

Table 3. Recommendations Regarding Inappropriate Drugs for Elderly Patients*

Drug	Listed reasons for inappropriate status	Type of support	Reference	Comment
Anticholinergics	Cardiac arrhythmia, dry mouth and eyes, urinary retention	Case studies; controlled trials	20-23, 25	Avoid if possible
Tricyclic antidepressants	Anticholinergic, cardiac toxicity, orthostatic hypotension	Case studies; controlled trials	25, 29, 31, 32, 35	Low dose for neuropathic pain is appropriate
First- and second-generation antipsychotics	Anticholinergic effects, extrapyramidal effects, tardive dyskinesia, better alternatives available with newer medications	Case studies; controlled trials	20, 27, 42	Patients require IM or IV medication
Barbiturates	Respiratory depression, habituation, falls/hip fractures, better/safer alternatives available	Case studies; controlled trials	51, 52	Appropriate for patients with seizure disorders
Long-acting benzodiazepines	Falls/hip fractures, safer alternatives available with shorter duration	Case studies; controlled trials	55-57	Avoid if possible
Meprobamate	Respiratory depression, falls/hip fractures, tolerance, safer alternatives available	Case studies	59	Avoid if possible
First-generation antihistamines	Sedation, falls, impaired driving, safer alternatives available	Case studies; controlled trials	53, 60, 61	Avoid if possible
Pentazocine	Hallucinations, CNS impairment	Case reports; small trials were negative	83-89, 91	Avoid high doses or prolonged use
Propoxyphene	CNS impairment with associated fall risk	Case reports; small and large CRTs	92-95	More risk identified, comparative analgesic potency is weak at best
Meperidine	CNS impairment, toxic metabolite accumulation	Case reports	99-102	Oral meperidine poor, irregular absorption
Dipyridamole	Orthostatic hypotension	Case studies; case series; recent CRTs (showed lack of notable hypotension)	104	New CRTs for stroke prevention more recent than criteria
Digoxin	Daily doses >0.125 mg for CHF have more risk than benefit	CHF: small to multicenter CRTs. Atrial fibrillation: CRTs show some benefit	110-112, 117	Has benefits in CHF and atrial fibrillation. Vigilance with clearance, dosing is necessary. In atrial fibrillation there are alternatives
Disopyramide	Negative inotrope, higher risk of inducing cardiac failure. Anticholinergic adverse effects	Case reports; CRTs with other agents had fewer adverse reactions	118, 119, 122	Other agents clearly less problematic
Trimethobenzamide	Lower potency, extrapyramidal adverse effects	Case studies; case series; older randomized trials showed efficacy	123-125	Very little evidence. Other available agents may be more effective
Chlorpropamide	Overly long action, resulting hypoglycemia	Case reports; large CRTs confirm other favorable choices	126	Use other, safer alternatives

*CHF = congestive heart failure; CNS = central nervous system; CRT = controlled randomized trial; IM = intramuscular; IV = intravenous.

elderly patients are to be notably reduced, it is important not only to avoid the use of medications considered inappropriate but to use "appropriate medications" correctly. Medications should be prescribed only for appropriate reasons, discontinued when they no longer provide benefit, and dosed correctly to reflect alterations in age-related pharmacokinetics and pharmacodynamics. Finally, elderly patients should be monitored closely for drug-related problems.

REFERENCES

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