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Venue:	Annals of Internal Medicine, Volume 172, no. 10, 2020
Title:	Article: Benefits and harms of prescription drugs and supplements for treatment of clinical Alzheimer-type dementia: a systematic review and meta-analysis
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Туре:	Article
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Abstract (or Book Review):	<b>Background:</b> Effects of drug treatment of clinical Alzheimer-type dementia (CATD) are uncertain.
	<b>Purpose:</b> To summarize evidence on the effects of prescription drugs and supplements for CATD treatment.
	<b>Data Sources:</b> Electronic bibliographic databases (inception to November 2019), ClinicalTrials.gov (to November 2019), and systematic review bibliographies.
	<b>Study Selection:</b> English-language trials of prescription drug and supplement treatment in older adults with CATD that report cognition, function, global measures, behavioral and psychological symptoms of dementia (BPSD), or harms. Minimum treatment was 24 weeks (≥2 weeks for selected BPSD).
	<b>Data Extraction:</b> Studies with low or medium risk of bias (ROB) were analyzed. Two reviewers rated ROB. One reviewer extracted data; another verified extraction accuracy.
	Data Synthesis: Fifty-five studies reporting non-BPSD outcomes (most ≤26 weeks) and 12 reporting BPSD (most ≤12 weeks) were analyzed. Across CATD severity, mostly low-strength evidence suggested that, compared with placebo, cholinesterase inhibitors produced small average improvements in cognition (median standardized mean difference [SMD], 0.30 [range, 0.24 to 0.52]), no difference to small improvement in function (median SMD, 0.19 [range, −0.10 to 0.22]), no difference in the likelihood of at least moderate improvement in global clinical impression (median absolute risk difference, 4% [range, 2% to 4%]), and increased withdrawals due to adverse events. In adults with moderate to severe CATD receiving cholinesterase inhibitors, low- to insufficient-strength evidence suggested that, compared with placebo, add-on memantine inconsistently improved cognition and improved global clinical impression but not function. Evidence was mostly insufficient about prescription drugs for BPSD and about supplements for all outcomes.
	<b>Limitation:</b> Most drugs had few trials without high ROB, especially for supplements, active drug comparisons, BPSD, and longer trials.

**Conclusion:** Cholinesterase inhibitors and memantine slightly reduced short-term cognitive decline, and cholinesterase inhibitors slightly reduced reported functional decline, but differences versus placebo were of uncertain clinical importance. Evidence was mostly insufficient on drug treatment of BPSD and on supplements for all outcomes.