming, Understanding, Respecting, Supporting, Exploring (NURSE) statements or other structures approaches Proactively fosters patient understanding of whether the disease is curable Elicits from patients and families what is most important to them given the clinical circumstances, using open-ended questions such as "What do you enjoy when you're not in the hospital and how can we help you do more of this?" or "When thinking about what we just talked about, what worries and concerns do you have?" or "If time were short, what would you want life to look like?" Incorporates Ask-Tell-Ask or other structured approaches to delivering prognostic information 	
Level 4 Makes goal-concordant treatment and code status recommendations	When multiple options exist for next steps in treatment, recommends an option to the patient based on that individual patient's priorities and goals Discusses the limited effectiveness of cardiopulmonary resuscitation (CPR) in setting of advanced cancer with limited prognosis	
Level 5 Reaches consensus on goal-concordant treatment plan in high complexity circumstances	 Recommends cessation of anti-cancer therapy but continued transfusions for patient with advanced cancer and myelodysplastic syndrome for whom life prolongation is a high priority Achieves consensus among family members with initially conflicting opinions, for a time-limited trial of ventilatory support for a patient with progressing platinum resistant ovarian cancer who is admitted with pneumonia and failing non-invasive ventilation 	
Assessment Models or Tools	Case review	

	Direct observationSimulation
Curriculum Mapping	•
Notes or Resources	 Back A, Arnold R, Baile W, Tulskey J, Fryer-Edwards K. Approaching difficult communication tasks in oncology. <i>CA Cancer J Clin</i>. 2005;55(3):164-77. https://acsjournals.onlinelibrary.wiley.com/doi/full/10.3322/canjclin.55.3.164?sid=nlm%3A pubmed. 2021. Back A, Arnold R, Tulsky J. <i>Mastering Communication with Seriously III Patients: Balancing Honesty with Empathy and Hope</i>. 1st ed. New York: NY: Cambridge University Press; 2009. ISBN:978-0521706186. Center to Advance Palliative Care (CAPC). Communication Skills. https://www.capc.org/training/communication-skills/. 2021. Childers J, Back A, Tulsky J, Arnold M. REMAP: A framework for goals of care conversations. <i>J Oncol Pract</i>. 2017;13(10):e844-e850. https://ascopubs.org/doi/10.1200/JOP.2016.018796?url_ver=Z39.88-2003𝔯_id=ori%3Arid%3Acrossref.org𝔯_dat=cr_pub++0pubmed&. 2021. Palliative Care Network of Wisconsin (PCNOW). Core Curriculum. https://www.mypcnow.org/fast-facts/core-curriculum/. 2021. VitalTalk. https://www.vitaltalk.org/. 2021. (Ask-Tell-Ask and NURSE statements)

Interpersonal and Communication Skills 3: Interprofessional and Team Communication Overall Intent: To effectively communicate with the health care team, including consultants, in straightforward and complex situations **Milestones Examples** • Acknowledges the contribution of each member of the health care team to the patient Level 1 Understands and respects the role and function of multidisciplinary team members Acknowledges the need for consult of palliative care team to assist with recommendations for pain control for a gynecologic oncology patient with advanced ovarian cancer Level 2 Solicits and integrates insights from and • Acknowledges in the medical record the contribution of the palliative care team for pain uses language that values all multidisciplinary control in gynecologic oncology patient with advanced ovarian cancer team members Consistently uses inclusive language • Utilizes recommendations of palliative care team for pain control for discharge planning **Level 3** Actively manages and coordinates communication between multidisciplinary team • Uses closed-loop communication with team members after interdisciplinary morning members to ensure completion of tasks rounds to develop and enact a treatment plan Level 4 Mediates and addresses conflict and • Demonstrates active listening by asking team members about their concerns and distress among the multidisciplinary team questions during patient rounds • Initiates debriefing session amongst team members after a poor surgical outcome members Level 5 Fosters a culture of open • Mediates a conflict resolution between different members of the health care team, solicits communication and effective teamwork among other team member's opinions when making clinical decisions multidisciplinary team members and prevents conflict and distress Assessment Models or Tools Direct observation Global assessment Medical record (chart) audit Multisource feedback Simulation **Curriculum Mapping** Notes or Resources • Braddock CH, Edwards KA, Hasenberg NM, Laidley TL, Levinson W. Informed decision making in outpatient practice: Time to get back to basics. JAMA. 1999;282:2313-2320. https://jamanetwork.com/journals/jama/fullarticle/192233. 2021. • Dehon E, Simpson K, Fowler D, Jones A. Development of the faculty 360. MedEdPORTAL. 2015;11:10174. https://www.mededportal.org/doi/10.15766/mep 2374-8265.10174. 2021. • Fay D, Mazzone M, Douglas L, Ambuel B. A validated, behavior-based evaluation instrument for family medicine residents. MedEdPORTAL. 2007;3:622.

https://www.mededportal.org/doi/10.15766/mep 2374-8265.622. 2021.



Interpersonal and Communication Skills 4: Communication within Health Care Systems Overall Intent: To effectively communicate using a variety of methods		
Milestones	Examples	
Level 1 Accurately records and safeguards patient health information in the record	 Fills in all elements of a documentation template with the most up-to-date information available Shreds patient list after rounds; avoids talking about patients in the elevator 	
Level 2 Documents diagnostic information and therapeutic reasoning through notes in the records in an efficient manner	 Organized and accurate documentation outlines clinical reasoning that supports the treatment plan Creates accurate, original notes that do not contain extraneous information such as 	
	verbatim transcriptions of radiology reports, and concisely summarizes the assessment and plan • Develops documentation templates for the inpatient rotation • Utilizes department smart-phrases and clinical smart sets for orders/documentation	
Level 3 Appropriately selects direct and indirect forms of communication based on context	 Writes notes documenting concise complex clinical thinking but may not contain anticipatory guidance Calls patient or sends electronic request to have nursing staff member contact patient immediately about potentially critical test results 	
Level 4 Achieves written or verbal communication that is clear, concise, timely, organized, and includes anticipatory guidance	 Creates documentation that is consistently accurate, organized, and concise, and frequently incorporates anticipatory guidance Creates exemplary notes that areused as an example when teaching learners 	
Level 5 Coaches others to improve others' written and verbal communication	 Leads a task force established by the hospital QI committee to develop a plan to improve house staff hand-off checklists Mentors/coaches colleagues how to improve clinical notes, including terminology, conciseness, and inclusion of all required elements Creates a policy around HIPAA compliant electronic communication (e.g., texting) 	
Assessment Models or Tools	 Direct observation Medical record (chart) audit Multisource feedback 	
Curriculum Mapping		
Notes or Resources	 Bierman JA, Hufmeyer KK, Liss DT, Weaver AC, Heiman HL. Promoting responsible electronic documentation: Validity evidence for a checklist to assess progress notes in the electronic health record. <i>Teach Learn Med</i>. 2017;29(4):420-432. https://www.tandfonline.com/doi/full/10.1080/10401334.2017.1303385. 2021. Haig KM, Sutton S, Whittington J. SBAR: A shared mental model for improving communication between clinicians. <i>Jt Comm J Qual Patient Saf</i>. 2006;32(3):167-175. https://www.jointcommissionjournal.com/article/S1553-7250(06)32022-3/fulltext. 2021. 	

• Starmer AJ, Spector ND, Srivastava R, et al. I-pass, a mnemonic to standardize verbal handoffs. <i>Pediatrics</i> . 2012;129.2:201-204.
https://pediatrics.aappublications.org/content/129/2/201.long?sso=1&sso_redirect_count=
1&nfstatus=401&nftoken=00000000-0000-0000-0000-
0000000000008nfstatusdescription=ERROR%3a+No+local+token. 2021.

To help programs transition to the new version of the Milestones, the ACGME has mapped the original Milestones 1.0 to the new Milestones 2.0. Indicated below are where the subcompetencies are similar between versions. These are not exact matches but are areas that include similar elements. Not all subcompetencies map between versions. Inclusion or exclusion of any subcompetency does not change the educational value or impact on curriculum or assessment.

Milestones 1.0	Milestones 2.0
PC1: Surgical Care of Gynecologic Cancer – Open Techniques	PC1: Surgical Care of Gynecologic Cancer – Open Techniques
PC2: Surgical Care of Gynecologic Cancer – Minimally Invasive	PC2: Surgical Care of Gynecologic Cancer – Minimally Invasive
Surgical Techniques	Surgical Techniques
PC3: Medical Management of Gynecologic Cancer –	PC3: Management Chemotherapy and Targeted Therapeutics
Chemotherapy and Targeted Therapeutics	
PC4: Peri-Operative Care	PC4: Peri-Operative Care (Pre-, Intra-, and Post-)
PC5: Hospice and Palliative Care	PC5: Palliative Symptom Management
	MK8: End-of-Life Care
MK1: Anatomy	MK1: Anatomy
MK2: Pathology	No match
MK3: Management of Medical Diseases in Gynecologic Cancer	MK2: Medical Diseases in Gynecologic Cancer – Organ System
 Organ System Disorders 	Disorders
MK4: Genetics, Cancer Biology, and Immunology	MK3: Genetics, Cancer Biology, and Immunology
MK5: Radiation Therapy – Radiation Biology and Physics	MK4: Radiation Therapy – Radiation Biology and Physics
MK6: Chemotherapy and Targeted Therapeutics	MK5: Chemotherapy and Targeted Therapeutics
MK7: Diagnostic Techniques and Treatment Planning	MK6: Diagnostic Techniques and Treatment Planning
No match	MK7: Clinical Studies
SBP1: Computer Systems	ICS4: Communication within Health Care Systems
SBP2: Value-based Patient Care (Quality/Cost)	SBP4: Physician Role in the Health Care Systems
No match	SBP3: Community and Population Health
PBLI1: Scholarly Activity	PBLI1: Evidence-Based and Informed Practice
	PBLI3: Scholarly Activity
PBLI2: Quality Improvement (QI)	SBP1: Patient Safety and Quality Improvement
No match	PBLI2: Reflective Practice and Commitment to Personal Growth
PROF1: Professional Ethics and Accountability	PROF1: Professional Behavior and Ethical Principles
	PROF2: Accountability/Conscientiousness
PROF2: Compassion, Integrity, and Respect for Others	PROF1: Professional Behavior and Ethical Principles
No match	PROF3: Self-Awareness and Help-Seeking
ICS1: Teamwork and Communication with Physicians and Other	SBP2: System Navigation for Patient-Centered Care
Health Professionals	ICS3: Interprofessional and Team Communication
ICS2: Communication with Patients and Families	ICS1: Patient- and Family-Centered Communication and Shared
	Decision-Making
	ICS2: Critical Cancer Conversations

Available Milestones Resources

Clinical Competency Committee Guidebook 3rd edition, updated 2020 https://www.acgme.org/Portals/0/ACGMEClinicalCompetencyCommitteeGuidebook.pdf?ver=2020-04-16-121941-380

Clinical Competency Committee Guidebook Executive Summaries, new 2020 - https://www.acgme.org/What-We-Do/Accreditation/Milestones/Resources - Guidebooks - Clinical Competency Committee Guidebook Executive Summaries

Milestones Guidebook, updated 2020 - https://www.acgme.org/Portals/0/MilestonesGuidebook.pdf?ver=2020-06-11-100958-330

Milestones Guidebook for Residents and Fellows, updated 2020 -

https://www.acgme.org/Portals/0/PDFs/Milestones/MilestonesGuidebookforResidentsFellows.pdf?ver=2020-05-08-150234-750

Milestones for Residents and Fellows PowerPoint, new 2020 - https://www.acgme.org/Residents-and-Fellows/The-ACGME-for-Residents-and-Fellows

Milestones for Residents and Fellows Flyer, new 2020 https://www.acgme.org/Portals/0/PDFs/Milestones/ResidentFlyer.pdf

Milestones Implementation Guidebook, new 2020 -

https://www.acgme.org/Portals/0/Milestones%20Implementation%202020.pdf?ver=2020-05-20-152402-013

Assessment Guidebook, new 2020 -

https://www.acgme.org/Portals/0/PDFs/Milestones/Guidebooks/AssessmentGuidebook.pdf?ver=2020-11-18-155141-527

Milestones National Report, updated each Fall -

https://www.acgme.org/Portals/0/PDFs/Milestones/2019MilestonesNationalReportFinal.pdf?ver=2019-09-30-110837-587 (2019)

Milestones Bibliography, updated twice each year -

https://www.acgme.org/Portals/0/PDFs/Milestones/MilestonesBibliography.pdf?ver=2020-08-19-153536-447

Developing Faculty Competencies in Assessment courses - https://www.acgme.org/Meetings-and-Educational-Activities/Other-Educational-Activities/Courses-and-Workshops/Developing-Faculty-Competencies-in-Assessment

Assessment Tool: Direct Observation of Clinical Care (DOCC) - https://dl.acgme.org/pages/assessment

Assessment Tool: <u>Teamwork Effectiveness Assessment Module</u> (TEAM) - <u>https://dl.acgme.org/pages/assessment</u>

Learn at ACGME has several courses on Assessment and Milestones - https://dl.acgme.org/