

THE MEDICAL MANAGEMENT OF LUTS

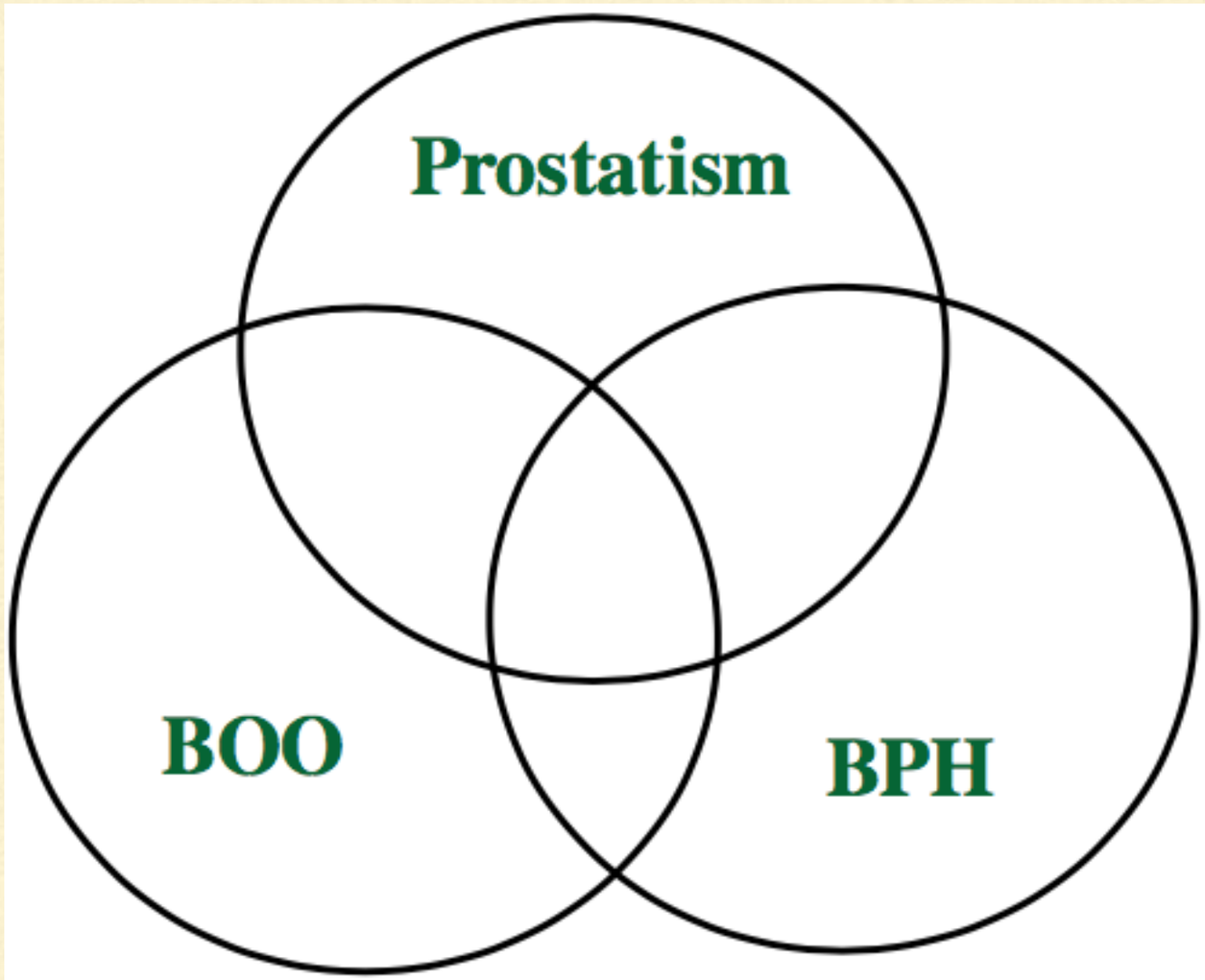
Philip James

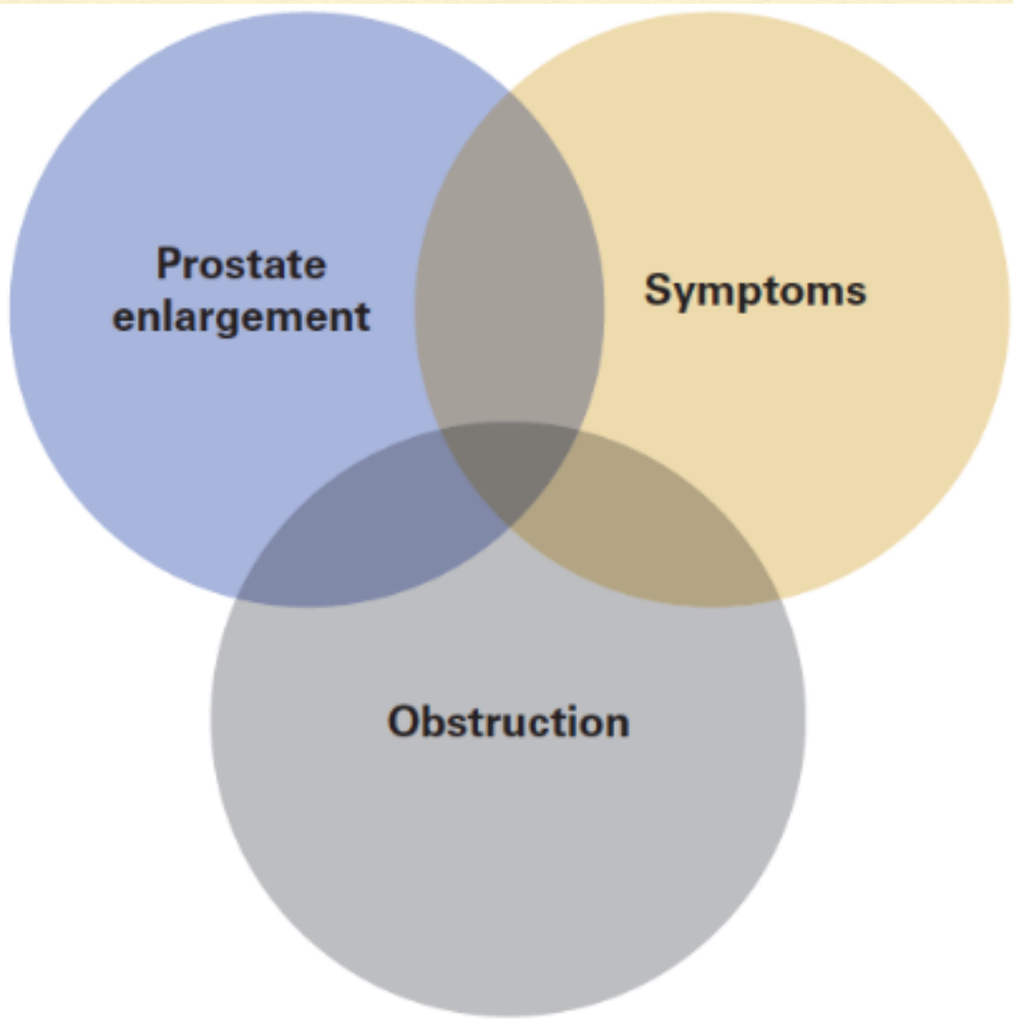
OBJECTIVES



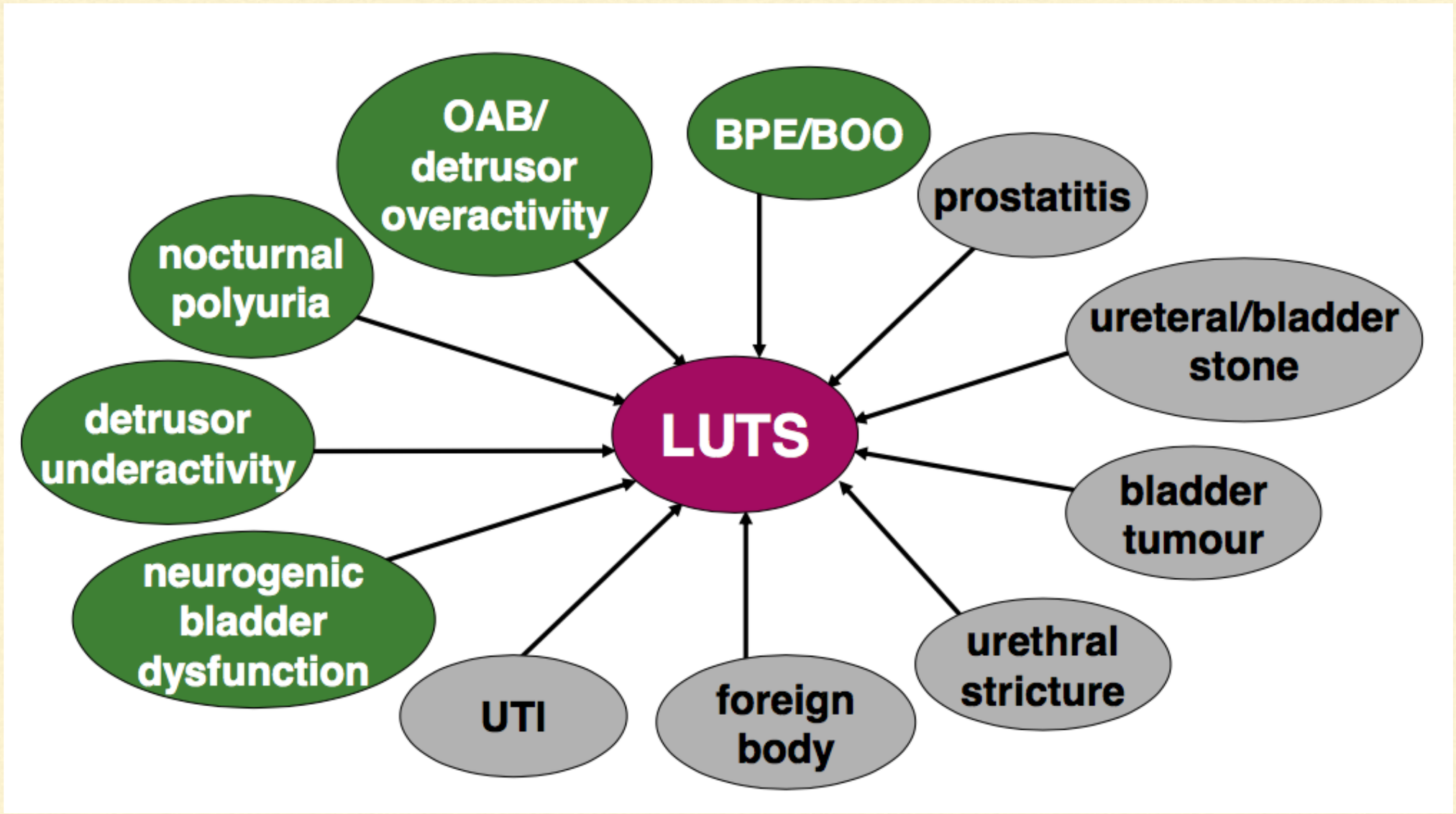
- What causes LUTS?
- What causes BPH?
- The diagnostic evaluation of male LUTS
- Management in Primary Care

WHAT CAUSES LUTS?





COMPLEX INTERPLAY OF UROLOGICAL CONDITIONS



ASSOCIATED WITH A VARIETY OF SYMPTOMS

Storage symptoms	Voiding symptoms	Post micturition symptoms
• Altered bladder sensation • Increased daytime frequency • Nocturia • Urgency • Urinary incontinence	• Hesitancy • Intermittency • Slow stream • Splitting/spraying • Straining • Terminal dribble	• Feeling of incomplete bladder emptying • Post micturition dribble

About 2/3 of men with LUTS have symptoms from more than one symptom group

DON'T FORGET THE PARTNER…

Worry that patient may have cancer	71%
Worry about patient's need for surgery	66%
Social life affected by patient's symptoms	47%
Become tired because of waking at night	42%
Worsening sex life	66%
Upset by the distress the partner suffers	66%
Sells et al. BJU Int 2000;85:440-5	

HISTORY

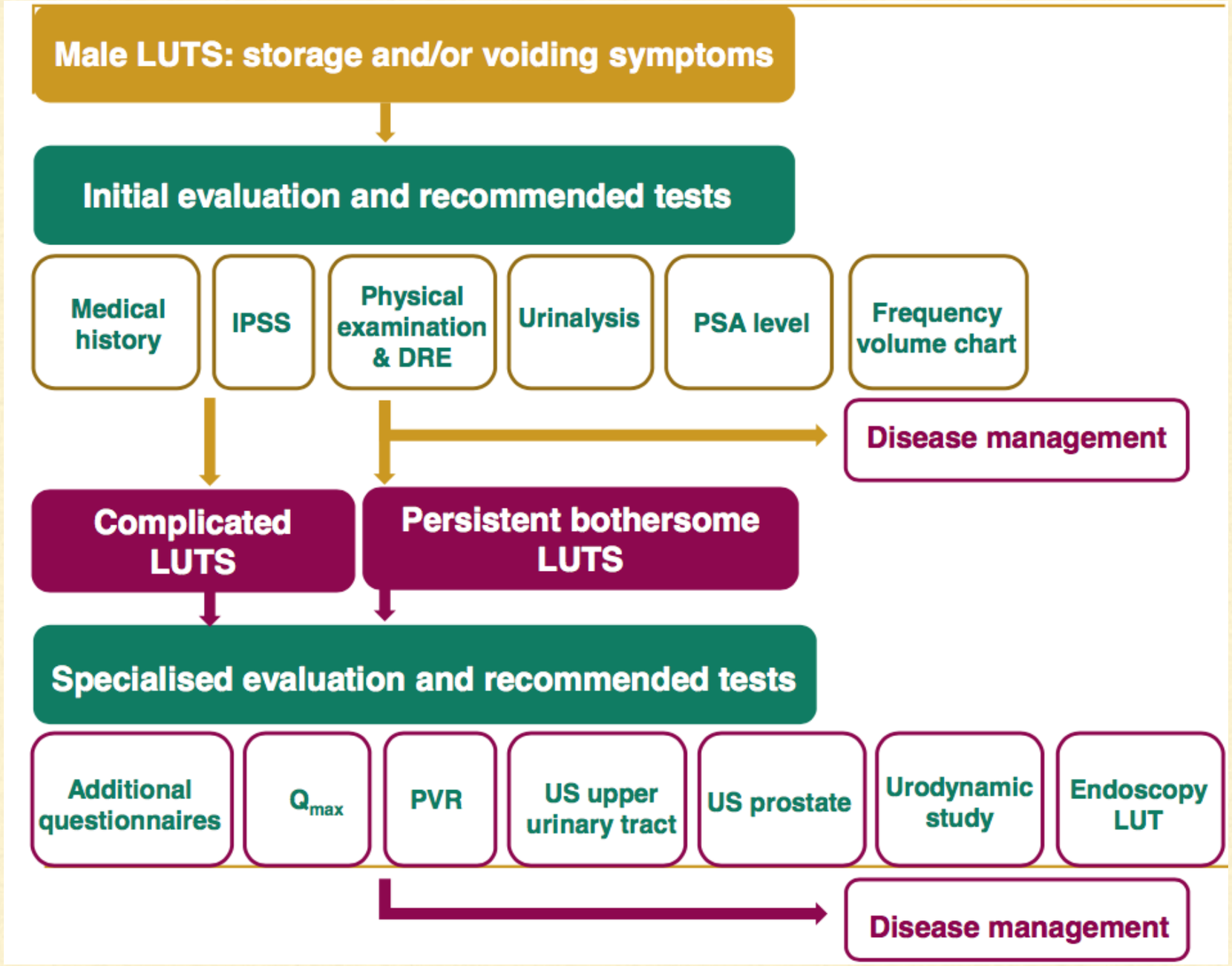
- Symptoms: Storage/ Voiding/ Post-micturition
  - Concerning features: Dysuria, haematuria, UTI, Nocturnal enuresis
- Duration/ Progression
- Impact on QoL
- Any trial of medication
- Risk factors: Age, Lifestyle (obesity/ lack of physical activity), FHx (RR increased x4)
- Any urological history/ history of pelvic surgery/ Neurological history

EXAMINATION



- General Urological Examination
- Palpable Bladder
- DRE: Prostate, anal tone, sensation
- Neurological disturbance (i.e. Parkinson's disease)

EVALUATION OF LUTS



IPSS (INTERNATIONAL PROSTATE SYMPTOM SCORE)

American Urological Association BPH Symptom Score Index Questionnaire

Having to urinate more frequently, as well as more urgently, can definitely interrupt the flow of your day. You should know that frequent urination is often a symptom of benign prostatic hyperplasia (BPH), a noncancerous enlargement of the prostate gland. BPH is a common condition among men over the age of 50. Waking up several times a night to urinate and having a weaker, slower, or delayed urine stream are other common symptoms.

Patient Name **Date**

Circle the number that best applies to you.

	Not at all	Less than 1 time in 5	Less than 1/2 the time	About 1/2 the time	More than 1/2 the time	Almost always
1. Incomplete Emptying Over the last month how, often have you had a sensation of not emptying your bladder completely after you finish urinating?	0	1	2	3	4	5
2. Frequency During the last month, how often have you had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5
3. Intermittency During the last month, how often have you stopped and started again several times when you urinate?	0	1	2	3	4	5
4. Urgency During the last month, how often have you found it difficult to postpone urination?	0	1	2	3	4	5
5. Weak Stream During the last month, how often have you had a weak urinary stream?	0	1	2	3	4	5
6. Straining During the last month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5
7. Nocturia During the last month, how many times did you most typically get up to urinate from the time you went to bed until the time you got up in the morning?	0	1	2	3	4	5

Add the score for each number above, and write the total in the space to the right **TOTAL_____**

SYMPTOM SCORE: **1-7 = MILD** **8-19 = MODERATE** **20-35 = SEVERE**

0=Delighted 1=Pleased 2=Mostly Satisfied 3=Mixed 4=Mostly Not Satisfied 5=Unhappy

8. Quality of life How would you feel if you had to live with your urinary condition the way it is now, no better, no worse, for the rest of your life?	0	1	2	3	4	5

FREQUENCY-VOLUME CHART

Date	/ /			/ /			/ /			/ /			/ /		
Day	1			2			3			4			5		
	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET
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RISK OF PROGRESSION

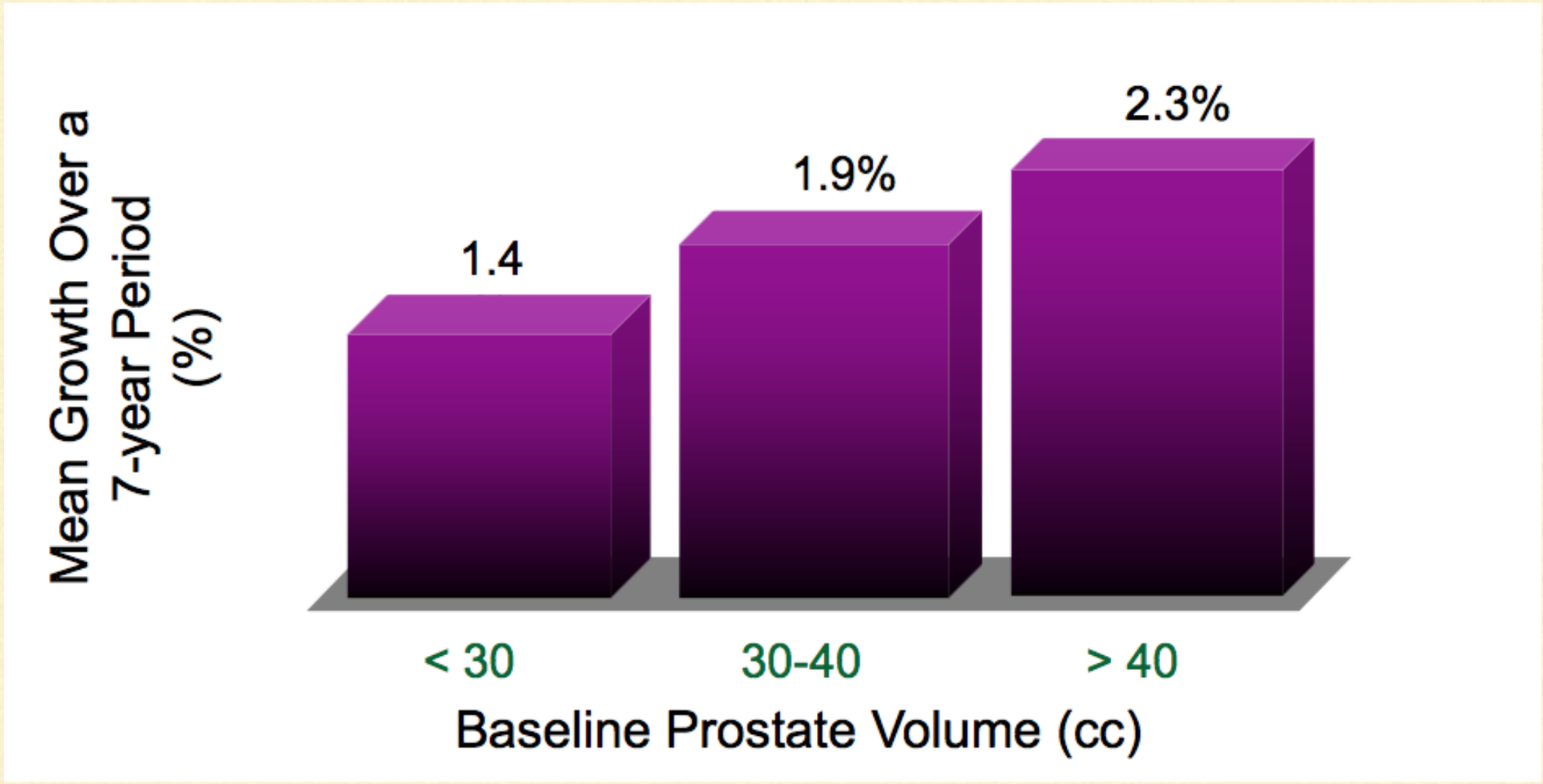
- IPSS > 8
- Age > 70
- PSA > 1.4
- Prostate volume >40gm
- Qmax < 12ml/s
- RV >150ml

NATURAL HISTORY (1)

- **Flow rate** changes with time:
  - Olmstead County, 492 men
  - Median deterioration 2.1% per year
- Deteriorated more rapidly with:
    - Poor initial flow (<10ml/s)
    - Increasing age
    - Prostate Volume
    - Symptom severity

NATURAL HISTORY (2)

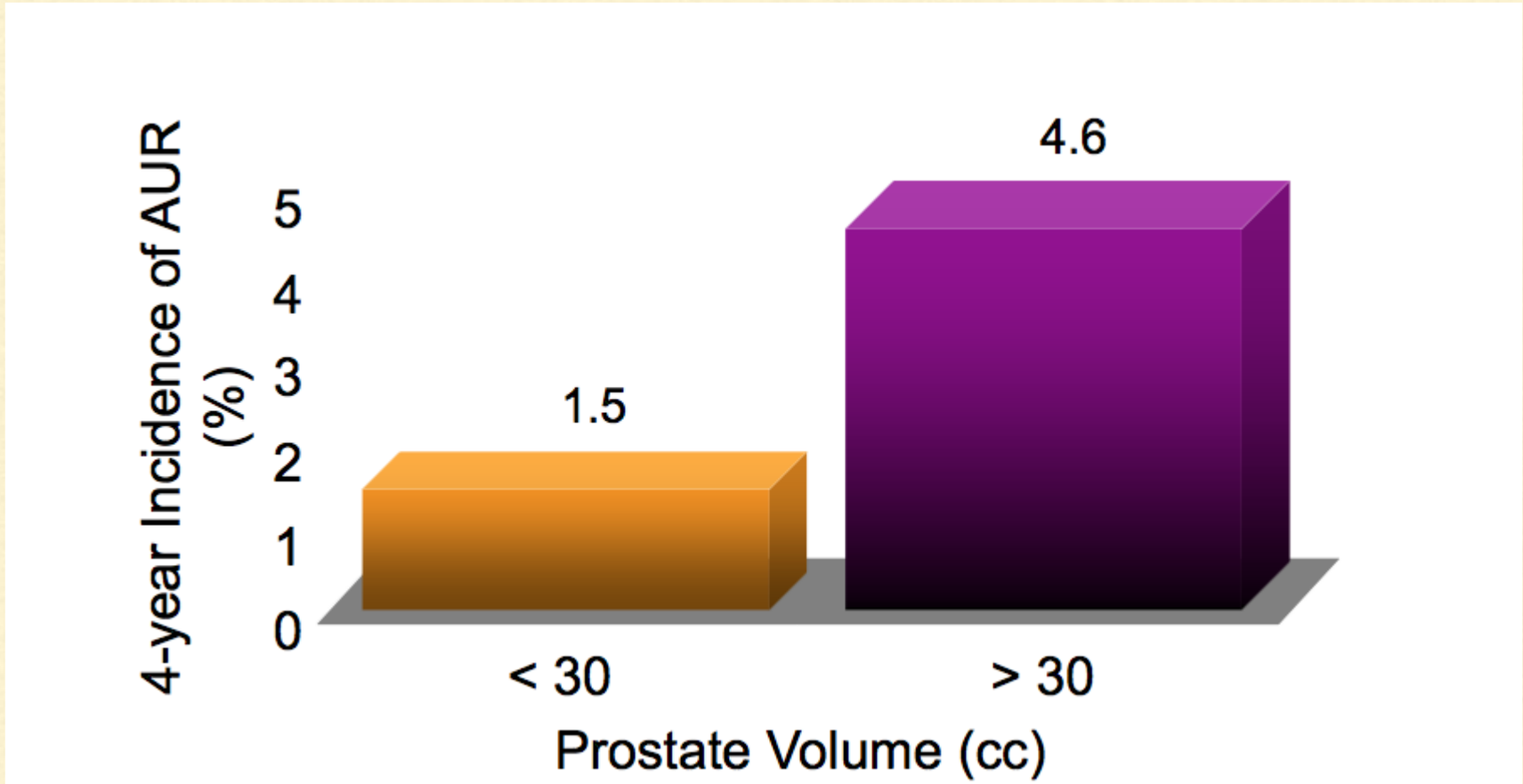
- Prostate Growth per year increases with volume



Rhodes T, et al. Longitudinal prostate growth rates during 5 years in randomly selected community men 40 to 79 years old. ***J Urol.*** **1999;161:1174-1179.**

NATURAL HISTORY (3)

- Risk of AUR is related to prostate volume



Jacobsen SJ, et al. Natural history of prostatism: risk factors for acute urinary retention. ***J Urol.*** **1997;158:481-487.**

BPH (1)

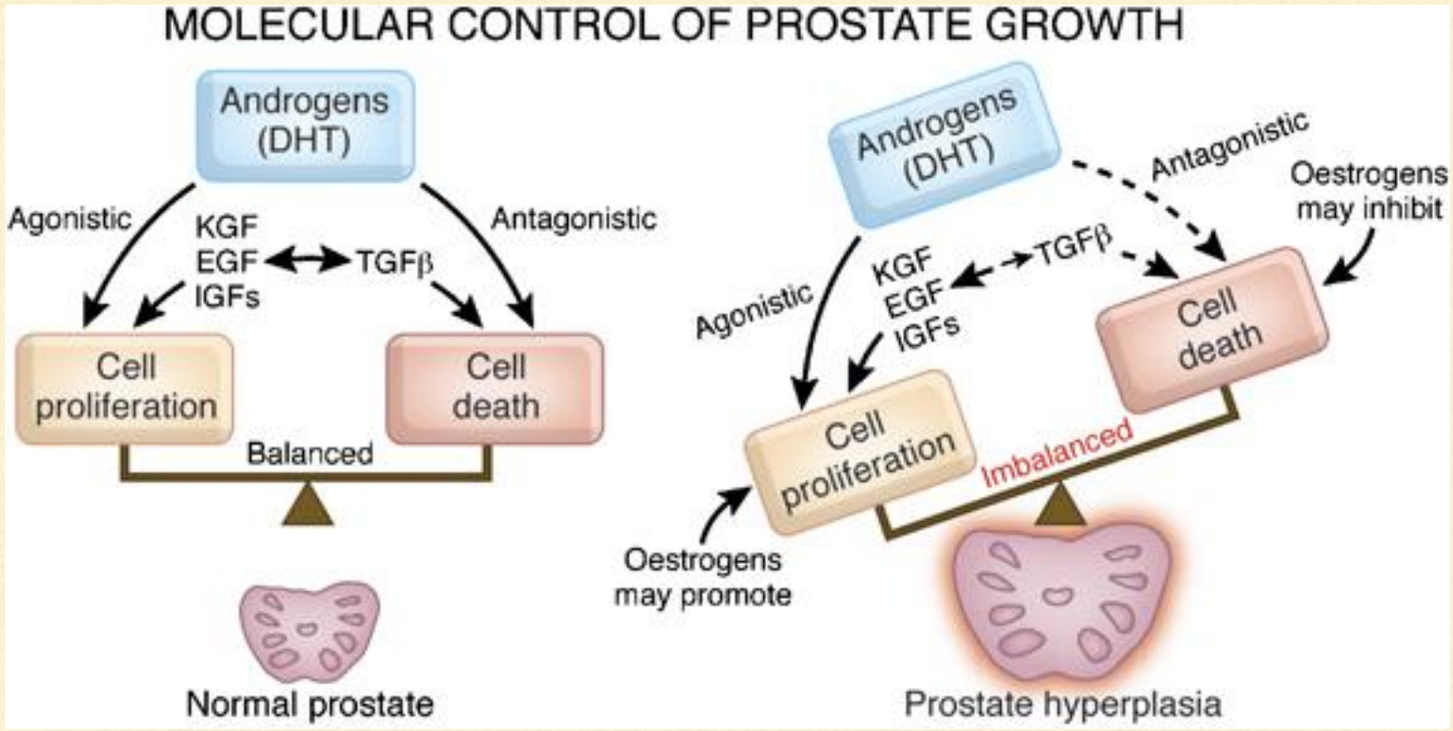
- BPH is a histological diagnosis (BPE on DRE, BOO on UDS)
- Histologically (on post mortem)
  - 20% 40-50
  - 40% 50-60
  - 70% 60-70
  - 80% 70-80
- Clinically: 1/3 of men aged >65

BPH (2)

- Prostate is 70% glandular, 30% fibromuscular stroma
- Pre-prostatic sphincter (men) under adrenergic control (90% alpha-1)
- Dihydrotestosterone (DHT) formed within prostate epithelial cells
  - 40x more active cf. T
  - Diffuses to stroma
- Stoma nuclei produce growth factors (EGF thought to be dominant)

GROWTH FACTORS IN BPH

Cause of dysregulation unclear:



MANAGEMENT (1)

- Alpha Blockers:
  - Djavan Meta-analysis 1999
    - All alpha blockers have similar efficacy (symptom score improvement 30-40%, Qmax improvement 20%)
    - Alfuzosin and tamsulosin are better tolerated than doxazosin/ others
    - Tamsulosin had less episodes of postural hypotension

MANAGEMENT (2)

- 5 alpha-reductase inhibitors:
- PLESS (Proscar Long-term Efficacy and Safety Study)
  - 3000 patients. Risk of AUR/ surgery
    - Decreased RR of surgery 55%
    - Decreased RR of AUR 57%
    - Decreased volume 18% (Increased 14% in placebo arm)
    - FR increased 1.9ml/s at 4/12 (0.2ml/s placebo)
- NB: 4yr ARR for retention is only 4%

MANAGEMENT (3)

- Combination Treatment:
  - **MTOPS** (Medical Therapy of Prostatic Symptoms)
    - 3000 patients. (Placebo/ Doxazocin/ Finasteride/ Combo)
    - Risk of Progression:
      - Dox decreased 39%, Finasteride decreased 34%
      - Combination **decreased 66%**
    - Risk of AUR:
      - Dox same as placebo, Finasteride decreased 68%
      - Combination **decreased 81%**

MANAGEMENT (4)

- CombAT (Combination of Avodart and Tamsulosin)
  - 5000 patients. (Dutasteride, Tamsulosin, Combination)
  - No placebo arm
  - Combo not superior to dutasteride monotherapy re: AUR
  - Combo superior to both mono therapies re: progression and symptoms
  - NB: if prostatic volume is <30gm then no benefit of 5ARI in combo

OBJECTIVES



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ANY
QUESTIONS
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