APPROPRIATE MEDICATION USE IN THE ELDERLY

Disease State
Medication Side Effects
Indicator Classification
Medication Monitoring
Strength of Recommendation
B

Physician Specialties
Family Practice, Internal Medicine, Gerontology

Disease Burden
- Researchers have documented widespread inappropriate medication use by elderly persons in hospitals, nursing homes, board and care facilities, physician office practices, hospital outpatient departments, and homebound elderly, with the estimated prevalence of potentially inappropriate use ranging from 12% to 40% and a prevalence of adverse drug effects ranging from 5% to 35% [1-6].
- One recent study of a Medicare population found a potentially inappropriate medication prevalence of 23% [7].
- Another study found that 35% of ambulatory adults have experienced an adverse drug effect, with 29% of those requiring further care as a result of the event [8, 9].

Reason for Indicated Intervention or Treatment
- The Institute of Medicine Report To Err is Human has cited inappropriate medication use as a major area of poor quality in U.S. healthcare [10].
- Adverse drug events have been linked to preventable problems such as depression, constipation, falls, immobility, confusion, and hip fractures. In addition, medication related problems have been estimated to cause 106,000 deaths annually at a cost of $85 billion, [1, 11, 12].
- Thirty percent of hospital admissions in elderly patients can be linked to adverse drug effects or drug related problems [9].

Evidence supporting Intervention or Treatment
- The number of controlled trials on medication use in the elderly is limited.
- A case control study of 2300 Medicare managed care elderly using the Beers Criteria to identify a set of potentially inappropriate medications found that those patients receiving one of these medications had a significantly higher total costs, provider costs, facility costs, and a higher mean number of inpatient, outpatient, and emergency department visits, even after controlling for sex, co-morbidities, and total number of prescriptions [7].
- A cohort study of 4300 elderly community dwelling adults using both the Drug Utilization Review (DUR) Criteria and the 1997 Beers criteria to identify a set of potentially inappropriate medications found that use of inappropriate medications identified by either set of criteria was not associated with mortality. The investigators did find a significant association between inappropriate drug use using the DUR Criteria and decline in basic self care [13].

Clinical Recommendations
- The Centers for Medicare and Medicaid endorse the Beers Criteria lists...
- The following statement was released in 2004 in joint position statement by the American Medical Directors Association and the American Society of Consultant Pharmacists: “The Beers list is a helpful general guide regarding potentially inappropriate medication use of medications for older adults, but it must be used in conjunction with a patient centered care process...The Beers list should be used as a general guide for assessing the potential inappropriate use of medications, not as an isolated justification for any recommendation, including discontinuation of a medication.” [14].

- The Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center recommends “the Beer's list should be used when planning medication initiation, reviewing established medication regimens, or making changes in the medication regimen.” [15].

**Source**
Health Benchmarks, Inc.

**Denominator**
Members ages 65 years and older by the end of the measurement year who were continuously enrolled during the measurement year who received and prescription during the measurement year.

**Denominator Exclusion**
None

**Numerator**
Members in the denominator who did **NOT** receive any prescriptions for drugs that are potentially inappropriate for use in the elderly with a severity rating of **High.** [8]

**Interpretation of Score**
High score implies better performance

**Physician Attribution**
Score all physicians (in the selected specialties) who saw the member during the reporting year.

**External Files Required for Analysis**
Filename: elderly1_num_medlist_2006.xls
Source: HBI, Master NDC database

**References**
6. Fick, D.M., et al., *A randomized study to decrease the use of potentially inappropriate medications among community-dwelling older adults in a...*


14. AMDA and ASCP Joint Position Statement on the Beers List of potentially Inappropriate Medications in Older Adults. 2004, American Medical Directors Association: Columbia, MD.