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Pharmacy Update May 2019

2019 Beers Criteria Update

In January 2019, the American Geriatrics Society published updated Beers Criteria, which evaluate potentially inappropriate medication (PIM) use in older adults based on adverse drug events, drug-disease interactions, drug-drug interactions (DDI), and renal insufficiency. Please note the following additions to the 2019 Beers Criteria:[1]

Drug/Class	Rationale	Recommendation
PIMs to avoid in elderly		
Glimepiride	↑ severe, prolonged hypoglycemia	Avoid
Methscopolamine	↑ anticholinergic effects	Avoid
Pyrilamine	↑ anticholinergic effects	Avoid
Drug-disease or drug-syndrome interaction considerations in the elderly		
SNRIs with history of falls or fractures	↑ risk of falls	Avoid unless safer alternatives not available
Antipsychotics in Parkinson Disease (PD)	Likely to worsen PD	If an antipsychotic agent is necessary, pimavanserin is preferred
Medications to be used with caution in elderly		
Rivaroxaban	↑ risk of bleeding	Use with caution in age ≥75
Tramadol	↑ risk of SIADH/hyponatremia	Use with caution
Dextromethorphan-quinidine	↑ risk of falls and DDIs	Use with caution
Sulfamethoxazole and trimethoprim (TMP-SMX)	↑ risk of hyperkalemia	Use with caution in patients on ACEI/ARB with decreased CrCl
Drug-drug interactions to avoid in elderly		
Opioids + benzodiazepines/ gabapentin/pregabalin	↑ risk of overdose	Avoid
Phenytoin + TMP-SMX	↑ risk of phenytoin toxicity	Avoid
Theophylline + ciprofloxacin	↑ risk of theophylline toxicity	Avoid
Warfarin + ciprofloxacin/macrolides (except azithromycin)/TMP-SMX	↑ risk bleeding	Avoid; monitor INR closely if used together
Renal dose adjustments in elderly		
Ciprofloxacin	↑ CNS effects, ↑ tendon rupture	Avoid in CrCl <30 mL/min
TMP-SMX	↓ renal function, ↑ K	Reduce dose in CrCl 15-29 mL/min Avoid in CrCl <15 mL/min

Noteworthy changes include the removal of histamine-2 receptor antagonists (H2RA) and the addition of glimepiride; H2RAs were previously recommended to avoid in patients with dementia or cognitive impairment. However, the evidence that supported the recommendation to avoid H2RAs was weak and restricted therapeutic options for those with dementia and gastroesophageal reflux or similar conditions. Glimepiride was added based on studies that showed a greater risk of severe prolonged hypoglycemia in older adults.[1]

Please consider the following alternatives for your patients 65 and older who currently take glimepiride:[2]

Sulfonylurea Dose Equivalence[2]		
Glimepiride	**Glipizide**	**Glipizide ER**
1 mg once daily	2.5 mg once daily	2.5 mg once daily
1 to 2 mg once daily	5 mg once daily or 2.5 mg twice daily	5 mg once daily
4 mg once daily	10 mg once daily or 5 mg twice daily	10 mg once daily
8 mg once daily	10 mg to 20 mg twice daily	20 mg once daily

References

1. The American Geriatrics Society 2019 Beers Criteria Update Expert Panel. American Geriatrics Society 2019 AGS Updated Beers Criteria for potentially inappropriate medication use in older adults. J Am Geriatr Soc. 00:1–21, 2019.
2. Farahani, Pendar. Non-severe Hypoglycemia Risk Difference between Sulfonylurea and Sodium-Glucose Cotransporter-2 Inhibitors (SGLT2-I) as an Add-On to Metformin in Randomized Controlled Trials. Journal of Population Therapeutics and Clinical Pharmacology. 24. 10.22374/1710-6222.24.2.6.

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