Urology Update 2012

End of Section

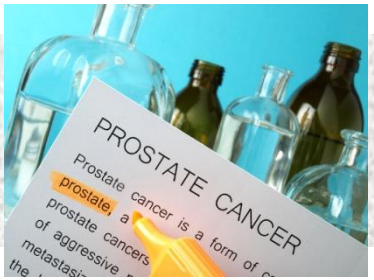
Urological Cancer Update 2012
Mr Chris Luscombe

- Urological Malignancy
  - Prostate Cancer
  - Bladder Cancer
  - Renal Cancer
  - Testicular Cancer
  - Penile Cancer

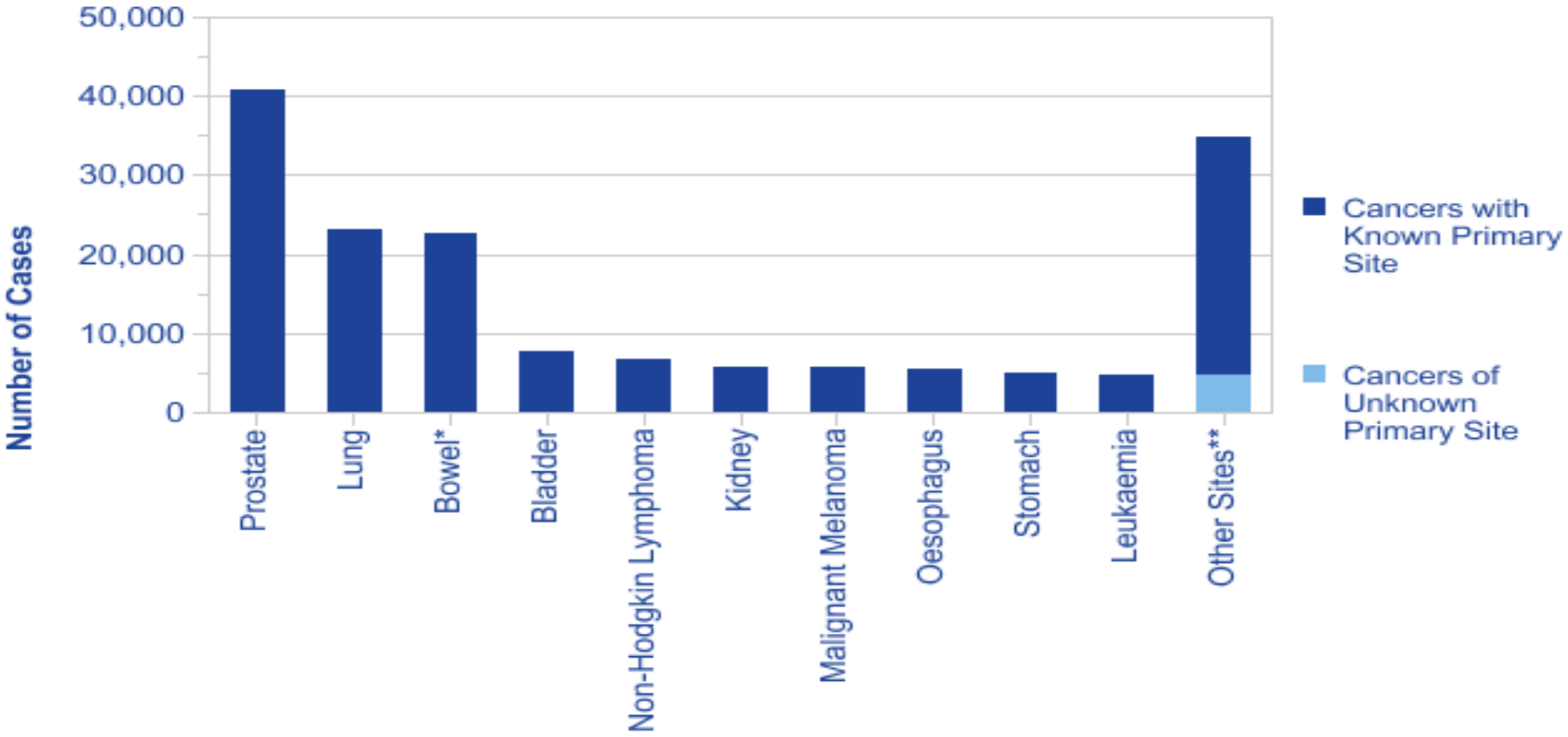
Urological Cancer Update 2012
Mr Chris Luscombe

- Statistics
  - Together account for 58,000 new diagnoses in UK in 2008 (compared to 48,000 breast cancer cases)
  - Together account for 20,000 deaths in 2009 compared to 35,000 from lung cancer

Urological Cancer Update 2012
Mr Chris Luscombe



- Male Cancer incidence 2009



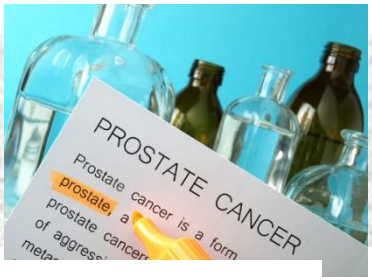
Prostate Cancer

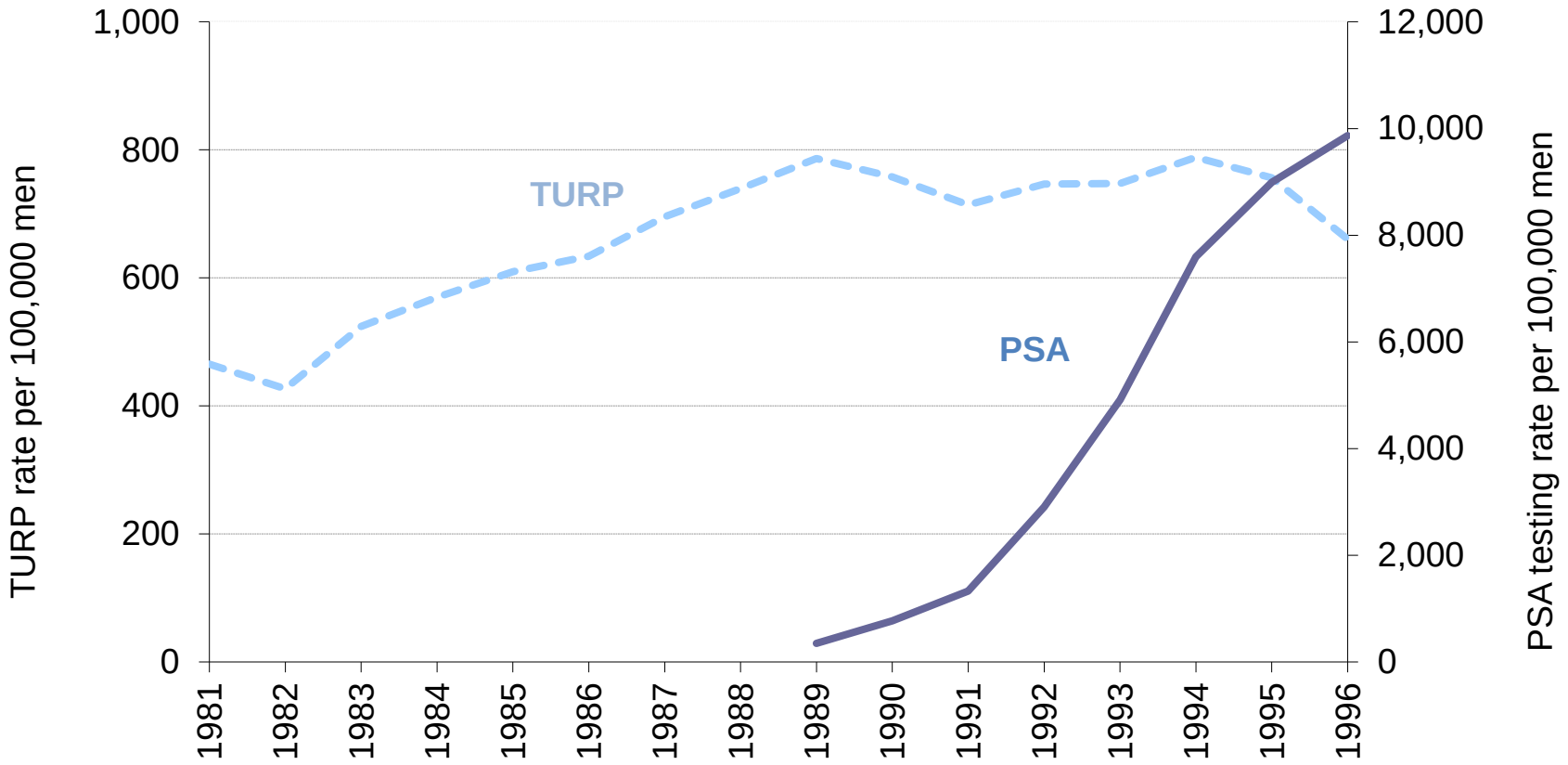
- 2008 NICE guidelines
  - 146 pages
- Epidemiology
  - UK
    - Most common cancer in men
    - 40,841 new cases in 2009
    - 10,000 men die from it each year
    - Lifetime risk is 1 in 9 (2008 data)
  - World
    - Leading cause of morbidity and mortality in men
    - 14% of all new male cancer cases in 2008

Prostate Cancer - Causes

- Genetic
  - <10% due to susceptibility genes e.g. HPC1, BRCA 2
  - Race
- Environment contributes >50% of risk
  - Diet, lifestyle
  - Geographical location (highest in Western World and lowest in Far East)
- Gene-environment interaction important.

Prostate Cancer - Diagnosis



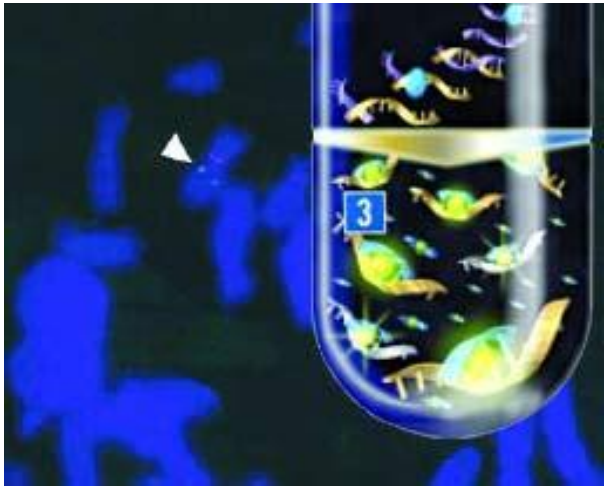


Prostate Cancer - PSA

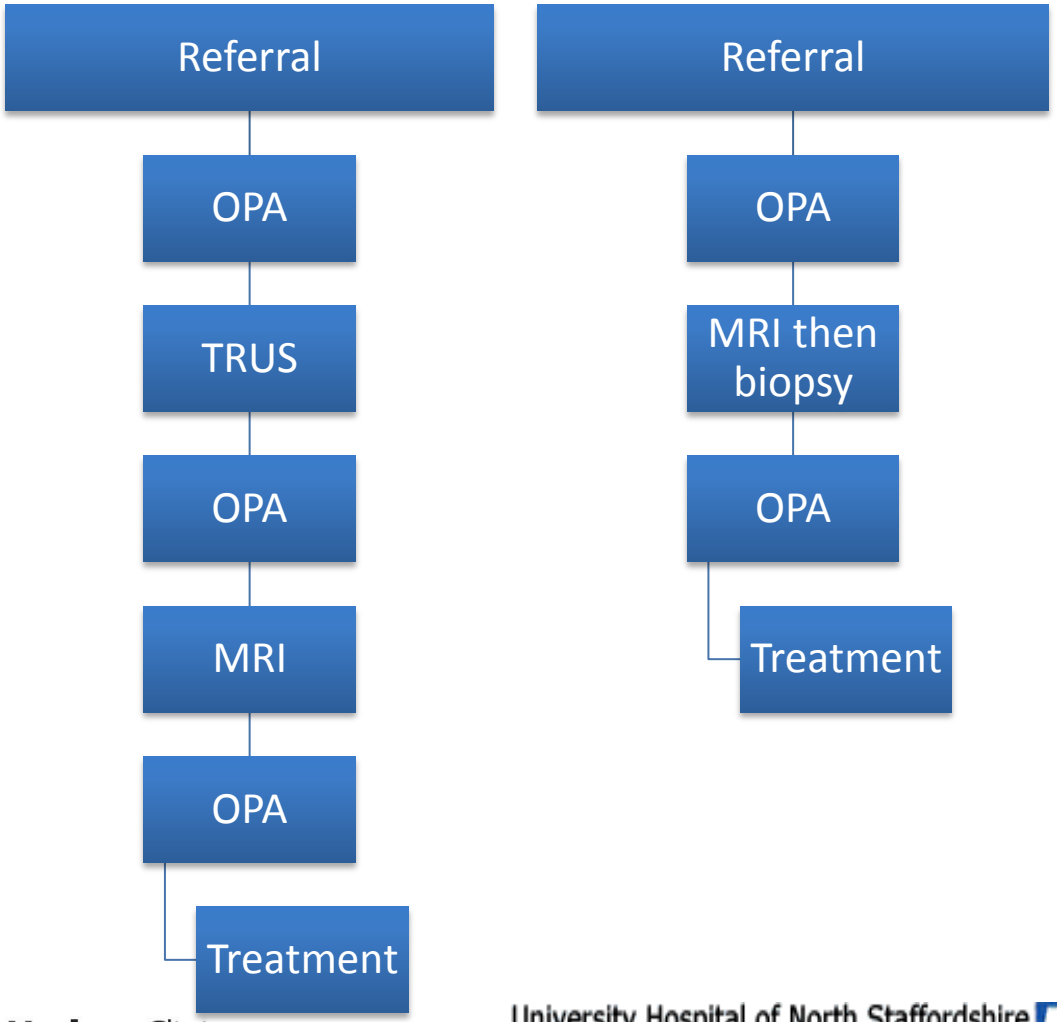
- **P**ersistent **S**tress and **A**nxiety
- Prostate but not disease specific
- Poor discrimator of significant disease
- Use of PSA for screening is contentious
  - European and Canadian studies
  - PLCO (RR=1.1)
  - ERSPC (RR=0.8)
    - Screening 100,000 men prevents 73 prostate cancer deaths
    - 3169 cases of ED, 925 cases of incontinence and 11 deaths
  - Protect

Prostate Cancer – PCA3

- PCA3 mRNA is expressed in 100 times higher concentrations in prostate cancer cells than in normal cells
- Molecular marker detected in urine following “attentive” rectal examination
- It is more accurate than PSA, but its use in practice is debated
  - 66-82% sensitivity and 76-89% specificity for cancer. But approximately 15%-20% of samples have too little mRNA to evaluate
- It may be particularly useful in the setting of raised PSA and negative biopsy



Prostate Cancer
Local pathway redesign

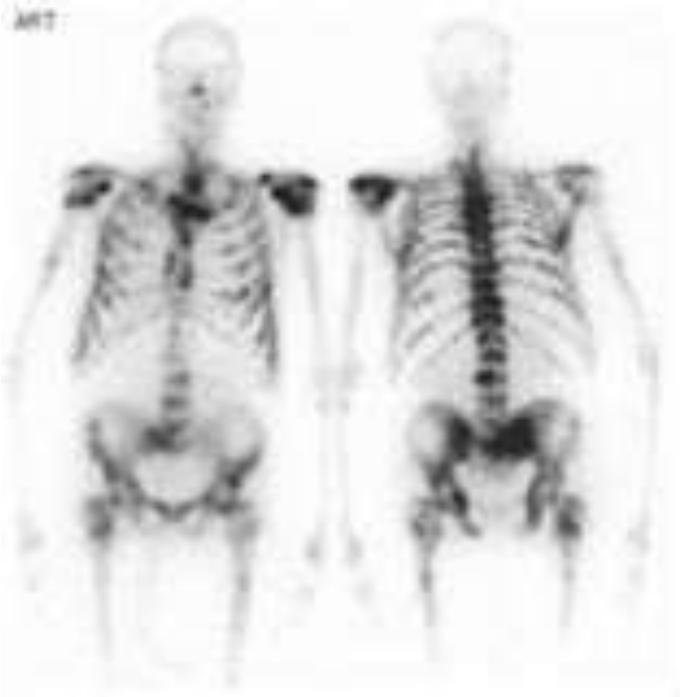


Prostate Cancer – Treatment
Early Disease

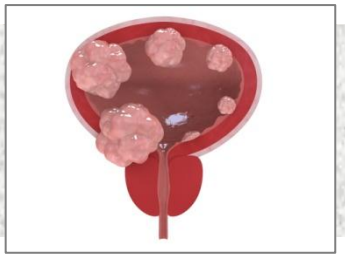
- AS
- Surgery (UK, 2011)
  - 26% open
  - 55% lap
  - 19% RALP
- Radiotherapy
  - Plus LHrHa
  - Brachytherapy
- Other

Prostate Cancer – Treatment Advanced Disease

- LHrH is the mainstay
- Hormone refractory disease
  - Docetaxol
  - Abiraterone
    - (guidelines changed 2012 to approve the use after price changes)



Bladder Cancer



Haematuria - Please do not do any upper tract imaging

Painless macroscopic haematuria ☐

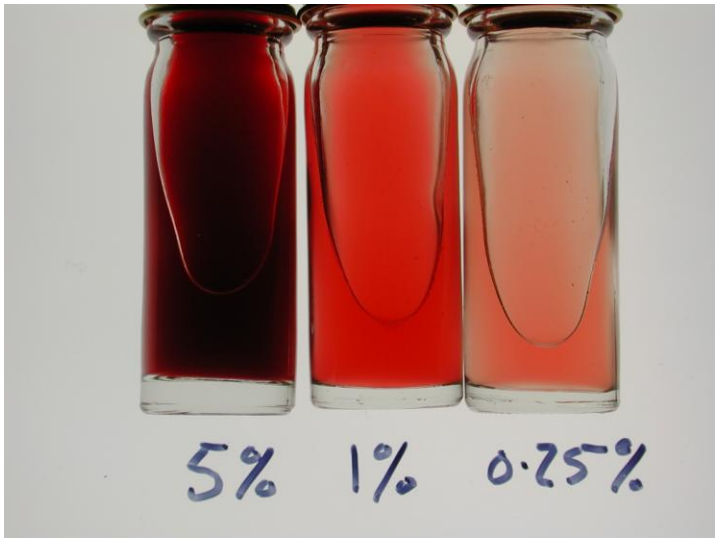
Persistent screen detected microscopic haematuria in an asymptomatic patient age ≥ 50 yrs? ☐

No. of dipsticks positive .....

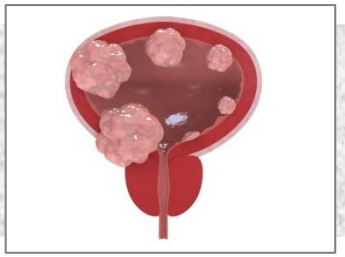
Macroscopic Haematuria, no infection present ☐

If an infection is present please treat it but still refer if patient is 40 years of age or older

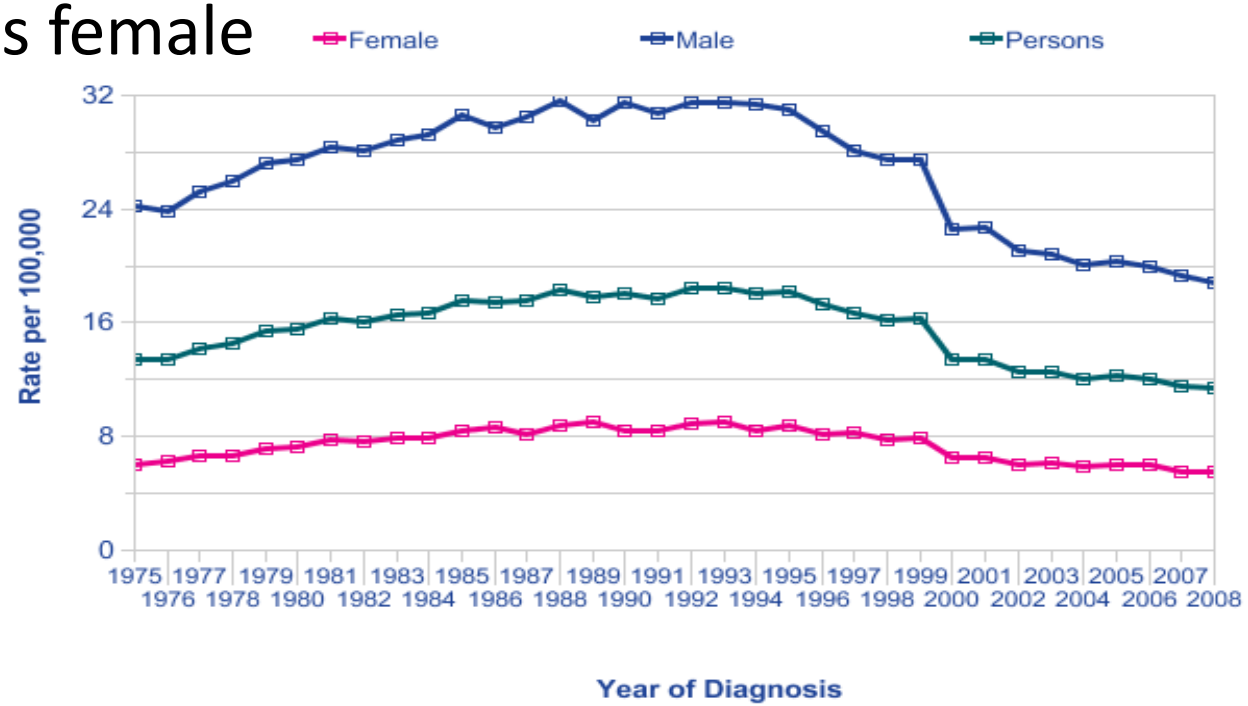
If UTI is confirmed by MSU culture, please treat and re-test before referral



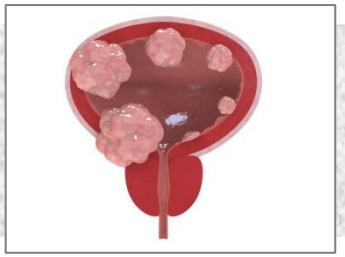
Bladder Cancer



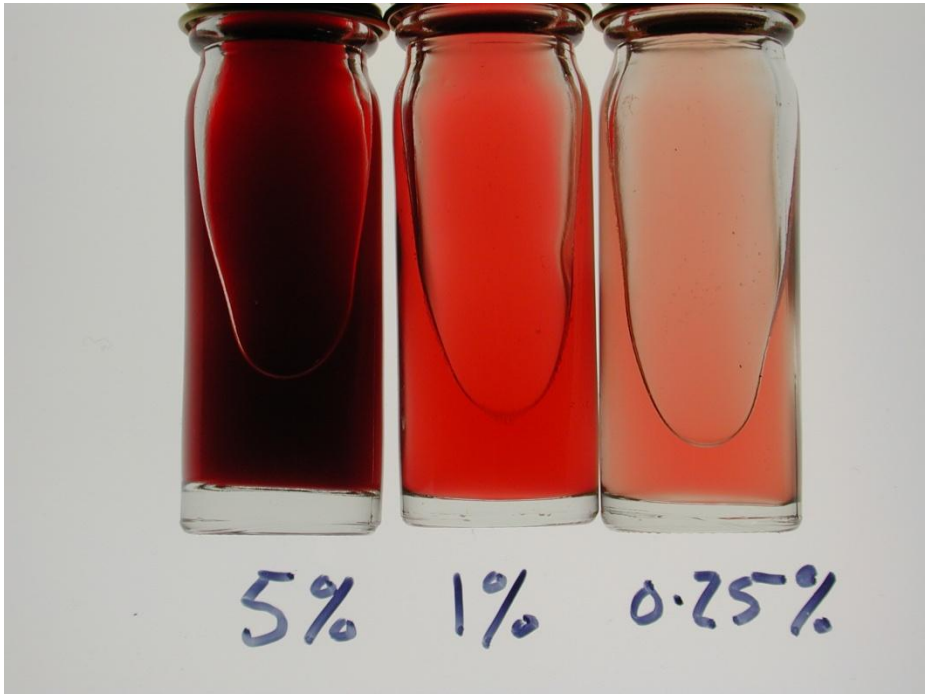
- 1 in 30 new cancer cases in UK in 2008
  - 7390 cases male
  - 2945 cases female



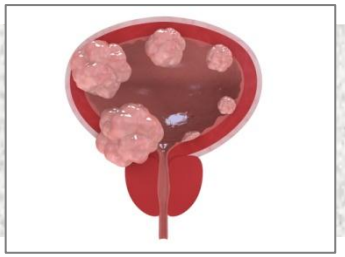
Bladder Cancer - Presentation



- Haematuria
  - Visible
  - Smoking
  - Male
- BAUS/RA guidelines
  - Imaging
  - Cystoscopy
  - P:C ratio
  - Other blood and urine tests
  - http://www.baus.org.uk/AboutBAUS/publications/haematuria-guidelines



Bladder Cancer
UHNS 2 stop Pathway



Referral

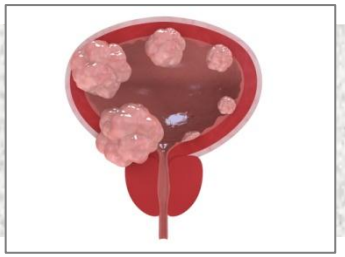
Nurse led assessment

Flexible cystoscopy and results

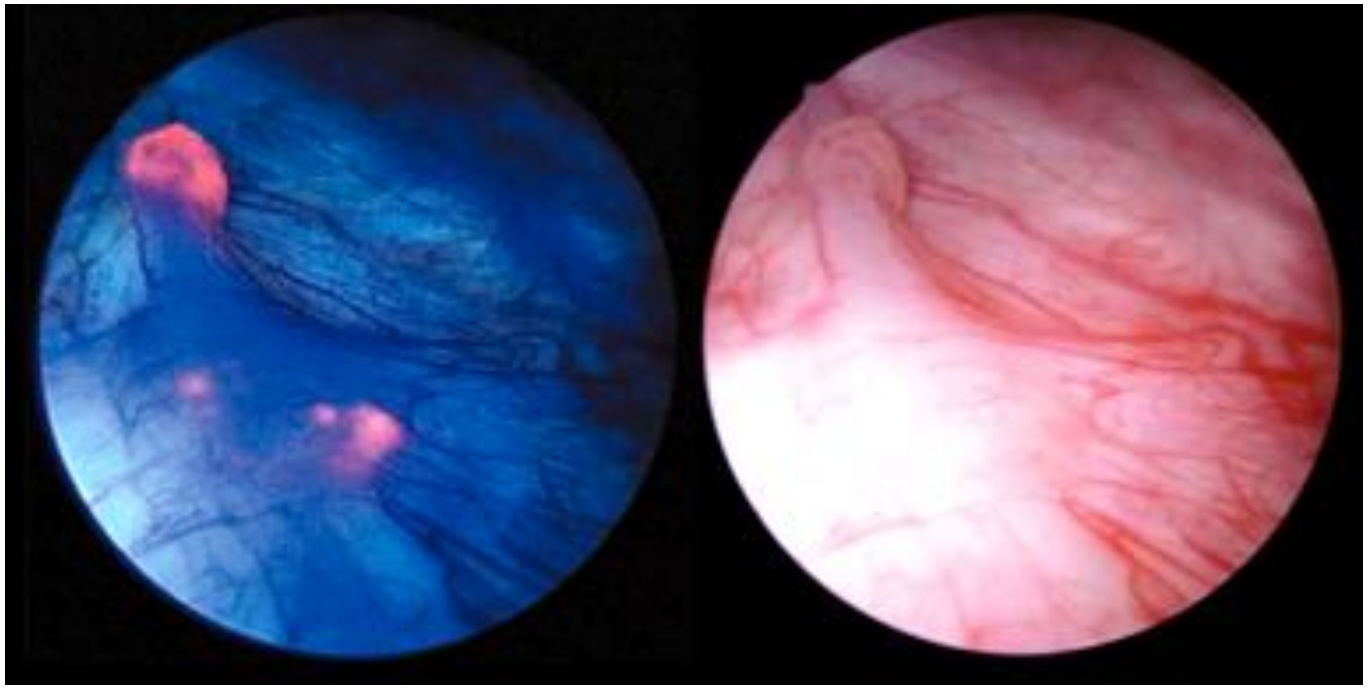
CT scan or other test

Discharge or treatment

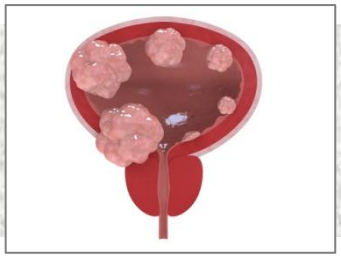
Bladder Cancer
New Investigations



- PDD or NBI

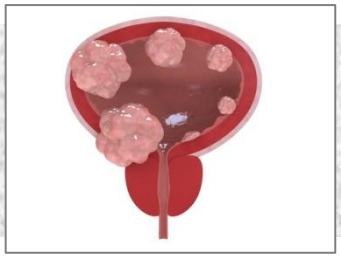


Bladder Cancer - Treatment



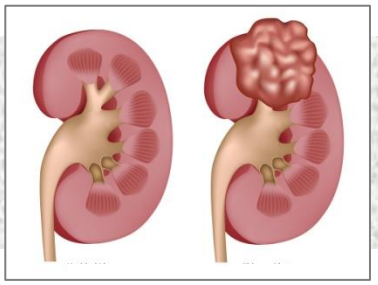
- TURBT plus intravesical chemotherapy for NMI bladder cancer
  - Course of chemotherapy or BCG for high risk disease
- TURBT for Invasive disease
  - staging (CT and MRI)
  - Neo adjuvant chemotherapy improves cure
  - Radiotherapy or surgery

Bladder Cancer – Treatment
Radical Cystectomy

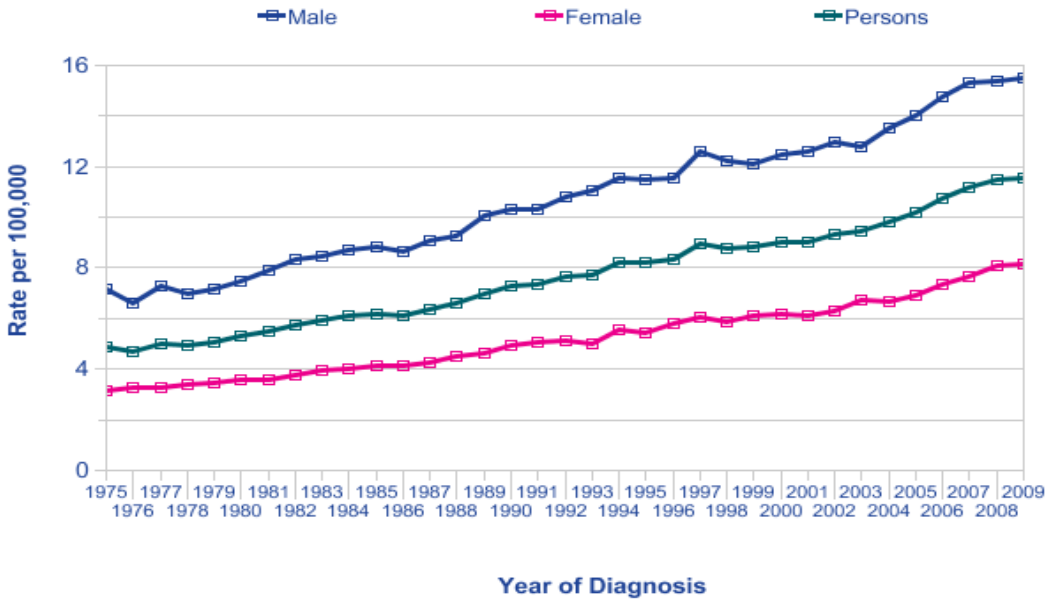


- 12.5% laparoscopic in UK in 2011
  - Urinary diversion performed open
- 6.7% orthotopic reconstruction

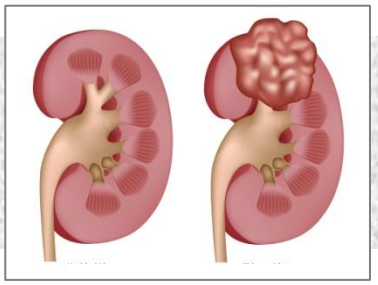
Renal Cancer



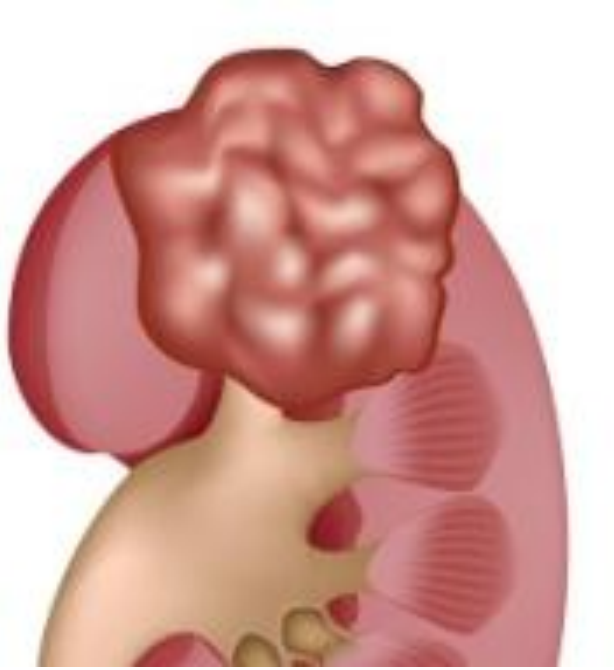
- 6th commonest male cancer (9286 cases in 2009). Lifetime risk 1 in 61.
- 9th commonest female cancer (5706 cases)



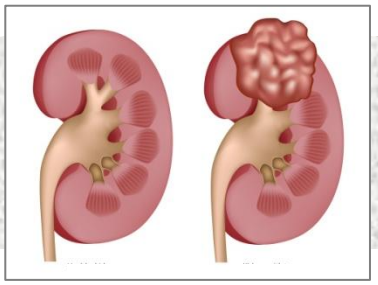
Renal Cancer - Nephrectomy



- Partial nephrectomy increasingly used for smaller renal masses (cryo and RFA)

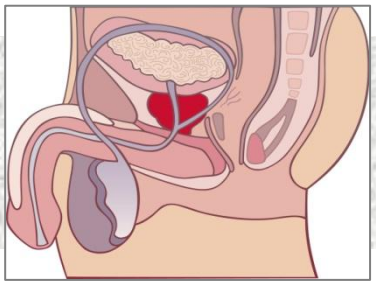


Renal Cancer
Targeted therapy for metastasis



- Sunitinib is an inhibitor of tyrosine kinase receptors (6 week cycle costs £3363)
  - Median improvement of 6 months survival over IFN-A
- Other targeted treatments including Pazopanib

Penile and testicular Cancer



- Both rare cancers
- Both initially treated locally then referred to a supraregional MDT
  - Penile cancer referred to Good Hope Hospital
  - Testicular cancer referred to UHB

End of Section

Local Urology Innovation

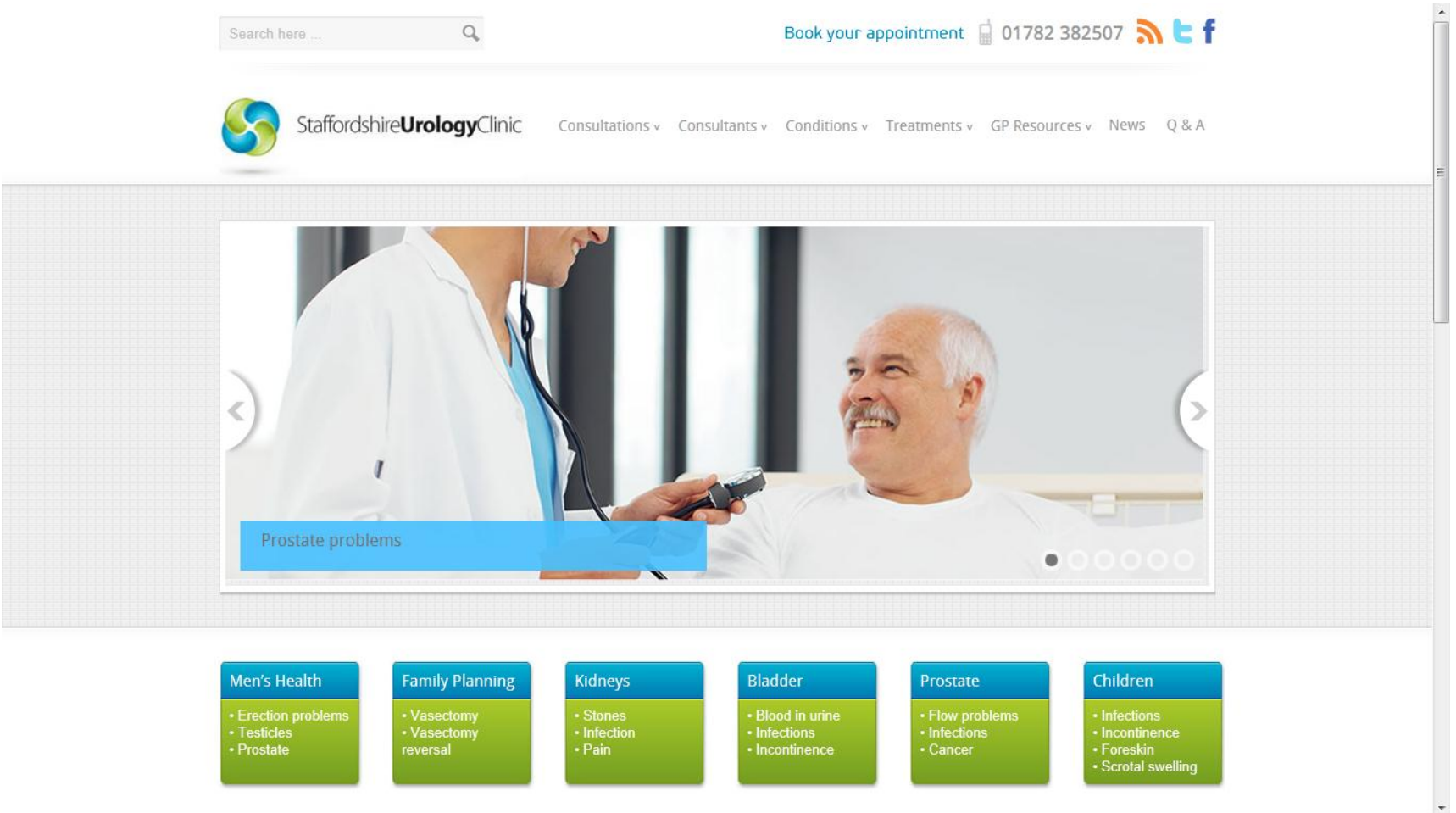
Staffordshire Urology Clinic

- Specialist NHS practices at the University Hospital of North Staffordshire encompassing all aspects of urological care.

- By replicating our NHS practice in private practice we can offer highly sub-specialised care for our diverse group of patients.

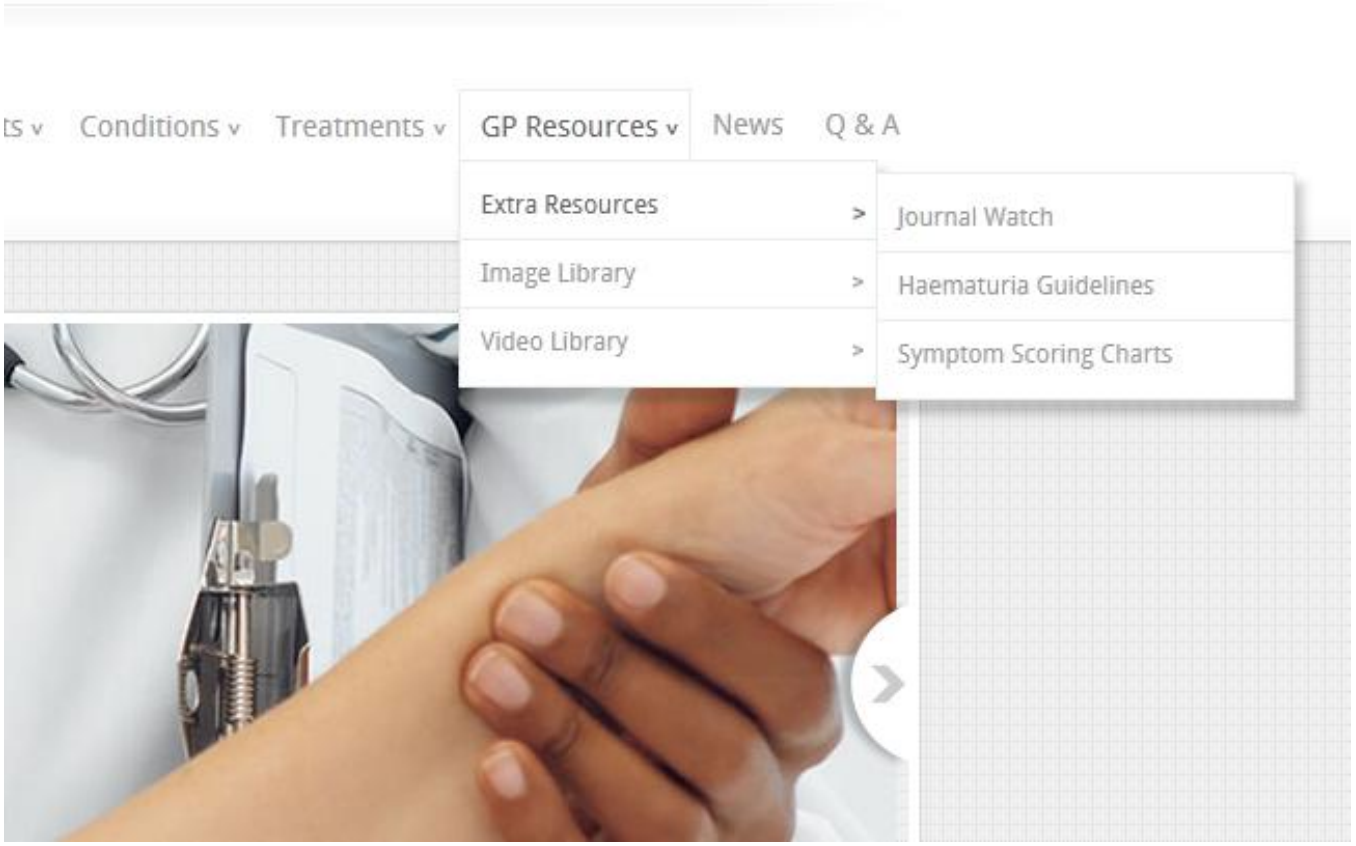
Local Urology Innovation

Staffordshire Urology Clinic



Local Urology Innovation

Staffordshire Urology Clinic



Local Urology Innovation

Staffordshire Urology Clinic

Symptom Scoring Charts

There are a number of useful patients questionnaires that score symptoms:

-A frequency / volume chart is an essential element in the assessment of both male and female patients with lower urinary tract symptoms. Click to download the Staffordshire Urology Clinic Frequency / Volume Chart.

-The IPSS is an essential tool for scoring symptoms from suspected bladder outflow obstruction (prostatitic symptoms)

-The OABSS is a questionnaire that focuses on the symptoms associated with Overactive Bladder, and can be useful in documenting response to treatment.

-The pelvic pain questionnaire documents symptoms associated with chronic pelvic pain and can be useful for charting response to treatment.

Topic

Journal

News (3

Questior

Recer

Success

12th Jun

June 21, 2

Over 20(

Staffords

June 19, 2

Staffords

Health e

Overactive Bladder
Urinary Frequency / Volume Chart

StaffordshireUrologyClinic
www.staffordshireurologyclinic.co.uk

Urinary Frequency / Volume Chart

What is a Frequency Volume Chart?

This chart is designed to measure how much you drink. It also allows your doctor to calculate how much urine you pass and how often. It helps to diagnose why you have urinary symptoms. The chart should be completed over 5 consecutive days if

Overactive Bladder
Urinary Frequency / Volume Chart

Urinary Frequency Volume Chart

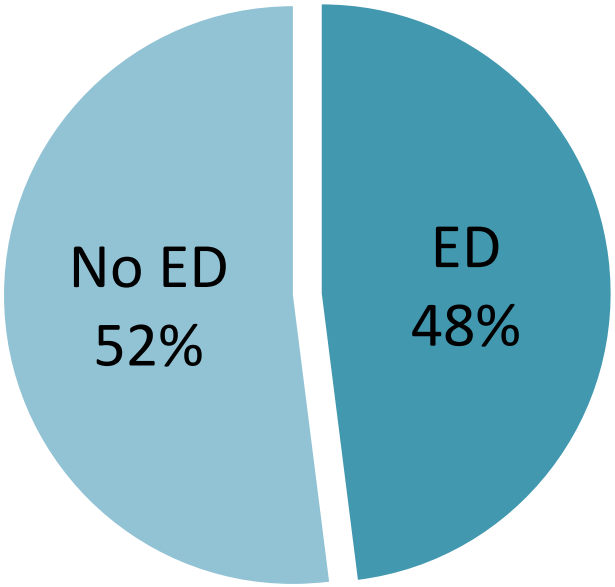
StaffordshireUrologyClinic
www.staffordshireurologyclinic.co.uk

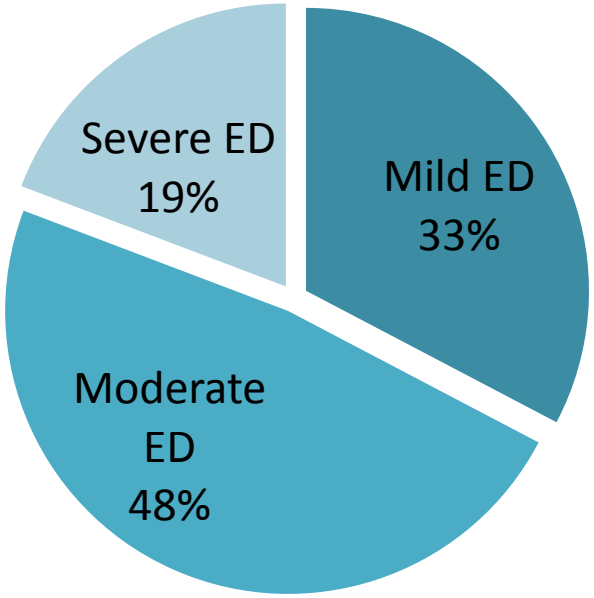
Date	/ /			/ /			/ /			/ /			/ /		
Day	1			2			3			4			5		
	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET
06.00															
07.00															
08.00															

End of Section

Erectile Dysfunction - Prevelance

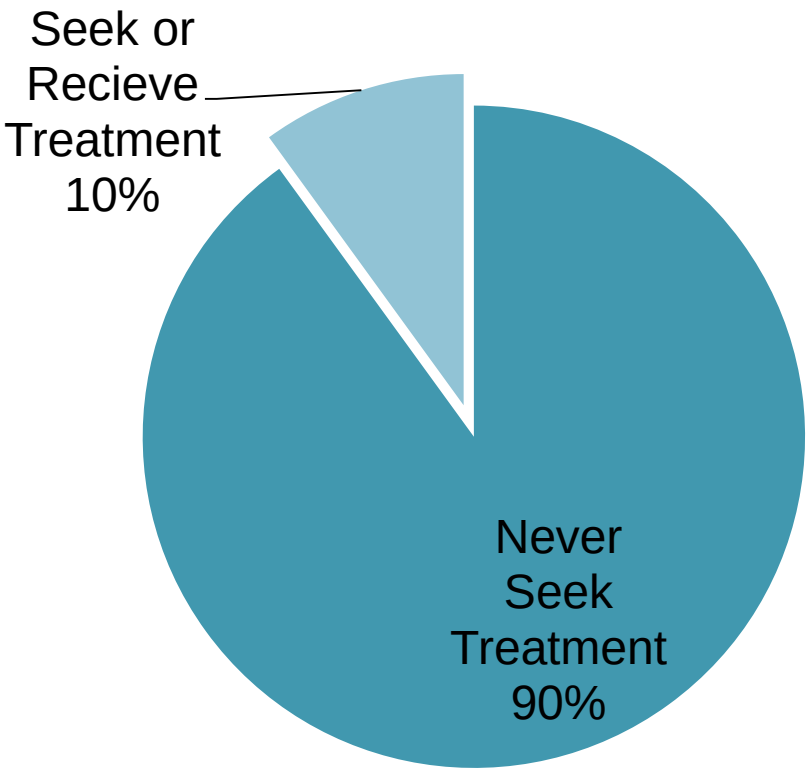
- Men aged 40 to 70 years (N=1290)
  - Minimal ED, "usually able to get or keep an erection."
  - Moderate ED, "sometimes able to get and maintain an erection."
  - Complete ED, "unable to get and keep an erection."





Erectile Dysfunction

- Massachusetts Male Aging Study (US)
- Peer review measure for ……
  - urological oncology
  - Diabetes
  - CVS



Erectile Dysfunction – Risk Factors

Risk Factor	Increased risk of ED
Diabetes	x 4.1
Hypertension	x 1.6
Hyperlipidaemia	x 1.6
Peripheral Vascular disease	x 2.6
Smoking	?
Prostate Disease	x 2.9

Erectile Dysfunction
Why is diagnosing ED important?

- 68% of men with hypertension have ED
- 60% of men with ED have dyslipidemia
- 20% of men with ED have diabetes mellitus
- 11% of men with ED have depression

Erectile Dysfunction - History

- Key Questions
  - Libido
  - Early morning erections
  - Partial / Complete
  - Sustainability
  - Bend
  - Premature Ejaculation

Erectile Dysfunction - Examination

- Focused Clinical Examination
  - Hypogonadism
  - Cardiovascular system
  - Neurology
  - Penile Deformities
  - Prostatic Disease (DRE)

Erectile Dysfunction - Tests

- Laboratory Tests
  - Glucose, lipids
  - Total Testosterone (Morning sample)

Erectile Dysfunction – Treatment 1

Treatment of erectile dysfunction

- Identify and treat "curable" causes of ED
- Provide education and counselling to patients and partners
- Lifestyle changes and risk factor modification

Identify patient needs and expectations
Shared decision making
Offer conjoint psychosocial and medical treatment

Erectile Dysfunction – Treatment 2

1st line therapy

PDE5 inhibitors ⟷ Vacuum devices

Assess therapeutic outcome:
Erectile response, side effects, satisfaction with treatment

Inadequate treatment outcome

Assess adequate use of treatment options
Provide new instructions and counseling, retrial, consider alternate or combination therapy

Inadequate treatment outcome

2nd line therapy

Intracavernosal injections
Intracavernosal alprostadil

Inadequate treatment outcome

3rd line therapy

Consider penile prosthesis implantation

Erectile Dysfunction – Local Issues

- ‘low clinical priority’ treatment for North Staffs PCT and Stoke PCT.
- Cardiac, Diabetes and Uro-oncology (as well as all cancers) have national standards for providing ED treatment.
- Area of relative economic depravity. Patients unable to pay for there PDE5i.
- Exemptions:
  - Diabetes, multiple sclerosis, Parkinson’s disease, poliomyelitis, prostate cancer, severe pelvic injury, single gene neurological disease, spina bifida, or spinal cord injury; Are receiving dialysis for renal failure; Have had radical pelvic surgery, prostatectomy (including transurethral resection of the prostate), or kidney transplant; Were receiving Caverject®, Erecnos®, MUSE®, Viagra®, or Viridal® for erectile dysfunction, at the expense of the NHS, on 14 September 1998; Are suffering severe distress as a result of impotence (prescribed in specialist centres only, see notes above).

Erectile Dysfunction –Treatment

- Sildenafil Citrate (Viagra) 25-100mg.
- Prescribe 50mg initially,
- aprox. 1 hour before sexual activity.
- Subsequent doses adjusted according to response. Max. single dose 100mg.
- Effective for up to 4 hours.
- Problems – interaction with food
- Advantage – “a house hold name”

Erectile Dysfunction –Treatment

- Tadalafil (Cialis)2.5, 5, 10-20mg.
- Prescribe 10mg initially
- approx. 30 minutes to 12 hours before sexual activity.
- Max. single dose 20mg.
- Effective for up to 36 hours.
- Advantage – longer duration of action
- “more value for money”

Erectile Dysfunction –Treatment

- Vardenafil (Levitra) 5-20mg.
- Prescribe 10mg initially,
- approx. 25-60 minutes before sexual activity (elderly 5mg).
- Subsequent doses adjusted according to response.
- Effective for up to 5 hours.
- Problem – short acting
- Advantage – no food interaction, quick action

Erectile Dysfunction –Treatment

- Alprostadil (Caverject)
- Prostaglandin (PGE1) analogue
- Second-line therapy
- Self-injection
- Start at 5 □g and titrate (on separate visits) up to 40 □g
- Erection between 5 -20 min
- 70-80% response rate

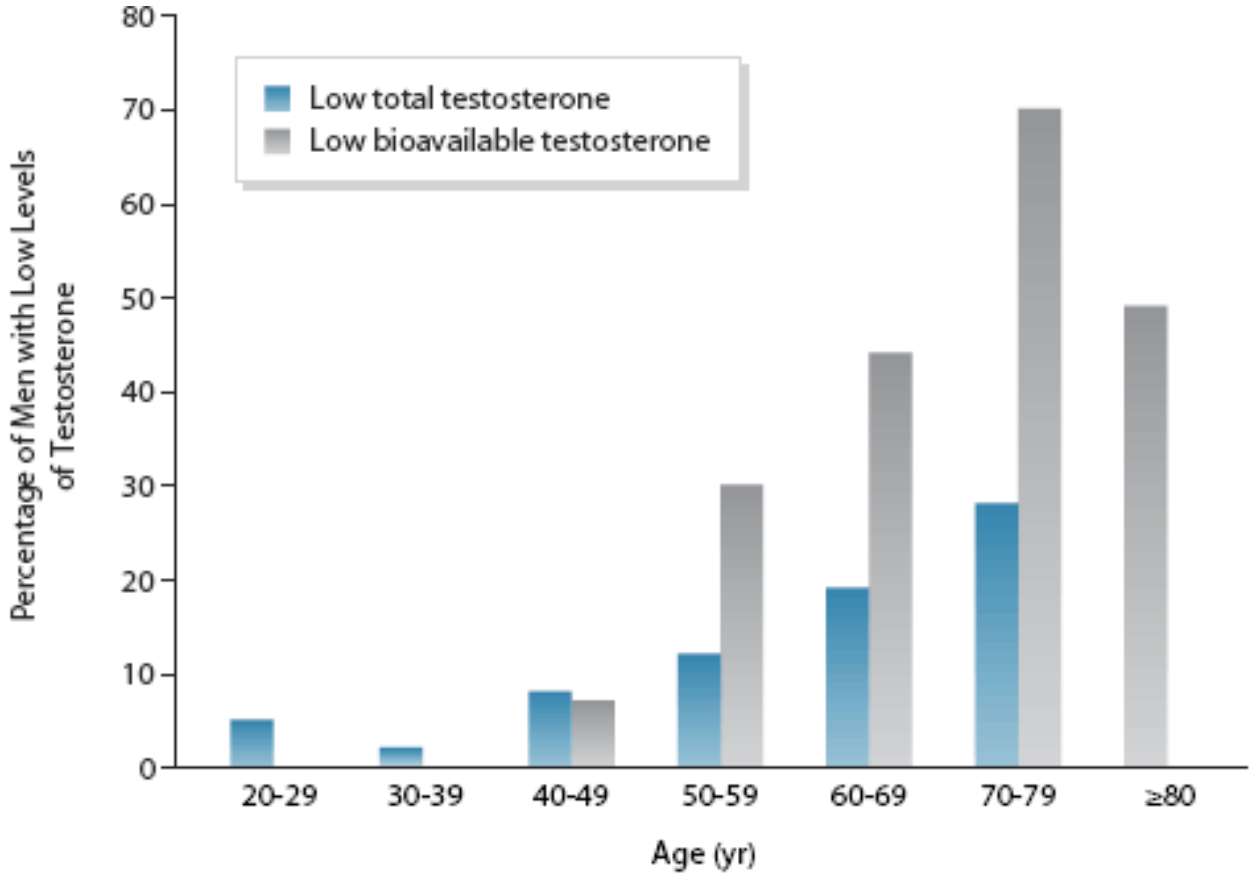
Erectile Dysfunction –Treatment

- Vacuum erection devices

- Penile implants - now standard treatment where drugs have failed
  - malleable
  - inflatable
  - AMS
  - Mentor

End of Section

Hypogonadism - Prevalence



Rhoden, N Engl J Med., 2004

Hypogonadism - Symptoms

- TAT Syndrome
- Fatigue
- Loss of muscle mass
- Fat gain
- Pain/Inflammation
- Irritability
- Depression
- Decreased memory
- Loss of Libido
- Erectile Dysfunction

Hypogonadism
ADAM Questionaire

1. Do you have a decrease in sex drive?
2. Do you have a lack of energy?
3. Do you have a decrease in strength and/or endurance?
4. Have you lost height?
5. Have you noticed a decreased enjoyment of life?
6. Are you sad and/or grumpy?
7. Are your erections less strong?
8. Has it been more difficult to maintain your erection throughout sexual intercourse?
9. Are you falling asleep after dinner?
10. Has your work performance deteriorated recently?

Hypogonadism - Treatment

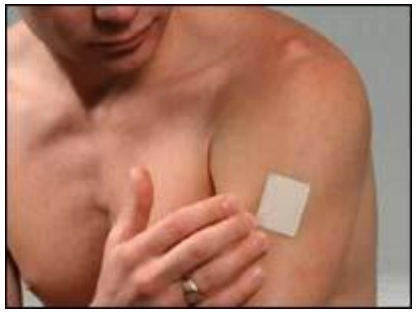
- Testosterone Delivery Systems
  - Gels and Creams
  - Patches
  - Implantable Pellets
  - IM
  - Orals

Hypogonadism – Treatment
Gels and Creams

- Ease of application
- May be more convenient—OR NOT
- Stable across week, not day
- "Pulsing" [T] may be beneficial
- Quickly attains stable serum levels
- Boosts DHT
- May elevate estrogens
- Risk of accidental transferal
- Be mindful of application method
- Avoid antecubital fossa—looks like AAS use
- EXTREMELY variable absorption…
- Especially with hypothyroidism

Hypogonadism – Treatment
Patches

- Convenient—MAYBE!
- No risk of accidental transfer
- Stable serum androgen levels
- Little DHT, E boost
- Scrotal patches available (WHEW!)
- 2/3's--Contact Dermatitis



Hypogonadism – Treatment
Injection and pellet

- Convenient—MAYBE!
- Stable across day, not week
- Ease of dose titration
- Injection risks
- Pellet “??Gold Standard??” NO MORE!

Hypogonadism – TRT Contraindications

- Prostate CA (is it?)
- Breast CA
- Untreated prolactinoma

Hypogonadism – TRT
Relative Contraindications

- PSA >4.0 or accel>0.75
- H/H> 18/55
- Sleep Apnea
- Cardiac, Hepatic, Renal Dz

Hypogonadism – TRT
Potential Risks

- Increased risk of bladder outlet symptoms due to increase in prostate volume
- Oedema in patients with preexisting cardiac, renal, or hepatic disease
- Gynaecomastia
- Erythrocytosis (monitor H/H)
- Precipitation or worsening of sleep apnea
- Acne
- Decreased sperm production
- Stimulation of growth in previously undiagnosed prostate cancer

Hypogonadism – TRT
The Goal

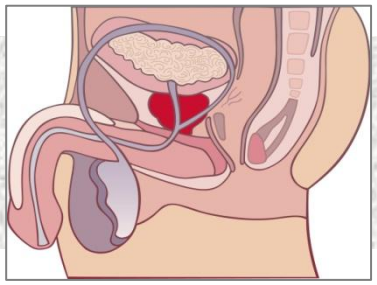
- "The ultimate goal of TRT medicine is to optimize health and happiness in our patients, which means producing an environment where we have elevated testosterone to sufficient levels, with the body responding as if it is unaware of the exogenous manipulations."

Vasectomy
Vasectomy reversal

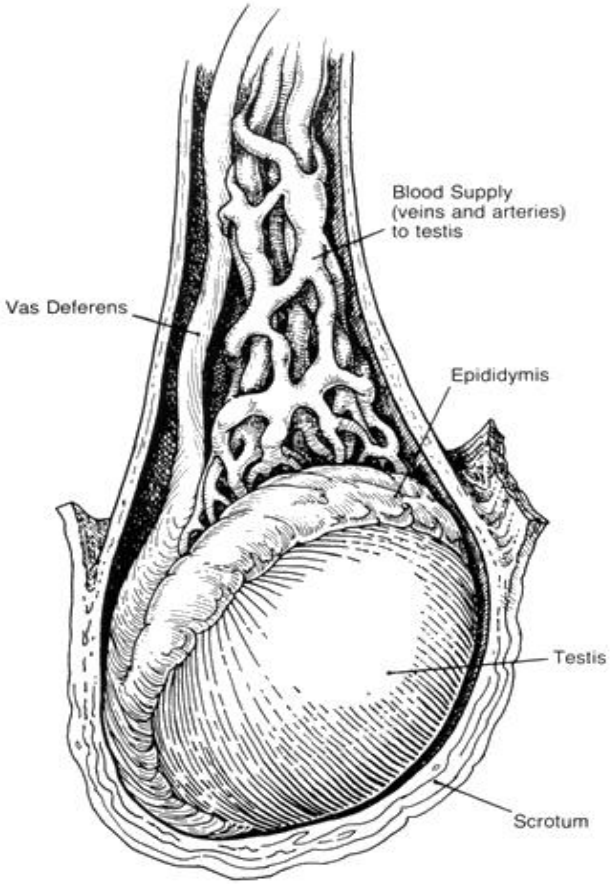
- Not available on NHS (special cases)
- No Scalpel technique
- Consultant service at Nuffield
- Reversal – microsurgery
- Good local results
- No infertility service locally

End of Section

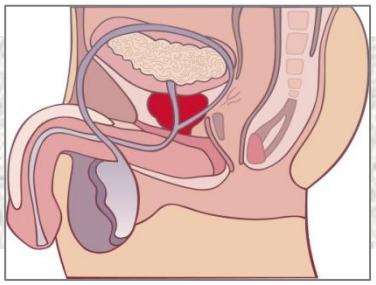
Scrotology



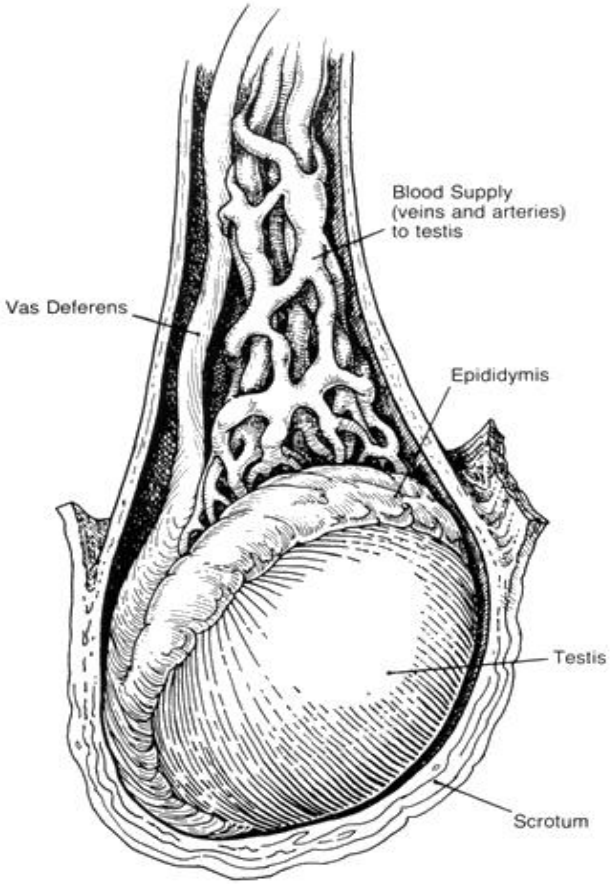
- Common swellings in Adults
  - Hernia
  - Hydrocoele
  - Testicular Tumour
  - Epididymal cyst
  - Epididymitis/orchitis - later
  - Post vasectomy epididymal swelling
  - Varicocoele
  - Others



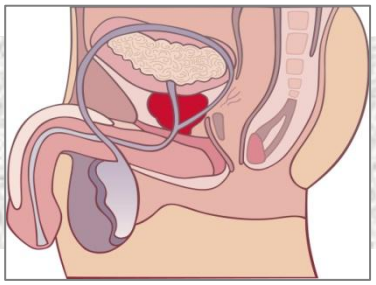
Scrotology



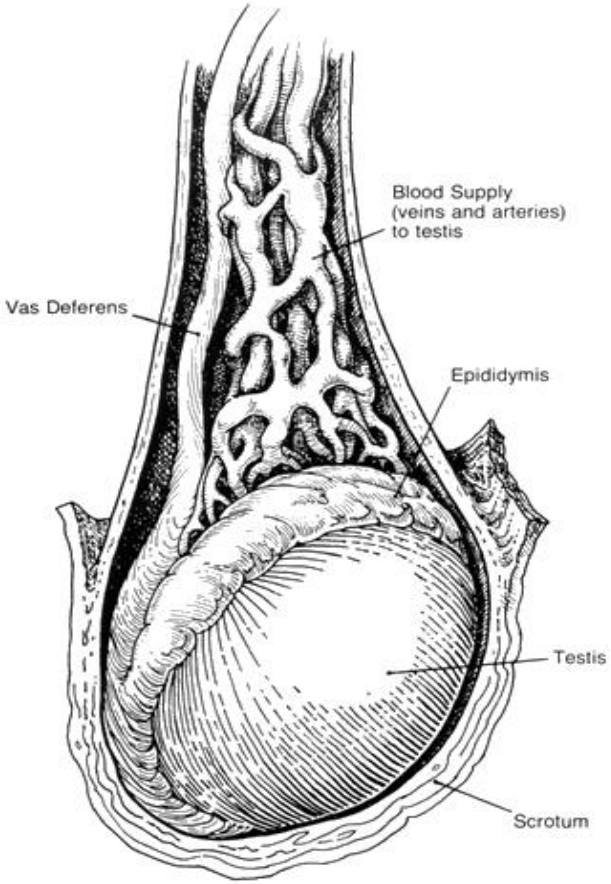
- 5 Questions?
  1. Can you get above it?
  2. Is the swelling in the body of the testis?
  3. Can you identify the testis / epididiymis?
  4. Does it transilluminate?
  5. Is it tender?



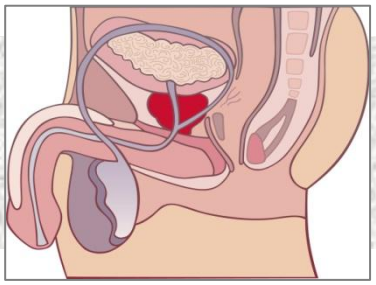
Scrotology - Hydrocoele



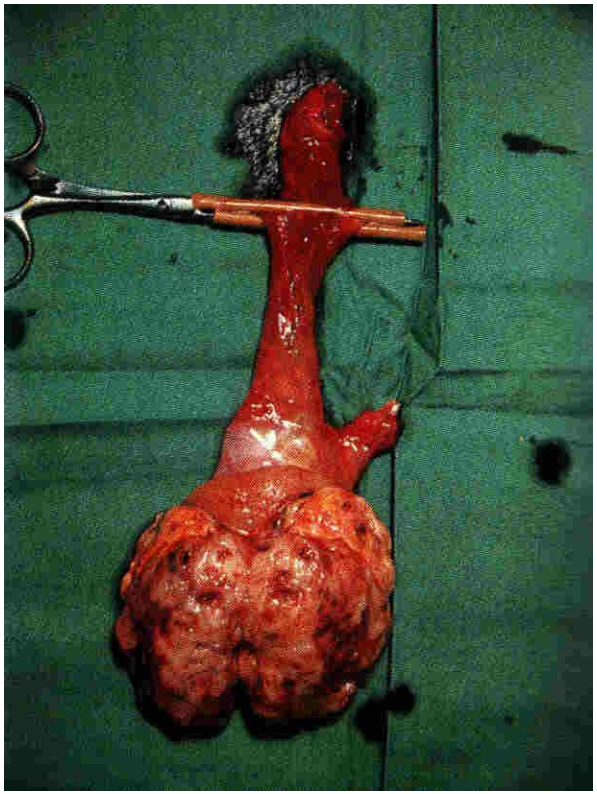
- Serous fluid surrounding testis within tunica vaginalis
  - Primary
  - unknown cause
  - usually slow to develop
  - usually > 40 yrs
- Secondary
  - Infection, trauma, tumour
  - More rapid
  - Often < 40 yrs



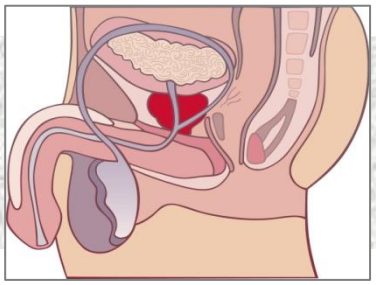
Scrotology – Testicular Cancer



- *A diagnosis important not to miss!*
- Commonest male cancer < 40 yrs
- Actually uncommon - 1500 cases p.a.
- Patient 20 - 40 yrs generally
- Often painless unilateral swelling
- Systemic symptoms uncommon
- History of maldescent?



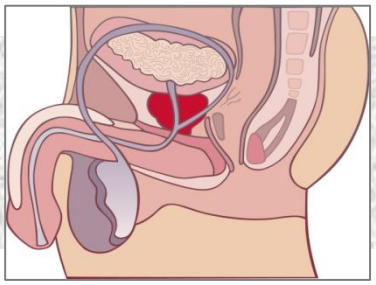
Scrotology
Post Vasectomy epididymal swelling



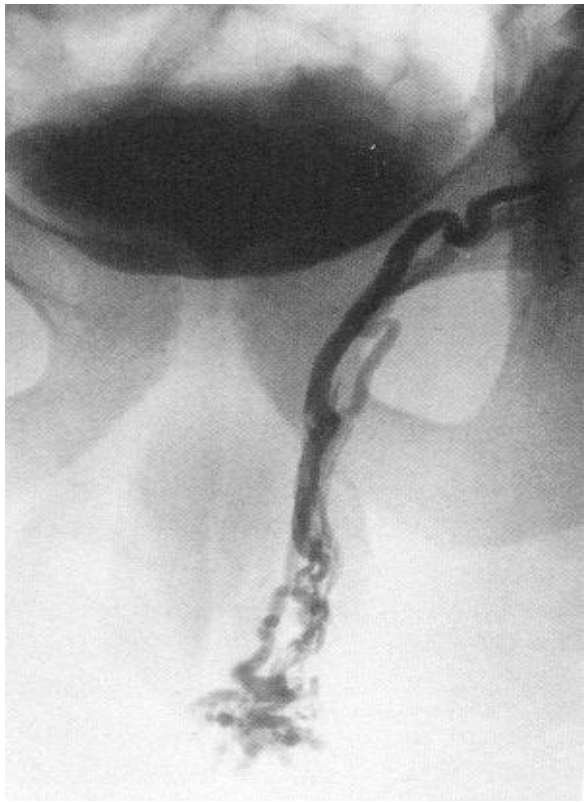
- Very common
- Early or late after vasectomy
- Bilateral
- Aching pain, worse with activity
- Thickened , fibrous epididymis
- Normal testis

Reassure

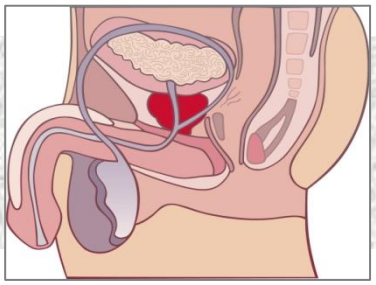
Scrotology – Varicocoele



- Rare before puberty.
- 16% of general population
- 40% of patients with subfertility
- 90% unilateral and mostly left sided.
- ‘Bag of worms’
- Stand the patient up
- (Rarely) due to renal tumour
- Treatment
  - Embolisation
  - Laparoscopic ligation

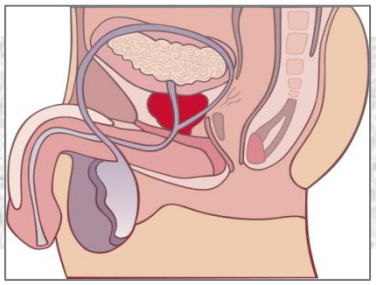


Scrotology – Scrotal Pain

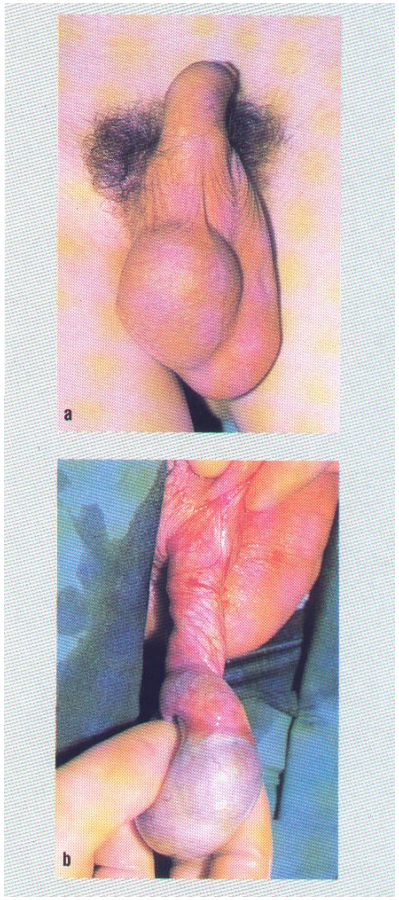


- Infection
- Post vasectomy
- Prostatic
- Referred
  - Urinary tract
  - Lumbar spine
- Psychosomatic

Scrotology – Testicular Torsion



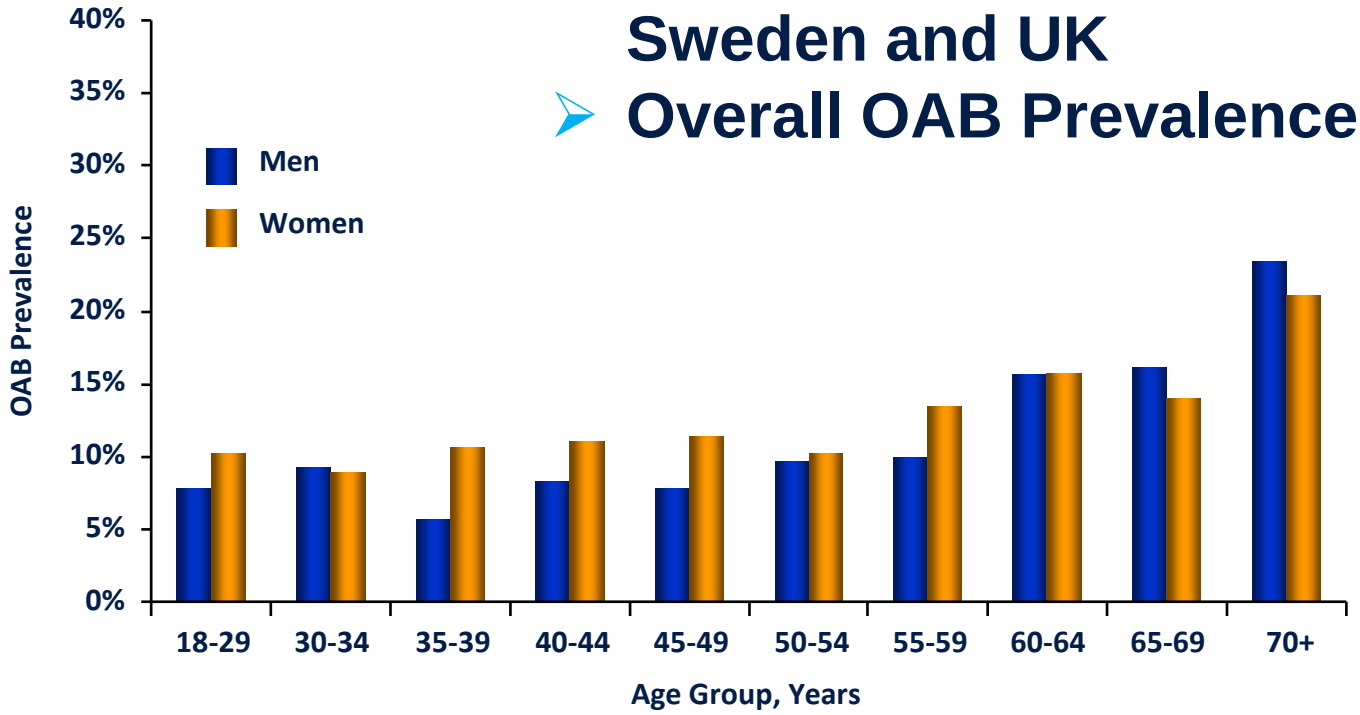
- Torsion of the spermatic cord
- Highest incidence in peri-pubertal
- Short history with rapid onset
- Investigations not 100% accurate
- Differential diagnosis includes torted hydatid/infection/tumour
- Treatment is fixation



End of Section

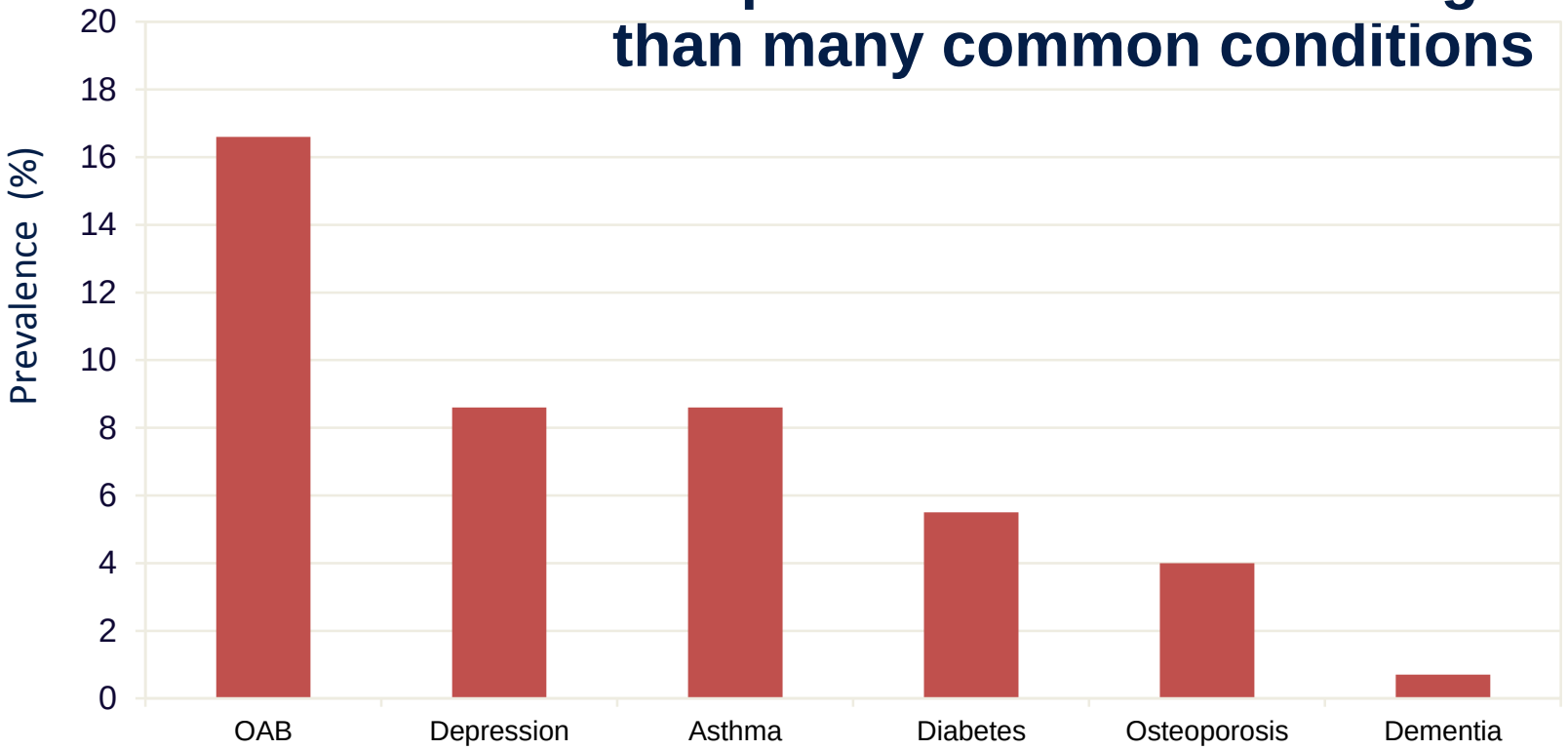
Overactive Bladder – Why Treat?

- **Data from EPIC Study (2005) Conducted in Canada, Italy, Germany, Sweden and UK**
- **Overall OAB Prevalence = 11.8%**



Overactive Bladder – Why Treat?

- **The prevalence of OAB is higher than many common conditions**



Overactive Bladder – Why Treat?

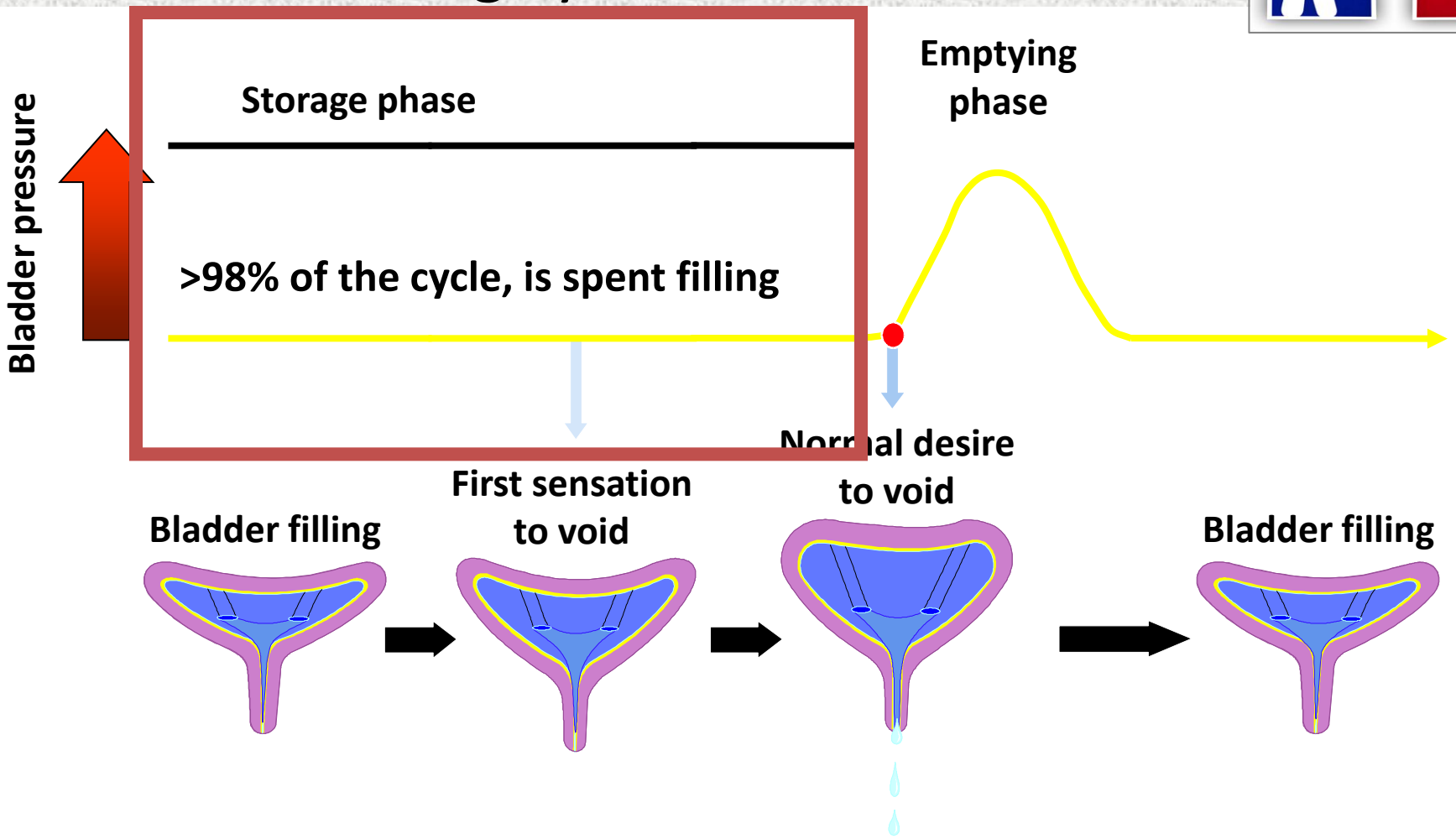
Quality of Life

- Reduced Social and Physical Activities
- Seclusion and psychological stress
- Embarrassment, frustration, anxiety and depression
- Need incontinence pads
- Coping strategies for Urgency

Overactive Bladder - Symptoms

Symptom type	Symptom
Voiding	Weak urinary stream Prolonged voiding Abdominal straining Hesitancy Intermittency Incomplete bladder emptying Terminal and post-void dribbling
Storage	Frequency Nocturia Urgency Urge incontinence
Associated symptoms	Dysuria Haematuria Haematospermia

Overactive Bladder
Normal voiding cycle



Overactive Bladder - Definition

- **Defined by the International Continence Society (ICS) as urinary urgency, with or without urgency incontinence, usually with frequency and nocturia.**
- **Definitions of signs and symptoms of OAB:**
  - **Urgency: a sudden compelling desire to void that is difficult to defer.**
  - **Urgency urinary incontinence (UUI): involuntary leakage of urine accompanied by or immediately preceded by urgency.**
  - **Urinary frequency: an increased daytime frequency (to void too often during the day) or nocturia.**
  - **Nocturia: one or more voids that interrupt a night's sleep**
  - **Frequency may be measured separately during the waking hours and during a night's sleep.**

Overactive Bladder – Urgency

URGENCY

Increased Frequency and Reduced Inter-void Interval

NOCTURIA

URGE INCONTINENCE

Reduced volumes Voided per micturition

Overactive Bladder - Assessment

- History
- Frequency volume chart / voiding diary
- Physical / pelvic examination
- Urinalysis
- Post void residual
    - Trial of treatment
- Urodynamics

Overactive Bladder
Urinary Frequency / Volume Chart

StaffordshireUrologyClinic
www.staffordshireurologyclinic.co.uk

Urinary Frequency / Volume Chart

What is a Frequency Volume Chart?

This chart is designed to measure how much you drink. It also allows your doctor to calculate how much urine you pass and how often. It helps to diagnose why you have urinary symptoms. The chart should be completed over 5 consecutive days if

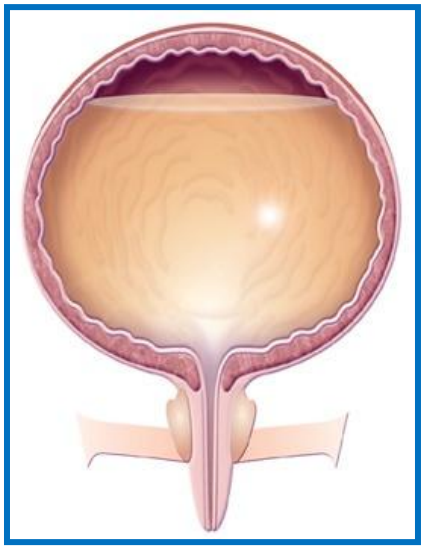
Overactive Bladder
Urinary Frequency / Volume Chart

Urinary Frequency Volume Chart

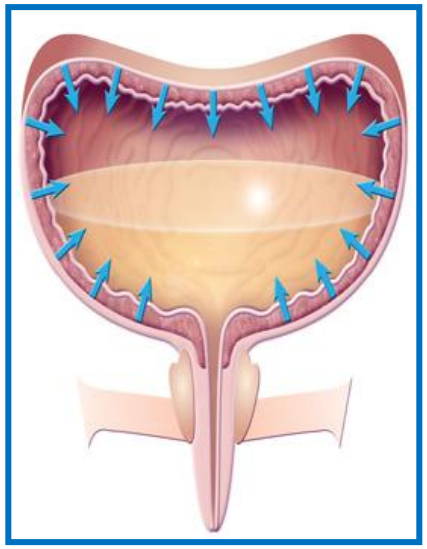
StaffordshireUrologyClinic
www.staffordshireurologyclinic.co.uk

Date	/ /			/ /			/ /			/ /			/ /		
Day	1			2			3			4			5		
	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET	IN	OUT	WET
06.00															
07.00															
08.00															

Overactive Bladder
Differential Diagnosis

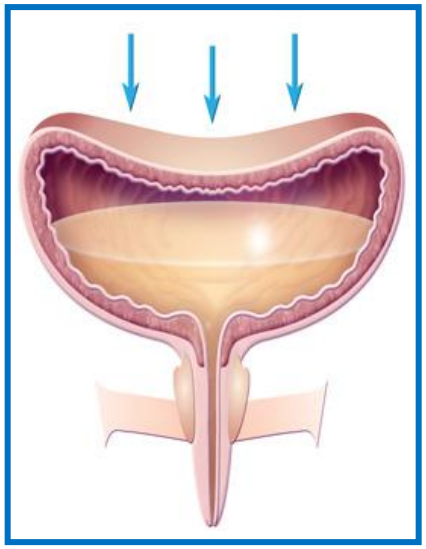


Normal Bladder



OAB

- Plus.....
- Recurrent UTIs
- Interstitial cystitis
- Carcinoma in situ



Stress Incontinence

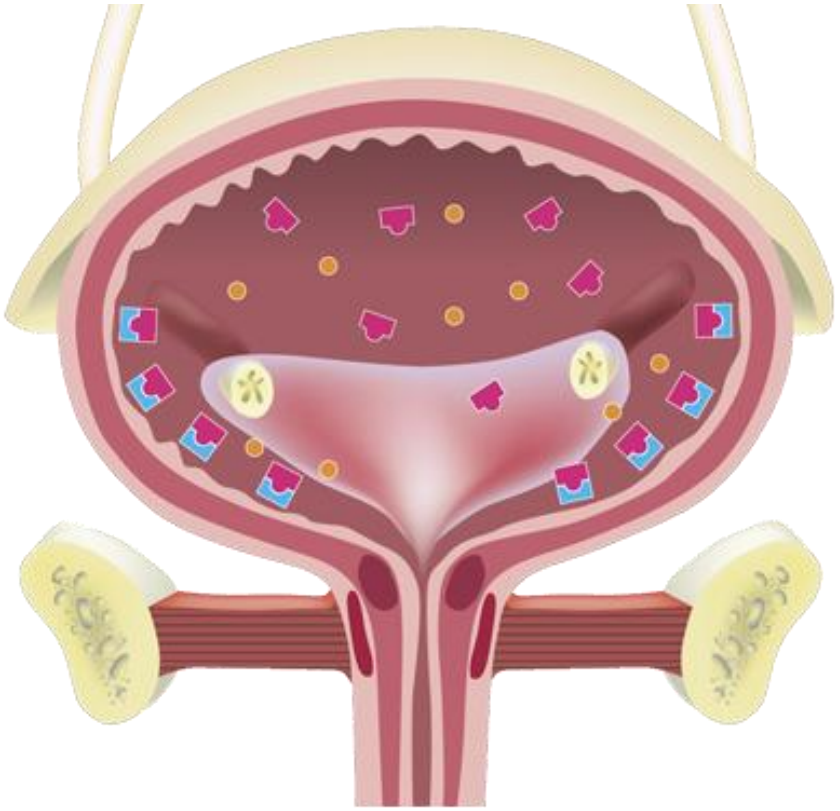
Overactive Bladder - Treatment

- Behavioural modifications:
  - Fluid advice
  - Weight loss
  - Exclusion diet
- Bladder re-training
- Pelvic floor exercises
- Anti-cholinergics
- Intra-vesical Botox injections
- PTNS / SNS
- Clam cystoplasty

Overactive Bladder - Treatment

- Behavioural modifications:
  - Fluid advice – tea, coffee, concentrated citrus drinks
  - Weight loss – BMI linked to SUI and UUI
  - Exclusion diet - precipitants
- Bladder re-training
  - Increase voiding interval by 10mins per week??

Overactive Bladder - Treatment
Anti-cholinergics

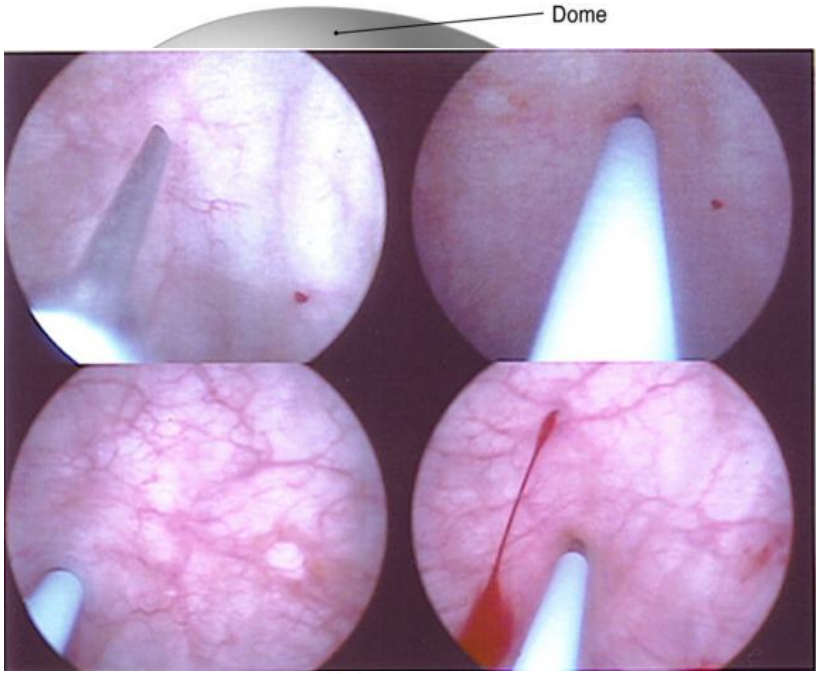


- Antimuscarinic agents are the mainstay of treatment for OAB
- They inhibit muscarinic receptors in the bladder
- This decreases involuntary detrusor contractions and increases bladder capacity

muscarinic receptor
acetylcholine
antimuscarinic agent

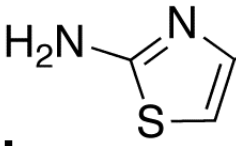
Overactive Bladder - Treatment
Local Anaesthetic Botox

- Indications: OAB refractory to conventional treatments.
- Complications: Bleeding, Infection, Retention (10-20%), Paralysis, off license indication.

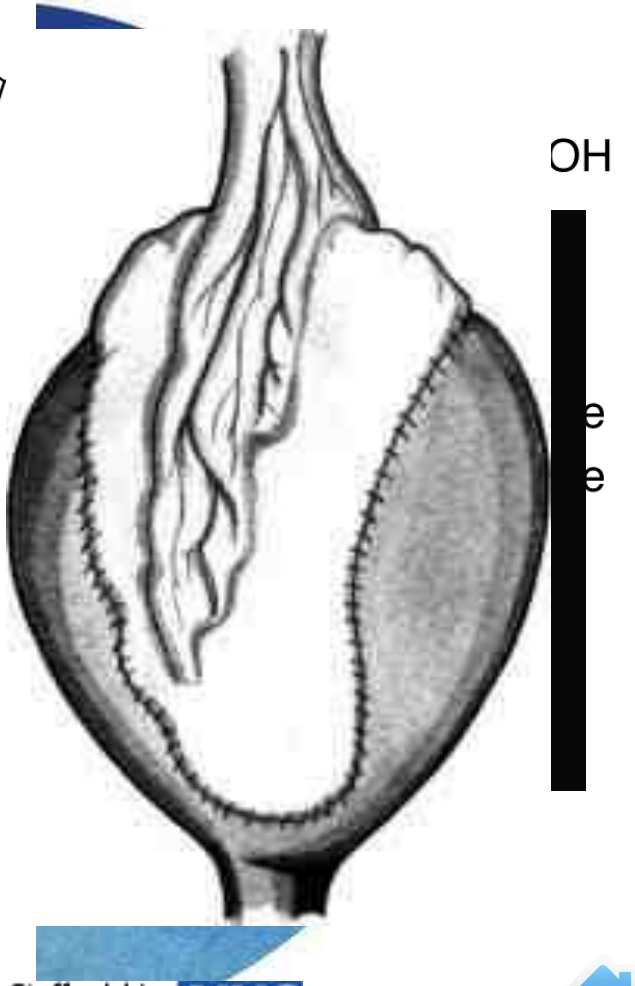


Overactive Bladder - Treatment
UHNS and SUC Developments

- Trial of new B3-adrenoreceptor agonist



- Percutaneous Tibial Nerve Stimulation (PTNS) – Urgent PC
- Sacral nerve stimulation
- Clam cystoplasty



End of Section

Female Incontinence - Definition

- Defined as involuntary urinary leakage
- May occur as a result of:
  - functional abnormalities of the lower urinary tract
  - other illnesses
- These tend to cause leakage in different situations

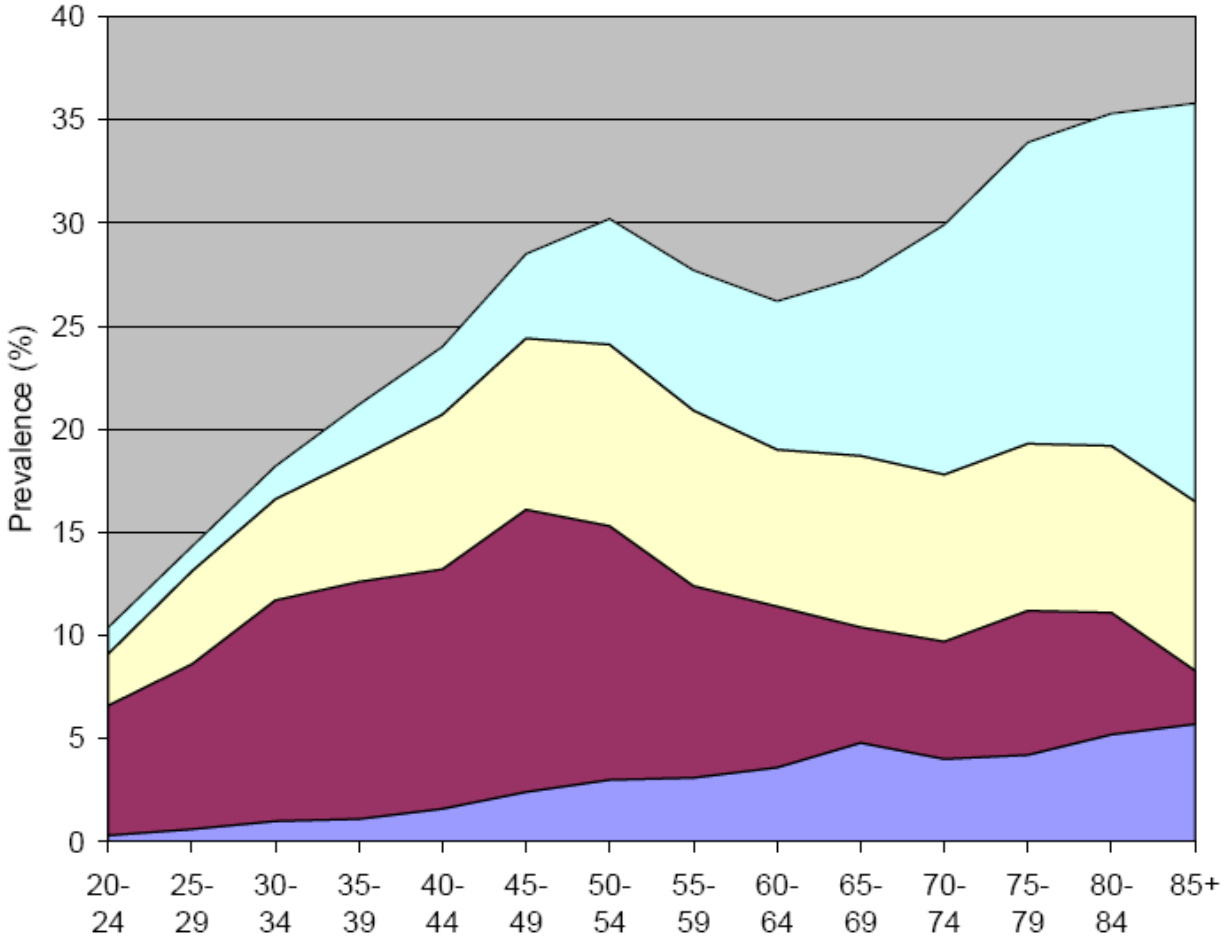
Female Incontinence Classification

Classification	Symptoms
Stress UI	on effort, exertion, or sneezing or coughing
Mixed UI	with urgency and exertion, effort, sneezing or coughing
Urge UI or overactive bladder syndrome (OAB)	with or immediately preceded by a sensation of urgent need to urinate, with or without frequency

Female Incontinence
Nice Guidelines 1

- Urinary incontinence (UI) commonly affects women of all ages
- It can seriously affect physical, psychological and social wellbeing
- The impact on families and carers may be profound
- Estimated current cost to the NHS is £233 million annually

Female Incontinence
Nice Guidelines 2



- Estimated 4 million women over 40 years regularly incontinent in UK

Female Incontinence
Risk Factors

- Associations and possible risk factors include:
  - age
  - obstetric factors such as pregnancy and parity
  - menopause and hysterectomy
  - lower urinary tract symptoms
  - family history and genetics
  - smoking, diet and obesity
  - cognitive or functional impairment

Female Incontinence Assessment

- **Assess using:**
  - bladder diaries
  - urine dipstick test
  - post void residual volume

  - **Consider:**
  - fluid intake
  - caffeine consumption
  - weight loss
  - of UI
  - Categorise and treat according to type

Female Incontinence Conservative Management

	Stress UI	Mixed UI	Urge UI or OAB	First pregnancy
Pelvic floor muscle training	*	*		*
Bladder training		*	*	
Antimuscarinic treatment		*	*	

Female Incontinence
Pelvic Floor Training and Drugs

- **Pelvic floor muscle training**
  - Eight contractions, three times a day, 3 months minimum
- **Bladder training**
  - 6 weeks minimum
- **Antimuscarinic drugs**
  - Immediate-release oxybutynin as first choice Offer support and advice for side effects
  - Multi-channel cystometry, ambulatory urodynamics or videourodynamics are not recommended before starting conservative treatment

Female Incontinence Surgery

- If conservative treatments have failed for:
- **OAB with or without urge UI offer**
  - sacral nerve stimulation

- **Stress UI offer**
  - retropubic mid-urethral procedures
  - alternatively colposuspension or rectus fascial sling

Incontinence
Local Issues

- If conservative treatments have failed for:
- **OAB with or without urge UI offer**
  - sacral nerve stimulation

- **Stress UI offer**
  - retropubic mid-urethral procedures
  - alternatively colposuspension or rectus fascial sling

End of Section