Supplemental Guide:
Geriatric Medicine

ACGME

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Milestones Supplemental Guide

This document provides additional guidance and examples for the Geriatric Medicine 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.

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: Comprehensive Geriatric Assessment **Overall Intent:** To assess not only medical problems, but the patient as a whole to develop a patient-centered care plan	
Milestones	**Examples**
Level 1 *Identifies domains of a comprehensive geriatric assessment, including medical, psychosocial, and functional elements*	● Performs basic geriatric history to include data such as past medical history, place of residence and support systems, and independence with Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)
Level 2 *Performs a comprehensive geriatric assessment, eliciting information from ancillary sources, including the patient, family, caregivers, and interdisciplinary team*	● Corroborates the patient history with information from family/caregivers, social workers, and/or nursing home staff
Level 3 *Formulates a care plan that integrates findings from a comprehensive geriatric assessment focused on optimizing physical, psychosocial, and functional health*	● Collaborates with various team members including social workers, therapists, and community partners in order to develop a transition or discharge care plan
Level 4 *Implements a unified, patient-centered care plan that integrates all domains of the comprehensive geriatric assessment in collaboration with the interdisciplinary team and community partners*	● Assists in creating a comprehensive discharge plan that may include companion service or home health attendant for certain number of hours per day, home visit physical or occupational therapy, adult day care, or Programs of All Inclusive Care for the Elderly (PACE) for a frail older adult at risk for readmission who wants to stay in the home environment
Level 5 *Implements a comprehensive geriatric assessment methodology for use with innovative models of care delivery, new care settings, and/or unique patient populations*	● Adapts the comprehensive geriatric assessment for use in telemedicine
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback
Curriculum Mapping	●
Notes or Resources	● Alzheimer's Association. https://www.alz.org/. 2020. ● Centers for Medicare & Medicaid Services. Program of All-Inclusive Care for the Elderly (PACE). https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/PACE/PACE. 2020.

	● Eldercare Locator. Area Agencies on Aging. https://eldercare.acl.gov/Public/About/Aging_Network/AAA.aspx. 2020. ● Medicare. PACE. https://www.medicare.gov/your-medicare-costs/get-help-paying-costs/pace. 2020.

Patient Care 2: Patient and Family/Caregiver Support **Overall Intent:** To recognize the interplay among multiple caregivers and interdisciplinary team members involved with patient-centered care	
Milestones	**Examples**
Level 1 *Describes formal and informal support systems for older adults* *Describes the roles of caregiver(s) and the risks and benefits of caregiving*	● Lists the people involved in support and patient care and identifies if they are paid/unpaid and trained/untrained (e.g., a family member without a medical background) ● Inquires as to how each caregiver is involved and each individual's limitations in providing care
Level 2 *Identifies potential stressors and support options for individual patients* *Employs approaches or tools to assess family/caregiver burden and identify potential stressors and support options*	● Addresses a patient's socioeconomic stressors or caregiver's own medical or financial stressors ● Uses a caregiver burden scale to identify factors leading to anxiety, depression, or burnout in the primary caregiver
Level 3 *Collaborates with the interdisciplinary team to use available resources to educate and support patients* *Collaborates with the interdisciplinary team to use available resources and support for family/caregiver(s)*	● For a patient with life-limiting illness, introduces the hospice concept to the family and invites a member of the hospice team ● In collaboration with social workers, recommends support services such as adult day care or support groups (e.g., a dementia care coordination program through Alzheimer's Association)
Level 4 *Develops a comprehensive plan in partnership with the patient, patient's family, and interdisciplinary team to optimize support of the patient and patient's family/caregiver(s)*	● Coordinates a multi-pronged plan with the interdisciplinary team (nurses, pharmacists, home health aides, social workers, family caregivers) to manage behaviors through pharmacologic and non-pharmacologic approaches for a patient with dementia and behavioral issues who is at risk for elder abuse
Level 5 *Innovates or advocates to enhance caregiver support and programming within communities or systems of care*	● After identifying that a barrier to optimal care is transportation, secures a partnership with the local area agency on aging to address transportation issues
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback
Curriculum Mapping	●

Notes or Resources	● Alzheimer's Association. https://www.alz.org/. 2020. ● Centers for Medicare and Medicaid Services (CMS). Medicare and medical programs: Hospice conditions of participations; Final rule. *Federal Register*. 2008;(73):109. https://www.govinfo.gov/content/pkg/FR-2008-06-05/pdf/08-1305.pdf. 2020. ● Eldercare Locator. Area Agencies on Aging. https://eldercare.acl.gov/Public/About/Aging_Network/AAA.aspx. 2020. ● Macera CA, Eaker ED, Jannarone RJ, et al. A measure of perceived burden among caregivers. *Evaluation & the Health Professions*. 1993;16(2):204-211.

Patient Care 3: Assessing and Optimizing Pharmacotherapy **Overall Intent:** To optimize medication management of older adults by synthesizing evidence, patient preferences, life expectancy, functional trajectory, and clinical feasibility	
Milestones	**Examples**
Level 1 *Identifies common medications that should be avoided or used with caution in older adults*	● Identifies diphenhydramine as a high-risk medication in an older adult during a home visit
Performs a medication reconciliation, including both prescribed and over the counter medications	● Performs a "brown paper bag" medication reconciliation, including prescription and over-the-counter medications and supplements during a clinic visit, while assessing for medication adherence
Level 2 *Recognizes age-related changes in the metabolism of and response to medications*	● Expects the effect of a benzodiazepine to be prolonged in an older adult because lipophilic drugs are metabolized more slowly in individuals with a higher percentage of adipose tissue
Identifies patients at risk for negative outcomes due to polypharmacy and overprescribing or under prescribing	● Identifies the risk of undertreatment when consulting on an 86 year old with a history of atrial fibrillation, falls, and a congestive heart failure, hypertension, age, diabetes, previous stroke/transient ischemic attack, vascular disease (CHA2DSVASC2) of four who is not on an anticoagulant
Level 3 *Modifies medications based on principles of polypharmacy, risks and benefits, and identification of barriers to adherence, and monitors response to de-prescribing*	● Trials deprescribing esomeprazole by prescribing a slow taper over a two-week period with telephone follow-up with the patient to monitor for reflux heartburn
Effectively communicates medication changes to patients, families, caregivers, and health care professionals across health settings	● Calls the primary care physician of a patient being discharged from a short-term rehab to discuss changes to diabetic medications in the setting of episodic hypoglycemia
Level 4 *Optimizes medication management of patients with multi-morbidity by synthesizing evidence, patient preferences, life expectancy, functional trajectory, and clinical feasibility*	● Collaborates with an oncology team considering chemotherapy modification for a patient with a recent functional decline and an escalating burden of frailty whose goal is to optimize quality time with family
Level 5 *Works within larger health care systems and community-based organizations to minimize harms from over and under prescribing*	● Designs and implements educational modules for pharmacists focused on deprescribing preventative medications with a long lag time to benefit in patients newly admitted to hospice
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Brief structured clinical observation (BSCO)

	● Direct observation ● Faculty member evaluations ● In-service examination ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Direct observation ● Reflection ● Simulations
Curriculum Mapping	●
Notes or Resources	● Deprescribing. https://deprescribing.org/. 2020. ● GeriatricsCareOnline.org. American Geriatrics Society Updated Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. https://geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria/CL001. 2020. ● Harper GM, Lyons WL, Potter JF. *Geriatrics Review Syllabus*. 10th ed. American Geriatrics Society; 2019. https://geriatricscareonline.org/ProductAbstract/geriatrics-review-syllabus10th-edition/B041. 2020. ● MEDSTOPPER. http://medstopper.com/. 2020. ● O'Mahony D, O'Sullivan D, Byrne S, et al. STOPP/START criteria for potentially inapproporiate prescribing in older people: version 2. *Age and Aging*. 2015;44(2):213-218. https://academic.oup.com/ageing/article/44/2/213/2812233. 2020. ● Rudolph JL, Salow MJ, Angelini MC, McGlinchey RE. The anticholinergic risk scale and anticholinergic adverse effects in older persons. *Arch Intern Med*. 2008;168(5):508-513. https://pubmed.ncbi.nlm.nih.gov/18332297/. 2020. ● US Deprescribing Research Network. https://deprescribingresearch.org/. 2020.

Patient Care 4: Assessing and Optimizing Physical and Cognitive Function **Overall Intent:** To improve patient care by assessing and optimizing physical and cognitive function	
Milestones	**Examples**
Level 1 *Identifies tools to assess physical function* *Identifies tools to assess cognition*	● Lists Timed Up and Go (TUG) and Short Performance Physical Battery (SPPB) as two tools to assess physical function ● Names the Rowland Universal Dementia Assessment Scale (RUDAS) as a tool to assess cognition in a patient with low health literacy
Level 2 *Performs functional assessment of an individual patient* *Performs cognitive assessment of an individual patient*	● Measures gait speed in a patient as part of a pre-operative assessment ● Performs a Mini-Cog© as a screening tool for cognitive impairment in a primary care patient
Level 3 *Interprets findings from a functional assessment, considering strengths and limitations of the assessment* *Interprets findings from a cognitive assessment, considering strengths and limitations of the assessment*	● When performing a TUG, interprets slowed arm swing and en bloc turns as concerning for a parkinsonian syndrome, and plans to follow-up with a thorough neurologic exam ● Interprets a MoCA score of 24 in a high school graduate with a history of dyslexia as not necessarily indicative of underlying cognitive impairment
Level 4 *Effectively integrates findings from functional and cognitive assessments into care plans, including referral for rehabilitative therapies as indicated*	● Considers the risks and benefits of inpatient versus home rehabilitation in an individual with cognitive impairment and hospital-associated functional decline
Level 5 *Promotes assessment and optimization of physical and cognitive functioning for patients across care systems*	● Implements a program to routinely assess cognition and function in all primary care clinics within a system
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● BSCO ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Reflection

	● Review of a QI project ● Simulation
Curriculum Mapping	●
Notes or Resources	● Alezheimer's Association. Cognitive Assessment Tools. https://www.alz.org/professionals/health-systems-clinicians/clinical-resources/cognitive-assessment-tools. 2020. ● Centers for Disease Control and Prevention (CDC). STEADI – Older Adult Fall Prevention. https://www.cdc.gov/steadi/index.html. 2020. ● Harper GM, Lyons WL, Potter JF. *Geriatrics Review Syllabus*. 10th ed. American Geriatrics Society; 2019. https://geriatricscareonline.org/ProductAbstract/geriatrics-review-syllabus10th-edition/B041. 2020.

Patient Care 5: Framing Clinical Management Decisions within the Context of Prognosis **Overall Intent:** To gather best evidence to determine prognosis and integrate that prognosis with patient/family/caregiver goals, evidence-based practice guidelines, and available resources to create care plans	
Milestones	**Examples**
Level 1 *Lists common methods and tools for estimating prognosis* *Describes common patterns of disease trajectories*	● Identifies prognosis as an online tool for estimating prognosis ● Describes the trajectory of Alzheimer's dementia progression using the Functional Assessment Scale Tool (FAST) criteria
Level 2 *Describes strengths and weaknesses of various methods and tools for assessing prognosis in patient populations* *Describes how the interplay between multi-morbidity, functional impairment, and frailty affects disease trajectories*	● Discusses the uncertainty of the prognosis for advanced-stage heart failure generated using local hospice resources with the clinic preceptor ● Describes how HgbA1C target values vary depending on the complexity and competing risks for each patient
Level 3 *Applies an individual patient's prognosis and "lag time to benefit" as part of a framework to determine risks and benefits of preventative and therapeutic interventions*	● Assessing the need for breast cancer screening in a frail, 88-year-old woman with a younger sister recently diagnosed with breast cancer ● Develops a treatment plan for a 70-year-old woman with newly diagnosed osteoporosis
Level 4 *Integrates prognosis and goals of care into shared clinical decision making, in collaboration with patients, families/caregivers, and the interdisciplinary team*	● Makes a decision using the best evidence about anticoagulation for atrial fibrillation in a patient with moderate dementia and a history of falls ● Works with the interprofessional team, family, and patient regarding disposition planning in the context of worsening functional/cognitive status
Level 5 *Incorporates prognosis in local and national guidelines and performance metrics to avoid overtreatment and undertreatment of preventive interventions*	● Works with the anticoagulation clinic to develop standards for shared decision making in patients needing anticoagulation who are also at risk for falls
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Mini CEX ● Objective structured clinical examination (OSCE)

	● Reflection ● Simulation (low or high fidelity)
Curriculum Mapping	●
Notes or Resources	● Geriatrics Online. AGS Guidelines. https://geriatricscareonline.org/ProductTypeStore/guidelines-recommendations-position-statements-/8/. 2020. ● Medical Care Corporation. FAST Tool. https://www.mccare.com/pdf/fast.pdf. 2020. ● Medline. https://www.medline.com/. 2020. ● PubMed. https://pubmed.ncbi.nlm.nih.gov/. 2020. ● University of California San Francisco. ePrognosis. https://eprognosis.ucsf.edu/. 2020.

Patient Care 6: Consultative Care **Overall Intent:** To develop skills in geriatric medicine consultation needed to optimize the care of older adults across the continuum of care (inpatient, consult clinic, comprehensive geriatric assessment, telehealth, pre-operative clinic, co-management); effectively communicate recommendations to stakeholders	
Milestones	**Examples**
Level 1 *Respectfully responds to a consultation request and conveys recommendations, with supervision* *Recognizes consult acuity and urgency, with supervision*	● Responds in a timely fashion, with a willingness to assist the team ● Discusses consult acuity and prioritizes timing with attending
Level 2 *Identifies and clarifies the goals of the consultation and conveys recommendations* *Independently recognizes consult acuity and urgency*	● Receives a request for addressing failure to thrive and clarifies specific goal of need for assistance with disposition planning ● Recognizes the need for prompt assistance for a patient with hyperactive delirium on the surgical team jeopardizing patient's safety
Level 3 *Seeks and integrates input from different members of the health care team and provides recommendations to the primary team in a clear and timely manner* *Prioritizes workflow in response to consult acuity and urgency*	● Integrates information obtained by the social worker, nurse, pharmacist during a comprehensive geriatric assessment to provide focused recommendations ● Takes responsibility for organizing order of multiple new and follow-up consults on the inpatient geriatrics team
Level 4 *Provides comprehensive and prioritized recommendations, including assessment and rationale, to all necessary health care team members* *Mobilizes resources to provide care in an urgent situation*	● Documents and discusses recommendations for treatment of delirium, including supportive rationale, with the requesting providers and direct care providers on the inpatient unit ● Urgently mobilizes meeting with social worker and surrogates in the emergency room to arrange safe disposition for a patient with dementia whose spouse was acutely hospitalized
Level 5 *Leads the health care team in the provision of effective consultative services across the spectrum of disease complexity and acuity*	● Receives a consult for assessment for medical decision-making capacity, prioritizes urgency, uses necessary resources and team members, documents and communicates recommendations, and activates health care power of attorney for a patient with complex morbidity and challenging family dynamics
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation

	● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Mini CEX ● OSCE ● Reflection ● Role playing ● Simulation (low or high fidelity)
Curriculum Mapping	●
Notes or Resources	● GeriatricsCareOnline. Optimal Perioperative Management of the Geriatrics Patient. https://geriatricscareonline.org/ProductAbstract/optimal-perioperative-management-of-the-geriatric-patient/CL022. 2020. ● Goldman L, Lee T, Rudd P. Ten commandments for effective consultations. *Arch Intern Med*. 1983;143(9):1753-1755. https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/603562. 2020. ● Interprofessional Education Collaborative (IPEC). Resources. https://www.ipecollaborative.org/resources.html. 2020. ● Salerno SM, Hurst FP, Halvorson S, et al. Principles of effective consultation: An update for the 21st-centruy consultant. *Arch Intern Med*. 2007;167(3):271-275. https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/411684?resultClick=1. 2020.

Medical Knowledge 1: Geriatric Syndromes **Overall Intent:** To obtain broad knowledge of geriatric syndromes including pathophysiology, contributing factors, assessment tools, prevention and management; to obtain syndromic thinking (geriatric approach)	
Milestones	**Examples**
Level 1 *Lists common geriatric syndromes*	● When prompted, fellow can list syndromes including frailty, dementia, delirium, sleep disorders, pressure ulcers, and falls
Recognizes risks and predisposing factors in the development of geriatric syndromes	● In a real or simulated case of falls, fellow lists intrinsic risk factors, mediating factors, challenges to postural control
Level 2 *Describes the pathophysiology of geriatric syndromes*	● Describes the multifactorial contributors to geriatric syndromes
Describes the interplay between medications, co-morbidities, socioeconomic factors, and geriatric syndromes	● In the case of delirium, describes how age-related changes to the brain and immune system interact with comorbidities, medications, the environment, and acute illnesses to result in the manifestation of delirium
Level 3 *Demonstrates knowledge of diagnostic tests and tools applicable to geriatric syndromes, recognizing their utility and limitations*	● Performs (via simulation or in clinic) the following falls assessment tests: TUG, 30-second chair stand, and four-stage balance test
Recognizes clinical and community resources, evidence-based practices, and models of care useful in the prevention and management of geriatric syndromes	● In a clinical setting, recommends remedies following falls in the home including muscle strengthening and balance training prescribed by clinician, Tai Chi, home hazard modification for those who have fallen, withdrawal of psychotropics, vitamin D supplementation in individuals with vitamin D deficiency etc. ● Describes the key components of the Hospital Elder Life Program (HELP) and how the program improves health outcomes and reduces health resource utilization
Level 4 *Synthesizes risk factors, pathophysiology, scientific knowledge, diagnostic testing, and patient and caregiver factors to prevent and manage geriatric syndromes*	● For a patient who falls, describes intrinsic and extrinsic factors that have contributed to the falls, performs bedside gait and balance testing, identifies modifiable risk factors, and makes patient-centered recommendations to address modifiable risk factors to prevent future falls
Communicates and works with interprofessional teams and community resources to implement geriatric syndrome prevention and management plans	● Collaborates with floor nurses, family/caregivers, medical assistants, floor clerk for delirium prevention (Acute Care for the Elderly (ACE unit) or inpatient setting) ● Discusses a secondary fall prevention plan with a home health team after a patient has fallen

Level 5 *Advances knowledge about the basic science, prevention, and clinical management of geriatric syndromes through education, research, or other scholarly activity*	● Writes a review article about a geriatric syndrome
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● Faculty member evaluations ● In-service examination ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Mini CEX ● OSCE ● Reflection ● Simulation (low or high fidelity)
Curriculum Mapping	●
Notes or Resources	● Inouye SK, Studenski S, Tinetti ME, Kuchel GA. Geriatric syndromes: clinical, research, and policy implications of a core geriatric concept. *J Am Geriatr Soc*. 2007;55(5):780–791. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2409147/. 2020. ● Panel on Prevention of Galls in Older Persons, American Geriatrics Society and British Geriatrics Society. Summary of the updated American Geriatrics Society/British Geriatrics Society clinical practice guidelines for prevention of falls in older persons. *J AM Geriatr Soc*. 2011;59(1):148-157. https://pubmed.ncbi.nlm.nih.gov/21226685/. 2020. ● The Portal of Geriatrics Online Education (POGOe). Geriatric Review Modules: Dementia, Depression, Falls & Urinary Incontinence. https://pogoe.org/productid/18620. 2020. ● Vanderbilt University Senior Care. Quick Reference for Geriatric Syndromes. https://pogoe.org/sites/default/files/Geriatric%20Syndromes%20Quick%20Reference%20Cards.pdf. 2020.

Medical Knowledge 2: Principles of Aging **Overall Intent:** To differentiate normal aging from pathology and apply in clinic environment	
Milestones	**Examples**
Level 1 *Describes age-related changes to organs and their system functions*	● During case-based didactics, in-service exam questions, and/or geriatric-themed Jeopardy, correctly answers questions regarding changes to the heart and cardiovascular system such as left ventricular hypertrophy, loss of vascular compliance, loss of atrial kick, or decreased baroreceptor responsiveness
Describes the heterogeneity of aging and its relationship to gender, socioeconomic factors, education, lifestyle, and disease	● During case-based didactics, and/or bedside presentations with prompted questions, identifies the difference between chronological age and senescence, and how decreased access to care/health disparities earlier in life can result in adverse health outcomes in older adults
Level 2 *Describes theories of aging*	● During an interactive didactic, distinguishes among the common theories of aging including evolutionary aging theories (e.g., mutation accumulation and antagonistic pleiotropy) and physiologic aging theories (e.g., target theory of genetic damage, mitochondrial DNA damage, telomere theory, transposable element activation, error catastrophe, epigenetic theory, and free radical theory)
Differentiates between normal aging and disease	● In a case-based didactic exercise, differentiates between findings that are aging related versus disease related in a variety of organ systems
Level 3 *Describes how aging affects the presentation of diseases*	● Describes a case of an older adult with a medical illness whose initial presentation was altered mental status
Describes how aging impacts homeostasis, physiologic reserve, function, cognition, and pharmacology	● Reviews what happens with prolonged immobilization of a hospitalized patient (hazards of hospitalization)
Level 4 *Applies knowledge of the biology and physiology of aging to promote healthy aging*	● In an outpatient case presentation, describes strategies to prevent functional decline
Integrates knowledge of normal aging into disease diagnosis and treatment	● Documents clinical reasoning for not intervening on a stage 1 diastolic dysfunction in an older adult with age-related ventricular stiffening ● Adjusts for age-related changes to the glomerular filtration rate (GFR) when prescribing fluoroquinolones

Level 5 *Advances knowledge of the principles of aging through education, research, or other scholarly activity*	● Creates online module for residents on atypical presentations of infections in older adults
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Multisource feedback
Curriculum Mapping	●
Notes or Resources	● Flatt T, Partridge L. Horizons in the evolution of aging. *BMC Biol*. 2018;16(1):93. https://bmcbiol.biomedcentral.com/articles/10.1186/s12915-018-0562-z. 2020. ● Franceschi C, Garagnani P, Morsiani C, et al. The continuum of aging and age-related diseases: Common mechanisms but different rates. *Front Med (Lausanne)*. 2018;5:61. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5890129/. 2020. ● Fuellen G, Jansen L, Cohen AA, et al. Health and aging: Unifying concepts, scores, biomarkers and pathways. *Aging Dis*. 2019;10(4):883–900. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6675520/. 2020. ● Jin K. Modern biological theories of aging. *Aging Dis*. 2010;1(2):72–74. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2995895/. 2020. ● MacNee W, Rabinovich RA, Choudhury G. Ageing and the border between health and disease. *European Respiratory Journal*. 2014,44(5):1332-1352. https://pubmed.ncbi.nlm.nih.gov/25323246/. 2020. ● Nobili A, Garattini S, Mannucci PM. Multiple diseases and polypharmacy in the elderly: challenges for the internist of the third millennium. *J Comorb*. 2011;1:28–44. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5556419/. 2020. ● Pomatto LCD, Davies KJA. The role of declining adaptive homeostasis in ageing. *J Physiol*. 2017;595(24):7275–7309. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5730851/. 2020.

Systems-Based 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 develop a skill set for QI and to participate in a QI project	
Milestones	**Examples**
Level 1 *Demonstrates knowledge of common patient safety events*	● Identifies a fall in a nursing home as a common patient safety event
Demonstrates knowledge of how to report patient safety events	● Describes how to report a patient safety event in the inpatient setting through a computer desktop tool
Demonstrates knowledge of basic quality improvement methodologies and metrics	● Describes the components of a Plan Do Study Act (PDSA) cycle
Level 2 *Recognizes health care system issues that negatively impact the care of older adults*	● Identifies small font in discharge instructions printed from the electronic health record (EHR) as a barrier to safe care transitions
Reports patient safety events through institutional reporting systems (simulated or actual)	● Enters a safety report after a medication adverse event
Describes local quality improvement initiatives	● Describes an existing QI project in a local nursing home that is intended to increase flu vaccination rates
Level 3 *Participates in analysis of patient safety events (simulated or actual)*	● Participates in a simulated root cause analysis of an inpatient fall that resulted in a fracture
Participates in disclosure of patient safety events to patients and families (simulated or actual)	● Participates in a conversation with patients/families about a vaccine administration error
Participates in local quality improvement initiatives	● Participates on a committee to reduce antipsychotic use in patients with dementia
Level 4 *Conducts analysis of patient safety events and offers error prevention strategies (simulated or actual)*	● Conducts the analysis of a medication administration error for an individual patient and proposes strategy to reduce risk of future errors
Discloses patient safety events to patients and families (simulated or actual)	● Leads a family meeting to disclose a medication administration error

Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	● Participates in the completion of a QI project to improve shingles vaccination rates within the practice, including assessing the problem, articulating a broad goal, developing a SMART (Specific, Measurable, Attainable, Realistic, Time-bound) objective plan, and monitoring progress and challenges
Level 5 *Actively engages teams and processes to modify systems to prevent patient safety events* *Role models or mentors others in the disclosure of patient safety events* *Creates, implements, and assesses quality improvement initiatives at the institutional or community level*	● Assumes a leadership role on the house staff committee for patient safety ● Conducts a simulation for disclosing patient safety events as an instructional tool for other learners ● Initiates and completes a QI project to improve county shingles vaccination rates in collaboration with the county health department and shares results with stakeholders
Assessment Models or Tools	● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Multisource feedback ● Reflection ● Review of QI project ● Simulation (low or high fidelity)
Curriculum Mapping	●
Notes or Resources	● Institute of Healthcare Improvement. http://www.ihi.org/Pages/default.aspx. 2020.

Systems-Based Practice 2: System Navigation for Patient-Centered Care **Overall Intent:** To effectively navigate the health care system, including the interdisciplinary team and other care providers; to adapt care to a specific patient population to ensure high-quality patient outcomes	
Milestones	**Examples**
Level 1 *Identifies key elements of care coordination*	● For a patient with dementia, recognizes formal and informal caregivers as members of the team
Identifies key elements for safe and effective transitions of care and hand-offs	● Lists the essential components of an I-PASS (Illness severity, Patient summary, Action list, Situation awareness and contingency planning, Synthesis by receiver) sign-out and care transition and hand-offs ● Identifies that patients with dementia may have different needs than healthy older adults
Level 2 *Coordinates care of patients in routine clinical situations, effectively utilizing the roles of the interprofessional team members*	● Coordinates care with the therapists (physical therapy, occupational therapy, speech-language pathologists) in the skilled nursing facility
Performs safe and effective transitions of care/hand-offs in routine clinical situations	● Reviews the discharge medications and instructions with the patient and family/caregiver ● Identifies that limited transportation options may be a factor in older adults getting to outpatient appointments
Level 3 *Coordinates care of patients with multi-morbidities, effectively utilizing the roles of their interprofessional team members*	● Works with the social worker to pursue guardianship for the unbefriended patient
Performs safe and effective transitions of care/hand-offs in complex clinical situations	● At discharge from the skilled nursing facility, communicates with the primary care office
Level 4 *Role models effective coordination of patient-centered care among different disciplines and specialties*	● Leads a discussion with oncology service regarding benefit and risks of palliative chemotherapy for a frail patient with terminal cancer
Role models and advocates for safe and effective transitions of care/hand-offs within and across health care delivery systems	● Prior to going on vacation, proactively informs the covering colleague about a plan of care for a patient with terminal illness
Level 5 *Analyzes the process of care coordination and leads in the design and implementation of improvements*	● Reviews frequent patient readmissions and performs root cause analysis to reduce future hospitalizations

Improves quality of transitions of care within and across health care delivery systems to optimize patient outcomes	● Develops a protocol or tool aimed at improving transitions of care from skilled nursing facilities to the community
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● EHR panel management data ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Review of completed checklist tool
Curriculum Mapping	●
Notes or Resources	● Agency for Healthcare Research and Quality (AHRQ). Chartbook on Care Coordination: Transitions of Care. https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/carecoordination/measure1.html. 2020. ● Bruera E, Higginson H, von Guntent CF. *Textbook of Palliative Medicine and Supportive Care*. 2nd ed. Boca Raton, FL: CRC Press; 2016. ● I-PASS. http://www.ipassstudygroup.com/. 2020. ● Palliative Care Network of Wisconsin. Palliative Chemotherapy. https://www.mypcnow.org/fast-fact/palliative-chemotherapy/. 2020.

Systems-Based Practice 3: Physician Role in Health Care Systems **Overall Intent:** To understand the physician's 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 continuum of care*	● Articulates differences between skilled nursing and long-term care facilities
Describes common health payment models	● Describes the impact of health plan coverage on prescription drugs for individual patients ● Identifies that EHR documentation must meet coding requirements.
Level 2 *Describes how the relationship between the health care system, community health needs, and health disparities impact patient care*	● Explains that lower health literacy impacts patient adherence to treatment and overall outcomes
Delivers care with consideration of the patient's health payment model	● Takes into consideration patient's prescription drug coverage when choosing antidepressant for treatment of depression ● Differentiates between observation status and inpatient status
Level 3 *Discusses how individual practice affects the broader system*	● Recognizes that hospital acquired infections are not reimbursed by insurance ● Recognizes that delirium prevention strategies can reduce the length of stay and affect the capacity of the hospitalized patient
Engages with patients/caregivers in shared decision making, informed by each patient's health payment model	● Discusses hospice at a facility under Medicare does not cover room and board
Level 4 *Engages with various components of the health care system to provide effective patient care*	● Ensures proper documentation of three-day qualifying inpatient status hospital stay to be eligible for post-acute rehabilitation under Medicare
Advocates for patient care needs with consideration of each patient's health payment model	● Works collaboratively with a social worker or finance department to determine a patient's eligibility for Medicaid
Level 5 *Advocates for or leads systems change that enhances high value, efficient, and effective patient care*	● Works with community or professional organizations to enhance the geriatric workforce or negotiate with insurance companies for better reimbursement plan

Participates in health policy advocacy activities for populations and communities, outside of the home institution	● Improves informed consent process for non-English-speaking patients requiring interpreter services
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● EHR panel management data ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback
Curriculum Mapping	●
Notes or Resources	● AHRQ. Major Physician Measurement Sets. https://www.ahrq.gov/talkingquality/measures/setting/physician/measurement-sets.html. 2020. ● AHRQ. Measuring the Quality of Physician Care. https://www.ahrq.gov/talkingquality/measures/setting/physician/index.html. 2020. ● American Board of Internal Medicine. QI/PI activities. https://www.abim.org/maintenance-of-certification/earning-points/qi-pi-activities.aspx. 2020. ● Center for Medicare and Medicaid Services. MACRA. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs. 2020.

Systems-Based Practice 4: Models and Systems of Care **Overall Intent:** To recognize the existence of various sites of care as well as models of providing care including eligibility, benefits, and limitations	
Milestones	**Examples**
Level 1 *Identifies evidence-based models of care for older adults*	● Recognizes the differences in sites of care, eligibility and payment models for telemedicine visits, ACE units, PACE, hospice, and home-based primary care
Level 2 *Describes potential reasons why evidence-based models of care improve outcomes for older adults*	● Explains how the ACE model reduces delirium incidence, physical deconditioning, and length of stay for a patient
Level 3 *Assesses evidence-based models of care for individual patients*	● In the context of an inpatient geriatric consult, recognizes ADL requirements for nursing home eligibility ● Identifies a dual eligible patient with functional dependence and a goal of remaining at home as a potential PACE program candidate
Level 4 *Applies evidence-based models of care to improve patient care*	● Works within the home-based primary care program model to improve patient outcomes ● Uses the Institute of Healthcare Initiatives' 5Ms (What Matters, Medication, Mentation, Mobility, Multicomplexity) approach to make their outpatient primary care clinic age friendly
Level 5 *Develops systems-based initiatives using evidence-based models of care*	● Develops a volunteer program to prevent delirium in hospital
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Direct observation ● Faculty member evaluations ● In-training examination ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback
Curriculum Mapping	●
Notes or Resources	● CMS. Medicare and medical programs: Hospice conditions of participations; Final rule. *Federal Register*. 2008;(73)109. https://www.govinfo.gov/content/pkg/FR-2008-06-05/pdf/08-1305.pdf. 2020. ● CMS. Program for All-inclusive Care of the Elderly (PACE); Final Rule. https://www.cms.gov/newsroom/fact-sheets/programs-all-inclusive-care-elderly-pace-final-rule-cms-4168-f. 2020.

	● Harper GM, Lyons WL, Potter JF. *Geriatrics Review Syllabus*. 10th ed. American Geriatrics Society; 2019. https://geriatricscareonline.org/ProductAbstract/geriatrics-review-syllabus10th-edition/B041. 2020. ● Palmer RM, Landefeld CS, Kresevic D, Kowal J. A medical unit for the acute care of the elderly. *J Am Geriatr Soc*. 1994:42(5);445-52. https://pubmed.ncbi.nlm.nih.gov/8176151/. 2020. ● HealthinAging.org Tip sheet: The 5Ms of geriatrics. https://www.healthinaging.org/tools-and-tips/tip-sheet-5ms-geriatrics 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, categorize, and analyze clinical evidence*	● Identifies evidence-based guidelines for osteoporosis screening at United States Preventive Services Task Force website
Level 2 *Articulates clinical questions and elicits patient preferences and values to guide evidence-based care*	● In a 90-year-old patient with hyperlipidemia, identifies and discusses potential evidence-based primary prevention ● Develops a focused question regarding treatment of dementia and elicits patients' preferences regarding treatment
Level 3 *Locates and applies the best available evidence, integrated with patient preference, to care for patients*	● Obtains, discusses, and applies evidence for the use of prostate specific antigen in screening for prostate cancer in a frail older man
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 exploring the impact of statin therapy on cognition in a 70-year-old patient concerned about dementia and has an elevated LDL
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 the use of antipsychotics for behavioral problems in dementia ● As part of a team, develops fall prevention protocol for the nursing home
Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● CEX ● Chart stimulated recall ● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Multisource feedback ● Research portfolio
Curriculum Mapping	●
Notes or Resources	● Cochrane Library. Cochrane Database of Systematic Reviews. https://www.cochranelibrary.com/cdsr/about-cdsr. 2020. ● Center for Evidence-Based Medicine (CEBM). https://www.cebm.net/. 2020. ● Guyatt G, Rennie D, Meade MO, Cook DJ. *Users' Guides to the Medical Literature.* 3rd ed. New York, NY: Mcgraw-Hill Education; 2015. ● Institute of Healthcare Improvement. http://www.ihi.org/Pages/default.aspx. 2020.

	● Institutional Review Board (IRB) guidelines ● U.S. National Library of Medicine. PubMed Online Training. https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/. 2020. ● Various journals/websites ● Weinfeld JM, Finkelstein K. How to answer your clinical questions more efficiently. *Fam Pract Manag*. 2005;12(7):37-41. https://www.aafp.org/fpm/2005/0700/p37.html. 2020.

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 individual care performance; 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	
Milestones	**Examples**
Level 1 *Accepts responsibility for personal and professional development by establishing goals* *Identifies factors that contribute to gap(s) between expectations and actual performance* *Actively seeks opportunities to improve*	● Sets a personal practice goal of documenting functional status using ADL and IADL criteria for all primary care patients in their panel ● Identifies gaps in knowledge of strengths and limitations of various brief cognitive tests ● Asks for feedback from patients, families, and patient care team members
Level 2 *Demonstrates openness to performance data (feedback and other input) to inform goals* *Analyzes and reflects on the factors that contribute to gap(s) between expectations and actual performance* *Designs and implements a learning plan, with prompting*	● Responds to results of recent chart audit showing deficiency in functional status documentation ● Assesses time management skills and how it impacts timely completion of clinic notes and literature reviews ● When prompted, develops individual education plan to improve their ability to discuss advance care planning
Level 3 *Seeks performance data episodically, with adaptability and humility* *Analyzes, reflects on, and institutes behavioral change(s) to narrow the gap(s) between expectations and actual performance* *Independently creates and implements a learning plan*	● Does a chart audit to determine the percent of patients with documentation of a health care decision maker/surrogate ● Completes a comprehensive literature review on appropriate HgbA1C targets based on age, comorbidities, and prognosis prior to patient encounters ● Using web-based resources, creates a personal curriculum to improve their understanding and use of behavioral approaches to managing insomnia
Level 4 *Intentionally seeks performance data consistently, with adaptability and humility* *Challenges assumptions and considers alternatives in narrowing the gap(s) between expectations and actual performance*	● Independently uses institutional data sources to complete quarterly chart audits to ensure documentation and management of urinary incontinence ● After a family meeting encounter, debriefs with the attending and other patient care team members to optimize future collaboration in the care of the patient and family

Uses performance data to measure the effectiveness of the learning plan, and improves it when necessary	● Independently evaluates progress in achieving goals set on a previous chart audit and adapts learning goal as necessary
Level 5 *Consistently role models seeking performance data with adaptability and humility* *Coaches others on reflective practice* *Facilitates the design and implementation of learning plans for others*	● Reviews interprofessional team performance and helps develop an action plan to address an identified gap in performance goals ● Develops educational module for optimizing collaboration with other patient care team members ● Assists learners in developing individualized learning plans
Assessment Models or Tools	● Direct observation ● EHR panel management data ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of learning plan ● Multisource feedback ● Reflection
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: S38-S54. https://www.academicpedsjnl.net/article/S1876-2859(13)00333-1/fulltext. 2020. ● Hojat M, Veloski JJ, Gonnella JS. Measurement and correlates of physicians' lifelong learning. *Academic Medicine.* 2009;84(8):1066-1074. https://journals.lww.com/academicmedicine/fulltext/2009/08000/Measurement_and_Correlates_of_Physicians__Lifelong.21.aspx. 2020. ● 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. *Academic Medicine*. 2013;88(10):1558-1563. https://journals.lww.com/academicmedicine/fulltext/2013/10000/Assessing_Residents__Written_Learning_Goals_and.39.aspx. 2020.

Professionalism 1: Professional Behavior **Overall Intent:** To recognize and address lapses in professional behavior, demonstrate professional behavior, and use appropriate resources for managing professional dilemmas	
Milestones	**Examples**
Level 1 *Demonstrates professional behavior in routine situations*	● Consistently comes to clinical rotations on time
Level 2 *Identifies potential risk factors for professionalism lapses*	● Recognizes that fatigue can lead to rude behavior
Level 3 *Demonstrates professional behavior in complex or stressful situations and takes responsibility for one's own professionalism lapses*	● Appropriately responds to a distraught family member, following an unsuccessful resuscitation attempt of a relative ● Apologizes for being rude, takes steps to make amends if needed, and articulates strategies for preventing similar lapses in the future
Level 4 *Recognizes situations that may lead to professionalism lapses and intervenes to prevent lapses in oneself and others*	● Self-monitors for fatigue and stress and proactively asks for help with caseload when at risk for professional lapses
Level 5 *Coaches others when their behavior fails to meet professional expectations*	● Develops a case-based professionalism workshop for house staff orientation
Assessment Models or Tools	● Direct observation ● Multisource feedback ● Reflection ● Simulation
Curriculum Mapping	●
Notes or Resources	● American Medical Association (AMA). Ethics. https://www.ama-assn.org/delivering-care/ethics. 2020. ● American Board of Internal Medicine, ACP-ASIM Foundation, European Federation of Internal Medicine. Medical professionalism in the new millennium: a physician charter. *Ann Intern Med*. 2002;136:243-246. http://abimfoundation.org/wp-content/uploads/2015/12/Medical-Professionalism-in-the-New-Millenium-A-Physician-Charter.pdf. 2020. ● Bynny RL, Paauw DS, Papadakis MA, Pfeil S. *Medical Professionalism. Best Practices: Professionalism in the Modern Era*. Menlo Park, CA: Alpha Omega Alpha Medical Society; 2017. ISBN: 978-1-5323-6516-4 ● Domen RE, Johnson K, Conran RM, et al. Professionalism in pathology: a case-based approach as a potential education tool. *Arch Pathol Lab Med*. 2017;141:215-219. https://www.archivesofpathology.org/doi/10.5858/arpa.2016-0217-CP?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed. 2020.

	● Levinson W, Ginsburg S, Hafferty FW, Lucey CR. *Understanding Medical Professionalism*. New York, NY: McGraw-Hill Education; 2014.

Professionalism 2: Ethical Principles **Overall Intent:** To recognize and address lapses in ethical behavior, demonstrates ethical behaviors, and use appropriate resources for managing ethical dilemmas	
Milestones	**Examples**
Level 1 *Demonstrates knowledge of basic ethical principles*	● Describes beneficence, non-maleficence, justice, and autonomy ● Articulates how the principle of "do no harm" applies to a patient with advanced dementia being evaluated for percutaneous endoscopic gastrostomy (PEG) placement
Level 2 *Applies basic principles to address straightforward ethical situations*	● Identifies a surrogate decision maker for a patient without capacity
Level 3 *Analyzes complex situations using ethical principles and identifies the need to seek help in addressing complex ethical situations*	● Applies ethical principles to analyze a case of non-beneficial treatments and conflicting patient and family goals and identifies need for support from multidisciplinary ethics committee
Level 4 *Analyzes complex situations and engages with resources for managing and addressing ethical dilemmas as needed*	● Collaborates with the Ethics Committee and risk management to address a complicated case of non-beneficial treatment and conflicting patient and family goals
Level 5 *Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution*	● Develops a local policy for medical decision making for unrepresented older adults
Assessment Models or Tools	● Direct observation ● Multisource feedback ● Reflection ● Simulation
Curriculum Mapping	●
Notes or Resources	● AMA. Ethics. https://www.ama-assn.org/delivering-care/ama-code-medical-ethics. 2020. ● American Board of Internal Medicine, ACP-ASIM Foundation, European Federation of Internal Medicine. Medical professionalism in the new millennium: a physician charter. *Ann Intern Med*. 2002;136:243-246. http://abimfoundation.org/wp-content/uploads/2015/12/Medical-Professionalism-in-the-New-Millenium-A-Physician-Charter.pdf. 2020. ● Bynny RL, Paauw DS, Papadakis MA, Pfeil S. *Medical Professionalism. Best Practices: Professionalism in the Modern Era*. Menlo Park, CA: Alpha Omega Alpha Medical Society; 2017. ISBN: 978-1-5323-6516-4 ● Domen RE, Johnson K, Conran RM, et al. Professionalism in pathology: a case-based approach as a potential education tool. *Arch Pathol Lab Med*. 2017;141:215-219. https://www.archivesofpathology.org/doi/10.5858/arpa.2016-0217-CP?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed. 2020.

	● Levinson W, Ginsburg S, Hafferty FW, Lucey CR. *Understanding Medical Professionalism*. New York, NY: McGraw-Hill Education; 2014.

Professionalism 3: Accountability/Conscientiousness **Overall Intent:** To take responsibility for one's own actions and their impact on patients and other members of the health care team	
Milestones	**Examples**
Level 1 *Performs clinical and non-clinical responsibilities, with prompting*	● Responds promptly to reminders from program administrator to complete work hour logs ● Completes end-of-rotation evaluations following email reminders ● Promptly responds to clinic register nurse's request to refill a medication
Level 2 *Performs clinical and non-clinical responsibilities in a timely manner in routine situations*	● Completes administrative tasks, documents safety modules, procedure review, and licensing requirements by specified due date ● Before going out of town, completes patient care tasks in anticipation of lack of computer access while traveling
Level 3 *Performs clinical and non-clinical responsibilities in a timely manner in complex or stressful situations*	● Notifies attending of multiple competing demands on call, appropriately triages tasks, and asks for assistance from other fellows or faculty members as needed ● In preparation for being short-staffed during the holiday season, arranges coverage for assigned clinical tasks on clinic patients and ensures appropriate continuity of care
Level 4 *Proactively implements strategies to ensure the needs of patients, teams, and systems are met*	● Sets timed automatic email reminders to call patients and follow-up to monitor for possible symptoms related to de-prescribing ● Proactively communicates with interprofessional team to monitor for and manage behavioral disturbances when de-prescribing antipsychotics in a nursing home resident
Level 5 *Creates strategies to enhance others' ability to efficiently complete clinical and non-clinical responsibilities*	● Sets up a meeting with the nurse manager to streamline patient discharges and leads team to find solutions to delayed discharges
Assessment Models or Tools	● Compliance with deadlines and timelines ● Direct observation ● Multisource feedback ● Reflection ● Self-evaluations and reflective tools ● Simulation
Curriculum Mapping	●
Notes or Resources	● Code of conduct from fellow/resident institutional manual ● Expectations of residency program regarding accountability and professionalism ● Jericho BG. Ethics resources. *ASA*. 2017;81:50-51. https://pubs.asahq.org/monitor/article-abstract/81/5/50/5926/Ethics-Resources?redirectedFrom=fulltext. 2020.

Professionalism 4: Well-Being **Overall Intent:** To identify, use, manage, improve, and seek help for personal and professional well-being for self and others	
Milestones	**Examples**
Level 1 *Recognizes the importance of addressing personal and professional well-being*	● Acknowledges the importance of not skipping meals during a busy inpatient rotation
Level 2 *Identifies methods and resources for maintaining personal and professional well-being*	● Lists individualized strategies to foster wellness
Level 3 *Creates a plan for maintaining personal and professional well-being*	● Works with program administrator and co-fellows to organize call schedule to be available for important family events
Level 4 *Reflects on how plans for maintaining personal and professional well-being may change over time and circumstance*	● Works with program administrator and co-fellows to organize call schedule prior to having a child
Level 5 *Promotes system changes to enhance the well-being of others*	● Assists in organizational efforts to address nursing home staff well-being after a patient death ● Participates in division wide effort to decrease documentation burden for clinicians
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 fellow's well-being. Rather, the intent is to ensure that each fellow has the fundamental knowledge of factors that affect well-being, the mechanisms by which those factors affect well-being, and available resources and tools to improve well-being. ● ACGME. "Well-Being Tools and Resources." https://dl.acgme.org/pages/well-being-tools-resources. Accessed 2022. ● Hicks, Patricia J., Daniel Schumacher, Susan Guralnick, Carol Carraccio, and Ann E. Burke. 2014. "Domain of Competence: Personal and Professional Development." Academic Pediatrics 14(2 Suppl): S80-97. https://www.sciencedirect.com/science/article/abs/pii/S187628591300332X. ● Local resources, including Employee Assistance program

Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication **Overall Intent:** To deliberately use language and behaviors to form constructive relationships with patients, 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	
Milestones	**Examples**
Level 1 *Uses language and non-verbal behavior to demonstrate respect and establish rapport* *Identifies barriers to effective communication*	● Introduces self and faculty member, identifies patient and others in the room, and engages all parties in health care discussion ● Identifies need for trained interpreter with non-English-speaking patients ● Uses clear language (avoids jargon) when discussing vaccinations
Level 2 *Establishes a therapeutic relationship with the patient and patient's family/caregiver, using active listening and clear language* *Recognizes how barriers to effective communication apply to specific patients*	● Avoids medical jargon and restates patient perspective ● Uses large font in after visit summary ● Uses hearing amplification for hearing impaired patients ● Prioritizes and sets agenda at the beginning of the appointment for a new patient with dementia
Level 3 *Establishes a therapeutic relationship in the setting of complex patient and family/caregiver dynamics* *Recognizes personal biases and attitudes affecting communication*	● Acknowledges patient's/family caregiver request for a screening test not indicated (i.e., colonoscopy for 92-year-old patient with previous normal colonoscopies) without symptoms and arranges timely follow-up visit to align diagnostic plan with goals of care ● In a discussion with the faculty member, acknowledges discomfort in caring for a patient with falls who doesn't want to use an assistive device ● Arranges for a family meeting to determine a plan to stop driving in a patient with advancing dementia
Level 4 *Establishes and maintains therapeutic relationships using shared decision making* *Modifies strategies to minimize barriers to effective communication*	● Continues to engage representative family members with disparate goals in the care of a patient with dementia ● Reflects on personal bias related to alcohol-related complications of fellow's father and solicits input from faculty members about mitigation of communication barriers when counseling patients around alcohol use cessation ● Uses patient and family input to engage pastoral care and develop a plan for home hospice in the terminally ill patient, aligned with the patient's values
Level 5 *Mentors others in situational awareness and critical self-reflection to develop positive therapeutic relationships*	● Leads a discussion group on personal experience of moral distress (i.e., case conference with team members, or Schwartz Rounds if available) ● Develops a residency curriculum on health disparities in special populations

Assessment Models or Tools	● Assessment of case-based discussion ● Assessment of case conference presentation ● Communication Skills for Geriatrics Fellowship: Clinical Evaluation Exercise (CEX): Videotaped Interview of a Geriatric Patient (available at POGOE) ● Direct observation ● Faculty member evaluations ● Medical record (chart) audit ● Mentored review of clinical management plan ● Mini-CEX ● Multisource feedback ● Self-assessment including self-reflection exercises ● Skills needed to Set the state, Elicit information, Give information, Understand the patient, and End the encounter (SEGUE) ● Standardized patients
Curriculum Mapping	●
Notes or Resources	● Bunn F, Goodman C, Russell B, et al. Supporting shared decision making for older people with multiple health and social care needs: A realist synthesis. *BMC Geriatr*. 2018;18(1):165. https://pubmed.ncbi.nlm.nih.gov/30021527/. 2020. ● Greenberg D. The Einstein Geriatrics Fellowship Core Curriculum: Communication and interviewing skills with the geriatric patient. *POGOe.* 2011. *https://pogoe.org/productid/20957*. 2020. ● Harwood J. Elder care: A resource for interprofessional providers: Improving communication with older patients. *POGOe.* 2012. https://pogoe.org/productid/21268. 2020. ● Hoffmann T, Jansen J, Glasziou P. The importance and challenges of shared decision making in older people with multimorbidity. *PLoS Med.* 2018;15(3):e1002530. https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002530. 2020. ● Laidlaw A, Hart J. Communication skills: an essential component of medical curricula. Part I: Assessment of clinical communication: AMEE Guide No. 51. *Med Teach*. 2011;33(1):6-8. https://www.tandfonline.com/doi/full/10.3109/0142159X.2011.531170. 2020. ● Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. *Acad Med*. 2001;76(4):390-393. https://journals.lww.com/academicmedicine/Fulltext/2001/04000/Essential_Elements_of_Communication_in_Medical.21.aspx#pdf-link. 2020. ● 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. 2020. ● NIH. Doctor-Patient Communication. https://www.nia.nih.gov/health/doctor-patient-communication/talking-with-your-older-patient. 2020. ● Symons AB, Swanson A, McGuigan D, Orrange S, Akl EA. A tool for self-assessment of communication skills and professionalism in fellows. *BMC Med Educ*. 2009; 9:1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2631014/. 2020.

Interpersonal and Communication Skills 2: Interprofessional and Team Communication **Overall Intent:** To effectively communicate with the health care team in both straightforward and complex situations and optimally utilizes the skills of each interdisciplinary team member	
Milestones	**Examples**
Level 1 *Identifies the role and function of interdisciplinary team members*	● Acknowledges the contribution of each member of the geriatric team to the patient
Level 2 *Solicits insights from and uses language that values all interdisciplinary team members*	● Sends a message in EHR to the social worker of a patient with dementia to provide family/caregiver support resources
Level 3 *Integrates contributions from interdisciplinary team members into the care plan*	● Documents the recommendations of the social worker, physical therapist, and other interdisciplinary team members into their comprehensive geriatric assessment plan
Level 4 *Prevents and mediates conflict and distress among interdisciplinary team members*	● Arranges a team meeting at PACE to discuss everyone's recommendations and develop a unified plan when the therapist and the social worker disagree whether a patient would be safe at home
Level 5 *Promotes a culture of open communication and effective teamwork within the interdisciplinary team*	● Implements and sustains a new regular team huddle in clinic
Assessment Models or Tools	● Direct observation ● Medical record (chart) audit ● Mini-CEX ● 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://pubmed.ncbi.nlm.nih.gov/10612318/. 2020. ● Dehon E, Simpson K, Fowler D, Jones A. Development of the faculty 360. *MedEdPORTAL*. 2015;11:10174. http://doi.org/10.15766/mep_2374-8265.10174. 2020. ● Fay D, Mazzone M, Douglas L, Ambuel B. A validated, behavior-based evaluation instrument for family medicine residents. *MedEdPORTAL*. 2007. https://www.mededportal.org/doi/10.15766/mep_2374-8265.622. 2020. ● François J. Tool to assess the quality of consultation and referral request letters in family medicine. *Can Fam Physician*. 2011;57(5):574–575. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3093595/. 2020.

	● Green M, Parrott T, Cook G., Improving your communication skills. *BMJ*. 2012;344:e357. https://www.bmj.com/content/344/bmj.e357. 2020. ● Henry SG, Holmboe ES, Frankel RM. Evidence-based competencies for improving communication skills in graduate medical education: a review with suggestions for implementation. *Med Teach*. 2013;35(5):395-403. https://www.tandfonline.com/doi/full/10.3109/0142159X.2013.769677. 2020. ● Lane JL, Gottlieb RP. Structured clinical observations: a method to teach clinical skills with limited time and financial resources. *Pediatrics*. 2000;105:973-7. https://pubmed.ncbi.nlm.nih.gov/10742358/. 2020. ● Lange J, Mager D. (Y4S4) ELDER Project teams and teamwork: Communication. *POGOe*. 2012. https://pogoe.org/productid/21106. 2020. ● POGOe. The Learning Curve: A Geriatrics Professional Development Webinar Series – Managing Team Dynamics. https://pogoe.org/content/9942. 2020. ● Reuben D, Ferrell B, Chung Lee M, et al. Interdisciplinary team care. *POGOe*. 2014. https://pogoe.org/productid/21709. 2020. ● Roth CG, Eldin KW, Padmanabhan V, Freidman EM. Twelve tips for the introduction of emotional intelligence in medical education. *Med Teach*. 2019;41(7):1-4. https://www.tandfonline.com/doi/full/10.1080/0142159X.2018.1481499. 2020.

Interpersonal and Communication Skills 3: Communication within Health Care Systems **Overall Intent:** Communicating effectively within and across the continuum of care using the appropriate methods for the circumstances	
Milestones	**Examples**
Level 1 *Accurately documents information in the patient record* *Safeguards patient personal health information across the continuum of care*	● Includes extraneous information or excessively relies on copy and paste in documentation ● Shreds patient list after rounds; avoids talking about patients in the elevator
Level 2 *Documents patient encounters in an organized manner* *Facilitates communication across the continuum of care*	● Documents geriatrics assessment tools (e.g., Timed Up and Go, Geriatric Depression Scale) appropriately in the physical exam section of notes ● Ensures each patient has a discharge summary prior to leaving the hospital
Level 3 *Demonstrates organized and timely diagnostic and therapeutic reasoning through notes in the patient record* *Appropriately selects the method of communication based on context*	● Organizes documentation includes clinical reasoning that supports the treatment plan ● Calls the accepting team to share goals of care outlined in a family meeting when a frail patient is discharged to a nursing home with a different EHR
Level 4 *Concisely reports diagnostic and therapeutic reasoning, including anticipatory guidance, in the patient record* *Demonstrates written or verbal communication that serves as an example for others to follow across the continuum of care*	● For a patient with a prior episode of delirium, documents future risk for delirium in primary care notes and in the problem list ● Takes exemplary notes that are used by the chief resident to teach others ● Develops a discharge note template incorporating critical elements like baseline function, current functional level, cognitive status, and shares and trains house staff, to use it; demonstrates using a stellar example
Level 5 *Provides feedback to improve others' written communication* *Guides departmental or institutional communication around policies and procedures*	● Routinely reviews house staff discharge notes, provides feedback and develops corrective action plan ● Leads a task force established by the hospital QI committee to develop a plan to improve house staff hand-offs to skilled nursing facilities
Assessment Models or Tools	● Direct observation ● Hand-off checklist ● 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. *Teach Learn Med.* 2017 Oct-Dec;29(4):420-432. ● Haig, K.M., Sutton, S., Whittington, J. SBAR: a shares mental model for improving communications between clinicians. *Jt Comm J Qual Patient Saf*. 2006 Mar;32(3):167-75. https://pubmed.ncbi.nlm.nih.gov/16617948/. 2020. ● Starmer, Amy J., et al. I-pass, a mnemonic to standardize verbal handoffs. *Pediatrics*. 2012;129.2:201-204. https://pubmed.ncbi.nlm.nih.gov/22232313/. 2020.

Interpersonal and Communication Skills 4: Complex Communication around Serious Illness **Overall Intent:** To sensitively and effectively communicate about prognosis with patients and their families/caregivers, promoting shared decision making and assessing the evolving impact on all involved	
Milestones	**Examples**
Level 1 *Identifies prognosis as a key element for shared decision making* *Identifies the need to assess patient and patient family/caregiver expectations and understanding of their health status and treatment options*	● Recognizes importance of communicating prognosis to permit shared decision making but unable to do so independently ● Values assessing patient/family understanding of health status and expectations but unable to consistently do so independently
Level 2 *Assesses the patient's family's/caregiver's prognostic awareness and identifies preferences for receiving prognostic information* *Facilitates communication with the patient and the patient's family/caregiver by setting the agenda, clarifying expectations, and verifying an understanding of the clinical situation*	● Using open ended questions, can determine a patient's/family's prognostic awareness and discuss patient/family preferences for how communication about prognosis should occur ● Performs the above tasks to open the family meeting with a patient with dementia
Level 3 *Delivers prognosis and attends to emotional responses of patients and patients' families/caregivers* *Sensitively and compassionately delivers medical information; elicits the patient's and the patient's family's/caregiver's values, goals, and preferences; and acknowledges uncertainty and conflict, with guidance*	● Consistently responds to emotion in conversations by using NURSE (Name, Understand, Respect, Support, Explore) statements and deliberate silence ● Co-leads a family meeting with an attending to discuss a new diagnosis of dementia and plans for the future
Level 4 *Tailors communication of prognosis according to patient consent, patient's family's/caregiver's needs, and medical uncertainty, and is able to address emotional responses* *Independently uses shared decision making to align the patient's and the patient's*	● Addresses the needs of family caregivers by bringing additional members of the interprofessional team to manage complex emotions and family dynamics ● Independently develops and provides a recommendation for a time-limited trial of ICU care for a patient with multimorbidity, in the context of conflicting patient and family goals

family's/caregiver's values, goals, and preferences with treatment options to make a personalized care plan in situations with a high degree of uncertainty and conflict	
Level 5 *Coaches others in the communication of prognosis* *Coaches shared decision making in patient and patient's family/caregiver communications*	● Develops a simulation module to teach communication of prognosis ● Develops a role play to teach shared decision making
Assessment Models or Tools	● Direct observation ● Mini-CEX ● Multisource feedback ● OSCE
Curriculum Mapping	●
Notes or Resources	● Back A, Arnold R, Baile W, Tulskey J, Fryer-Edwards K. Approaching difficult communication tasks in oncology. *CA Cancer J Clin*. 2005 May-Jun;55(3):164-77. https://pubmed.ncbi.nlm.nih.gov/15890639/. 2020. ● Back A, Arnold R, Tulsky J. *Mastering Communication with Seriously Ill Patients*. Cambridge: Cambridge University Press; 2009. ● Childers J, Back A, Tulsky J, Arnold M. REMAP: A framework for goals of care conversations. *J Oncol Pract*. 2017 Oct;13(10):e844-e850. https://pubmed.ncbi.nlm.nih.gov/28445100/. 2020. ● Levetown, M. Communicating with children and families: From everyday interactions to skill in conveying distressing information. *Pediatrics*. 2008;121(5):e1441-60. https://pubmed.ncbi.nlm.nih.gov/18450887/. 2020. ● VitalTalk. https://www.vitaltalk.org/. 2020.

Available Milestones Resources

Milestones 2.0: Assessment, Implementation, and Clinical Competency Committees Supplement, 2021 - *https://meridian.allenpress.com/jgme/issue/13/2s*

Milestones Guidebooks: https://www.acgme.org/milestones/resources/

- *Assessment Guidebook*
- *Clinical Competency Committee Guidebook*
- *Clinical Competency Committee Guidebook Executive Summaries*
- *Implementation Guidebook*
- *Milestones Guidebook*

Milestones Guidebook for Residents and Fellows: https://www.acgme.org/residents-and-fellows/the-acgme-for-residents-and-fellows/

- Milestones Guidebook for Residents and Fellows
- Milestones Guidebook for Residents and Fellows Presentation
- Milestones 2.0 Guide Sheet for Residents and Fellows

Milestones Research and Reports: https://www.acgme.org/milestones/research/

- *Milestones National Report*, updated each fall
- *Milestones Predictive Probability Report,* updated each fall
- *Milestones Bibliography*, updated twice each year

Developing Faculty Competencies in Assessment courses - https://www.acgme.org/meetings-and-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: Teamwork Effectiveness Assessment Module (TEAM) - https://team.acgme.org/

Improving Assessment Using Direct Observation Toolkit - https://dl.acgme.org/pages/acgme-faculty-development-toolkit-improving-assessment-using-direct-observation

Remediation Toolkit - https://dl.acgme.org/courses/acgme-remediation-toolkit

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