



## **2017 Use of High-Risk Medications in the Elderly (HRM) REVISED based on 2015 AGS Beers Criteria**

### **Description**

The percentage of patients 65 years of age and older who received two or more prescription fills for a high-risk medication during the measurement period.

### **Definitions**

**High-Risk Medication** Select prescription drugs recommended to avoid in persons 65 y/o and older by the American Geriatric Society Beers Criteria for Potentially Inappropriate Medications Use in Older Adults.

**Fill** A unique prescription drug claim.

### **Eligible Population**

**Ages** The subject must be 66 years or older on the last day of the measurement year.

**Benefit** Pharmacy.

**Continuous Enrollment using enrollment data** Subjects should be continuously enrolled during the measurement period. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 consecutive days] is not considered continuously enrolled).

**Measurement Period** The measurement period is generally a calendar year and extends through the last day of the enrollment period or until death or disenrollment.

### **Administrative Specification**

**Data Sources** Prescription claims data.

**Denominator** The eligible population.

**Numerator** Patients who received at least two prescription fills on different dates of service for the same high-risk medication (Table HRM-A: High-Risk Medications) during the measurement period.

**Denominator Exclusion** Any patient with a hospice indicator at any point during the measurement year

**Stratification** Commercial, Medicaid, Medicare (report each product line separately).

**Table HRM-A: High-Risk Medications**

Description	Prescription Products		
<b>Anticholinergics (excludes TCAs)</b>			
First-generation antihistamines (as single agent or as part of combination products) – <i>excludes OTC products</i>	Brompheniramine Carbinoxamine Chlorpheniramine Clemastine	Cyproheptadine Dexbrompheniramine Dexchlorpheniramine Diphenhydramine (oral) Dimenhydrinate	Doxylamine Hydroxyzine Meclizine Promethazine Triprolidine
Antiparkinson agents	Benztropine (oral)	Trihexyphenidyl	
Antispasmodics	Atropine (excludes ophthalmic) Dicyclomine Scopolamine	Belladonna alkaloids  Hyoscyamine	Clidinium-Chlordiazepoxide  Propantheline
<b>Antithrombotics</b>			
Antithrombotics	Ticlopidine	Dipyridamole, oral short-acting (does not apply to the extended-release combination with aspirin)	
<b>Anti-infective</b>			
Anti-infective	Nitrofurantoin (include when cumulative day supply is >90 days) (A)		
<b>Cardiovascular</b>			
Central alpha blockers	Guanfacine Reserpine (>0.1mg/day) (B)	Guanabenz	Methyldopa
Cardiovascular, other	Disopyramide	Digoxin (>0.125mg/day) (C)	Nifedipine, immediate release*
<b>Central Nervous System</b>			
Antidepressants (alone or in combination)	Amoxapine Desipramine Nortriptyline Protriptyline	Amitriptyline Doxepin (>6mg/day) (D) Paroxetine	Clomipramine Imipramine Trimipramine
Barbiturates	Amobarbital Pentobarbital Secobarbital	Butobarbital Mephobarbital	Butalbital Phenobarbital
Central Nervous System, other	Meprobamate		
Nonbenzodiazepine hypnotics (include when cumulative day supply is >90 days) (E)	Eszopiclone	Zolpidem	Zaleplon
Vasodilators for dementia	Ergoloid mesylates	Isoxsuprine	
<b>Endocrine</b>			
Endocrine	Desiccated thyroid	Estrogens** with or without progesterone (oral and topical patch products only)	Megestrol
Sulfonylureas, long-duration	Chlorpropamide	Glyburide	
<b>Pain Medications</b>			
Pain Medications	Meperidine	Pentazocine	
Non-COX-selective NSAIDS***	Indomethacin	Ketorolac (includes parenteral)	
<b>Skeletal muscle relaxants</b>			
Skeletal muscle relaxants (as a single agent or as part of a combination product)	Carisoprodol Chlorzoxazone	Cyclobenzaprine Metaxalone	Methocarbamol Orphenadrine

Abbreviations: OTC, over the counter.

**Note (in general – unless otherwise specified):** Includes combination products and the following routes of administration: oral, transdermal, injectable (IJ, SC, IM, IV), rectal, sublingual, buccal and inhalation.

\*\* Conjugated estrogen, esterified estrogen, estradiol, estropipate (includes combination products and the following routes of administration: oral, and transdermal).

\*\*\*Includes oral and injectable (IJ, SC, IM, IV) routes only.

Additional information for calculation of cumulative days supply and average dose:

A. For nitrofurantoin, a patient is included in the numerator if he/she received at least two prescription fills for the medication and if the cumulative days supply for any nitrofurantoin product is greater than 90 days during the measurement period.

B. For reserpine, a patient is included in the numerator if he/she received at least two prescription fills for the medication and if the average daily dose is greater than 0.1mg.

C. For digoxin, a patient is included in the numerator if he/she received at least two prescription fills for the medication and if the average daily dose is greater than 0.125mg.

D. For doxepin, a patient is included in the numerator if he/she received at least two prescription fills for the medication and if the average daily dose is greater than 6mg.

E. The cumulative calculation applies to the class of nonbenzodiazepine hypnotics and not for each individual medication. A patient is included in the numerator if he/she received at least two prescription fills for any medication in the class and if the cumulative days supply for any product is greater than 90 days during the measurement period. For example, if a patient received a 30-day supply of zolpidem, a second fill for 30 days supply of zolpidem and then a fill for 35 days supply eszopiclone (all during the measurement period), this would qualify for inclusion in the numerator.

For Average Dose Calculation in B, C and D.

During the measurement period, calculate a daily dose for each fill of the dose dependent HRM drug using the following formula:

$$(\text{quantity dispensed} \times \text{dose}) / \text{days supply.}$$

If the individual has two or more fills of a dose dependent HRM drug where the daily dose exceeds the average dose threshold, the member is in the numerator

For Cumulative Days Supply Calculation in A and E.

For medications dispensed during the measurement period, sum the days supply, including any days supply that extends beyond the measurement period. All doses dispensed within the measurement period are included in the calculation for that measurement period. For example, for a prescription of a 30-day supply dispensed on December 31 of the measurement period, include the 30-day supply in the cumulative days supply calculation. This days supply would not, however, be included in the following measurement period that starts on January 1 of the following calendar.