Newcastle upon Tyne, Gateshead and Northumbria
Urology guidelines

INTRODUCTION

This document is an update of the NORTH OF TYNE AND GATESHEAD GUIDELINES FOR MANAGEMENT OF COMMON UROLOGICAL CONDITIONS IN ADULTS IN PRIMARY CARE. Changes have been made to fit with current practice and align recommendations with NICE guidance and North of Tyne/Gateshead guidelines for detection, management and referral of adults with kidney disease.

The guidelines are intended to guide clinical management, but every patient should be assessed and managed individually.

These guidelines are intended for all clinicians in primary care in the Newcastle, North Tyneside, Northumberland and Gateshead areas involved in managing patients with urological conditions.

How to use the guidelines
The BNF and the North of Tyne / Gateshead Formulary should be referred to as appropriate.

Referrals
When referral to secondary care urology clinic is recommended in the guideline, referral for patients to be seen at a local outreach clinic may be preferred.
Scrotal lumps

Presentation with scrotal lump

History and examination

Testis normal and separate to scrotal lump?

Yes

Confident of diagnosis of epididymal cyst?

Yes

Ultrasound scan

Testis normal

Confirm diagnosis from ultrasound report

Epididymal cyst

Assess symptoms and patient preferences

Treatment required / clinical concern?

Yes

Reassure (routine urology referral if patient wishes treatment when symptomatic)

No

Urgent referral to urology 2 week rule

Varicocoele

Symptomatic? (pain, discomfort, dragging sensation)

Yes

Lump completely disappears when laid flat?

Yes

Routine referral to urology

Urgent renal ultrasound scan to exclude renal carcinoma

Reassure

No

Hydrocoele

No

Notes

If a varicoceole is diagnosed clinically, please follow recommendations as if diagnosed from an ultrasound scan.

Patients with a varicoceole and concerns about infertility: this is beyond the scope of this guideline, refer to other guidelines for management of infertility.

Aspiration of a hydrocoele is no longer recommended.
Recurrent Urinary Tract Infections in Non-Pregnant Females

Exclude persistent UTI – i.e. poor eradication after initial treatment
Consider extended course - >10 days of antibiotics if
-Persistent UTI
-Renal Tract Abnormality
-Immunosuppressed - CKD
Examine sensitivities of Previous MSUs

Recurrent microbiologically confirmed, symptomatic UTI
= > 2 UTIs in 6/12 or 3 in 12/12
Must obtain cultures where possible to guide further treatment

Undertake - Renal tract USS – including kidneys, full bladder and post void residual

If persistent visible haematuria for 2 weeks or persistent non-visible haematuria 6 weeks post UTI
Refer to Haematuria guidelines

Normal - If no abnormalities classify as uncomplicated UTI

Lifestyle advice
Increase fluids – ensure 24 hour urine output > 2 litres
Ensure voiding habit is regular i.e. voiding every 3 hours and undertaking double micturition
Address constipation
If diabetic – ensure blood sugar controlled
Post-coital voiding - nb diaphragm use can increase risk of UTI
Avoid irritants e.g. bubblebath, spermicide

Topical Oestrogen if evidence of introital atrophy
Methenamine Hippurate
(Probiotics)
(D Mannose)

Consider Antibiotics guided by Culture Results
Options to consider
1. Continue discrete courses of antimicrobial therapy guided by culture results
2. Self- start: must send MSU prior and provide safety-netting advice (about pyelonephritis/failure to respond)
3. Low dose prophylaxis 6/12
4. Post coital (off license indication)

Age over 60 with recurrent UTIs. Refer to Urology

Abnormal USS or PVR>100mls refer urology

Consider 6/12 Methenamine hippurate 1g bd if previous E coli
Monitor lfts at 6/52 then 3/12 if ok

Treatment failure - Refer to urology

Consider 6/12 Methenamine hippurate 1g bd if previous E coli
Monitor lfts at 6/52 then 3/12 if ok
UTIs in men

A proven UTI in a male should be investigated with an ultrasound of the urinary tract including ultrasound bladder and assessment of post micturition residual. If ultrasound is normal then urology referral may be indicated based on haematuria or cancer guidelines or if there is clinical concern.

Haematospermia

Haemospermia

Visible or confirmed non-visible haematuria?

Yes

Refer to haematuria guideline

No

Digital rectal examination and PSA* following appropriate counselling

Normal and no clinical concern

Yes

Reassure

No

Refer to urology

Notes

There is a low correlation between haemospermia and prostate cancer.

It is important to exclude haematuria (visible or non-visible). Non-visible haematuria is confirmed with 1+ blood or more on urine dipstick, on 2 or more occasions (urine microscopy should not be used to diagnose haematuria).

* refer to PSA guideline

Please note we are aware that these guidelines do not align with NICE guideline but feel there is clinical consensus with above approach.

If haematospermia is recurrent or persistent – consider referral to urology.
Renal cysts

Renal cyst on ultrasound

Cyst with complex features - thick septae, solid component, significant calcification or radiological concern

No

yes

Arrange Pre and Post-contrast CT Scan kidneys

Complex Cyst on CT Bosniak classification 2 F, 3 or 4

Refer to Urology – on 2 week pathway if Bosniak 4

Reassure
If a simple renal cyst is large, (e.g. >5 cm diameter), and the patient has pain, consider referral to Urology

Bosniak classification 1 or 2 cyst
Symptoms suggesting urinary tract stones

Symptom suggestive of kidney stones - (consider emergency/urgent referral to FRH on call urology if severe pain)

CT-KUB

Renal tract stone(s) confirmed and correlating with patient symptoms

Yes

Refer to Urology for assessment and further management including recommendations about follow up.

No

Reassess, manage appropriately
Incidental finding of renal stones

Incidental finding of stone on ultrasound imaging

USS not diagnostic

CT KUB

Stone confirmed

Single stone 5 mm or less

Observe, Metabolic Assessment as per renal guidelines and repeat original imaging modality in 1 year. *Re-evaluate if becomes symptomatic

Multiple stones or stone size 6mm or greater

Refer to Urology for assessment and further management including recommendations about follow up.
Kidney Stone Patient Metabolic Assessment

1st presentation

Serum Ca\(^{2+}\): Raised

Serum Urate: Raised

EndoEndocrinology

Dietary advice (reduce meat), GP to consider allopurinol

Normal - Advise high fluid intake, low salt diet, minimise cola intake

24 hour urine Ca\(^{2+}\), citrate, oxalate, cystine

Isolated mild hypercalciuria (up to 8mmol/24 h)

Abnormal 24 h urine (low citrate, raised calcium >8mmol/24 h, raised oxalate / cystine)

Advice: increase fluid intake reduce Na\(^+\) in diet (reduce processed food + don’t add salt) + check PTH, vit D + repeat 24 hour urine after diet modification

Abnormal

Nephrology Referral

Multiple (2-3) stone episodes or presentation <25

Normal - Advise high fluid intake, low salt diet, minimise cola intake

Spot Urine Ca\(^{2+}\): Raised

Normal

Parenteral bypass (?enteric hyperoxaluria) hyperoxaluria)

Pure calcium phosphate stone (?)

Cystine stone or elevated urine cystine

Strong Family History

Nephrocalcinosis

Childhood stones

Dietary advice (reduce meat), GP to consider allopurinol

Nephrocalcinosis
Lower urinary tract symptoms (LUTS) in men: assessment and management

**Suspected LUTS in a man**

**Initial assessment**
- Assess symptoms: voiding, storage, nocturia, post micturition dribble
- Ask about lifestyle including caffeine, alcohol, prescribed and OTC drugs, fluid intake
- Assess how troublesome symptoms are and complete IPSS score (see next page)
- Examine abdomen and external genitalia
- Perform DRE
- Perform urine dipstick for blood, glucose, leucocytes, and nitrites
- Check eGFR if renal impairment suspected
- Offer PSA testing after appropriate counselling if: Suspected BPH, or Prostate abnormal, or Prostate cancer suspected

**Consider if there is an underlying cause for obstructive symptoms (eg drugs, urethral stricture, urological cancer, neurological problems)**

**PSA raised**
Refer to flow chart for raised PSA for further management

**If troublesome LUTS symptoms**
Assess severity with urinary frequency volume chart

**Symptoms not very troublesome and low risk of progression**
Lifestyle advice
Review after 3 months

**Consider conservative measures, which may include:**
- Pelvic floor muscle training
- Bladder training
- Post void milking
- Prudent fluid intake
- Healthy lifestyle
- Containment products (pads, waterproof pants, external sheath)
- Catheter only if no other option

**Regular review**
If symptoms become more troublesome, consider drug treatment (see flow chart for drug treatment)

**Symptoms troublesome and or high risk of progression**
Lifestyle advice

**Consider drug treatment**
(see flow chart for drug treatment)

**Risk of progression of benign prostatic enlargement is higher in men:**
- Who are older
- With a poorer urine flow
- Have a higher symptom score
- Have evidence of bladder decompensation (eg chronic urinary retention)
- Larger prostate
- Higher PSA level

**Refer to urology (2 week rule) if urological cancer suspected:**
- Haematuria (refer to haematuria guideline)
- Raised PSA (refer to PSA guideline)
- Abnormal prostate on DRE
Other symptoms for urgent referral (use clinical judgement to determine urgency)
- Palpable bladder
- Neurological symptoms

**Refer to urology for raised PSA for further management**

**Consider if there is an underlying cause for obstructive symptoms (eg drugs, urethral stricture, urological cancer, neurological problems)**
Drug flow chart for drug treatment in male patients with Lower urinary tract symptoms

Drug treatment for LUTS being considered (see LUTS management guideline above)

Symptoms troublesome and moderate to severe (IPSS score ≥ 8) and prostate is small and / or PSA < 1.4 nanogram / ml

Offer alpha blocker, uroselective agent better tolerated, more effective, eg tamsulosin or other local formulary drug (if doxazosin is used minimum effective dose is 10 mg)

If storage symptoms persist once voiding symptoms managed:
• Refer to urologist, or
• If confident that prostate is small, consider cautious use of an antimuscarinic agent (consider side effects, tolerability: refer to local formulary)

Symptoms troublesome and moderate to severe (IPSS score ≥ 8) and prostate appears large (PSA > 1.4 nanogram / ml)

Offer alpha blocker, uroselective agent better tolerated, more effective, eg tamsulosin or other local formulary drug (if doxazosin is used minimum effective dose is 10 mg) plus 5-alpha-reductase inhibitor, eg finasteride (remember to counsel to use a condom if sexual partner is pregnant or likely to become pregnant, women of child bearing age should not handle crushed or broken tablets) or other local formulary drug

High risk of progression and prostate seems large (PSA > 1.4 nanogram / ml), but symptoms NOT troublesome

Offer 5-alpha-reductase inhibitor only, eg finasteride (remember to counsel to use a condom if sexual partner is pregnant or likely to become pregnant, women of child bearing age should not handle crushed or broken tablets) or other local formulary drug

If treatment fails
Refer to urology

Notes
Refer to local formulary for additional information and for details of drugs on the local formulary

Follow up
Alpha-blocker: after 4-6 weeks, and then every 6-12 months
5-alpha-reductase inhibitor: after 3-6 months, then every 6-12 months
Antimuscarinic agent: every 4-6 weeks until stable, then every 6-12 months

Interpretation of PSA results
After 6 months of 5-alpha reductase inhibitor use, PSA levels reduce by about 50%. When interpreting a PSA level measured after at least 6 months of 5-alpha reductase inhibitor treatment, double the PSA result

Risk of progression of benign prostatic enlargement is higher in men:
• Who are older
• With a poorer urine flow
• Have a higher symptom score
• Have evidence of bladder decompensation (eg chronic urinary retention)
• Larger prostate
• Higher PSA level

Drug flow chart for drug treatment in male patients with Lower urinary tract symptoms
Female LUTS guidelines

If failed conservative treatment or previous urogynaec surgery or suspected neurological cause refer to urology or neurology depending on circumstances

Exclude UTI
IF persistent NVH or VH refer to haematuria guidelines

Exclude significant vaginal prolapse
Exclude palpable pelvic mass
Consider USS postvoid residual
If residual >100mls refer to urology

Female LUTS

Mainly voiding LUTS
Baseline ICIQ Score or similar
If introital atrophy consider topical oestrogens

Mainly Storage LUTS
Baseline ICIQ Score or similar
Lifestyle modification
Modify high/low fluid intake
Reduce caffeine
Weight reduction
Smoking cessation
Bladder training
PFM
No improvement refer to urology

Incontinence – see Community incontinence pathway

If residual >100mls refer to urology

Pelvic mass/significant vaginal prolapse refer gynaec

Excluding pelvic mass or significant vaginal prolapse

Pelvic mass/significant vaginal prolapse refer gynaec

Exclusion UTI
IF persistent NVH or VH refer to haematuria guidelines

Excluding pelvic mass or significant vaginal prolapse

? OAB
As per North of Tyne OAB pathway
Consider 6/52 trial of anticholinergic – Oxybutynin IR/Tolterodine IR or mirabegron if contraindicated
If elderly/frail for darifenacin
If fails anticholinergic trial consider 3/12 mirabegron
Assessment and referral of non-visible haematuria – taken from North of Tyne/Gateshead guidelines for detection, management and referral of adults with kidney disease

**Assessment and referral of patients with non-visible haematuria**

- **Non-visible haematuria not due to symptomatic UTI**

  - Measure clinic blood pressure
  - Send blood for creatinine, eGFR, electrolytes
  - Send urine for ACR
  - Ultrasound renal tract / bladder (ensure full bladder)

  - **Age < 45 years**
    - Investigations normal
      - BP > 140/90 AND eGFR ≥ 60 ml/min/1.73m² AND ACR < 30 mg/mmol
      - Refer to urology if: Develops visible haematuria, or Symptomatic non-visible haematuria
      - Refer to nephrology if: Develops proteinuria eGFR < 30 ml/min/1.73m² on 2 separate occasions, or eGFR falls by > 5 ml/min/1.73m² over 5 years
    - Cause not established
      - Annual reassessment in primary care whilst haematuria persists

  - **Age ≥ 45 years**
    - Investigations abnormal
      - BP > 140/90 OR eGFR < 60 ml/min/1.73m² OR ACR ≥ 30 mg/mmol OR Abnormality of renal tract on ultrasound
      - Refer to Nephrology: or Refer to Urology if abnormality of renal tract on ultrasound scan or if not optimal visualisation

  - **Cause not established**
    - Refer to Nephrology if:
      - BP > 140/90 OR eGFR < 60 ml/min/1.73m² OR ACR ≥ 30 mg/mmol
    - All others annual reassessment in primary care whilst haematuria persists

  - **Cause established and managed**

**Notes**

- Non-visible haematuria is confirmed with 1+ blood or more on urine dipstick, on 2 or more occasions as soon as possible and within 6 weeks (urine microscopy should not be used to diagnose haematuria).
- Non-visible haematuria should not be attributed to oral anticoagulants in the therapeutic range and/or anti-platelet agents as a cause.
- If associated with a UTI treat UTI and ensure haematuria has resolved.
Visible haematuria
taken from North of Tyne/Gateshead guidelines for detection, management and referral of adults with kidney disease

Assessment and referral of patients with visible haematuria

**Aged < 45 years**
Visible haematuria without a symptomatic UTI, or visible haematuria recurs after successful treatment of UTI

- Refer to urology
  - Urgent referral

**Aged ≥ 45 years**
Visible haematuria without a symptomatic UTI, or visible haematuria recurs after successful treatment of symptomatic UTI

- Refer to urology
  - 2 week pathway for suspected cancer

**Notes**
Visible haematuria should not be attributed to oral anticoagulants in the therapeutic range and/or anti-platelet agents as a cause.
Summary of urology referral for cystoscopy

Visible haematuria (no UTI) > 45 years – 2 week cancer pathway
Visible haematuria (no UTI) < 45 years – urgent referral
Non-visible haematuria (no UTI) age > 60 with dysuria or raised wcc – 2 week cancer pathway
Non-visible haematuria (no UTI) age > 45 – urgent referral

Visible haematuria associated with UTI, persisting for > 2 weeks – urgent referral
Non-visible haematuria associated with UTI, persisting for > 6 weeks, age > 45 – urgent referral
Recurrent UTIs (with or without haematuria) over the age of 60 – urgent referral

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