**Client**

HMSA: PQSR 2009

**Measure Title**

APPROPRIATE MEDICATION USE IN THE ELDERLY - ALWAYS AVOID

**Disease State**

Medication Side Effects

**Indicator Classification**

Medication Monitoring

**Strength of Recommendation**

B

**Organizations Providing Recommendation**

*Synthesis of Recommendations from:*

- 1996 Medical Expenditure Panel Survey
- American Medical Directors Association and the American Society of Consultant Pharmacists
- Centers for Medicare and Medicaid Services
- University of Iowa Gerontological Nursing Interventions Research Center

**Clinical Intent**

To ensure that members over 65 years of age do not receive an “always avoid” medication from the Beer’s criteria.

**Physician Specialties (suggested)**

Refer to PQSR 2009 Clinical Measures by Specialty.

**Background**

- 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].
- 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].
- 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 Services endorse the Beers Criteria lists containing specific drugs to avoid in the elderly [8].

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 inappropriateness 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].

However, although the Beers criteria is generally well accepted by the medical community, it continued to be debated because the use of some drugs listed may be justified in some circumstances because the benefits far outweighs the risk. [16, 17] In addition, Beers et al have recognized the limitation of these criteria. [18]

To address the limitation of the Beers criteria, a expert panel was convened by Zhan et al in 1997 to identify a subset of drugs that always should be avoided.[1]

Source
Health Benchmarks, Inc.
Denominator
Definition
Continuously enrolled members ages 65 years and older by the end of the measurement year.

Denominator Exclusion
Definition
N/A

Numerator
Definition
Members in the denominator who did NOT receive any prescriptions for drugs that are labeled always inappropriate for use during the measurement year. (Note that this definition allows the measure to be reported as an inverted rate to facilitate a meaningful score interpretation across measures that are scored on the same scale).

Physician Attribution
Definition
If the member received an inappropriate prescription, score all prescribing physicians (in the selected specialties) who prescribed the numerator event.

If the member did not receive an inappropriate prescription, score all physicians (in the selected specialties) who saw the member during the measurement year.

References
7. Fick, D., et al., Potentially inappropriate medication use in a managed care population: association with higher costs and


