treatment, especially in patients with pre-existing hypertension.

● **NATIONAL FUNDING/ACCESS DECISIONS**

NICE decisions

▸ **Mirabegron for treating symptoms of overactive bladder (June 2013)** NICE TA290
Mirabegron (*Betmiga*®) is recommended as an option only for patients in whom antimuscarinic drugs are ineffective, contra-indicated, or not tolerated; patients currently receiving mirabegron who do not meet these criteria should have the option to continue until they and their clinician consider it appropriate to stop.
www.nice.org.uk/guidance/ta290

● **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug.

Modified-release tablet

CAUTIONARY AND ADVISORY LABELS 25

▸ **Betmiga** (Astellas Pharma Ltd)
Mirabegron 25 mg Betmiga 25mg modified-release tablets | 30 tablet PoM £29.00 DT = £29.00
Mirabegron 50 mg Betmiga 50mg modified-release tablets | 30 tablet PoM £29.00 DT = £29.00

1.2 Urinary retention

Urinary retention

31-May-2017

Description of condition

Urinary retention is the inability to voluntarily urinate. It may be secondary to urethral blockage, drug treatment (such as use of antimuscarinic drugs, sympathomimetics, tricyclic antidepressants), conditions that reduce detrusor contractions or interfere with relaxation of the urethra, neurogenic causes, or it may occur postpartum or postoperatively.

Acute urinary retention is a medical emergency characterised by the abrupt development of the inability to pass urine (over a period of hours).

Chronic urinary retention is the gradual (over months or years) development of the inability to empty the bladder completely, characterised by a residual volume greater than one litre or associated with the presence of a distended or palpable bladder.

Urinary retention due to benign prostatic hyperplasia

The most common cause of urinary retention in men is benign prostatic hyperplasia. Men with an enlarged prostate can have lower urinary tract symptoms associated with obstruction, such as urinary retention (acute or chronic), frequency, urgency or nocturia.

Treatment

Treatment of urinary retention depends on the underlying condition. Catheterisation is used to relieve acute painful urinary retention or when no cause can be found. Surgical procedures or dilatation are often used to correct mechanical outflow obstructions.

Acute urinary retention

EvGr Acute retention is painful and requires immediate treatment by catheterisation. Before the catheter is removed an alpha-adrenoceptor blocker (such as alfuzosin hydrochloride below, doxazosin p. 826, tamsulosin hydrochloride p. 828, prazosin p. 827, indoramin p. 827 or terazosin p. 829) should be given for at least two days to manage acute urinary retention. A

Chronic urinary retention

EvGr In patients with chronic urinary retention, intermittent bladder catheterisation should be offered before an indwelling catheter. Catheters may be used as a long-term solution where persistent urinary retention is causing incontinence, infection, or renal dysfunction and a surgical solution is not feasible. A Their use is associated with an increased risk of adverse events including recurrent urinary infections, trauma to the urethra, pain, and stone formation.

EvGr In men who have symptoms that are bothersome, drug treatment should only be offered when other conservative management options have failed. Men with moderate-to-severe symptoms should be offered an alpha-adrenoceptor blocker (alfuzosin hydrochloride, doxazosin, tamsulosin hydrochloride or terazosin). Treatment should initially be reviewed after 4–6 weeks and then every 6–12 months. A

The parasympathomimetic bethanechol chloride p. 830 increases detrusor muscle contraction. It is licensed for acute postoperative, postpartum and neurogenic urinary retention but its use has largely been superseded by catheterisation.

Urinary retention due to benign prostatic hyperplasia

In patients with benign prostatic hyperplasia, treatment is influenced by the severity of symptoms and their effect on the patient's quality of life. EvGr Watchful waiting is suitable for men with symptoms that are not troublesome and in those who have not yet developed complications of benign prostatic hyperplasia such as renal impairment, urinary retention or recurrent infection.

The recommended treatment of benign prostatic hyperplasia is usually an alpha-adrenoceptor blocker. The alpha$_1$-selective adrenoceptor blockers relax smooth muscle in benign prostatic hyperplasia producing an increase in urinary flow-rate and an improvement in obstructive symptoms.

In patients with an enlarged prostate, a raised prostate specific antigen concentration, and who are considered to be at high risk of progression (such as the elderly), a 5α-reductase inhibitor (such as finasteride p. 831 or dutasteride p. 830) should be used. A combination of an alpha-adrenoceptor blocker and a 5α-reductase inhibitor can be offered if symptoms remain a problem.

Surgery is recommended for men with more severe symptoms that do not respond to drug therapy, or who have complications such as acute urinary retention, haematuria, renal failure, bladder calculi or recurrent urinary-tract infection. A

Related drugs

Other drugs used for urinary retention: neostigmine p. 1188, pyridostigmine bromide p. 1188.

Useful Resources

Lower urinary tract symptoms in men. National Institute for Health and Care Excellence. Clinical guideline CG97. May 2010 (updated June 2015).
www.nice.org.uk/guidance/cg97

Other drugs used for Urinary retention Tadalafil, p. 860

ALPHA-ADRENOCEPTOR BLOCKERS

Alfuzosin hydrochloride

20-May-2020

● **INDICATIONS AND DOSE**

Benign prostatic hyperplasia

▸ BY MOUTH USING IMMEDIATE-RELEASE MEDICINES
▸ Adult: 2.5 mg 3 times a day; maximum 10 mg per day
▸ Elderly: Initially 2.5 mg twice daily, adjusted according to response; maximum 10 mg per day
▸ BY MOUTH USING MODIFIED-RELEASE MEDICINES
▸ Adult: 10 mg once daily

continued →