Body System: Patient-Based Care		
Session Topic: Polypharmacy in the Elderly		
Educational Format		**Faculty Expertise Required**
REQUIRED	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. Please describe your interest and plan for teaching a PBL on your proposal form.

Professional Practice Gap	**Learning Objective(s) that will close the gap and meet the need**	**Outcome Being Measured**
• Family physicians have gaps in knowledge and performance in evaluating for potentially adverse drug events, among elderly patients receiving multiple medications. • Family physicians have gaps in knowledge and performance in developing systematic approach to managing elderly patients with multiple chronic conditions that focuses on the quality-of-life outcomes most valued by the patient, and includes applicable REMS. • Family physicians have knowledge and performance gaps in developing collaborative care plans to address the needs of patients who have poor health literacy or reduced cognitive function, or those patients who have language barriers, in order to foster appropriate self-administration of	1. Use evidence-based criteria (e.g. BEERS, STOPP, START) to evaluate for potentially adverse drug events, among elderly patients receiving multiple medications. 2. Develop a systematic approach, including applicable REMS, to managing elderly patients with multiple chronic conditions that focus on the quality-of-life outcomes most valued by the patient. 3. Develop collaborative care plans to address the needs of patients who have poor health literacy or reduced cognitive function, or those patients who have language barriers, in order to foster appropriate self-administration of medications. 4. Counsel elderly patients and caregivers about tools, resources, and strategies to aid in the self-administration of medications.	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.

medications. • Family physicians have knowledge and performance gaps in educating elderly patients and caregivers about tools, resources, and strategies to aid in the self-administration of medications.		

ACGME Core Competencies Addressed (select all that apply)

X	Medical Knowledge		Patient Care
X	Interpersonal and Communication Skills		Practice-Based Learning and Improvement
	Professionalism		Systems-Based Practice

Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
  - Visit http://www.aafp.org/journals for additional resources
  - Visit http://familydoctor.org for patient education and resources
- Provide specific examples utilizing BEERS/STOPP/START criteria to evaluate for potentially adverse drug events, including examples of when physicians should not rely on such criteria alone
- Provide specific examples and strategies for systematically managing elderly patients with chronic conditions, including applicable REMS, with an emphasis on reducing adverse drug events
- Provide specific strategies, tools, and resources to address the needs of patients who have poor health literacy or reduced cognitive function, or those patients who have language barriers, in order to foster appropriate self-administration of medications
- Provide specific strategies and resources to assist physicians in providing consultation to elderly patients and caregivers about tools, resources, and strategies to aid in the self-administration of medications
- Provide recommendations regarding guidelines for Medicare reimbursement.
- Provide recommendations to maximize office efficiency and guideline adherence to the management of medications for elderly patients.
- Provide an overview of newly available treatments, including efficacy, safety,

contraindications, and cost/benefit relative to existing treatments.
- Provide instructions regarding the incorporation and use of the PCMH/ACO/Primary Care Core Measure Set into practice.

Needs Assessment:
Among older Americans, aged 60 and over, more than 76% used two or more prescription drugs and 37% used five or more.[1] The risk of adverse drug events is considerable in older patients, leading to one in six hospital admissions because of an adverse drug event.[2] In fact, polypharmacy has been shown to increase a patient's risk for falls and postoperative hip fracture, precipitate confusion, and incontinence.[3-5] Polypharmacy associated with multi-morbidity is burdensome for patients, likely leads to a reduction of overall drug benefit, and is an additive effect of harms and side effects.[6] Older adults are often negatively impacted by polypharmacy and are at greater risk for adverse drug events due to metabolic changes, drug-drug interactions, prescribing cascades, and are at greater risk for hip fractures.[2,7] Unintentional weight loss in older adults may also be due to medication use as polypharmacy can interfere with taste or cause nausea.[8]

The American Academy of Family Physicians (AAFP) CME Needs Assessment Survey indicates that family physicians have statistically significant and meaningful knowledge gaps to provide optimal manage of polypharmacy and medication interactions.[9] More specifically, CME outcomes data from 2014 and 2015 AAFP FMX (formerly Assembly): *Polypharmacy in the Elderly: I Rattle When I Walk* sessions suggest that physicians have knowledge and practice gaps with regard to using medication reconciliation tools; BEERS, START and STOP medication lists; and reviewing medication lists with patients; establishing protocols to minimize adverse drug events for hospitalized patients, and patients being discharged from the hospital; and provide counseling regarding side effects and stopping unnecessary medications.[10,11]

Physicians are often challenged with the need to manage multiple chronic conditions in their older patients because clinical practice guidelines, applied without consideration of other chronic conditions and medications, can lead to adverse drug events.[12] Additionally, physicians are often reluctant to stop medications, especially if they did not initiate the treatment and the patient seems to be tolerating the therapy. The decision to discontinue medication is determined in part by the goals of care for that patient and the risks of adverse effects for that patient; and targets for treatment, based on outcomes evidence from studies in younger patients, may not be appropriate for older adults.[12] Instead, physicians must be able to develop a systematic approach that identifies the quality-of-life outcomes most valued by the patient that should take precedence over the routine implementation of practice guidelines that recommend medications for generic clinical scenarios.[2,13] A recent Cochrane review indicated that Warfarin (Coumadin), insulin, and digoxin accounted for one in three of ER visits, by older patients, because of an adverse drug event, whereas drugs on the Beers list accounted for less than 9 percent. Interventions to improve appropriate polypharmacy have been shown to reduce inappropriate prescribing and medication-related problems, although it is unclear if these intervention improve appropriate polypharmacy, such as pharmaceutical care.[14] The rate of adverse drug events may be reduced by using validated risk calculators for bleeding in patients taking warfarin, setting

less stringent goals for A1C levels in older patients with comorbidities, and avoiding high doses of digoxin or use of the drug without proper indications.[15] Recent studies show that 42% of older adults received potentially inappropriate medications (PIM) but that a portion of them were not used for particularly long or were used for individuals who lacked specific medical conditions targeted in the Beers criteria as problematic or who had diagnoses for which use was justified. Even with these qualifications in the definition, 30.9% of community-dwelling older adults were prescribed PIMs, some of which are known to be associated with falls, delirium, declines in cognitive and physical functioning, and other potentially serious health outcomes.[16]

Family physicians should be knowledge about factors that influence pharmacokinetics in older adults; be aware of sources of adverse drug events; medications to avoid when possible in older adults; have a systematic approach for detecting adverse drug events; be aware of practical considerations to reduce the risk of adverse drug events; and know how to effectively use BEERS, STOPP, and START criteria.[2,7,16-18] Family physicians should also be familiar with applicable REMS for medications they are prescribing to their elderly patients.[19]

Elderly patients also have difficulty with self-administration of medication. Some studies suggest that as many as half of the elderly population lacks the adequate literacy skills to self-administer medications, particularly for multiple chronic conditions.[20,21] Physicians should consider the following evidence based recommendations to address concerns of health literacy among elderly patients:[22]

- Use universal health literacy precautions with all patients, regardless of their literacy or education levels.
- Prioritize and limit information to three key points for each visit.
- Use the teach-back method to assess patient comprehension of information.
- Simplify forms and offer assistance with form completion.

However, non-adherence is not simply a knowledge discrepancy, but it can also involve feelings, reactions to the physician, cost, availability, and competing medical belief systems.[7] Physicians should have strategies in place, including group counseling and collaborative care plans, to address the needs of patients who have poor health literacy, or those patients who have language barriers, in order to foster appropriate self-administration of medications.[23-28] Elderly patients who do not live in some level of managed care facility will often receive assistance from a family caregiver. In fact, in 2009, nearly 66 million Americans provided some level of care for an elderly family member.[29] However, a majority of caregivers (81%) feel inadequately trained, having never received any formal education in caregiving.[29] Family physicians should be prepared to counsel both elderly patients and caregivers about tools that can help manage self-administration of medications, such as home telemedicine, telehealth, disease-state monitoring systems, automatic medication dispenser, and vibrating alarm watches.[29]

Physicians should consider the National Action Plan for ADE Prevention from the Office of Disease Prevention and Health Promotion (ODPHP), on behalf of the Federal Interagency Steering Committee for Adverse Drug Events.[30]

The ADE Action Plan addresses a defined group of ADEs that are considered to be common, clinically significant, preventable, and measurable; resulting from high-priority drug classes; and occurring largely in high-risk populations.
Three key drug classes identified as initial targets for the ADE Action Plan include:

1. **Anticoagulants** (primary ADE of concern: bleeding)
2. **Diabetes agents** (primary ADE of concern: hypoglycemia)
3. **Opioids** (primary ADE of concern: accidental overdoses, over-sedation, respiratory depression)

To align the efforts of federal health agencies to reduce patient harms from these specific ADEs nationally, the ADE Action Plan identifies a four-pronged approach:

- **Surveillance** — Coordinate existing federal surveillance resources and data to assess the health burden and rates of ADEs.
- **Prevention** — Share existing evidence-based prevention tools across federal agencies and with non-federal health care providers and patients.
- **Incentives and Oversight** — Explore opportunities, including financial incentives and oversight authorities, to promote ADE prevention.
- **Research** — Identify current knowledge gaps and future research needs (unanswered questions) for ADE prevention.

The American Academy of Family Physicians Academy has participated in the Core Measures Collaborative (the Collaborative) convened by America's Health Insurance Plans (AHIP) since August 2014. The Collaborative is a multi-stakeholder effort working to define core measure sets of various specialties promoting alignment and harmonization of measure use and collection across both public and private payers.

Participants in the Collaborative included Centers for Medicare and Medicaid Services (CMS), the National Quality Forum (NQF), private payers, provider organizations, employers, and patient and consumer groups. This effort exists to decrease physician burden by reducing variability in measure selection, specifications and implementation– making quality measurement more useful and meaningful for consumers, employers, as well as public and private clinicians.

With significant AAFP input, a PCMH/ACO/Primary Care Core Measure Set has been developed for primary care. The goal of this set is to decrease burden and allow for more congruence between payer reporting programs.[31]

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- Reducing the risk of adverse drug events in older adults[2]
- Using medications appropriately in older adults[5]
- American Geriatric Society: Care of Older Adults with Multi-morbidity[6]
- American Geriatric Society: updated BEERS criteria[17]
- Minimizing adverse drug events in older patients[7]
- Appropriate use of polypharmacy for older patients[15]
- National Action Plan for Adverse Drug Event Prevention[30]
- Unintentional Weight Loss in Older Adults[8]

- Health literacy: the gap between physicians and patients[25]
- Health Literacy in Primary Care Practice[22]
- The role of health literacy in patient-physician communication[26]
- Help your patient "get" what you just said: a health literacy guide[27]
- Engaging Patients in Collaborative Care Plans[28]
- Medication adherence: we didn't ask and they didn't tell[32]
- Adding health education specialists to your practice[33]
- Envisioning new roles for medical assistants: strategies from patient-centered medical homes[34]
- The benefits of using care coordinators in primary care: a case study[35]
- Health Coaching: Teaching Patients to Fish[36]
- FamilyDoctor.org - Seniors: Managing Your Medications (patient resource)[37]
- Caregiver Resource – FCA: Caregivers' Guide to Medications and Aging[38]
- FamilyDoctor.org. Caregiving: Caring for an Elderly Relative - Managing Medicines (patient resource)[39]
- FamilyDoctor.org. Falls: How to Lower Your Risk (patient resource)[40]

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