

## The 2019 American Geriatrics Society Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

By: Sherry A. Greenberg, PhD, RN, GNP-BC, The Hartford Institute for Geriatric Nursing,  
New York University Rory Meyers College of Nursing

**WHY:** The American Geriatrics Society (AGS) 2019 Updated Beers Criteria<sup>®</sup>, updated from 2015, are designed to reduce older adults' drug-related problems including, but not limited to exposure to potentially inappropriate medications, drug-disease interactions, and medications that warrant extra caution in the older adult population. Older adults experience the highest prevalence of adverse drug events (Taché, Sönnichsen, & Ashcroft, 2011) and many of these events are avoidable.

**BEST TOOL:** The American Geriatrics Society Updated Beers Criteria<sup>®</sup> (AGS Beers Criteria<sup>®</sup>) (AGS, 2019). The AGS Beers Criteria<sup>®</sup> include the same five main categories as in 2015: (1) potentially inappropriate medications in older adults; (2) potentially inappropriate medications to avoid in older adults with certain conditions; (3) medications to be used with considerable caution in older adults; (4) medication combinations that may lead to harmful interactions; and (5) a list of medications that should be avoided or dosed differently for those with poor renal function.

**TARGET POPULATION:** The AGS Beers Criteria<sup>®</sup> are to be used in the care of older adults  $\geq 65$  years of age in all ambulatory, acute, and institutional care settings. The overall intent is to improve outcomes, such as medication selection and education of interprofessionals, older adults, and caregivers, while preventing unintended harms, such as use of potentially inappropriate medications and adverse drug events.

**VALIDITY AND RELIABILITY:** The AGS Beers Criteria<sup>®</sup> were developed in 2012 using an evidence-based approach which substantially followed the Institute of Medicine standards for evidence and transparency, including a peer and public review of the draft. The 2015 update followed the same process as in 2012, was completed by a panel of 13 experts convened by AGS, and included a review of over 6,700 clinical trials and research studies from over 20,000 articles since publication of the 2012 AGS Beers Criteria<sup>®</sup>. The 2019 update included the same 13-member interdisciplinary panel, as well as representatives from the Centers for Medicare and Medicaid Services, the National Committee for Quality Assurance, and the Pharmacy Quality Alliance. They reviewed of over 17,000 references, including 67 systematic reviews and/or meta-analyses, 29 controlled clinical trials, and 281 observational studies. The 2019 update includes approximately 70 modifications to the 2015 AGS Beers Criteria<sup>®</sup>. Methods of review were based on the Grading of Recommendations Assessment, Development and Evaluation (GRADE) guidelines for clinical practice guideline development and consistent with recommendations from the National Academy of Medicine.

**STRENGTHS AND LIMITATIONS:** The AGS Beers Criteria<sup>®</sup> increase awareness of inappropriate medication use in older adults, as well as assist nurses and interprofessional team members in medication reviews and ongoing monitoring. Additionally, they inform prescribers and clinical decision support providers as they work to improve patient outcomes. The AGS Beers Criteria<sup>®</sup> do not identify all cases of potentially inappropriate prescribing and do not address overtreatment (e.g. excessive duration of therapy) or underuse of helpful medicines. The AGS Beers Criteria<sup>®</sup> is not applicable for older adults receiving hospice or palliative care.

**FOLLOW-UP:** The AGS Beers Criteria<sup>®</sup> should be used to inform clinical practice, evaluation, education, research, and policy to improve the safety and quality of medication prescribing for older adults. The AGS Beers Criteria<sup>®</sup> do not substitute for professional judgment or the need to tailor care to each patient's individual needs, goals, and unique situation.

Consideration should be given that the AGS Beers Criteria<sup>®</sup> may be used in conjunction with other criteria, such as The Screening Tool of Older Persons Potentially Inappropriate Prescriptions and Screening Tool to Alert Doctors to the Right Treatment (STOPP/START criteria), to best guide health care providers through the medication decision-making process (AGS, 2019).

An expert panel process supported by AGS allows for a more frequent monitoring and update of the AGS Beers Criteria<sup>®</sup>.

*Acknowledgement: The Hartford Institute for Geriatric Nursing at New York University Rory Meyers College of Nursing acknowledges that this Try This:<sup>®</sup> issue was developed in conjunction with the American Geriatrics Society. The collaboration is greatly appreciated as we aim to improve care to older adults.*

*Acknowledgement: The Hartford Institute for Geriatric Nursing would like to acknowledge the original author of this Try This:<sup>®</sup>, Sheila Molony, PhD, RN, GNP-BC.*

## The 2019 American Geriatrics Society Updated Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults

**Primary source:** The 2019 American Geriatrics Society Beers Criteria® Update Expert Panel (2019). American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. *Journal of the American Geriatrics Society*, 00(00), 1-21. doi: 10.1111/jgs.15767. Available online at <https://geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria/CL001>

### **The above article contains the following AGS 2019 Beers Criteria tables:**

Table 2: 2019 American Geriatrics Society Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults (pp. 5-9 in the above article)

Table 3: 2019 American Geriatrics Society Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults Due to Drug–Disease or Drug–Syndrome Interactions That May Exacerbate the Disease or Syndrome (pp. 10-12 in the above article)

Table 4: 2019 American Geriatrics Society Beers Criteria® for Potentially Inappropriate Medications to Be Used with Caution in Older Adults (p. 13 in the above article)

Table 5: 2019 American Geriatrics Society Beers Criteria® for Potentially Clinically Important Drug-Drug Interactions that Should be Avoided in Older Adults (pp. 14-15 in the above article)

Table 6: 2019 American Geriatrics Society Beers Criteria® for Medications that Should be Avoided or Have Their Dosage Reduced with Varying Levels of Kidney Function in Older Adults (pp. 16-17 in the above article)

Table 7: Drugs with Strong Anticholinergic Properties (p. 17 in the above article)

Table 8: Medications/Criteria Removed since 2015 American Geriatrics Society Beers Criteria® (p. 18 in the above article)

Table 9: Medications/Criteria Added Since 2015 American Geriatrics Society Beers Criteria® (p. 18 in the above article)

Table 10: Medications/Criteria Modified Since 2015 American Geriatrics Society Beers Criteria® (p. 19 in the above article)

### **MORE ON THE TOPIC:**

The 2019 American Geriatrics Society (AGS) Beers Criteria® Update Expert Panel (2019). American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. *Journal of the American Geriatrics Society*, 00(00), 1-21. doi: 10.1111/jgs.15767. Available online at <https://geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria/CL001>

Best practice information on care of older adults and best practices to guide non-pharmacologic intervention: <http://consultgeri.org>.

Barry, P.J., Gallagher, P., Ryan, C., & O'Mahony, D. (2007). START (screening tool to alert doctors to the right treatment)--an evidence-based screening tool to detect prescribing omissions in elderly patients. *Age and Ageing*, 36(6), 632-638.

Hamilton, H., Gallagher, P., Ryan, C., Byrne, S., & O'Mahony, D. (2011). Potentially inappropriate medications defined by STOPP criteria and the risk of adverse drug events in older hospitalized patients. *Archives of Internal Medicine*, 172(11), 1013-1019.

Taché, S.V., Sönnichsen, A., & Ashcroft, D.M. (2011). Prevalence of adverse drug events in ambulatory care: A systematic review. *Annals of Pharmacotherapy*, 45(7-8), 977-989. doi: 10.1345/aph.1P627.

The below 2019 AGS Beers Criteria® resources may be accessed at <https://geriatricscareonline.org/toc/american-geriatrics-society-updated-beers-criteria/CL001>

#### **Criteria**

- Updated 2019 AGS Beers Criteria®
- Using Wisely Editorial (2019)
- How-to-Use Article (2015)
- Alternative Medications List
- 2019 AGS Beers Criteria® Teaching Slide in GRS Teaching Slides Set
- 2019 AGS Beers Criteria® Pocket Card
- 2019 AGS Beers Criteria® in iGeriatrics App

#### **Public Education Resources for Patients & Caregivers**

- AGS Beers Criteria® Summary
- 10 Medications Older Adults Should Avoid
- Avoiding Overmedication and Harmful Drug Reactions
- What to Do and What to Ask Your Healthcare Provider if a Medication You Take is Listed in the AGS Beers Criteria®
- My Medication Diary - Printable Download