

PD33-03: High real-world medication adherence and durable clinical benefit in Medicare patients treated with 5 alpha-reductase inhibitors for benign prostatic hyperplasia

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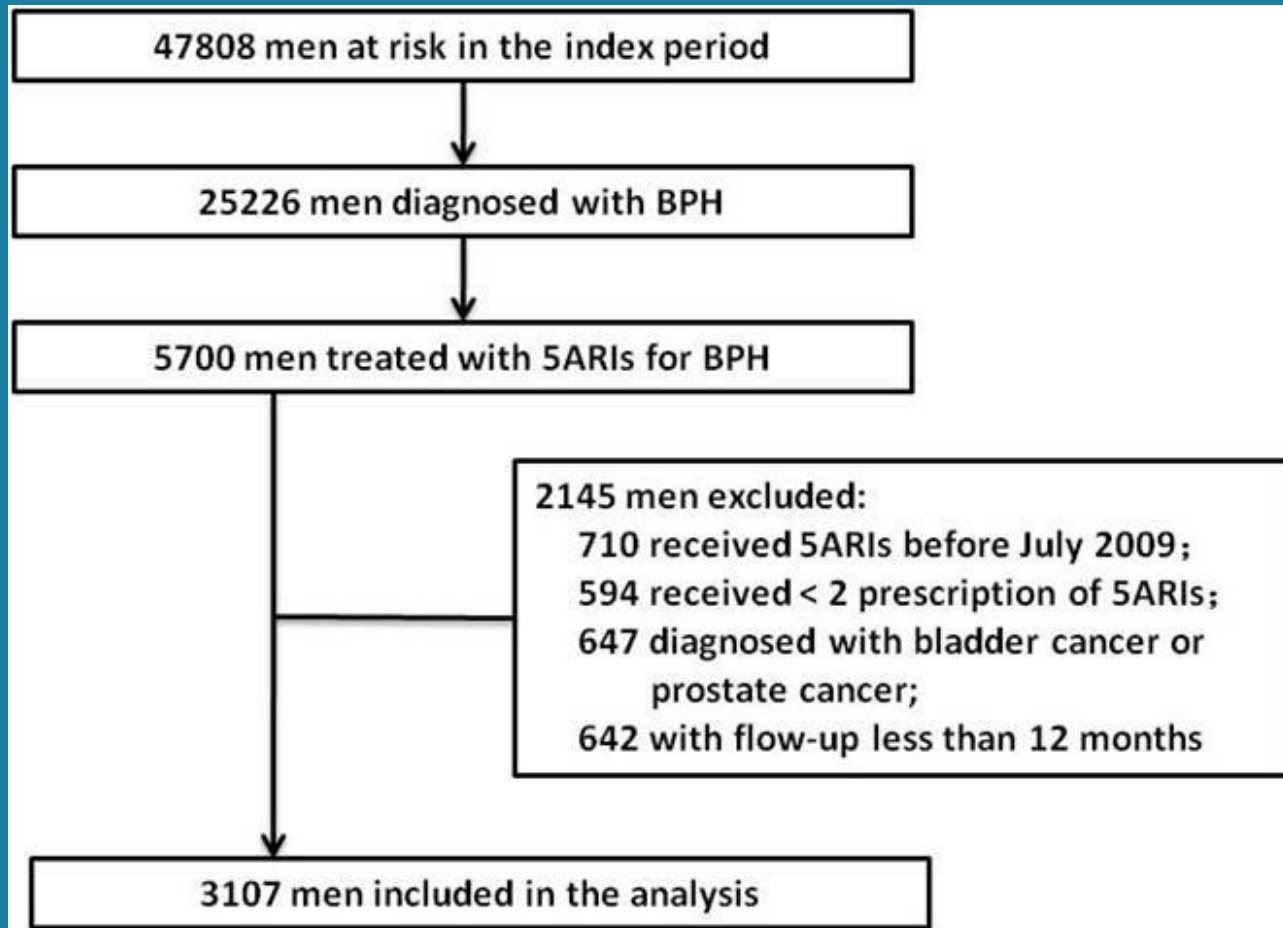


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- Clinical trials demonstrate 5 alpha-reductase inhibitors (5ARIs) are efficacious treatments for benign prostatic hyperplasia (BPH)
- 5ARIs have low reported medication adherence outside of clinical trials
- Objective: We evaluate real-world drug adherence and the risk of treatment failure in Medicare patients with lower urinary tract symptoms from BPH managed with 5ARI therapy

- Healthcare and pharmacy claims from Partners Healthcare Medicare Accountable Care Organization enrollees
- Dates of Inclusion: January 2009 - July 2018
- Population: Men initiating a 5ARI for BPH with more than one medication dispensation
- Adherence was calculated as $\geq 80\%$ proportion of days covered
- A Cox proportional hazards model was used to evaluate the primary outcome of treatment failure, defined as any BPH-related surgery



- 3,107 men initiating 5ARI therapy for BPH and filling at least two prescriptions

Table 1: Patient demographics and clinical characteristics

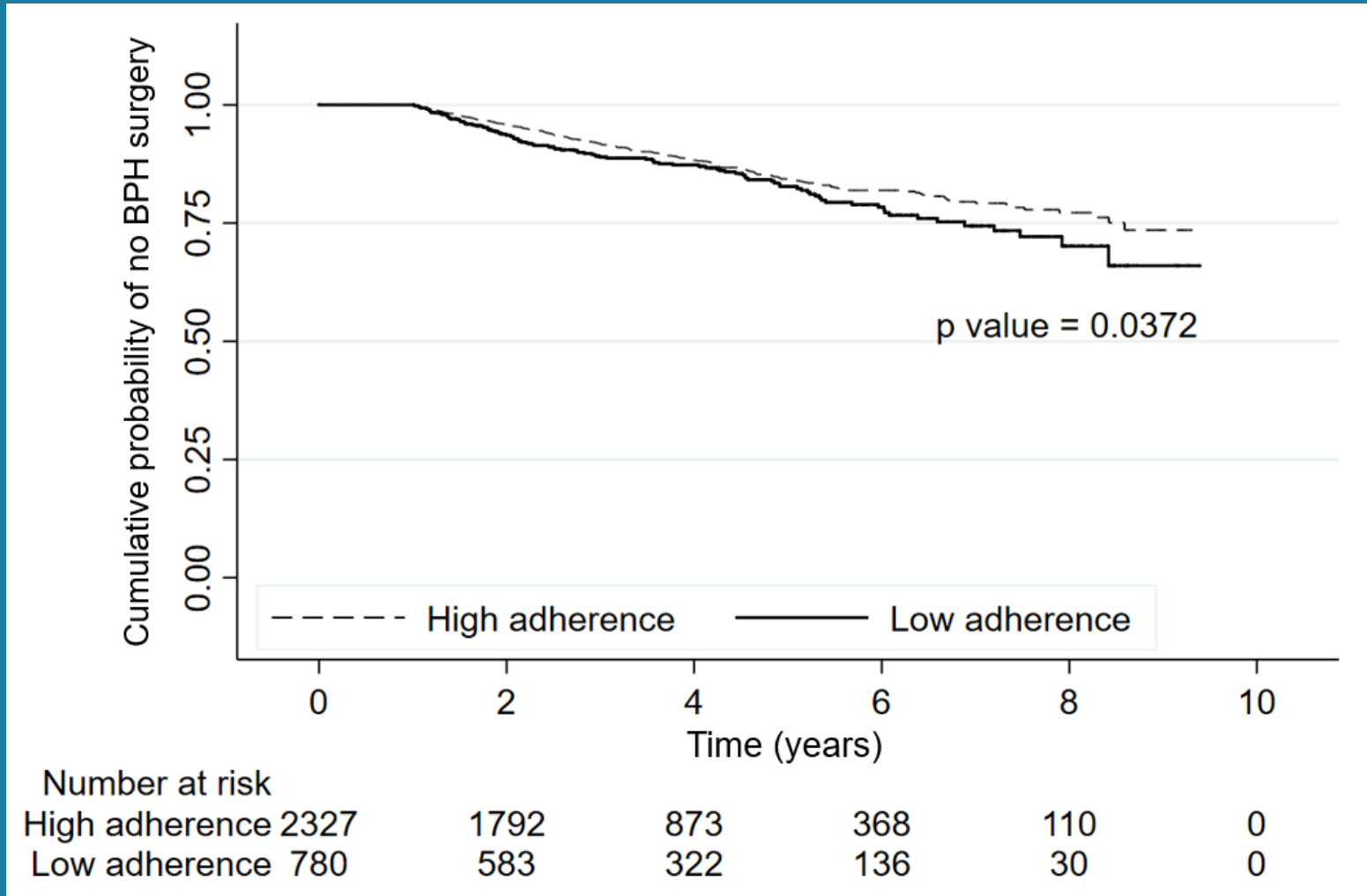
Characteristics	Values	(%)
No. patients	3107	
Medication adherence (first year)		
High (PDC \geq 0.8)	2327	74.9
Low (PDC $<$ 0.8)	780	25.1
Age (year)		
<70	554	17.8
70-79	1516	48.8
\geq 80	1037	33.4
Race		
White	2587	83.3
Others	225	7.2
Unknown	295	9.5

Table 1: Patient demographics and clinical characteristics

Characteristics	Values	(%)
Presence of hematuria		
No	2859	92.0
Yes	248	8.0
Presence of bladder stone		
No	3004	96.7
Yes	103	3.3
Type of 5ARIs		
Dutasteride	339	10.9
Finasteride	2768	89.1
Combined therapy		
No	2855	91.9
Yes	252	8.1
Comorbidity		
Diabetes	283	9.1
Hypertension	729	23.5
Mental Disorder	110	3.5
Erectile dysfunction	96	3.1

- Patients with low adherence had 29% higher hazards of undergoing surgical intervention (95% confidence interval [CI]: 1.02 to 1.59, $p = 0.036$) after adjusting for age, BPH severity, the presence of hematuria, bladder stones, and type of 5ARIs.
- The presence of bladder stones (hazard ratio [HR] = 1.70, 95% CI: 1.02 to 2.86, $p = 0.04$) and finasteride vs. dutasteride use (HR = 1.41, 95% CI: 1.01 to 1.98, $p = 0.05$) were also risk factors for surgical intervention.

Cumulative probability of no BPH Surgery stratified by 5ARI adherence:



- Claims-based nature of data allows large population sample and pharmacy fill information but there is risk of misclassification
- Lack of clinical data regarding urinary flow and patient symptoms
- Future work is needed to confirm that in other systems high adherence is also observed among these older men

- Among Medicare patients, 5ARI treatment adherence was very high ~75%
- Adherence to 5ARI therapy is associated with 29% reduced hazards of surgical intervention
- 5ARI therapy may be more feasible for older men with BPH than previously reported

Please see our full manuscript in press at *Journal of Urology*, available at:
<https://doi.org/10.1097/JU.0000000000001014>