

Sex differences in prescription patterns and medication adherence to guideline-directed medical therapy among patients with ischemic stroke



Hend Mansoor, Daniel Manion, Anna Kucharska-Newton, Chris Delcher, Wei-Hsuan Lo-Ciganic, Gregory Jicha, Daniela C. Moga

BACKGROUND

- Ischemic stroke (IS) is a leading cause of death and disability.
- Society guidelines recommend pharmacotherapies for secondary stroke prevention.
- Medication non-adherence has been linked to worse outcomes among patients with cardiovascular diseases including those with ischemic stroke.
- Data suggest that women are less likely to be adherent to chronic disease medications recommended by clinical guidelines, which has been attributed to side effects, prescriber biases, and other life priorities specific to women that affect their attention to their own health.

Objectives: To examine sex differences in prescription and adherence to guideline-directed medical therapy (GDMT) at 1-year after IS in a cohort of commercially insured patients.

METHODS

- Using the Truven Health MarketScan database from 2016-2020, we identified patients admitted with IS.
- GDMT was defined as any statin, antihypertensive, and anticoagulant prescription within 30-days after discharge.
- Medication adherence was estimated using the proportion of days covered (PDC) at 1-year. PDC >0.80 was used to define adherence. This analysis was restricted to new users of GDMT.

RESULTS

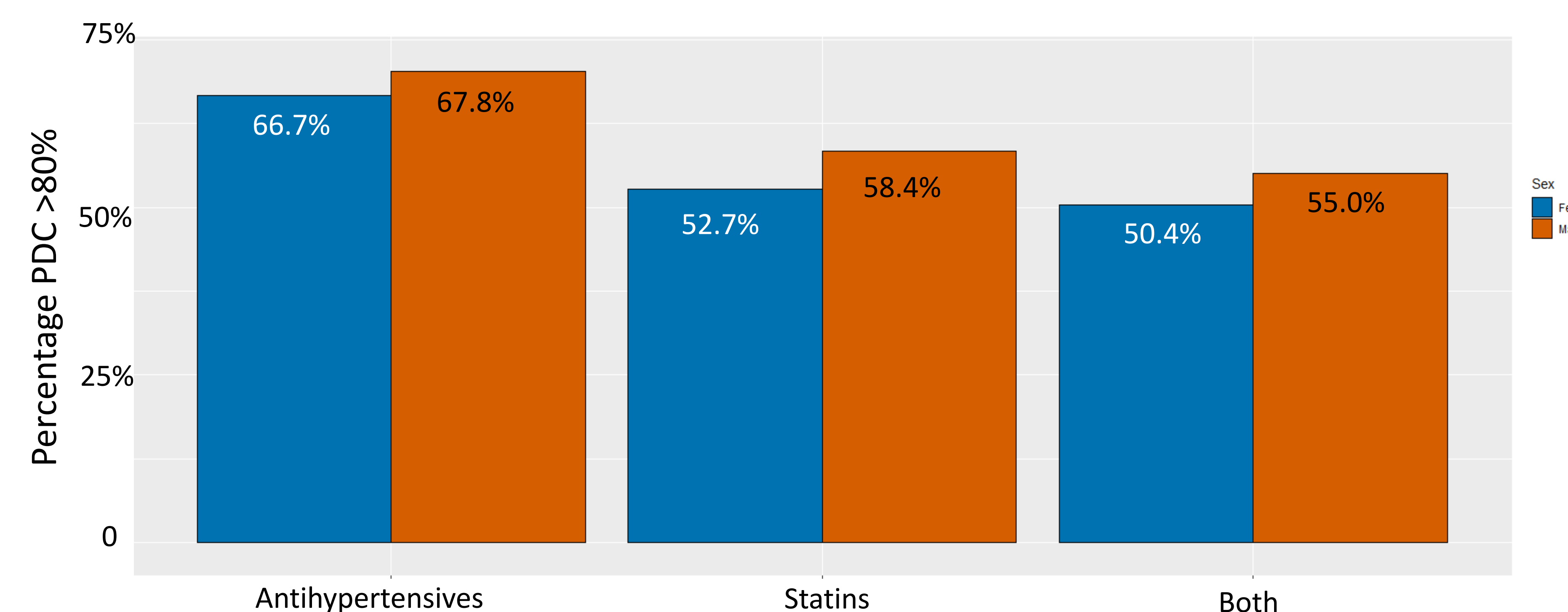
Table 1: Baseline characteristics

Variable	Overall N=15919	Female N=8218	Male N=7701	P-value
Age, mean	55.7	55.2	56.3	<0.0001
Atrial fibrillation %	1064 (6.7)	478 (5.8)	586 (7.6)	<0.0001
Dyslipidemia, %	4785 (30.1)	2119 (25.8)	2666 (34.96)	<0.0001
Hypertension, %	7760 (48.7)	3588 (43.7)	4172 (54.2)	<0.0001
Diabetes, %	2329 (14.6)	1017 (12.4)	1312 (17.0)	<0.0001
Vascular disease, %	1856 (11.7)	780 (9.5)	1076 (14.0)	<0.0001

Table 2: Initiation of Stroke GDMT within 30-days of discharge

Medication	Overall (N=15919)	Female (N=8218)	Male (N=7701)	P-value
Antihypertensives (%)	4282 (55.2)	1746 (48.7)	2536 (60.8)	<0.0001
Statins (%)	10302 (64.7)	4770 (58.0)	5532 (71.8)	<0.0001
Anticoagulants (%)	679(43.3)	293(41.2)	386(45)	0.13

Figure: Medication Adherence by Medication Group



RESULTS

- Among 15,919 patients meeting the inclusion criteria, 7,701 (48.3%) were women. Women were less likely prescribed statins (58.0% vs 71.8%), anticoagulants (41.2% vs 45.0%), and antihypertensives (27.7% vs 41.8%).
- Women were also less likely adherent (i.e., PDC >0.80) to statins (52.7% vs 58.4%, P<0.0001), antihypertensives (66.7% vs 70.3%, P=0.005), and the combination of both (50.4% vs 55.0%, P=0.003).
- On multivariable analysis adjusting for covariates, women were likely to be non-adherent to GDMT at 1-year (odds ratio 1.60, 95% confidence interval 1.10-1.40).

CONCLUSION

In this real-world analysis of commercially insured patients with IS, women were less likely initiated on GDMT within 30 days after discharge. Women were also less likely adherent to statins and antihypertensive agents at 1-year. Future efforts are needed to understand the reasons and minimize these disparities.