



Male Voiding LUTS

Suresh Venugopal, MS, FICS, FRCS Urology

ST7 Urology

Sheffield Teaching Hospitals

Sheffield



Overview

- Case discussion
- Terminologies
- Tools for evaluation
- Management algorithm
- NICE guidelines
- Newer agents

A population's need for LUTS treatment Somerset, UK.



- 3540 community men
- LUTS Prevalence = 256/1000
- Estimated that in 250,000
 - 482 men would need hospital care
 - 3557 would need medical care

**Treagust, Morkane, Speakman. J Pub Health Med 2001; 23:
141-7**

Prevalence of LUTS – unmet need

Estimating population need for treatment of LUTS

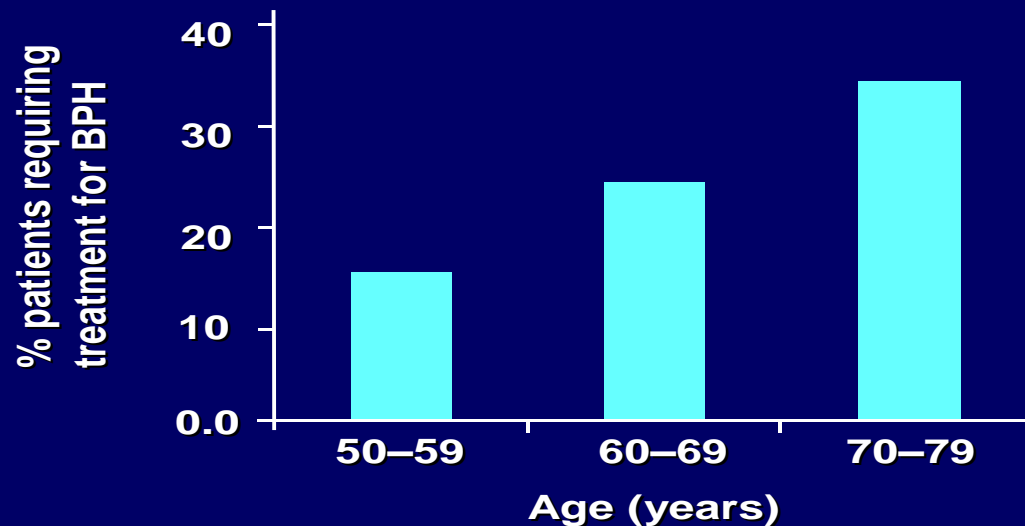
■ 25% - moderate to severe symptoms

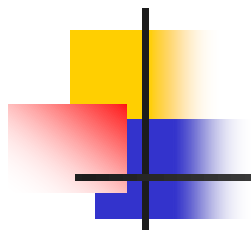
Age	n	% Bother
40-49	60	60
50-59	91	59
60-69	124	61
70-79	91	56
80+	20	75

Treagust J, Morkane T, Speakman MJ J. Pub Health Med. 1991

Olmstead County study

Number of Patients Requiring Treatment for BPH





CASES

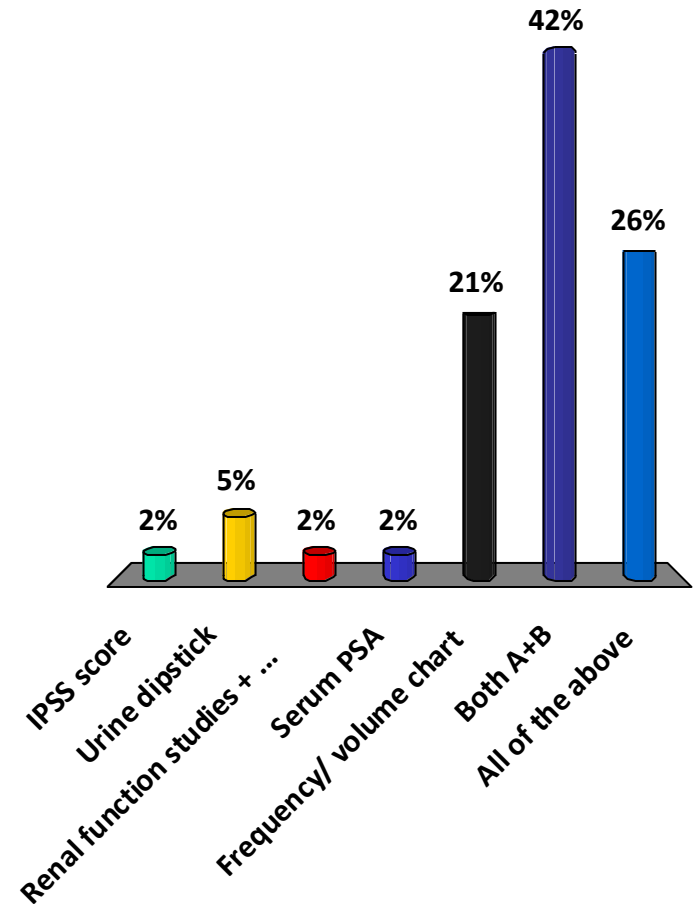


Case 1

- 70/M - symptoms of frequency, straining to void, post-void dribble, and nocturia X3. These symptoms are bothersome to the patient.
- The rest of his history is unremarkable.
- Examination – NAD
- DRE – mild enlargement of prostate.

Case 1-what next?

- A. IPSS score
- B. Urine dipstick
- C. Renal function studies + imaging of upper tract
- D. Serum PSA
- E. Frequency/ volume chart
- F. Both A+B
- G. All of the above



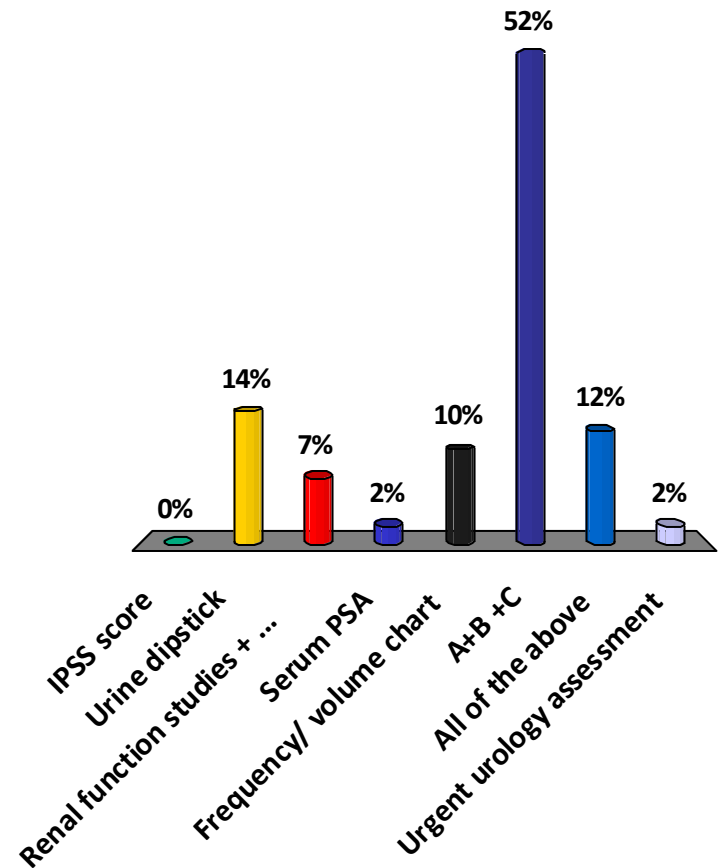


Case 2

- 70/M – symptoms of frequency, post void dribble, New nocturnal enuresis.
- The rest of history unremarkable except patient feels he is putting on weight around the waist.

Case 2-what next?

- A. IPSS score
- B. Urine dipstick
- C. Renal function studies + imaging of upper tract
- D. Serum PSA
- E. Frequency/ volume chart
- F. A+B +C
- G. All of the above
- H. Urgent urology assessment



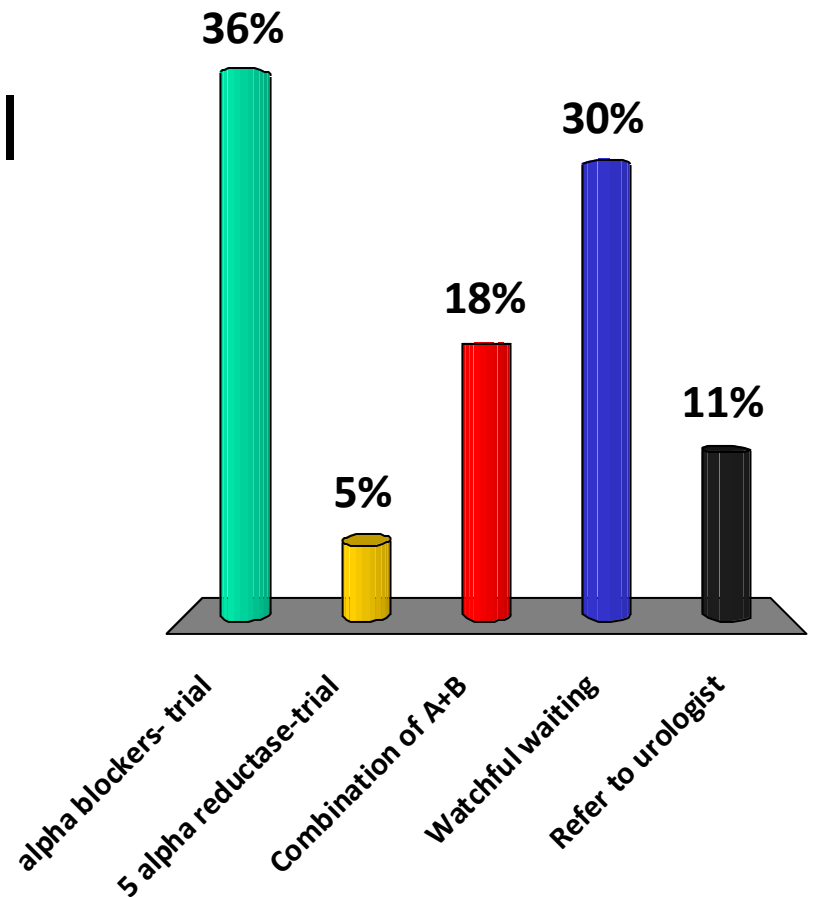


Case 3

- 55/M symptoms of frequency, mild straining to void, and nocturia X2 (IPSS = 5).
- These symptoms are not bothersome to the patient.
- The rest of his history is unremarkable.
- His physical examination reveals a mildly enlarged prostate.
- The rest of his exam is normal.

Case 3 – what next?

- A. alpha blockers- trial
- B. 5 alpha reductase-trial
- C. Combination of A+B
- D. Watchful waiting
- E. Refer to urologist





Case 4

60 / M-year-old with severe LUTS (IPSS = 30).

- Symptoms

- Poor stream,
- straining to void,
- feeling of incomplete emptying
- nocturia X3.

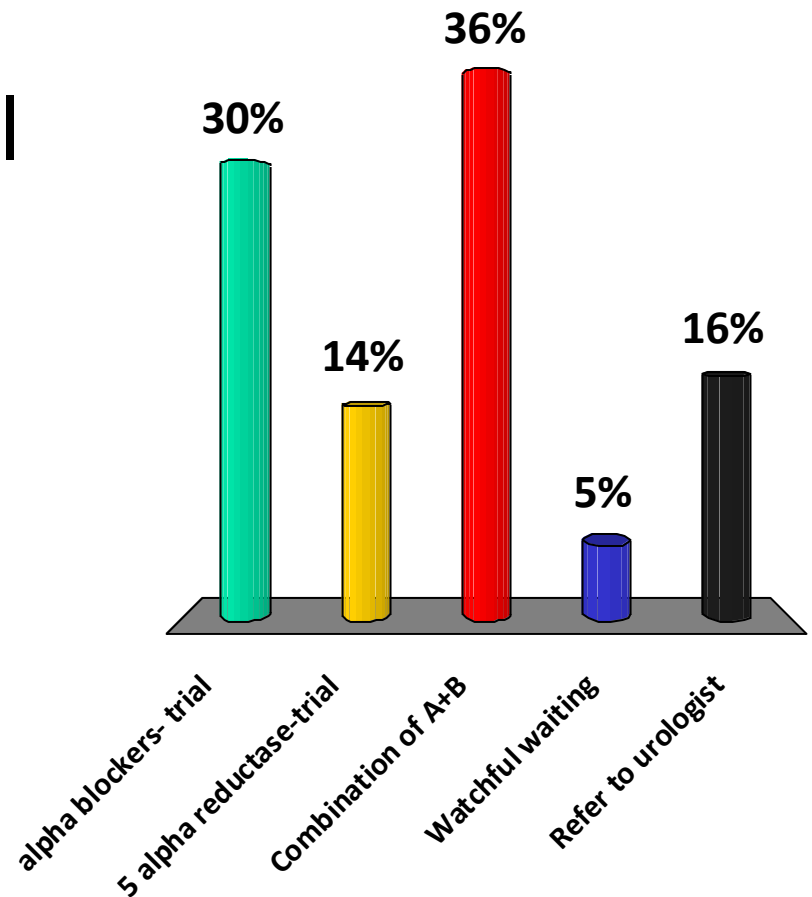
- He is bothered by the symptoms. His QOL score is poor and 4 using a 1-6 scale.

- The rest of his history is unremarkable.

- General examination normal. External genitalia – NAD. DRE – very large prostate.

Case 4 – what next?

- A. alpha blockers- trial
- B. 5 alpha reductase-trial
- C. Combination of A+B
- D. Watchful waiting
- E. Refer to urologist





Case 5

- 75-year-old with moderate voiding LUTS (IPSS = 19). His quality of life is poor with a score of 5/6.
- Symptoms are moderately bothersome.
- His medical history is significant for hypertension, heart disease, and diabetes.

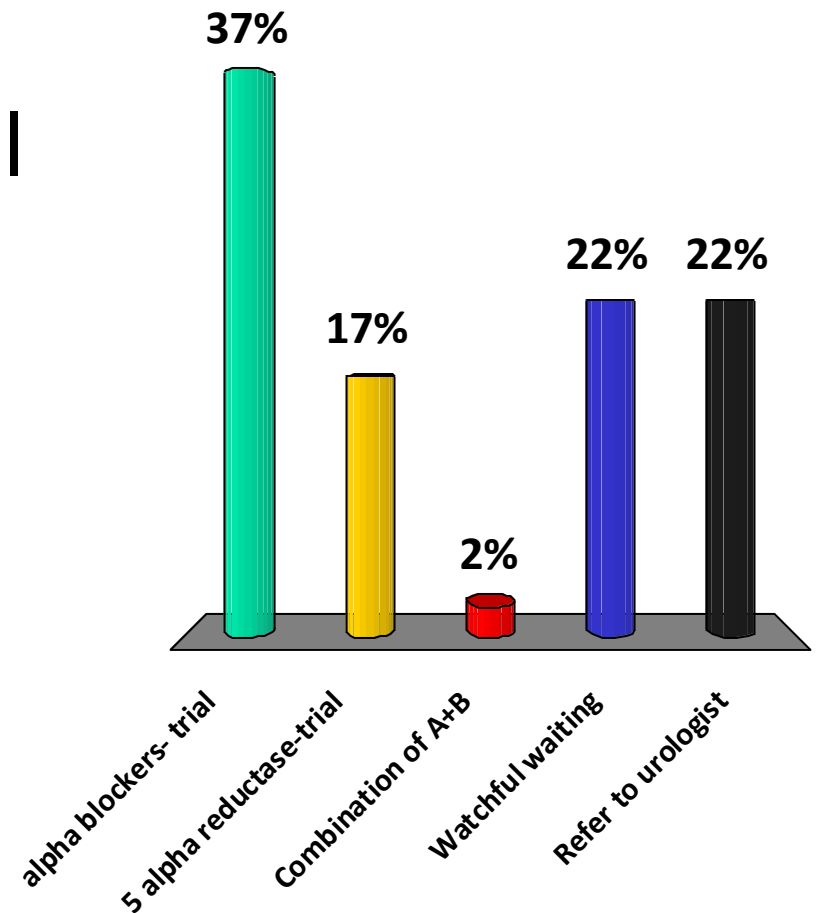


Case 5

- Multiple medications - diuretics, ACE inhibitors, and statins.
- His urine analysis is normal. His residual urine measured by ultra sound is 60 cc. His prostate size is small.

Case 5 – What next?

- A. alpha blockers- trial
- B. 5 alpha reductase-trial
- C. Combination of A+B
- D. Watchful waiting
- E. Refer to urologist





Case 6

- 67/M – presents with symptoms of severe urgency & increased frequency. Also says his stream is not good and feels like he has to stand longer to complete his void and sometimes needs to have a second void.
- General and abdo examination unremarkable.

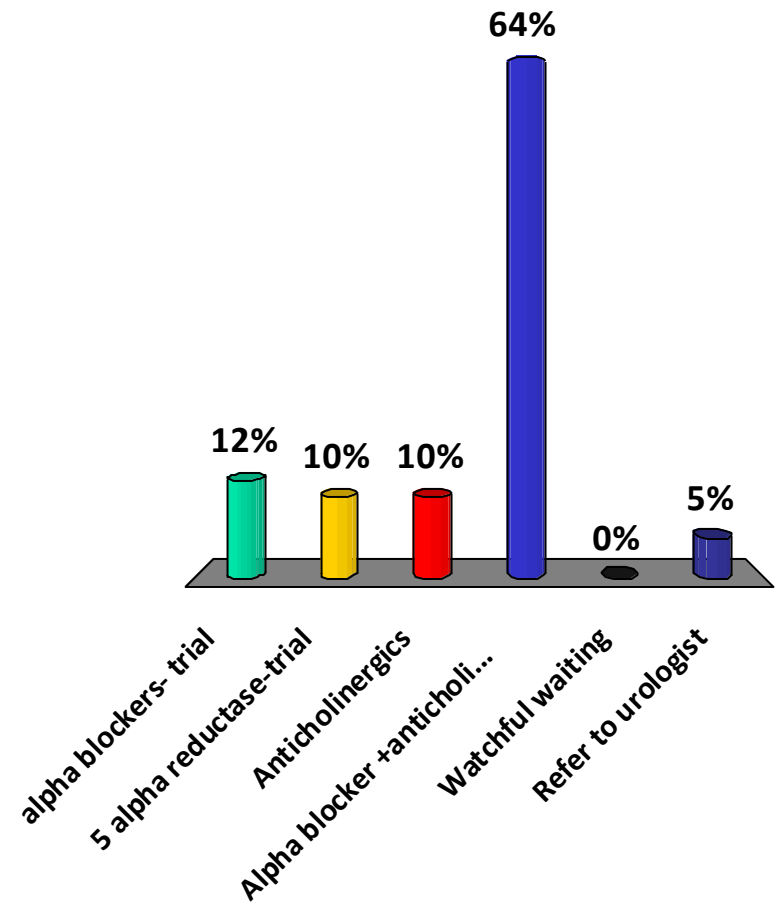


Case 6

- DRE – moderately enlarged prostate
- Urine dipstick - negative

Case 6 – What next?

- A. alpha blockers- trial
- B. 5 alpha reductase-trial
- C. Anticholinergics
- D. Alpha blocker +anticholinergic
- E. Watchful waiting
- F. Refer to urologist



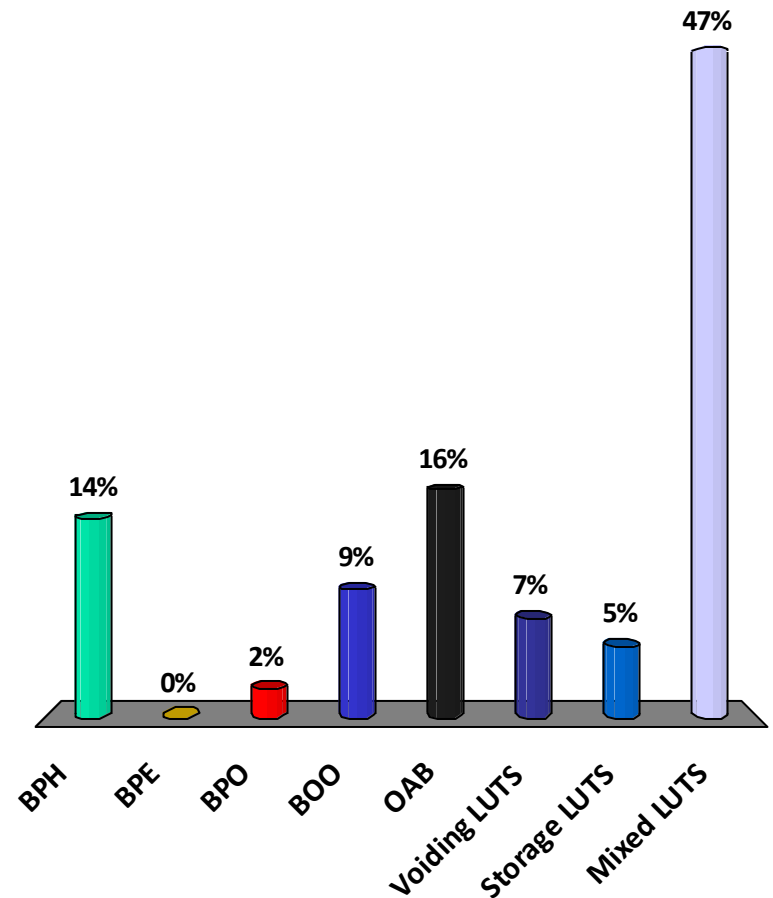


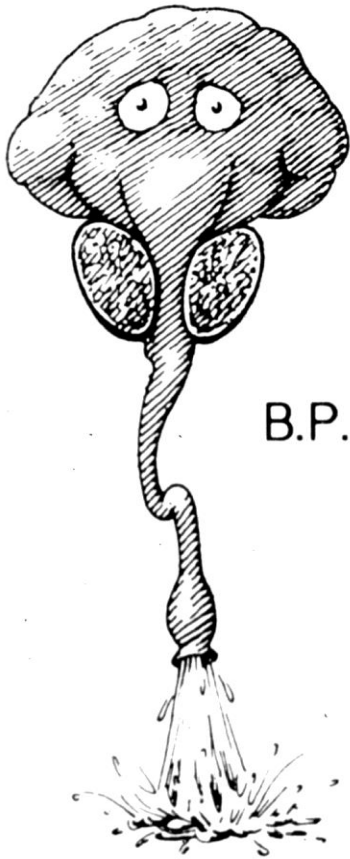
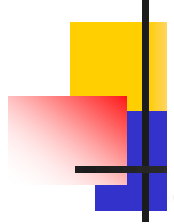
Terminologies

- A 65/ M presents for a dyslipidemia follow-up visit.
- During the visit, the patient jokes about waking up too frequently at night to urinate, saying, “Price to pay to get old.”
- When questioned further, he reveals his symptoms as nocturia X2, frequent urges to urinate during the day, occasional leakage, and a weak urine stream with postmicturition dribbling. He reports no blood in the urine or bladder pain and he is not diabetic.

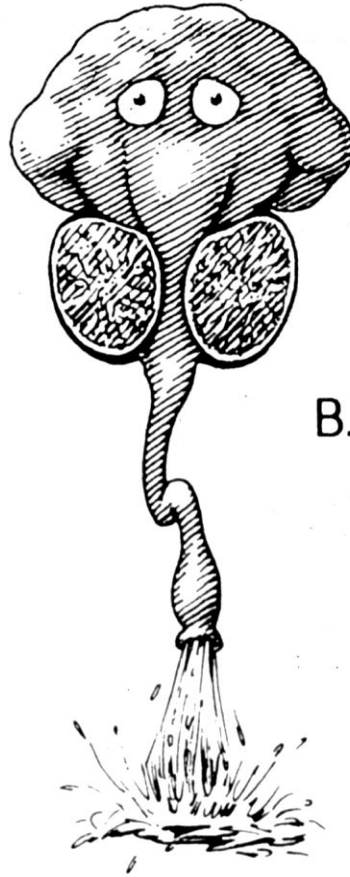
What Urinary symptoms has he got?

- A. BPH
- B. BPE
- C. BPO
- D. BOO
- E. OAB
- F. Voiding LUTS
- G. Storage LUTS
- H. Mixed LUTS

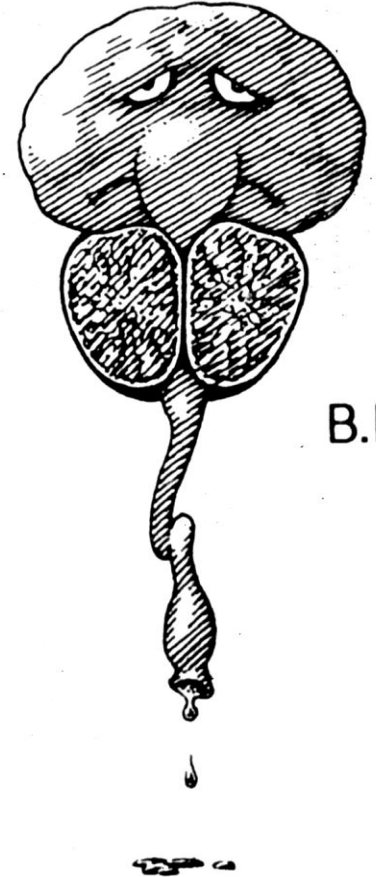




B.P.H.



B.P.E.



B.P.O.

What might cause the symptoms

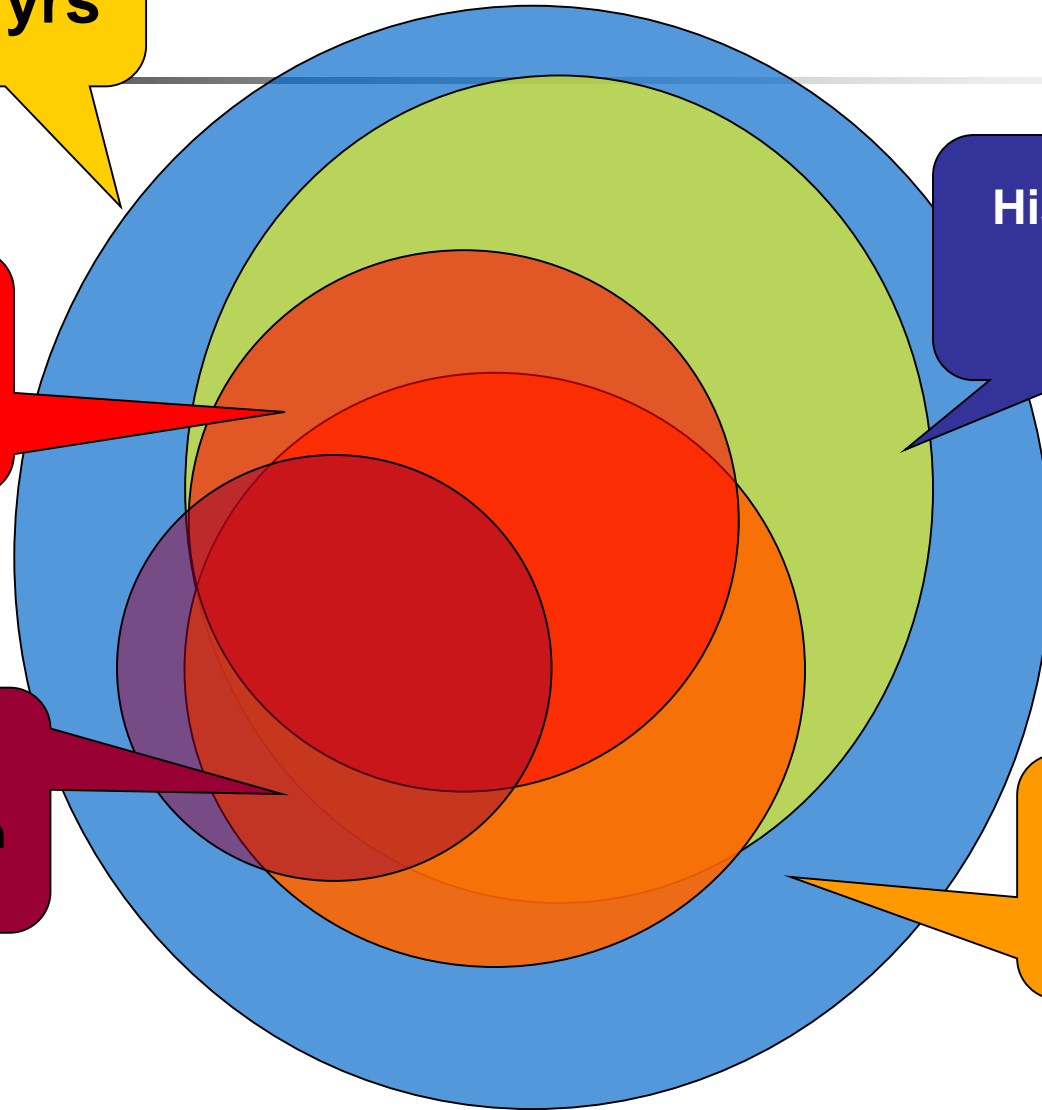
**All Men
> 40 yrs**

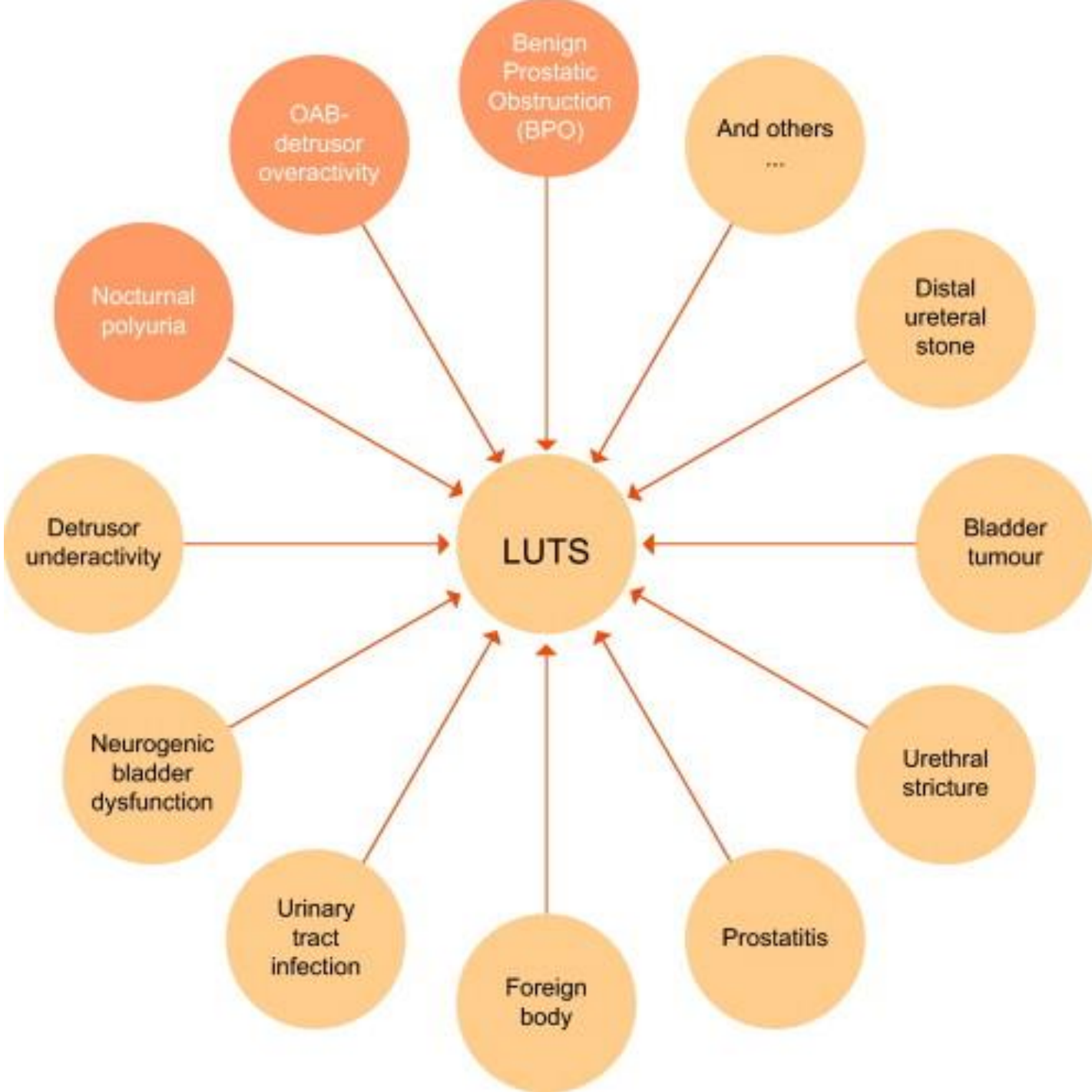
**BPE
Enlargement**

**Histologic
BPH**

**BOO
Obstruction**

**LUTS /
Bother**





EAU Guidelines
Male LUTS 2014

Lower Urinary Tract Symptoms (LUTS)

Storage

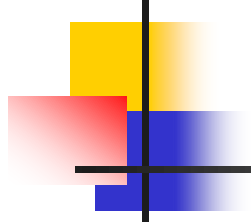
- Frequency
- Urgency
- Nocturia
- Incontinence

Voiding

- Slow stream
- Splitting or spraying
- Intermittency
- Hesitancy
- Straining
- Terminal dribble

Post-micturition

- Post-micturition dribble
- Feeling of incomplete emptying



TOOLS TO EVALUATE LUTS

International Prostate Symptom Score (IPSS)

1. Incomplete Emptying
2. Frequency
3. Intermittency
4. Urgency
5. Weak Stream
6. Straining
7. Nocturia

Mild – 0 to 7

Moderate – 8 to 19

Severe – 20 to 35

	INTERNATIONAL PROSTATE SYMPTOM SCORE (I-PSS)						
	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always	
1. During the past month, how often have you had a sensation of not emptying your bladder completely after you finished urinating?	0	1	2	3	4	5	
2. During the past month, how often have you had to urinate again less than 2 hours after you finished urinating?	0	1	2	3	4	5	
3. During the past month, how often have you stopped and started again several times when you urinated?	0	1	2	3	4	5	
4. During the past month, how often have you found it difficult to postpone urination?	0	1	2	3	4	5	
5. During the past month, how often have you had a weak stream?	0	1	2	3	4	5	
6. During the past month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5	
7. During the past month, how many times did you typically get up to urinate between the time you went to bed at night until the time you got up in the morning?	0	1	2	3	4	5	
Total I-PSS Score S =							
QUALITY OF LIFE DUE TO URINARY SYMPTOMS							
	Delighted	Pleased	Mostly satisfied	Mixed (about equally satisfied and dissatisfied)	Mostly dissatisfied	Unhappy	Terrible
If you were to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that?							
Quality of Life assessment =							
<small>Source: Barry MJ, Fowler FJ Jr, O'Leary MP, Bruskewitz RC, et al. The American Urologic Association Symptom Index for Benign Prostatic Hyperplasia. <i>Journal of Urology</i>. 1992;145:1549.</small>							



DRE

- What abnormality do I feel for?
- How do I estimate the prostatic volume?
- Is it reliable?



Name Date

	Day 1			Day 2			Day 3		
	In	Out	Wet	In	Out	Wet	In	Out	Wet
7 am									
8 am									
9 am									
10 am									
11 am									
12 pm									
1 pm									
2 pm									
3 pm									
4 pm									
5 pm									
6 pm									
7 pm									
8 pm									
9 pm									
10 pm									
11 pm									
Midnight									
1 am									
2 am									
3 am									
4 am									
5 am									
6 am									

Frequency volume chart

Measure and record the volume of drinks in the "in" column
Measure and record the volume of urine passed in the "out" column
Put a X in the "wet" column each time you leak urine





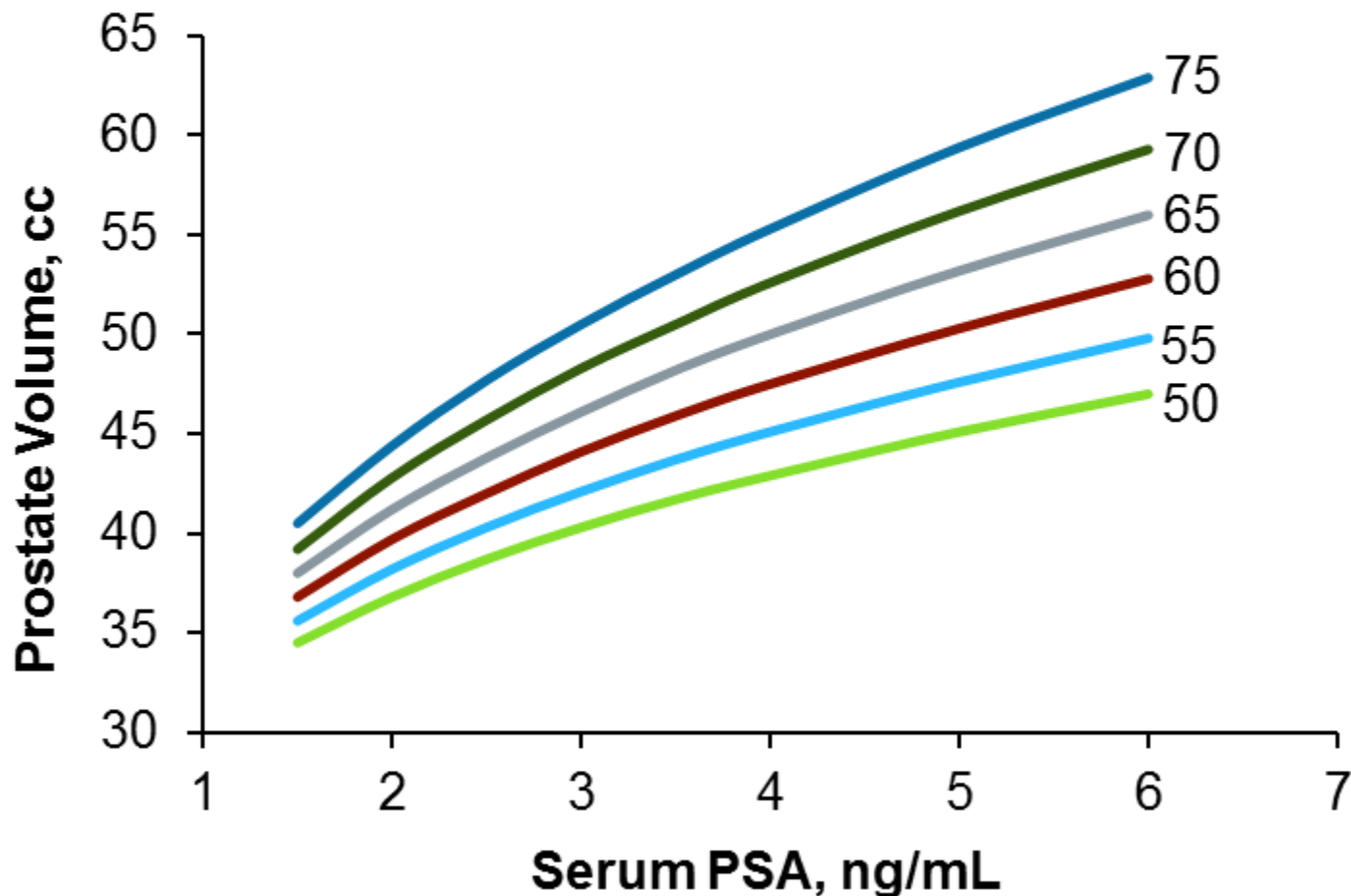
PSA

- PSA is a strong predictor of prostate volume and progression of LUTS and BPH
- Do it after appropriate counselling.

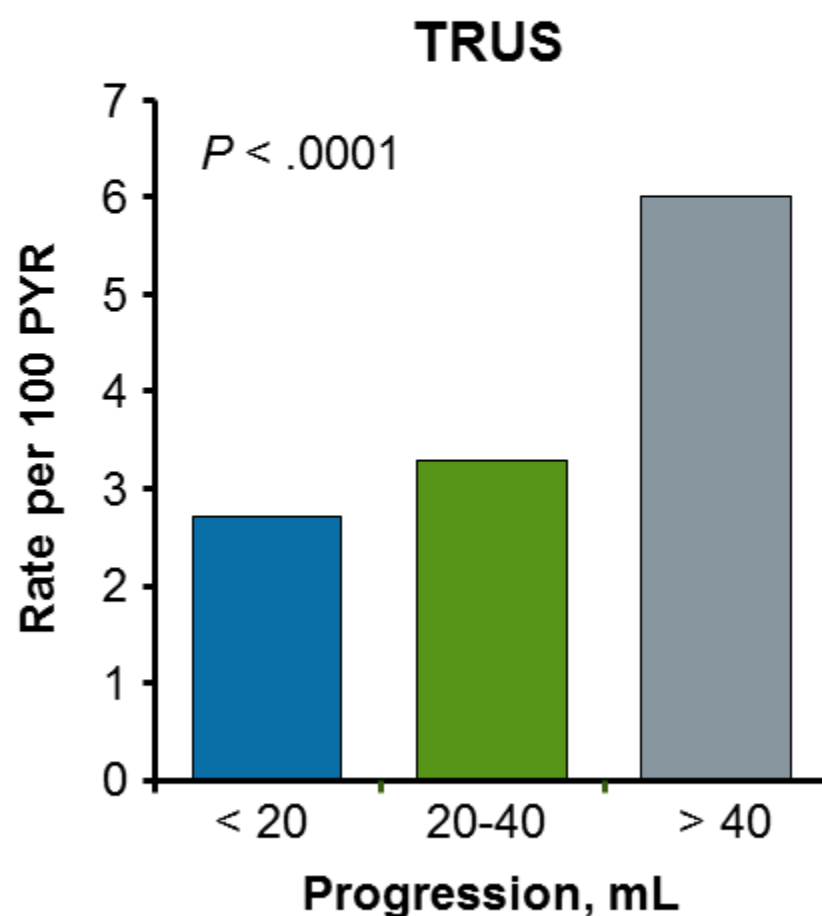
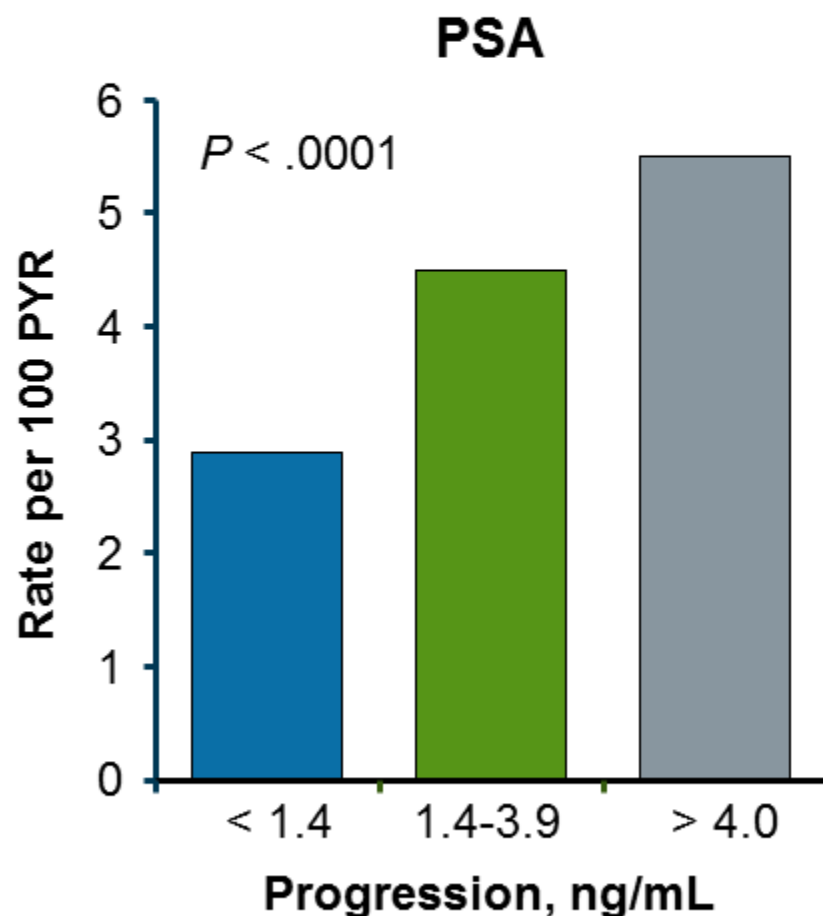
Offer men with LUTS information, advice and time to decide if they wish to have prostate specific antigen (PSA) testing if:

- ❖ **their LUTS are suggestive of bladder outlet obstruction secondary to BPE**
- ❖ **their prostate feels abnormal on DRE.**
- ❖ **they are concerned about prostate cancer**

Age-Influenced Linear Relationship Between Serum PSA and Prostate Size



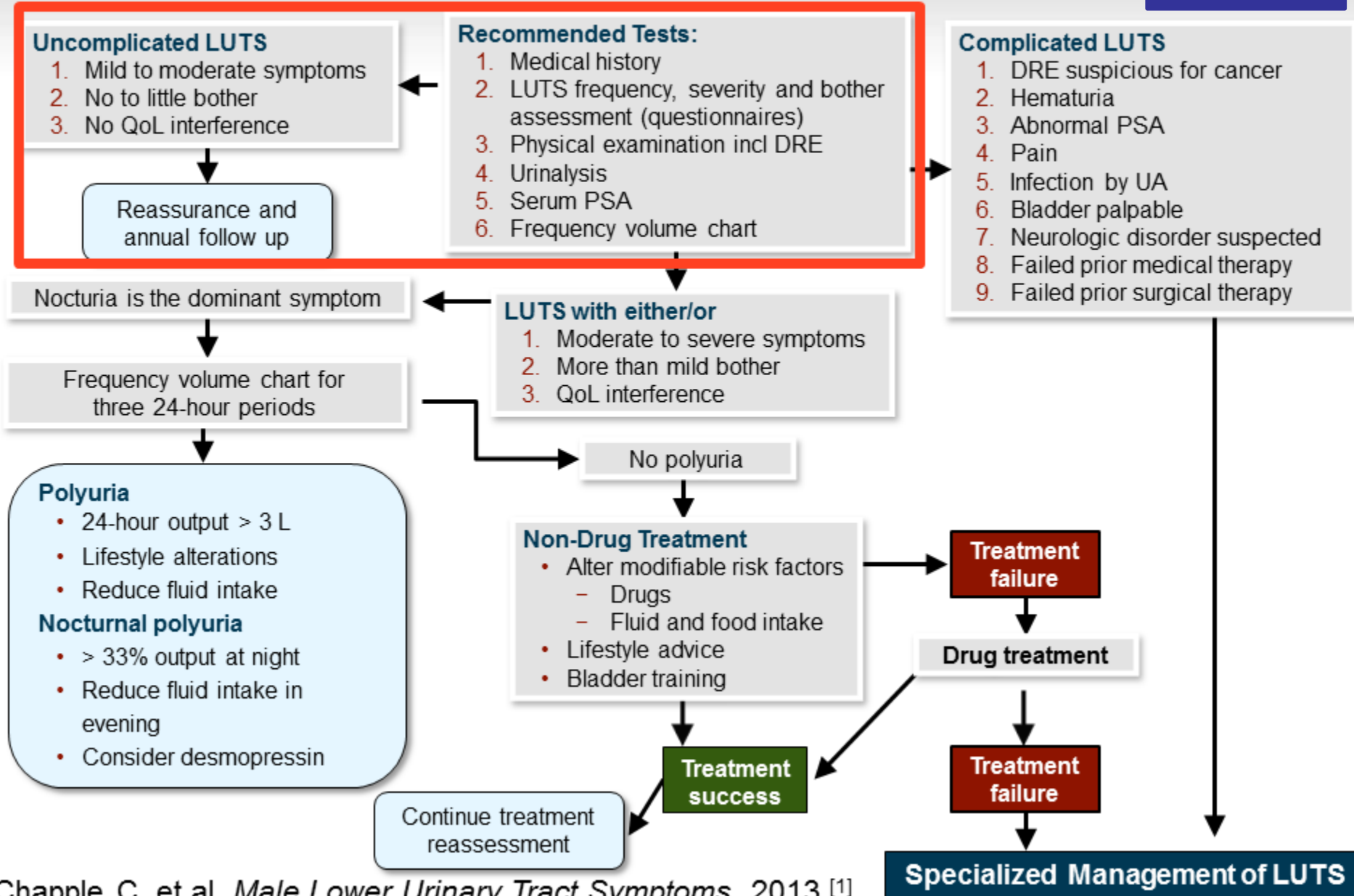
Association of Baseline PSA and TRUS Size With Risk of Overall Progression in Placebo Group of the MTOPS Study



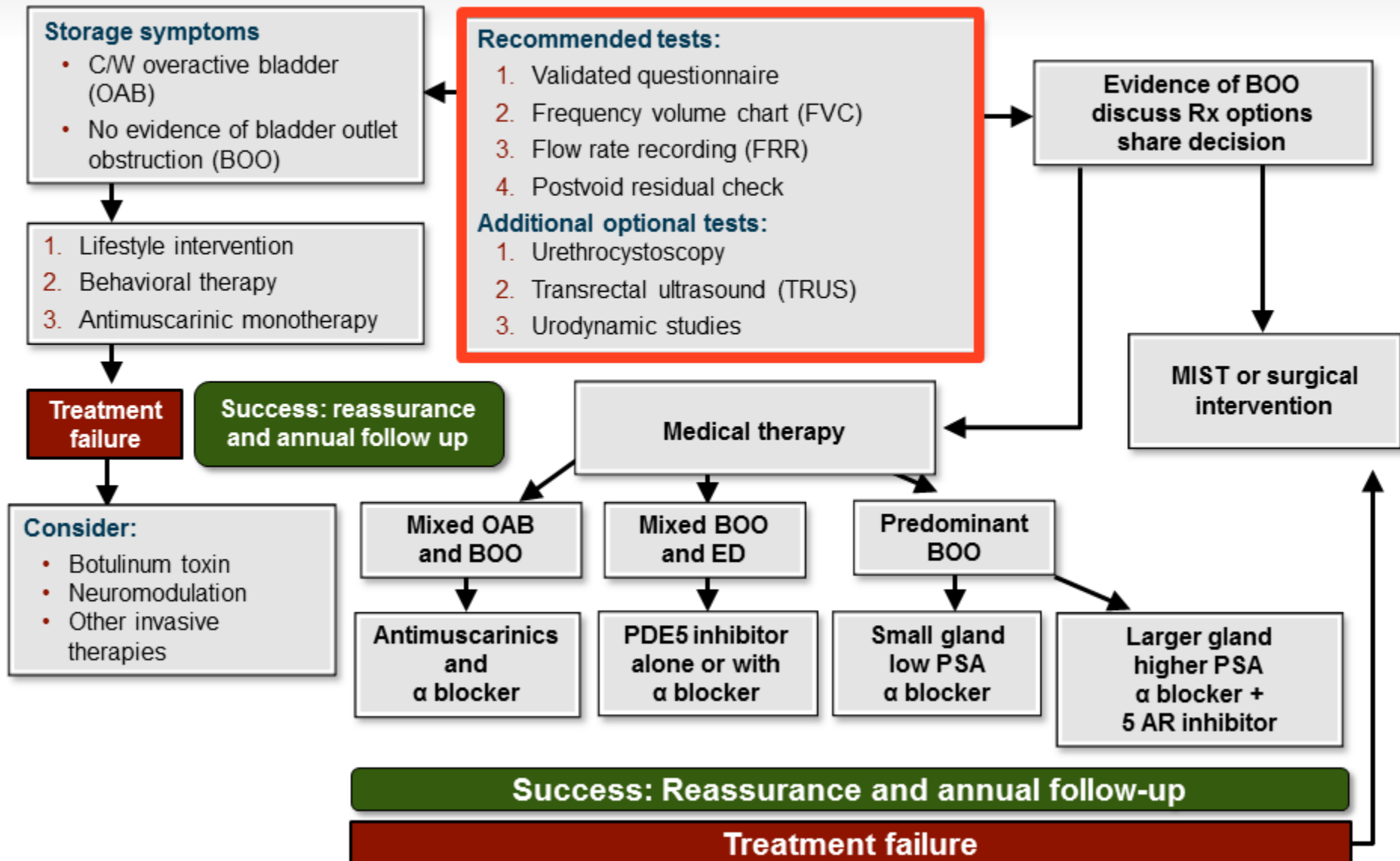
TRUS = transrectal ultrasound.

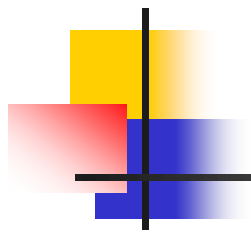
Roehrborn CG, et al. *Urology*. 1999;54:662-669.^[11]

Basic Management of Male LUTS



Specialized Management for Persistent Bothering Male LUTS After Basic Management





*National Institute for
Health and Clinical Excellence*

Quick reference guide

Issue date: May 2010

**The management of lower urinary
tract symptoms in men**

NICE clinical guideline XX
Developed by the National Clinical Guideline Centre: Acute and Chronic Conditions



Initial assessment: 1

- Assess general medical history. Identify possible causes of LUTS based on past medical history and current medications.
- Offer a physical examination guided by urological symptoms
- Complete urinary frequency volume chart



Initial assessment: 2

- **At initial assessment do not routinely offer:**
 - cystoscopy to men with uncomplicated LUTS
 - imaging of the upper urinary tract to men with uncomplicated LUTS
 - flow-rate measurement to men with LUTS
 - post void residual volume measurement to men with LUTS



Initial assessment: 3

- Refer men for specialist assessment if they have LUTS complicated by
 - recurrent or persistent UTI
 - retention,
 - renal impairment that is suspected to be caused by lower urinary tract dysfunction,
 - suspected urological cancer



Conservative management

- Offer men with storage LUTS temporary containment products to achieve social continence until a diagnosis and management plan have been discussed
- Offer men with storage LUTS suggestive of overactive bladder (OAB) supervised bladder training, advice on fluid intake, lifestyle advice and, if needed, containment products.

Surgery for voiding symptoms



DO: offer TURP, TUVP or HoLEP



DO NOT: offer TUNA, TUMT, HIFU, TEAP or laser coagulation as an alternative



Only consider offering laser vaporisation techniques, bipolar TUVP or monopolar or bipolar TURVP as part of a randomised clinical trial



Providing information

- Make sure men with LUTS have access to care that can help with their
 - emotional and physical conditions and relevant physical, emotional, psychological, sexual and social issues
- Provide men with storage LUTS (particularly incontinence) containment products at point of need, and advice about relevant support groups

Costs and savings per 100,000 population

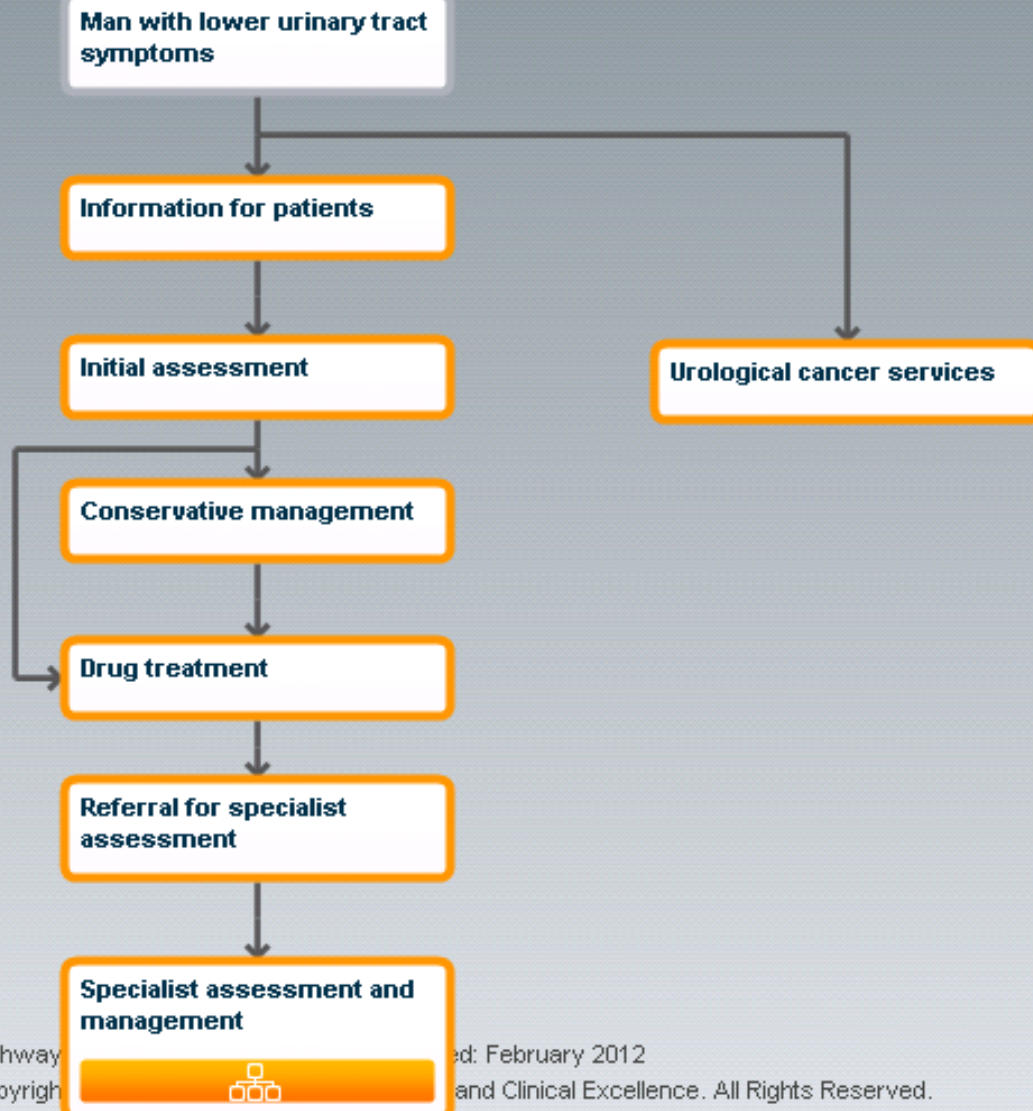
Recommendations with significant costs	Costs (£ per year)
Offering surgical treatment (TURP, TUIP, TUVF or HoLEP) for voiding LUTS	28,000
Offering temporary containment products to men with urinary incontinence	1000
Estimated cost of implementation	29,000
Recommendations with significant savings	Savings (£ per year)
Disinvesting minimally invasive treatments	16,000
Estimated saving of implementation	16,000

Costs correct at May 2010.
Costs not updated for 2nd
edition



Lower urinary tract symptoms in men overview

Lower urinary tract symptoms in men ▾



NICE Pathway

- The LUTS NICE pathway covers the management of lower urinary tract symptoms in men



New in NICE - 2014

- Use of PDE5 inhibitors for LUTS.
- Tadalafil 5mg once daily.

This Evidence Summary highlights that prescribing of tadalafil for erectile dysfunction in England is subject to statutory prescribing restrictions however, these prescribing restrictions do not apply to tadalafil when it is prescribed in primary care on the NHS for benign prostatic hyperplasia (Department of Health: personal communication October 2013).

Thank You!

