

Alternatives to Beers Criteria Potentially Harmful Drug-Disease Interactions in Older Adults

Disease	Potentially Harmful Drugs	Alternatives
Falls	Anticonvulsants	For new-onset epilepsy—newer agents preferred (e.g., lamotrigine, levetiracetam and calcium/vitamin D bisphosphonate) For neuropathic pain—SNRI, gabapentin, pregabalin, capsaicin topical, lidocaine patch
	Benzodiazepines Nonbenzodiazepine hypnotics (“Z” drugs: eszopiclone, zaleplon, zolpidem)	For anxiety—buspirone, SNRI For sleep—evidence-based physiological behavioral treatments for insomnia, see reverse side of this resource
	Tricyclic antidepressants (tertiary and secondary) SSRIs	For depression—e.g., SNRI, bupropion For neuropathic pain—SNRI, gabapentin, pregabalin, capsaicin topical, lidocaine patch
	Antipsychotics	For delirium—short-term use of antipsychotics (e.g., haloperidol, quetiapine) should be restricted to individuals who are distressed or considered a risk to themselves or others and in whom verbal and nonverbal de-escalation techniques are ineffective or inappropriate For schizophrenia—nonanticholinergic agents may be acceptable (not chlorpromazine, loxapine, olanzapine, perphenazine, trifluoperazine, thioridazine) For behavioral complications of dementia—if nonpharmacological approaches have failed and psychosis and danger to self or others, lowdose nonanticholinergic agent (e.g., risperidone, quetiapine) for shortest duration possible may be acceptable
Dementia	Tricyclic antidepressants (tertiary and secondary)	For depression—SSRI, SNRI, bupropion For neuropathic pain—SNRI, capsaicin topical, gabapentin, pregabalin, lidocaine patch
	Antipsychotics	For behavioral complications of dementia—if nonpharmacological approaches have failed, and psychosis and danger to self or others, low-dose nonanticholinergic agent (e.g., risperidone, quetiapine) for shortest duration possible may be acceptable
	H2 blockers	Proton pump inhibitor
	Anticholinergics (see table 7 in 2015 AGS Beers criteria for complete list of classes) (e.g., first generation antihistamines, and anti-Parkinson agents)	For allergy—second-generation antihistamine, nasal steroid For Parkinson disease—levodopa with carbidopa
	Benzodiazepines	For anxiety—buspirone, SNRI For sleep—evidence-based physiological behavioral treatments for insomnia, see reverse side of this resource
	Nonbenzodiazepine hypnotics (“Z” drugs)	Evidence-based physiological behavioral treatments for insomnia, see reverse side of this resource
Chronic kidney disease or chronic renal failure (eGFR <30 mL/min)	All nonaspirin nonsteroidal antiinflammatories (including cyclooxygenase-2 selectives)	For pain—acetaminophen, SNRI, topical capsaicin lidocaine patch

eGFR = estimated glomerular filtration rate; SSRI = selective serotonin reuptake inhibitor; SNRI = serotonin norepinephrine reuptake inhibitor.
 In all instances including those specified, nonpharmacological approaches should be sought first when appropriate— see reverse side of this resource.
 Falls recommendations also include noncancer, nontrauma hip fracture. If agent must be used, consider reducing the use of other central nervous system—active medications that increase the risk of falls and fractures (anticonvulsants, antipsychotics, antidepressants, benzodiazepine receptor agonists).

Adapted from Hanlon, J. Semla, T., & Shmader, K. (2015) Alternative Medications for Medications in the Use of High-Risk Medications in the Elderly and Potentially Harmful Drug-Disease Interactions in the elderly Quality Measures. Journal of the American Geriatrics Society.

Resources for Nonpharmacological Alternatives to Potentially Harmful Drug-Disease Interactions in Older Adults

General

- Holroyd-Leduc J, Reddy M, eds. Evidence-Based Geriatric Medicine. London: BMJ Books, 2012.
- Reuben DB, Herr KA, Pacala JT et al. Geriatrics at Your Fingertips: 2015, 17th Ed. New York: American Geriatrics Society, 2015.
- Abbraha I, Cruz-Jentoft A, Soiza RL et al. Evidence of and recommendations for non-pharmacological interventions for common geriatric conditions: The SENATOR-ONTOP systematic review protocol. *BMJ Open* 2015;5:e007488.
- Durso SC, Sullivan GM, eds. Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine, 8th Ed. New York: American Geriatrics Society, 2013.

Appetite

- Hanson LC, Ersek M, Gilliam R et al. Oral feeding options for people with dementia: A systematic review. *J Am Geriatr Soc* 2011;59:463–472.

Delirium

- The American Geriatrics Society Expert Panel on Postoperative Delirium in Older Adults. Postoperative delirium in older adults: Best practice statement from the American Geriatrics Society. *J Am Coll Surg* 2015;220:136–148.
- Rossom R, Anderson P, Greer N. Delirium: Screening, Prevention, and Diagnosis: A Systematic Review of the Evidence. Washington, DC: Department of Veterans Affairs; September 2011 [on-line]. Available at <http://www.hsrd.research.va.gov/publications/esp/delirium.cfm>

Dementia Behavioral Complications

- Caring for a Person with Alzheimer's Disease: Your Easy-to-Use Guide from the National Institute on Aging [on-line]. Available at <https://www.nia.nih.gov/alzheimers/publication/caring-person-alzheimers-disease/aboutguide>
- O'Neil MA, Freeman M, Chistensen V et al. A Systematic Evidence Review of Non-pharmacological Interventions for Behavioral Symptoms of Dementia [on-line]. Washington, DC: Department of Veterans Affairs, 2011. Available at http://www.hsrd.research.va.gov/publications/esp/dementia_nonpharm.cfm
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Pain

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Transcutaneous electrical nerve stimulation

- Dubinsky RM, Miyasaki J. Assessment: Efficacy of transcutaneous electrical nerve stimulation in the treatment of pain in neurological disorders (an evidence based review): Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology* 2010;74:173–176.
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Percutaneous Electrical Nerve Stimulation

- Weiner DK, Perera S, Rudy TE et al. Efficacy of percutaneous electrical nerve stimulation and therapeutic exercise for older adults with chronic low back pain: A randomized controlled trial. *Pain* 2008;140:344–357.
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Acupuncture

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Cognitive Behavioral Therapy

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Urinary Incontinence

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- Age Page. Urinary incontinence guide. National Institute on Aging [online]. Available at [https://www.nia.nih.gov/sites/default/files/Urinary PartsAPfinalproof_0.pdf](https://www.nia.nih.gov/sites/default/files/Urinary%20PartsAPfinalproof_0.pdf)

Sleep

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