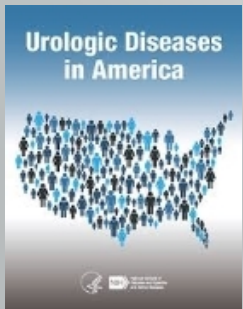


Abstract #PD33-06

National Prescribing Trends in Lower Urinary Tract Symptoms Associated with Benign Prostatic Hyperplasia

Kevin T. McVary¹, Lydia Feinstein², Julia Ward², Chyng-Wen Fwu², Ziya Kirkali³, Tamera G. Bavendam³, Brian Matlaga⁴, and Charles Welliver⁵

¹Loyola University Medical Center, Center for Male Health, Maywood, IL, ²Social and Scientific Systems, Silver Spring, MD, ³National Institutes of Health, Bethesda, MD, ⁴Johns Hopkins University, Baltimore, MD, ⁵Albany Medical College, Albany, NY



LOYOLA
MEDICINE

Center for Male Health

Benign Prostatic Hyperplasia/Lower Urinary Tract Symptoms

- Chronic disease causing significant morbidity and QOL impairment
- Treated with behavioral, pharmacologic and surgical interventions
- Management has evolved
- Our current knowledge of treatment trends is incomplete

Aim: To characterize current trends in medical therapy for BPH/LUTS in the US based on insurance claims data



LOYOLA
MEDICINE

Center for Male Health

The Urologic Diseases in America Project

- Federally sponsored collaboration between



- Two data sources
 - Optum de-identified Clinformatics Data Mart Database (men 40-64 years)
 - Administrative database for 15-18 million individuals with commercial insurance
 - Centers for Medicare & Medicaid Services Medicare 5% Sample (men 65+ years)
 - Sample of Medicare beneficiaries representative of the full population



Methods

- Patients identified using ICD-9-CM codes.
- Diagnoses and procedures: ICD-9-CM and CPT codes
- Yearly analysis
 - Patients were categorized by 5-year age groups



LOYOLA
MEDICINE

Center for Male Health

UDA: 10-Year Data Overview



LOYOLA
MEDICINE

Center for Male Health

Objective

- Our understanding of trends in management of LUTS/BPH is incomplete - particularly for younger men.
- 2018 UDA Project fills this gap by analyzing multiple large administrative claims databases that include men of all ages and permit longitudinal follow-up.

Key elements of the study design

- Optum de-identified Clinformatics Data Mart Database for men 40-64 yo
- Medicare 5% Sample for men 65+ yo.
- Trends in LUTS/BPH-related medication prescriptions and surgical procedures from 2004-2013
- We created annual cross-sectional cohorts
- Longitudinal cohort of incident LUTS/BPH patients with 5 years of F/U

[Trends in LUTS/BPH, 2004-2013: The Urologic Diseases in America Project.](#) Welliver C, Feinstein L, Ward JB, Fwu CW, Kirkali Z, Bavendam T, Matlaga BR, McVary KT; Urologic Diseases in America Project. Journal of Urology, August 2019

Cohorts

- **Yearly cross section cohort** from years 2004-2013
 - BPH related ICD9 code
 - Surgical CPT codes
 - Use: disease prevalence, procedure usage
- **Longitudinal cohort**
 - No previous BPH code for 3 years with diagnosis in 2009
 - Then followed for 5 years
 - Use: Rate of treatment usage

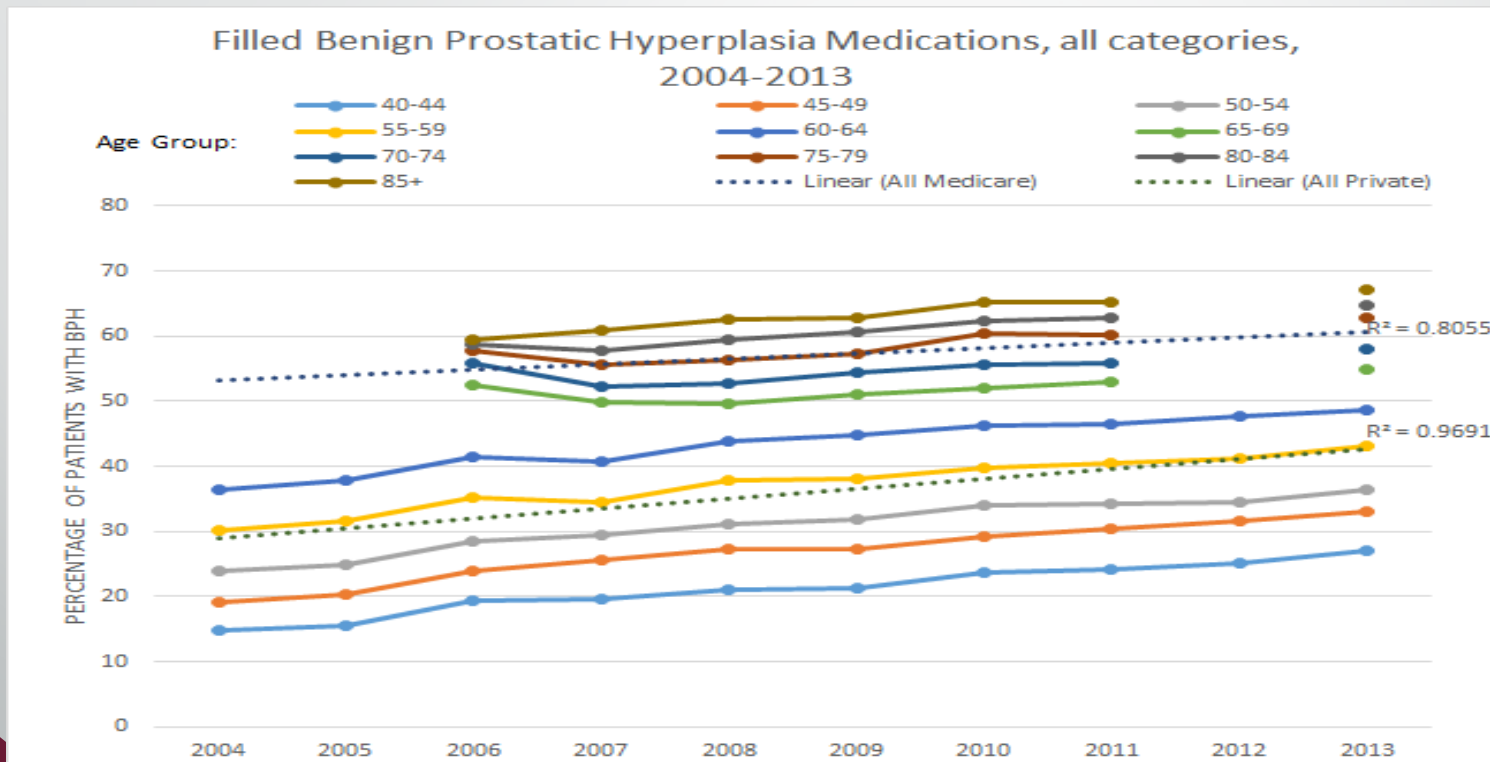


LOYOLA
MEDICINE

Center for Male Health



Yearly cross-sectional cohort





Longitudinal Cohort

Rate of LUTS/BPH prescriptions among Optum[®] Clinformatics[®] Data Mart enrollees and Medicare beneficiaries^a with incident LUTS/BPH in the Longitudinal Cohort, 2009-2013^b

	Number of LUTS/BPH patients with prescription ^c	Person-years	Rate ^d
Age (years) in 2009			
40 - 49	593 ^e	5,820	10.2
50 - 59	1,901	12,579	15.1
60 - 64	1,871	5,895	31.7
65 - 75	41,060	162,640	25.2
75 - 84	42,420	130,860	32.4
85+	14,260	36,340	39.3



Medication trends

Medicare population (65+): 2006-2013

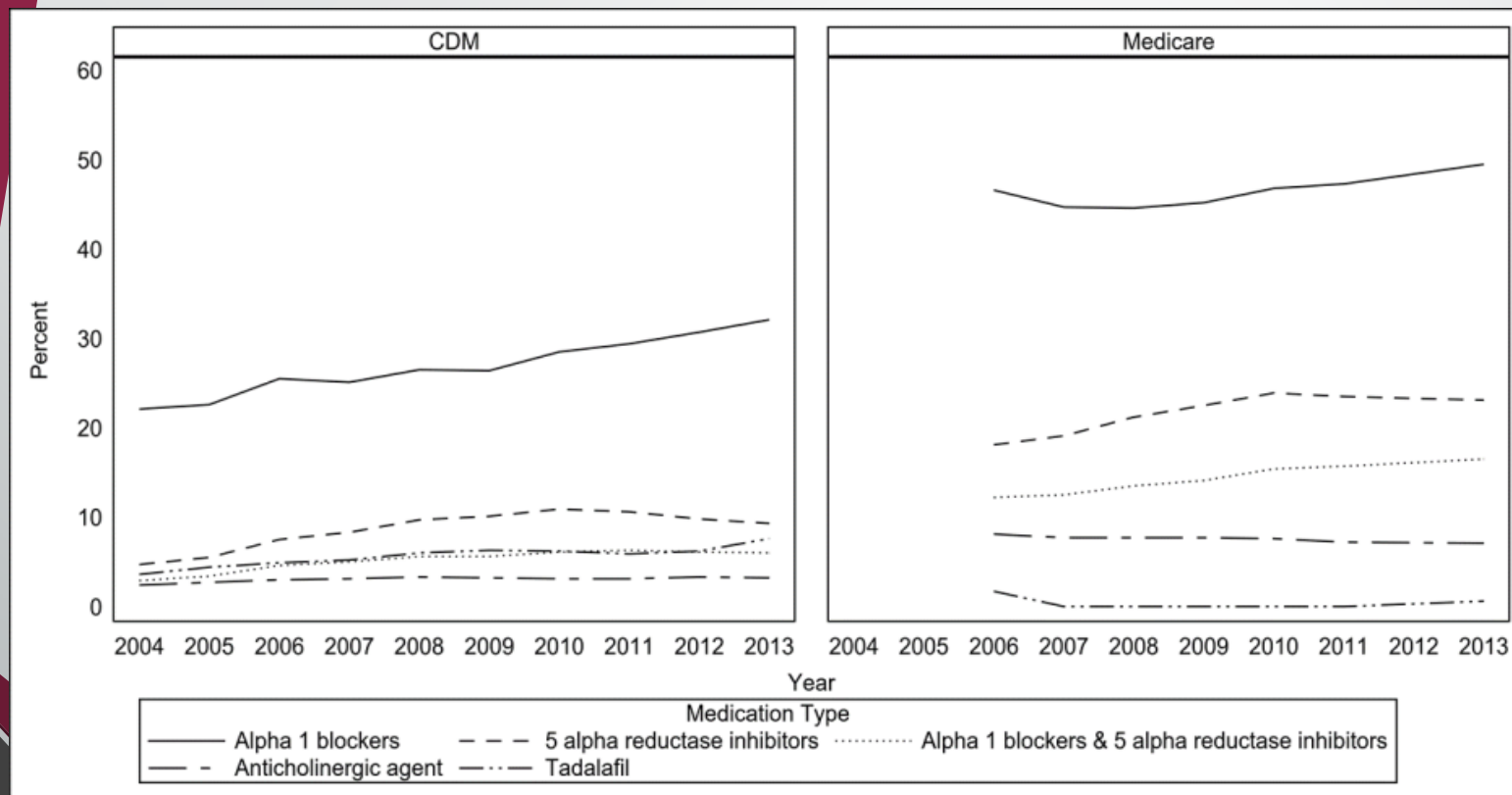
- Alpha blockers (46.7% → 49.6%)
- 5-Alpha reductase inhibitors (18.2% → 23.2%)
- Combination therapy (12.3% → 16.6%)
- Anticholinergic agents (8.2% → 7.2%)
- Phosphodiesterase 5 inhibitors (1.8% → 0.7%)
- Beta 3-agonists (0% → 0.6%)

Private insurance population (40-64): 2004-2013

- Alpha blockers (22.2% → 32.2%)
- 5-Alpha reductase inhibitors (4.8% → 9.4%)
- Combination therapy (3.0% → 6.1%)
- Anticholinergic agents (2.5% → 3.3%)
- Phosphodiesterase 5 inhibitors (**3.7% → 7.7%**)
- Beta 3-agonists (0% → 0.3%)



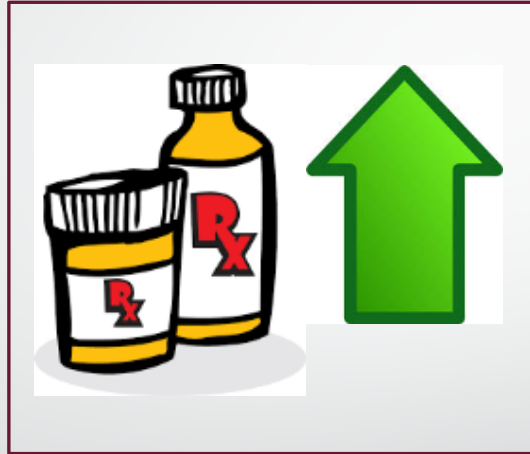
Medication trends



Distribution of first treatment within 5 years of follow-up with incident LUTS/BPH Longitudinal Cohort, 2009-2013

		No treatment		Medication		Surgery	
		N‡	%	N	%	N	%
Age (years) in 2009							
	40 - 49	1,228	67.4	593	32.6	0	0.0
	50 - 59	2,637	58.0	1,891	41.6	22	0.5
	60 - 64	2,321	55.0	1,860	44.1	36	0.9
	65 - 74	31,460	42.8	40,500	55.2	1,480	2.0
	75 - 84	27,780	39.0	41,500	58.2	2,040	2.9
	85+	11,720	44.5	13,860	52.6	760	2.9

BPH/LUTS Management is Evolving





Conclusions

- Treatment approaches for LUTS/BPH vary greatly by age.
- Medication usage increased, and surgery decreased over the study period.
- As a result, men were more likely to proceed to surgery at an older age when surgical outcomes may be less ideal.

Summary

'tis with our judgements, just as
our watches none go just alike,
yet each believes his own

- Alexander Pope

London, May 1711



LOYOLA
MEDICINE

Center for Male Health

Thank you!



LOYOLA
MEDICINE

Center for Male Health