key points

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Lower urinary tract symptoms (LUTS) in men can arise from the bladder, bladder neck, urethral sphincter, urethra or prostate. LUTS are a growing concern among the aging population. Global prevalence rates range from 50 to 75% among men 50 years of age and older to 80% among men 70 years of age and older. LUTS can have a detrimental effect on quality of life. LUTS can be classified into two major categories: storage or irritative symptoms and obstruction or voiding symptoms. Storage LUTS include: increased frequency of urination, nocturia, urgency and urge incontinence. Voiding LUTS include: weak stream, split stream, hesitancy, intermittency, straining, incomplete voiding and retention.

Benign prostatic hyperplasia (BPH) is the most common cause of LUTS. It is estimated that by 80 years of age almost 90% of men have developed BPH at varying symptomatic levels. Specific LUTS associated with prostate enlargement include: urgency, intermittency, incomplete emptying, weak stream and nocturia. Prostatitis can present with similar symptoms although the presence of pain may make prostatitis the more likely diagnosis. Recently worsening LUTS, over months rather than years, may also indicate prostate cancer, particularly if accompanied by progressive constitutional symptoms, such as weight loss and fatigue.

Patients should be asked about all potential voiding and storage symptoms. The medication history should cover diuretics, herbal remedies and in particular ketamine abuse, if suspected, which may cause significant storage LUTS. The I-PSS can be very useful to track the progression of LUTS over multiple consultations. A full abdominal examination should be performed incorporating assessment for acute retention. The examination should include the external genitalia and a DRE to help assess prostate size, nodularity indicative of malignancy, rectal sphincter tone and perianal sensation. Blood tests should include a full blood count, renal function, glucose and HbA_{1c} (if diabetes is suspected), and PSA (if prostate cancer is suspected). Urinalysis should be performed for blood, glucose, protein, leucocytes and nitrite followed by microscopy, culture and sensitivity if a UTI is suspected.

If the patient's symptoms and examination findings are suspicious of cancer then an urgent two week wait referral must be made to a consultant urologist. Other reasons for referral may include: complicated LUTS with recurrent or persistent UTI, urinary retention, renal impairment, stress incontinence or bothersome LUTS not resolved by conservative or drug management.

Initial management of LUTS should involve conservative lifestyle adjustments. In BPH, the mainstay of treatment is alpha blockers to relax the bladder neck and ease urination, and/or 5-alpha reductase inhibitors to reduce prostate growth. Where conservative measures are unsuccessful, antimuscarinics or mirabegron may help urge incontinence.