MEN'S HEALTH UPDATE A PRIMARY CARE PERSPECTIVE

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Urology

OBJECTIVES:

Participants will review signs and symptoms, treatment options, when to refer, and urological clinical pearls for the following diagnoses:

- Benign Prostatic Hyperplasia (BPH) / Lower Urinary Tract Symptoms (LUTS)
- Erectile Dysfunction (ED)
- Hypogonadism (Low-T)

BPH / LUTS: SYMPTOMS

Irritable:

- Frequency
- Urgency
- Nocturia
- Incontinence
- Dysuria

Obstructive:

- Slow stream
- Straining
- Intermittency
- Terminal Dribbling

BPH / LUTS: EVALUATION/DIAGNOSIS

- Voiding History / IPSS
- DRE
- Family History / PSA
- Urinalysis

International Prostate Symptom Score (I-PSS)

Patient Name: _____ **Date of birth:** _____ **Date completed** _____

In the past month:	Not at All	Less than 1 in 5 Times	Less than Half the Time	About Half the Time	More than Half the Time	Almost Always	Your score
1. Incomplete Emptying How often have you had the sensation of not emptying your bladder?	0	1	2	3	4	5	
2. Frequency How often have you had to urinate less than every two hours?	0	1	2	3	4	5	
3. Intermittency How often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5	
4. Urgency How often have you found it difficult to postpone urination?	0	1	2	3	4	5	
5. Weak Stream How often have you had a weak urinary stream?	0	1	2	3	4	5	
6. Straining How often have you had to strain to start urination?	0	1	2	3	4	5	
	None	**1 Time**	**2 Times**	**3 Times**	**4 Times**	**5 Times**	
7. Nocturia How many times did you typically get up at night to urinate?	0	1	2	3	4	5	
Total I-PSS Score							

Score: 1-7: *Mild* 8-19: *Moderate* 20-35: *Severe*

Quality of Life Due to Urinary Symptoms	Delighted	Pleased	Mostly Satisfied	Mixed	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?	**0**	**1**	**2**	**3**	**4**	**5**	**6**

BPH / LUTS – TREATMENT

LIFESTYLE MODIFICATIONS

- Night time fluid intake
- Avoiding diuretics / irritants
- Increased physical activity
- Nutritional / dietary preferences

BPH / LUTS – TREATMENT

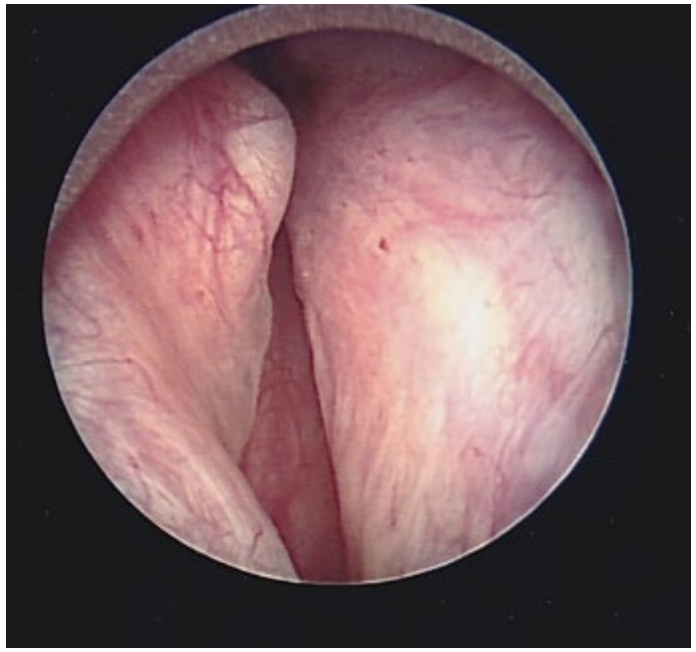
MEDICAL THERAPY

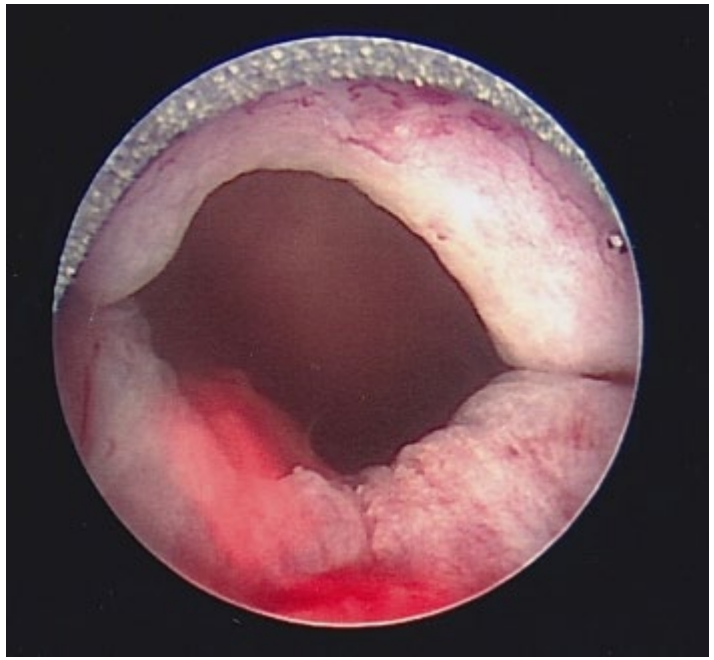
- Alpha blockers – select and non-select
- 5-alpha reductase inhibitors (effect on PSA)
- Cialis / PDE-5 inhibitors
- Anticholinergics (caution with increased residual)
- Beta-3 adrenergic agonists

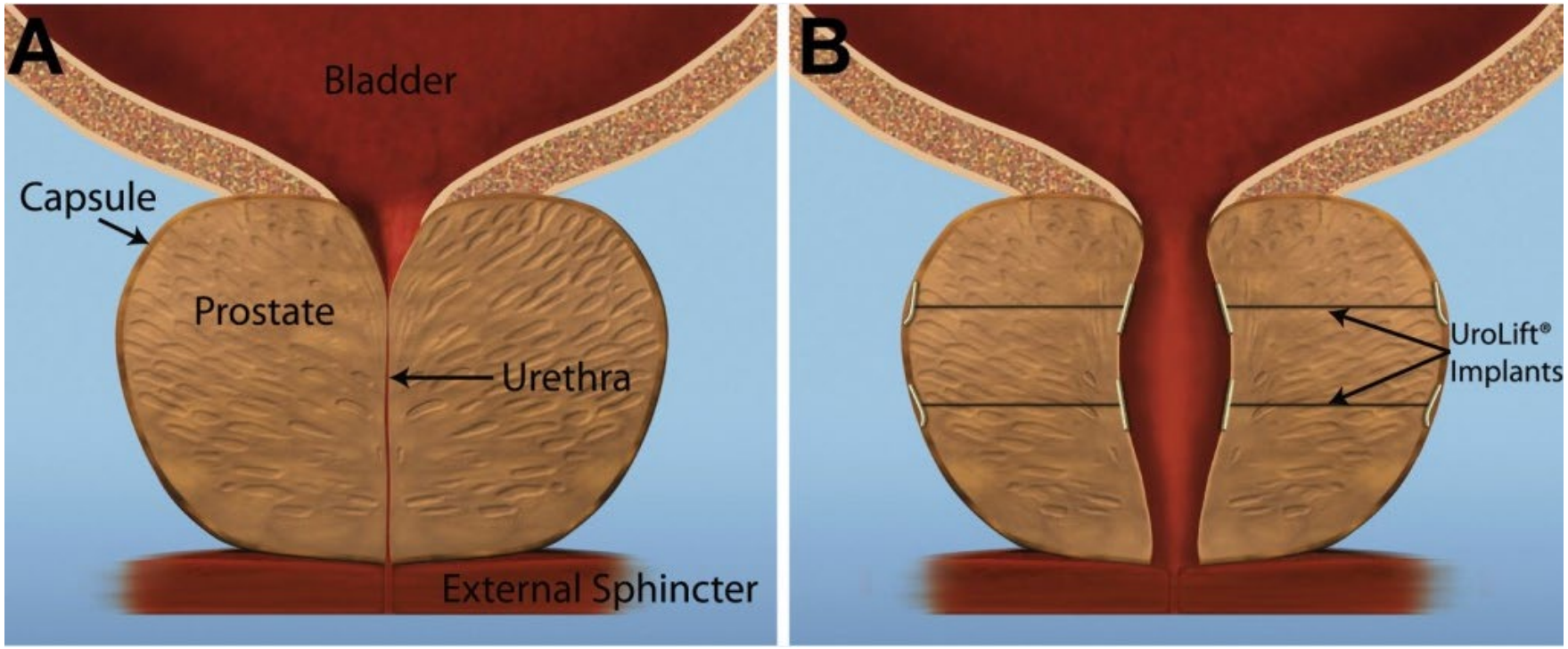
BPH / LUTS – TREATMENT

PROCEDURAL THERAPY

- Lasers
- Hydraulic
- TURP
- Urolift





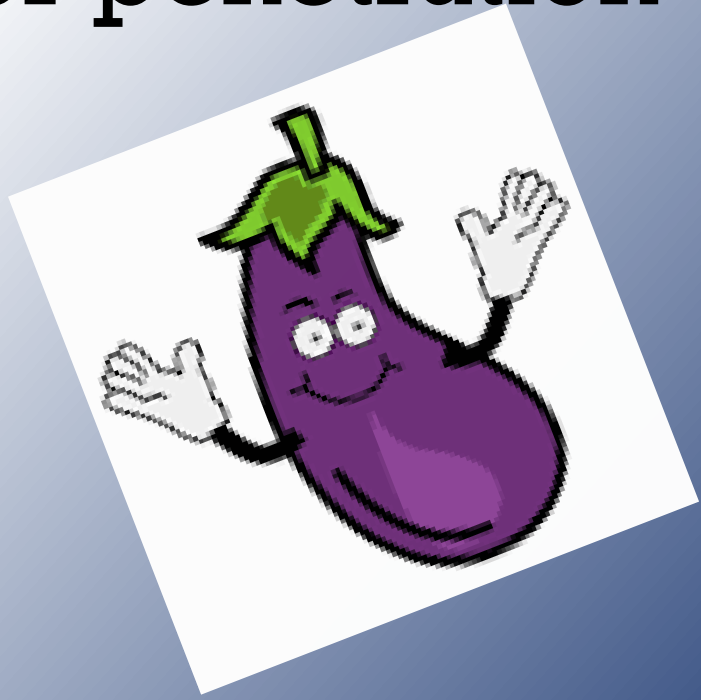

A
Bladder
Capsule
Prostate
Urethra
External Sphincter
B
UroLift®
Implants

BPH / LUTS – WHEN TO REFER:

- Progressive renal dysfunction
- Recurrent UTI
- Gross hematuria
- Bladder stones
- Suboptimal clinical response / retention

ERECTILE DYSFUNCTION:

- Inadequate tumescence for penetration
  - Erectile class C or D



ERECTILE DYSFUNCTION:

EVALUATION/DIAGNOSIS

- History is key
  - Severity of symptoms
  - Situational?
- Screen for cardiovascular comorbidities
- Medications
- Psychosocial

ERECTILE DYSFUNCTION:

TREATMENT - LIFESTYLE MODIFICATIONS

- Diet/Exercise
- Weight management
- Smoking cessation

ERECTILE DYSFUNCTION

TREATMENT – WHAT'S NEW?

- OTC / Contaminants:

Re: Simultaneous Detection of Three Phosphodiesterase Type 5 Inhibitors and Eight of Their Analogs in Lifestyle Products and Screening for Adulterants by High-Performance Thin-Layer Chromatography

T. T. Do, G. Theocharis and E. Reich

School of Chemistry, Physics and Mechanical Engineering, Queensland University of Technology, Brisbane, Australia

- Detection of a Tadalafil Analogue as an Adulterant in a Dietary Supplement for Erectile Dysfunction – **Argentina**

- Isolation and Characterization of a Tadalafil Analogue, N-Cychopentyle Nortadalafil in Health Supplement – **Singapore**

- Separation and Identification of a Novel Tadalafil Analogue Adulterant in a Dietary Supplement - **Taiwan**

ORAL ERECTILE DYSFUNCTION MEDS:

ERECTILE DYSFUNCTION

TREATMENT – WHAT'S NEW?

- Access to Rx 
- Onset of action 
- Cost 

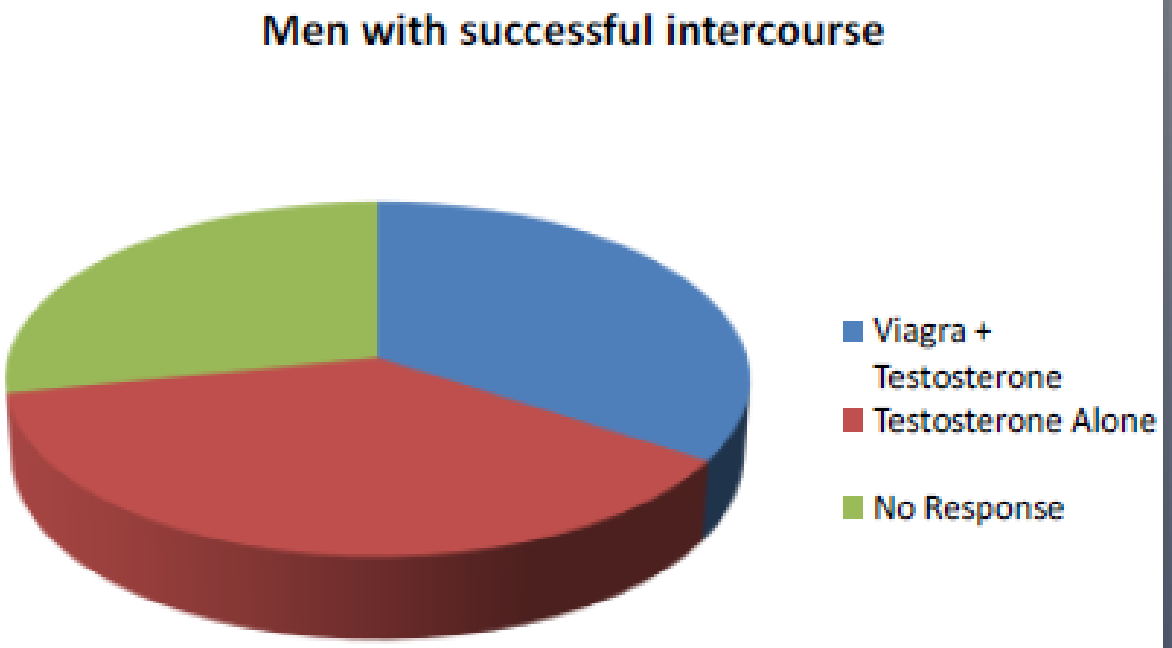
ERECTILE DYSFUNCTION

TREATMENT – WHAT'S NEW?

- Generics
- Dose escalation
- Combo therapy

Testosterone as Salvage Therapy for ED

- Men (N=35) with complete impotence at baseline (IIEF = 12.6)
- All previously failed to respond to sildenafil 100mg
- Treated with oral testosterone undecanoate alone for 2 months
- Sildenafil subsequently added if no response

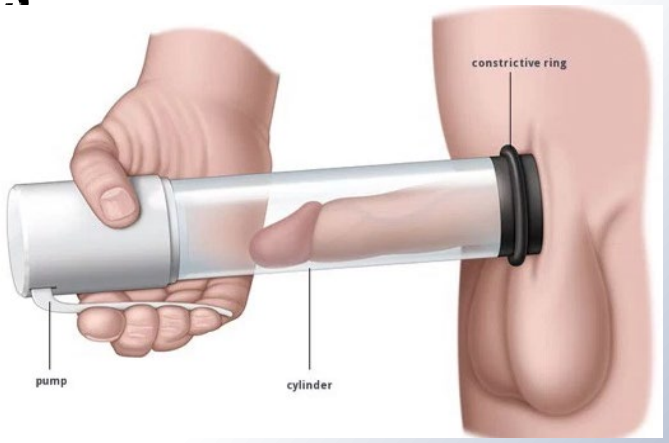


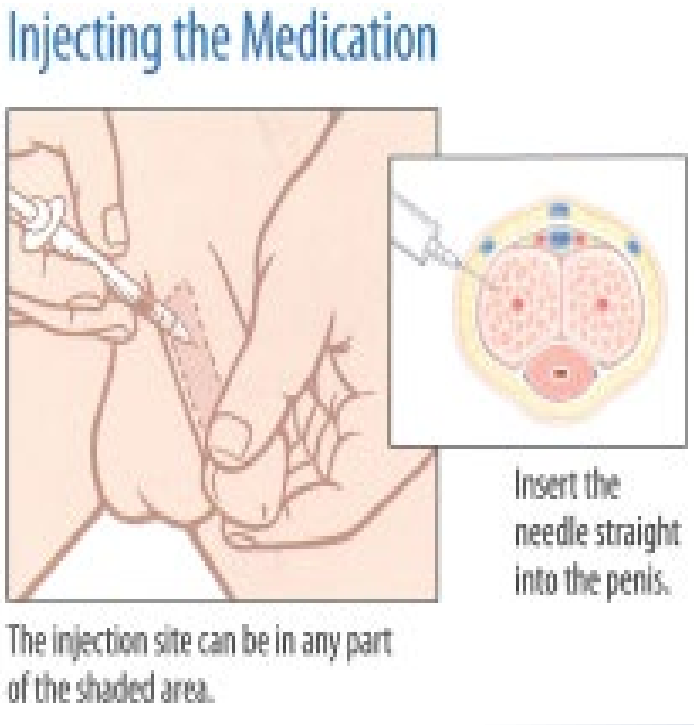
-Hwang et al., Int J Impotence Research, 2006

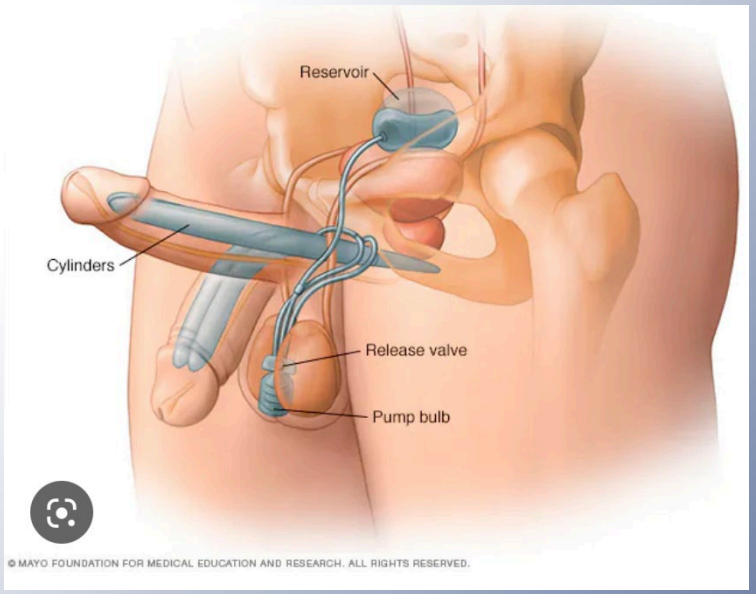
ERECTILE DYSFUNCTION

TREATMENT – OTHER OPTIONS:

- VED, PEP, and IPP







ERECTILE DYSFUNCTION – WHEN TO REFER:

- Suboptimal clinical response

HYPOGONADISM / LOW TESTOSTERONE

TESTOSTERONE FUNCTION:

- Development of male reproductive system
- Secondary sex characteristics – hair
- Sperm development
- Sexual libido
- Musculoskeletal development

T DEFICIENCY: SIGNS AND SYMPTOMS

Sexual	Non-Sexual/ Psychological	Physical/Metabolic
■ Diminished libido ■ Erectile dysfunction ■ Difficulty achieving orgasm ■ Decreased spontaneous erections	■ Diminished energy, sense of vitality, or well-being ■ Fatigue ■ Depressed mood ■ Impaired cognition ■ Reduced motivation	■ Decreased bone mineral density ■ Decreased muscle mass and strength ■ Increased body fat ■ Gynecomastia ■ Anemia ■ Insulin resistance

Odds Ratio of Selected Co-Existing Diseases

Mulligan, Int J Clin Pract 2006; 60: 762-9

Medical Conditions	*Odds Ratio (95% C.I.)*
Obesity	2.33 (1.90, 2.85)
Diabetes	2.04 (1.67, 2.50)
Hypertension	1.80 (1.50, 2.14)
Osteoporosis	1.59 (0.77, 3.30)
Rheumatoid Arthritis	1.55 (0.91, 2.62)
Hyperlipidemia	1.49 (1.25, 1.78)
Asthma/COPD	1.42 (1.07, 1.88)
Chronic Pain	1.20 (0.95, 1.50)
Prostate Disease	1.19 (0.95, 1.49)

HYPOGONADISM / LOW TESTOSTERONE

DIAGNOSIS

- Examination- genitalia
- Total testosterone
- Free testosterone
- LH, FSH
- PSA
- Estradiol

WHO IS A CANDIDATE FOR T THERAPY? MORGENTALER'S CRITERIA

- Presence of symptoms or signs is paramount
- Does require low levels of either total T or free T
- Total T useful but often misleading due to SHBG
- If symptoms, treat for total T <350 ng/dl or free T <15 pg/ml (RIA), or <100 pg/ml (cFT)
- If free T is low, the total T concentration is irrelevant
- T therapy is a 3-6 mo trial. Not lifelong commitment
- Goal is symptomatic improvement

Testosterone following PCa treatment

TRT in men with undetectable PSA after RRP

- 3 published retrospective studies
- N=74 men
- No PSA recurrence
- Follow-up as long as 12 yr

TRT after brachytherapy

- 31 men, median 4.5 y TRT
- No PSA recurrences

Kaufman JM et al. J Urol. 2004;172:920; Agarwal PK et al. J Urol. 2005;173:533; Khera M et al, J Sex Med 2009; 6: 1165-70; Sarosdy MF Cancer 109:536, 2007

T and General Health

- A normal serum T is associated with better health and increased longevity
- Serum T (or free T) may be the most important indicator of overall male health
- Better than cholesterol, glucose, PSA
- T therapy produces benefits in most men with T deficiency, often with improved quality of life

HYPOGONADISM / LOW TESTOSTERONE

RISKS OF TESTOSTERONE TREATMENT

- Erythrocytosis
- Gynecomastia
- Acne
- Reduced fertility
- Testicular atrophy
- Cardiovascular risks?

HYPOGONADISM / LOW TESTOSTERONE

TESTOSTERONE TREATMENT MONITORING

- Testosterone level
- Hematocrit
- PSA
- Voiding symptoms

HYPOGONADISM / LOW TESTOSTERONE – WHEN TO REFER:

- Conflicting lab results
- Suboptimal clinical response
- Difficult / demanding patient

THANK YOU!

Do you have any questions?