

Rational Prescribing of Antidementia Agents to Medicare Beneficiaries

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Introduction

Medications used to improve cognition in persons with Alzheimer's disease and related dementias, such as donepezil, galantamine, and rivastigmine are associated with adverse drug events resulting in a 'prescribing cascade.'

A fundamental principle of conservative prescribing is to use only a few drugs and learn how to use them optimally.

Objective

The objective of this study was to determine the extent to which prescribers restrict the number of antidementia agents they prescribe to Medicare beneficiaries.

Analysis

Table: Antidementia agents prescribed to Medicare beneficiaries

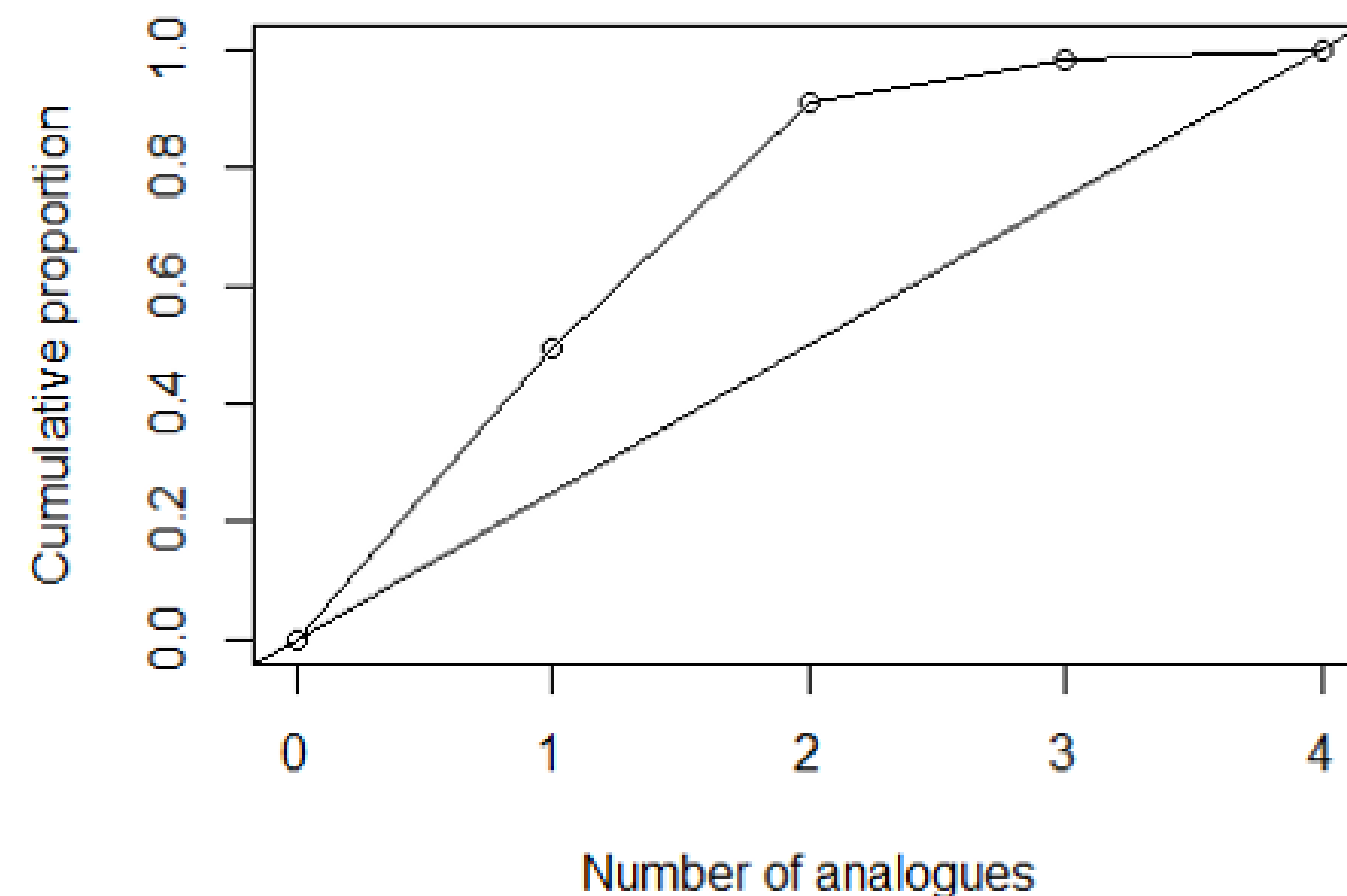
S/N	Drug	No Prescribed	%Prescribed	Cumulative %Prescribed
1	Donepezil	5,526,545	49.37%	49.37%
2	Memantine	4,685,432	41.85%	91.22%
3	Rivastigmine	815,742	7.29%	98.51%
4	Galantamine	167,001	1.49%	100.00%
	Total	11,194,720	100.00%	

Methodology

We conducted a cross-sectional analysis of prescription claims using the 2016 Medicare Part D Public Use Files (PUF). We retrieved data from prescribers with ≥ 100 prescriptions of antidementia agents. We estimated Drug Utilization 90% (DU90), which is the number of analogs accounting for 90% of the prescribed volume. We also calculated the number of analogs accounting for 50% (DU50) of the prescribed antidementia agents. Gini coefficient was used to determine the Formulary Selectivity Index (FSI), which is a number between 0 and 1, with 0 representing equal prescription of each analog (no selectivity) and 1 representing prescribing of only one analog (perfect selectivity).

Results/Findings

There were a total of 11,194,720 antidementia medications prescribed to Medicare Part D beneficiaries. The prescribers were selective in prescribing antidementia agents (FSI: 0.68; CI: 95%). Two drugs, donepezil and memantine accounted for 90% of the prescribed antidementia medications. Donepezil alone accounted for nearly 50% of the drugs. The results were consistent when analyses were stratified by prescriber specialty.



Graph: Lorenz curve showing the Formulary Selectivity Index (FSI)

Conclusion

The findings suggest that prescribers are limiting the use of antidementia drugs to donepezil and memantine. Future studies may examine if prescribing these drugs is associated with fewer adverse drug events and favorable health outcomes than other antidementia agents.