How to Use the American Geriatrics Society 2015 Beers Criteria—A Guide for Patients, Clinicians, Health Systems, and Payors

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The Beers Criteria are a valuable tool for clinical care and quality improvement but may be misinterpreted and implemented in ways that cause unintended harms. This article describes the intended role of the 2015 American Geriatrics Society (AGS) Beers Criteria and provides guidance on how patients, clinicians, health systems, and payors should use them. A key theme underlying these recommendations is to use common sense and clinical judgment in applying the 2015 AGS Beers Criteria and to remain mindful of nuances in the criteria. The criteria serve as a “warning light” to identify medications that have an unfavorable balance of benefits and harms in many older adults, particularly when compared with pharmacological and nonpharmacological alternatives. However, there are situations in which use of medications included in the criteria can be appropriate. As such, the 2015 AGS Beers Criteria work best not only when they identify potentially inappropriate medications, but also when they educate clinicians and patients about the reasons those medications are included and the situations in which their use may be more or less problematic. The criteria are designed to support, rather than supplant, good clinical judgment.

The Beers Criteria were first introduced in 1991.1 Since then, widespread efforts to educate clinicians about the criteria and to use them in quality improvement activi-

METHODS

To coincide with the 2015 update of the Beers Criteria, the AGS convened a workgroup consisting of four members of the update panel (MAS, JB, CD, RL), the Chief
Executive Officer of the AGS (NL), and the chair of the AGS Clinical Practice Committee (PM). The workgroup was tasked with developing guidance on the intended use and implementation of the AGS 2015 Beers Criteria and authoring the current report. The workgroup convened using conference calls and e-mail communication first to develop a list of principles to guide optimal use of the criteria, with a particular focus on the “drugs to avoid” elements of the criteria, and then to author the current report built around these principles. During each of these steps, feedback was solicited from stakeholders (listed in the acknowledgments). The penultimate draft of the report was sent for outside review and reviewed internally by AGS leaders, with final approval of the AGS Board of Directors.

KEY PRINCIPLES TO GUIDE OPTIMAL USE OF THE AGS 2015 BEERS CRITERIA

Seven key principles that should be used to guide optimal use of the criteria are shown in Table 1 and explained here.

**Key Principle 1: Medications in the AGS 2015 Beers Criteria are potentially inappropriate, not definitely inappropriate**

There is a common misperception that any use of a medication in the Beers Criteria is considered inappropriate. This is not correct. The Beers Criteria comprise medications that have an unfavorable balance of benefits and harms for many older adults, particularly in light of available pharmacological and nonpharmacological alternatives. In some cases the drug is almost always a poor choice. However, there are some older adults in whom use of these medications is appropriate. Thus, Beers Criteria medications are “potentially inappropriate” and merit special scrutiny but are not universally inappropriate in all patients.

**Table 1. Key Principles to Guide Optimal Use of the American Geriatrics Society (AGS) 2015 Beers Criteria**

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Medications in the AGS 2015 Beers Criteria are potentially inappropriate, not definitely inappropriate.</td>
</tr>
<tr>
<td>2</td>
<td>Read the rationale and recommendations statements for each criterion. The caveats and guidance listed there are important.</td>
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<tr>
<td>3</td>
<td>Understand why medications are included in the AGS 2015 Beers Criteria and adjust your approach to those medications accordingly.</td>
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<tr>
<td>4</td>
<td>Optimal application of the AGS 2015 Beers Criteria involves identifying potentially inappropriate medications and where appropriate offering safer nonpharmacological and pharmacological therapies.</td>
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<tr>
<td>5</td>
<td>The AGS 2015 Beers Criteria should be a starting point for a comprehensive process of identifying and improving medication appropriateness and safety.</td>
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<tr>
<td>6</td>
<td>Access to medications included in the AGS 2015 Beers Criteria should not be excessively restricted by prior authorization and/or health plan coverage policies.</td>
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<tr>
<td>7</td>
<td>The AGS 2015 Beers Criteria are not equally applicable to all countries.</td>
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Key Principle 2: Read the rationale and recommendations statements for each criterion. The caveats and guidance listed there are important

Many medications are considered potentially inappropriate only in certain circumstances or in most circumstances but with some exceptions. These distinctions are highlighted in the rationale and recommendations statements for each criterion and are vital for proper interpretation and use of the criteria (Figure 1). As in all prescribing decisions, clinical judgment is required. As noted in Key Principle 1, a drug that the criteria consider “potentially inappropriate” may not always be a bad choice. Conversely, just because a medication is subject to an exemption (or not included in the criteria at all) does not automatically mean it is a good choice.

Key Principle 3: Understand why medications are included in the AGS 2015 Beers Criteria and adjust your approach to those medications accordingly

It is important not only to know that a medication is included on the Beers list, but also to know why it is included on the list. This information is provided in the rationale statement for each drug and should be used to guide decision-making. The risks of AGS 2015 Beers Criteria medications vary with the situation of each individual, and the importance of avoiding a given medication varies accordingly. For example, a Beers Criteria medication that increases risk of falls may be especially unsafe in an individual already at high risk of falls and less risky—although not insignificant—in an older adult with low fall risk.

Key Principle 4: Optimal application of the AGS 2015 Beers Criteria involves identifying potentially inappropriate medications and where appropriate offering safer nonpharmacological and pharmacological therapies

Prior versions of the Beers Criteria have not offered alternatives to potentially inappropriate medications (PIMs). Often the best therapeutic alternatives involve nonpharmacological strategies, including counseling and lifestyle changes. Implementation of the AGS 2015 Beers Criteria with clinician education and clinical decision support systems could be improved by educating clinicians about safer, more-effective therapies for the conditions for which Beers Criteria medications are commonly prescribed. The AGS and AGS 2015 Beers Criteria Expert Panel are working on developing these lists of alternative therapies.

Key Principle 5: The AGS 2015 Beers Criteria should be a starting point for a comprehensive process of identifying and improving medication appropriateness and safety

The AGS 2015 Beers Criteria capture only a small percentage of the total burden of medication-related problems in older adults. The criteria work best when used as a starting point to review and discuss an individual’s entire medication regimen. This includes individualized inquiry into and assessment of medication indication, effectiveness, adverse effects, cost, and adherence, and concordance of the medication regimen with an individual’s abilities and goals of care.
Key Principle 6: Access to medications included in the AGS 2015 Beers Criteria should not be excessively restricted by prior authorization and/or health plan coverage policies

Encouraging judicious use of AGS 2015 Beers Criteria medications through insurance design can be reasonable. For certain medications, severe restrictions can be warranted. However, onerous restrictions on the many medications in the criteria that have appropriate uses can hinder good clinical care and create the perception that the Beers Criteria are a punitive tool, undercutting their educational function.²,¹⁴,¹⁵ Programs that restrict access to Beers Criteria medications should be carefully targeted and give the prescribing clinician, who is in the best position to evaluate the appropriateness of medications for individual patients, the opportunity to provide a valid clinical rationale that permits coverage.

Key Principle 7: The AGS 2015 Beers Criteria are not equally applicable to all countries

The AGS 2015 Beers Criteria were developed principally based on medications available in the United States. Medications may be available in other countries that are potentially inappropriate but are not included in the list.¹⁶,¹⁷ Prior versions of the Beers Criteria have been adapted for several countries. In the absence of country-specific adaptations of the Beers Criteria, in most cases it is reasonable to use broad-based categories included in the criteria to identify PIMs, for example benzodiazepines and strongly anticholinergic drugs.

APPLICATION OF KEY PRINCIPLES—OVERVIEW

The following section suggests how patients, clinicians, and health systems and payors can apply the key principles to improve pharmaceutical care of older adults. These are summarized in Table 2, and a case example is provided in Figure 2.

Application of key principles for patients and caregivers

Talking with clinicians about AGS 2015 Beers Criteria medications

Older adults should not stop taking a drug just because it is included in the Beers Criteria. Instead, they should discuss with their clinicians whether that medication is the right choice for them and ask whether there are safer or more-effective alternatives. As part of this conversation, patients should be prepared to discuss symptoms that they think might be due to their medication(s), review how much the medication(s) seems to be helping them, and raise any other concerns about the medication. Similarly, patients should discuss with their clinicians the indication and planned duration of use for the medication. More than one perspective can be helpful, and it can be particularly useful to discuss these topics with one’s prescriber(s), pharmacist(s), and other healthcare providers.

Engaging patients and caregivers as active participants in care

Care is improved when patients and caregivers are actively involved in their care.¹⁸,¹⁹ Because Beers Criteria medica-
and Payors
Health Systems

medications, the reasons they are taking these medications, the individual’s entire medication regimen. Engagement in medicines that are uniformly inappropriate but rather to address include: Why is the patient taking the drug, and is it truly needed? Are there safer or more-effective alternatives for the patient? Does this patient have particular characteristics that increase or mitigate the risk of this medication?

This heightened awareness not only should occur at the time the drug is initially prescribed, but should also continue over time and prompt ongoing monitoring to assess whether the therapy is effective or causing adverse effects. In many cases, this heightened awareness should lead to periodic attempts to discontinue or reduce doses of the medication. Even for people who have tolerated Beers Criteria medications, adverse effects or reduced effectiveness can occur years into therapy because of the physiology of aging and other changes in clinical status.

Assessing adverse effects

Many of the adverse effects of AGS 2015 Beers Criteria medications can be subtle yet important. For example,
AGS 2015 Beers Criteria medications may induce mild decreases in cognitive function that can affect daily functioning and quality of life or cause small changes in balance and gait stability that increase the risk of falls. These adverse events may not be recognized or reported by patients or their caregivers, or may be mistakenly attributed by patients, caregivers, or clinicians as symptoms of an underlying condition or simply a result of old age. Careful inquiry is often necessary, coupled with attention to the adage that “any symptom in an older adult is a medication side effect until proven otherwise.” Often the only way to determine if an individual’s symptoms are due to a drug is to withdraw the medication and see whether the symptoms improve, informally or as part of a more-systematic N-of-1 trial.

**How the AGS 2015 Beers Criteria fit into the larger picture of improving prescribing for older adults**

Many serious adverse drug events in older adults are caused by medications not included in the Beers Criteria. Common culprits such as warfarin are not listed as drugs to medications. Discussions about AGS 2015 Beers Criteria are problematic across the age spectrum are not included but merit close scrutiny as well.

**Talking with patients and their caregivers about AGS 2015 Beers Criteria medications**

The criteria can provide a useful tool for engaging individuals and caregivers in discussion about their medications. They can be used to start a larger conversation about effectiveness, adverse effects, cost, adherence, and goals of care for the person’s entire medication regimen. They can also be a useful adjunct for helping physicians counsel people about stopping medications that appear on the list, particularly if they are reluctant to stop those medications.

**Talking with other clinicians about AGS 2015 Beers Criteria medications**

Primary care and generalist clinicians should not automatically defer to their specialist colleagues if that specialist...
prescribed an AGS 2015 Beers Criteria medication, and vice versa.21 Rather, the Beers list can provide a foundation for a discussion between clinicians of whether the person truly needs the medication and whether there are safer and more-effective alternatives.

**Stopping AGS 2015 Beers Criteria medications**

Many Beers medications should not be stopped abruptly because of the high risk of precipitating a withdrawal reaction. A good rule of thumb is that a drug dose is usually safe to taper down at the same rate that it can safely be tapered up.29

**Role of healthcare professionals other than prescribers and pharmacists**

Registered nurses and other healthcare professionals can play an important role even in the absence of direct prescribing authority. For example, nurses often see and assess for medication problems in the home, hospital, postacute, and long-term care settings, and often help in making a decision to give or not give a Beers medication prescribed on an as-needed basis. As such, they are important partners in identifying, addressing, and educating people about potential problems with AGS 2015 Beers Criteria medications.30

**Application of key principles for health systems and payors**

**Use in clinical decision support systems**

The AGS 2015 Beers Criteria are well suited to clinical decision support, and studies have shown they can be deployed to good effect in this setting.31 Decision support systems are likely to be most useful when they suggest alternative pharmacological and nonpharmacological therapies that can be used in place of Beers Criteria medications.

**Use in monitoring provider- and systems-level prescribing practices**

The AGS 2015 Beers Criteria are useful for monitoring quality of care across populations of clinicians and patients. Because these medications are inappropriate for most older adults, lower rates of use are preferable in most settings. However, because there are circumstances in which use of these medications is reasonable, monitoring systems should not judge care to be inappropriate for any specific individual on the basis of that person taking a Beers Criteria medication. For similar reasons, the target rate of use for performance measurement programs should not be 0%. Performance measurement systems should also be careful to integrate performance measures for Beers Criteria medications with measures that address other important domains of quality in pharmaceutical care. Focusing clinician attention exclusively on Beers Criteria medications may result in insufficient attention to other aspects of prescribing such as medication monitoring, medication adherence, and underuse of medications that for many people are more important than the Beers Criteria.

**Use in prior authorization and insurance coverage decisions**

There is a reasonable role for health plan design to screen for AGS 2015 Beers Criteria medications for extra attention and review. Some medications included in the criteria are particularly harmful or have few reasonable indications, justifying tight controls. However, many medications in the criteria can have appropriate uses. Excessive restrictions on use of these medications and ignoring caveats listed in the criteria may harm people by limiting their access to therapies that can help them. Moreover, excessive restrictions cause undue burden on prescribers and can inappropriately frame the Beers Criteria in a punitive light. As a result, in most cases in which AGS 2015 Beers Criteria medications require authorization, clinicians should have access to a streamlined process to justify their use. (This streamlined process should ideally be available across a range of prior authorization issues, not just for AGS 2015 Beers Criteria medications). When AGS 2015 Beers Criteria medications are flagged for approval or review, appropriate alternative therapies should be suggested where possible.

**CONCLUSIONS**

The ability of the AGS 2015 Beers Criteria to improve care depends on their being applied in a thoughtful manner. Individuals, clinicians, and health systems are encouraged to use the key principles outlined in this article to guide how they implement the Beers Criteria so as to improve outcomes while minimizing unintended harms.

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REFERENCES