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## Urinary incontinence in men

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## Нетримання сечі у чоловіків

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### Introduction

Urinary incontinence has a significant psychosocial impact in men, reducing their quality of life. It has been less thoroughly investigated than incontinence in women; nevertheless, a detailed history and physical examination to classify the type of incontinence are key to guiding management. Urinary incontinence is defined by the International Continence Society as 'the complaint of any involuntary loss of urine'.

Several types of urinary incontinence have been defined in the adult male, the most common being urgency urinary incontinence, stress urinary incontinence and mixed urinary incontinence (see Table). In clinical practice, it is often the case that a patient presents with features of more than one type of incontinence, along with a variety of underlying disease processes. Nevertheless, it is useful to make such classifications as each type of incontinence has different aetiologies, clinical manifestations and treatments.

Table. **Types of urinary incontinence** (Source: Mangir, N., 2020)

International Continence Society term	Definition
Urgency urinary incontinence	The complaint of involuntary loss of urine associated with urgency
Stress urinary incontinence	The complaint of involuntary loss of urine on effort or physical exertion including sporting activities, sneezing or coughing
Mixed urinary incontinence	The complaint of both stress and urgency urinary incontinence, ie involuntary loss of urine associated with urgency as well as with effort or physical exertion including sporting activities, sneezing or coughing (stress)
Enuresis	The complaint of intermittent (non-continuous) incontinence that occurs during periods of sleep
Continuous urinary incontinence	The complaint of continuous involuntary loss of urine
Insensible urinary incontinence	The complaint of urinary incontinence where the individual is aware of urine leakage but unaware of how or when it occurred
Postural urinary incontinence	The complaint of urinary incontinence during change of posture or position, eg from supine or seated to standing
Disability associated incontinence	The complaint of urinary incontinence in the presence of a functional inability to reach a toilet/urinal in time because of a physical (eg orthopaedic, neurological) and/or mental impairment
Overflow incontinence	The complaint of urinary incontinence in the symptomatic presence of an excessively full bladder (no cause identified)
Sexual arousal incontinence	The complaint of involuntary loss of urine during sexual arousal, foreplay and/or masturbation
Climacturia	The complaint of involuntary loss of urine at the time of orgasm
Post-voiding incontinence	The complaint of a further involuntary passage (incontinence) of urine or dribbling following the completion of voiding

### Impact of urinary incontinence

Urinary incontinence has a significant impact on the patient, family members and healthcare system. In men it has been less thoroughly investigated than incontinence in women, due to the assumption that male incontinence is less of a

problem socioeconomically and epidemiologically. However, urinary incontinence has a significant psychosocial impact in men, reducing their quality of life with abstinence from daily activities and higher rates of depression.

Every year around 100 million adult men are affected by incontinence worldwide. The prevalence of urinary incontinence in men increases with age, although prevalence rates are nearly half those of women in the same age group. However, men are also more reluctant to seek help for their incontinence problem compared with women. For example, in a population-based study conducted in the EU, 22% of men in the community who experience an episode of incontinence per week sought care, compared with 45% of women (Babecka 2021).

### Cause of urinary incontinence in men

Urgency urinary incontinence is the most common cause of urinary incontinence in men. Patients typically experience a 'sudden and compelling desire to pass urine that is difficult to defer', which may result in urine leakage. Urgency urinary incontinence in men is typically associated with bladder overactivity (overactive bladder syndrome) and/or obstruction to urine flow as a result of benign prostatic enlargement (bladder outlet obstruction).

The specific mechanisms underlying urgency urinary incontinence are not completely understood. However, the pathophysiology involves involuntary bladder contractions (detrusor overactivity), which can be measured during urodynamic studies (Wilson, 2016). Detrusor overactivity could be due to a defect in afferent sensory signalling from the urinary tract, a defective central processing of these signals, and/or it can be a primary problem of the detrusor muscle. Other factors such as age, previous pelvic surgery and comorbidities such as diabetes and hypertension may also play a role in development of detrusor overactivity. However, only age has been shown to be an independent risk factor for bladder overactivity. Epidemiological studies demonstrate that symptoms of bladder overactivity increase with age, independent of other factors in both men and women.

Bladder outlet obstruction is shown to cause bladder overactivity. Research has demonstrated several mechanisms by which bladder outlet obstruction can cause detrusor activity. These include detrusor smooth muscle hypertrophy, hypertrophy of afferent and efferent nerves, and denervation hypersensitivity. Accordingly, clinical experience shows that prostate surgery for benign prostatic enlargement to relieve the outflow obstruction (namely, transurethral resection of the prostate), improves bladder overactivity symptoms in 70–80% of patients.

On the other hand, stress urinary incontinence in men almost invariably develops due to previous prostate surgery (post-prostatectomy incontinence). The most common cause of persistent stress urinary incontinence in men is radical prostatectomy, with incontinence rates between 10 and 25%. Other causes of stress incontinence in men could be severe pelvic trauma and neurological diseases that damage the external sphincter mechanism (Gulasova, Babecka, 2020).

### Mechanisms underlying development of post-prostatectomy incontinence

Our understanding of how urinary incontinence develops after surgery for prostate cancer (radical prostatectomy) is still evolving. Although post-prostatectomy incontinence has been broadly explained to occur as a result of damage to the external urethral sphincter mechanism during surgery, slightly different mechanisms are probably

responsible for failure of sphincteric functions after surgery for benign disease and malignant disease.

Stress urinary incontinence after surgery for benign prostatic disease can be a result of direct damage to the external sphincter mechanism (the striated muscle), or the prostate surgery stimulates a pre-existing incompetence of the distal urethral sphincter after ablation of the proximal sphincter mechanism. Factors predisposing to distal sphincteric damage involve pelvic trauma, denervation from pelvic surgery, intervertebral disc disease and radical radiotherapy. The other factor is injury sustained during surgery, such as neural injury or sphincteric denervation.

Different mechanisms play a role in the development of urinary incontinence after surgery for prostate cancer. Recent advancements in robotic surgeries have probably improved our understanding of the pathophysiology of post-prostatectomy incontinence. Research has shown that perioperative factors such as membranous urethral length, reconstruction of periurethral support structures, preservation of bladder neck and the neurovascular bundles also play a key role in development of urinary incontinence after radical prostatectomy.8 Patient-related factors such as age, body mass index (BMI), prostate size and presence of other functional bladder problems before surgery have also been thought to play a role. The external sphincter mechanism is often not damaged following radical prostatectomy (Gulasova, Babecka, 2020).

### Methods

The article meeting the criteria for inclusion in this appraisal were evaluated and entered into the Synthesis Matrix. The study findings that answered the research question were assessed and grouped into therapies. A critical appraisal of the literature sought to determine best practices in the treatment of male UI. An evidence table served as a guide to answer the study question "What are the most current and best evidence-based practice treatments for males with Urinary Incontinence?" The elements within the table included evidence type, sample size, study findings that helped answer the research question, limitations, and evidence rating. The sources included Medline (PubMed), Cumulative Index to Nursing and Allied Health Literature (CINHAL), PsycINFO, Cochrane Library, ProQuest, DynaMed, Google Scholar, Arctic Health Publications Database, and Nursing Commons.

### Results

**Urgency urinary incontinence.** The first-line treatment of urgency urinary incontinence involves bladder retraining and behavioural therapy. If these measures fail, anticholinergic therapy can be used. In cases where medical therapy fails, the treatment options include intradetrusor botulinum toxin injections or neuromodulation.

**Stress urinary incontinence.** First-line treatment for men with stress urinary incontinence is conservative. This involves behavioural therapy and pelvic floor muscle training/pelvic physiotherapy. Behavioural interventions are mostly supportive measures in this setting that mainly involve weight loss for patients with a high BMI. Surgical treatment can be considered if conservative measures fail. Generally, any

surgical intervention is postponed for 6–12 months after surgery. Surgical treatment options include peri-urethral bulking agents, urethral slings and artificial urinary sphincters. Artificial sphincter is the gold standard treatment option for post-prostatectomy incontinence, with continence rates after surgery being more than 80%.

**Mixed urinary incontinence** has components of both urgency and stress incontinence. Management first requires the clinician to determine the most bothersome complaint of the patient. It often involves a combination approach by a specialist, as the treatment of one may make the other worse. Continuous urinary incontinence. It may suggest the development of a fistula between the urethra beyond the distal sphincteric mechanism, or a grossly deficient sphincteric mechanism leading to no restriction of flow. Management of this condition involves surgery or continence devices.

### Behavioral Therapies in the treatment of UI

Much of the literature substantiates the use of Behavioral Therapy as first-line treatment of UI in males (Babecka, 2020). These treatments have been found to be the least invasive and have few side effects (Vansac, 2019).

Behavioral interventions for UI in men with prostate diseases were examined in ten studies. The continence rates in the control groups increased to more than 62% across all trials after the intervention (Markland et al., 2010).

A treatment plan starts with lifestyle modifications;

- reducing caffeine and carbonated drinks,
- avoiding constipation by eating well,
- and establishing a predictable bowel pattern that would also avoid straining (Fawcett, 2014).

Despite the documented usefulness of Behavioral Therapies, these lifestyle modifications may not be enough. Considering another strategy, Pelvic Floor Exercises (PFE) can be taught to men with leakage or over-activity symptoms (Fawcett, 2012). Moore and Lucas (2010) found that PFE reduced the frequency and amount of UI and the time to reach a continent state.

However, Moore and Lucas also concluded that PFE has limited benefits in patients with severe UI and there is no long-term benefit of PFE training as continence rates leveled after one year. According to Shelly (2016), individualized PFE training can significantly improve symptoms of prolapse and incontinence, but it can be difficult for patients to learn how to isolate these muscles to exercise them properly. Therefore, many patients who are affected by Pelvic Floor Muscle dysfunctions, requiring skilled therapy for successful rehabilitation (Shelly, 2016).

Besides PFE, Stothers et al. (2010) found biofeedback and bladder training to be useful as additional noninvasive, behavioral options. They may be used both for cognitively impaired/institutionalized patients and for independently living, cognitively-aware geriatric patients able to participate in learning new skills. There is a considerable body of scientific evidence supporting the effectiveness of behavioral therapy, but most subjects in the studies were women (Stothers et al., 2010).

Another method of **training included timed or scheduled voiding**. According to Testa (2015), voiding empties the bladder before incontinence can occur and limits the amount of urine in the bladder affected by stress

movements. Voiding on a routine schedule, allows the bladder to fill while avoiding distention and resulting UI. Timing of the void can be individualized to best match an individual's habits and schedule (Testa, 2015).

Finally, adjustments in lifestyle can significantly impact the incidence of UI in adults. Testa (2015) further stated that weight loss has shown to improve UI in obese women because extra abdominal weight places greater force on the bladder. Smoking tobacco contributed to UI through irritating effects on the bladder and increased abdominal pressure during times of respiratory infections and cough. Balancing fluid intake involved achieving appropriate daily consumption while limiting fluids before bedtime; however, older individuals with UI should not be severely fluid restricted due to risk of dehydration and hypotension (Testa, 2010). First-line management plans should include behavioral therapy with lifestyle adjustments followed by pharmacologic treatment (Popovicova et al., 2021).

### Pharmacological Therapy in the treatment of UI

Stothers et al., (2010) found that anticholinergic drugs such as oxybutynin and tolterodine were effective in treating incontinence. Anticholinergic medications, which competitively bind to muscarinic cholinergic receptors (M2/M3) on the bladder, decreased the intensity of bladder contractions and urgency (Testa, 2010). While these medications improved UI symptoms, inhibition of M receptors outside of the bladder may cause unwanted side effects in the older adult, such as blurred vision, dry eyes, dry mouth, constipation, tachycardia, and cognitive impairment. Therefore, anticholinergic medications should be strictly regulated in the geriatric patient, started at the lowest possible dose and discontinued if poorly tolerated (Testa, 2010).

Other pharmacologic treatments for UI included antidepressants, muscarinic antagonists, and adrenergic antagonists (Markland et al., 2010). Medications with alpha agonistic properties have been shown to mildly increase the tone of the urethral sphincter. However, such medications have been used off-label because the clinical efficacy of these drugs in UI is limited (Testa, 2010). And recently, a new class of medication for overactive bladder (OAB) has been approved by the FDA. While anticholinergics work by blocking the muscarinic receptors of the detrusor muscle, these medications often have bothersome systemic side effects, including dry mouth, constipation, and confusion. The bladder also contains  $\beta$ -3 adrenoreceptors that promote active relaxation of the detrusor muscle. A  $\beta$ -3 agonist, mirabegron, has been developed and has been approved for use and has an indication for OAB (Weber, 2015).

The drug duloxetine with proven efficacy in females with UI seems to be effective in male UI as well. Duloxetine, a selective serotonin-noradrenalin reuptake inhibitor, is a recognized pharmacological therapy used in the management of UI (Moore and Lucas, 2010). Although studies of duloxetine are limited, evidence does suggest that there might be a place for this drug in the management of men with stress UI in the future. Duloxetine does not have FDA approval for SUI and has been used off label. (Tsarkis et al, 2008). Additionally, some patients complained of severe side effects, mainly massive fatigue or insomnia (Moore and Lucas, 2010).

### **Containment**

Containment is a necessary aspect of incontinence care, and at times it is the only management option (Babecka, 2021). Containment is necessary where other treatments have failed, and skin integrity is at risk (Belovicova, Vansac, 2019). Where containment is the only option to manage male urinary incontinence, options available include the following:

- Washable boxer shorts/YFronts
- Body-worn pad
- Mesh Pants
- Dribble Pouches
- Conduction Aids

In her opinion article, Wilson (2016) described incontinence pads as preventing urine from contaminating clothing, furniture, and bedding, thereby allowing the individual to keep the symptoms private. Pad selection depended on the amount of urine loss and when, during the day and night, it is experienced. She posited "it is the role of the assessor, guided by the patient, alongside the information gathered during the assessment, to make the appropriate choice". The patient should use the smallest pad that is suitable for urine loss. Another option is washable pads and pants; they are particularly appropriate where patients experience skin reactions to disposable pads. For men, there are various disposable and washable dribble pouches, worn over the penis. There are also disposable pads and washable, stay-dry sheets available, for the bed and the chair (Gulasova, Babecka, 2020).

### **Internal Appliances in the treatment of UI**

The use of internal appliances in the treatment of UI becomes more invasive than previous options. Barrie (2016) and Smart (2014) suggest internal appliances, such as various forms of catheterization (indwelling or suprapubic catheters and Intermittent Self-Catheterization (ISC)), should only be used as a last resort when conservative treatment measures have failed as they often cause complications. This is because indwelling catheters, in particular, can cause infection, blocking, bypassing and discomfort along with an increased risk of urosepsis and symptomatic UTIs. Suprapubic catheterization eliminated trauma and was more acceptable to those who were sexually active, but this was often not appropriate for those with cognitive impairment as there was a tendency to pull at the catheter. ISC was the most suitable option for those with incomplete bladder emptying (Barrie, 2015).

According to Hollander and Gonzalez (2012), men who suffered from UI that was non-obstructed but had high post-void residuals included groups with detrusor underactivity and impaired contractility. The new  $\beta$ -3 adrenoreceptor agonists might also be effective in this population, although this has not been investigated (Hollander and Gonzalez, 2012). Although indwelling catheters are the last resort for managing UI, they are necessary for problems in bladder emptying, where intermittent catheterization is not an option, and allow urine drainage, thus managing overflow UI (Wilson, 2016).

### **External Appliances in the treatment of UI**

Penile clamps and condom catheters are occasionally used but are not considered socially acceptable and can be a

source of anxiety and discomfort (Moore & Lucas, 2010). Alternatively, Wilson (2014) showed external appliances such as urinary sheaths could be a viable option.

They offered a practical, cost-effective alternative to pads, pants, and the indwelling catheter. They were suitable for men with moderate-to-severe urinary incontinence, and those who experienced urgency and frequency and found it difficult to get to the toilet in time. Although latex sheaths are still available, the majority are made of latex-free (silicone) material. They come in one- or two-piece types and have variable penile circumference sizes and standard and short lengths, so individual measurement is essential (Wilson, 2015). Smart (2014) states that the urinary sheath, if used correctly, is a safe, discreet, convenient and comfortable method of managing male incontinence and compares favorably with pads and indwelling catheters.

Compared with pads, the urinary sheath was more hygienic, comfortable, cost-effective and more environmentally friendly. As the sheath directed urine away from the body, there was less likelihood of skin excoriation and infection, and there was less urine odor, as it is not exposed to air when the pad is full or has leaked onto clothing. Compared with indwelling catheters, the risk of urinary tract infection (UTI) is substantially reduced. A study involving 75 hospitalized men aged over 40 years old, without dementia, concluded that patients with an indwelling catheter were five times more likely to develop bacteriuria, symptomatic UTI or to die as those who used a urinary sheath (Smart 2014).

Smart (2014) stated that some men, although eager to use a sheath, were unable to do so because of allergy or retraction. An alternative to the utilization of a sheath is CliniMed's Bioderm; a product also appropriate for men experiencing frequent erections. Manufactured from hydrocolloid and latex free, it can remain in place for three days; one size fits all, and it connects to the urine drainage bag. Bioderm is appropriate for both circumcised and uncircumcised men, providing the foreskin will retract. Also available are body-worn urinals. Pubic pressure urinals are fitted when the patient has a retracted penis; the application of pubic pressure, exerted by a flange held firmly over the pubic area by groin and waist straps, extends the penile length. The appliance may have its own urine-collecting cone, or allow attachment of a non-adherent sheath. In her experience, some men wear an appliance only for going out and then do not have to remove an adhesive sheath on returning home (Smart, 2014).

### **Electrical Stimulation in the treatment of UI**

Among the various conservative treatments that can be used to treat urinary incontinence, Functional Electrical Stimulation (FES) has been proposed as a promising alternative (Terzoni et al., 2015). This treatment is administered through anal probes or surface electrodes placed in the perineal area. Electrical impulses are produced by a dedicated machine, relayed by the probe or the electrodes, and transmitted to the muscles through afferent nerve fibers (Terzoni et al., 2015).

According to Hollander and Gonzalez (2010), electrical stimulation of the sacral nerve roots (S3-S4) is approved by the Food and Drug Administration (FDA) for urinary urge incontinence, urinary frequency syndrome, and incomplete and

complete non-obstructive retention. Additionally, Terzoni et al. (2015) stated that when UI was present after radical prostatectomy, FES could be used to reduce urine leakage. When some patients had difficulty in performing PFE, and did not obtain clinically significant results, FES was helpful. There is a need to verify if FES can reduce urine leakage in patients who do not benefit from PFE as obtained mid-term data regarding the persistence of the results through was mixed (Terzoni et al., 2015).

### Combined Therapies in the treatment of UI

Stother (2010) suggested that using combinations of strategies in men following prostatectomy has yielded inconsistent results. In some cases, where researchers studied PFE alone and in combination with electrical stimulation versus no treatment following prostatectomy they found no difference in UI among groups. In a randomized controlled trial of electrical stimulation followed by biofeedback and PFM exercises versus no treatment in 30 men with detrusor hyperreflexia associated with multiple sclerosis, there was a significant improvement in subjective symptoms in the male group only, providing another option in specialized circumstances (Stother, 2010).

### Evidence-Based UI Recommendations

This project provides an overview of male UI treatment strategies and their effectiveness: To treat a male with UI in the outpatient setting, a comprehensive history and physical exam is the first step. The exam should include a 72-hour bladder diary, completion of the International Prostate Symptom Score (I-PSS), and a Post Void Residual (PVR) test. This information will provide the basis for recommendations for future treatment options. Diagnostic work up includes a comprehensive urinalysis and basic metabolic panel (BMP), and a prostate specific antigen (PSA) test will be added if the patient is over 50 or demonstrates overflow incontinence or has an abnormal prostate exam. The results of these tests will determine the UI type and the treatment options.

If the patient has a PVR over 200 mL, overflow incontinence is diagnosed. However, a PVR greater than 200 to 300 mL does not in itself require treatment in the absence of symptoms or recurrent infection. Management typically involves an indwelling urinary catheter or clean intermittent catheterization in addition to medication management. A referral to urology is the best course of action for overflow incontinence (Hollier, 2016).

A patient may also present with complications such as recurrent or total incontinence or they admit to UI mixed with pain, hematuria, recurrent infection, prostate irradiation or radical pelvic surgery. In this situation, they must be referred to a Urologist. Any other abnormality should also be referred.

The results of the patient history will determine if the UI is stress, urge, or mixed. A diagnosis of stress, urge or mixed incontinence will lead to a discussion of treatment options with the patient specific to the etiology. Urological experts suggest lifestyle changes as the first option as they have

shown great promise in male UI treatment. These changes include weight loss, dietary changes, biofeedback, bladder training and PFE. Other options may be considered, but less desirable are containment products or medications such as antimuscarinics, or  $\alpha$ -adrenergic antagonists.

Failure of any of these treatment options requires a more specialized treatment approach.

Once again, referring to the patient's history, if patients present with post-prostatectomy incontinence or with urgency/frequency, then the NP may consider referral to a Urologist for urodynamics and imaging of the urinary tract to further refine the source of the issue. Urethrocytoscopy is an option if indicated (Lobchuk, et al., 2014).

If the results of these tests show stress incontinence due to sphincteric incompetence, then an appliance such as an artificial urinary sphincter or male sling is indicated. If urgency incontinence is diagnosed due to detrusor over-activity, then there are several options. First, with no other reported symptoms, electrical stimulation is first line (Mathur, 2016). Secondly, if the detrusor over-activity coexists with bladder outlet obstruction, then  $\alpha$ -blockers, antimuscarinics, or referral to a urologist for surgery correction of the bladder outlet obstruction is indicated. And finally, if the detrusor over-activity coexists with underactive detrusor during voiding, then intermittent catheterization or antimuscarinics are called for. Signs of mixed incontinence should lead to treating the major component first (Utomo, 2015).

These treatment options are within the scope of practice for the nurse practitioner in primary care. Trying first line options allows the patients to consider or implement treatment options before seeing a specialist. Often family practitioners are asked for low-cost options during the patient discussion; the nurse practitioner can provide viable options (Allapattu, et al., 2016).

The recommendations, based on the strength of evidence, showed behavioral modification as the most widely used and most successful therapy. Prescribing medication was shown to be a viable (although less common) alternative treatment option. Containment devices, internal and external appliances were recommended at a similar rate, but were shown to be used even less often. Finally, the use of electrical stimulation and combined therapies were shown to be the least proven (Babečka, et al., 2021).

### Conclusions

Urinary incontinence in men can be debilitating for the individual. The psychosocial impact of the condition can vary and should be assessed before a tailored treatment is planned. Classification of urinary incontinence can help better identify the underlying causes and guide clinical management, although quite often patients present with complex symptoms that do not typically fit into any type of definition. The initial assessment of urinary incontinence in men should take into account the red flag signs. Readers are strongly advised to review recent guidelines on male lower urinary tract symptom.

can be considered if conservative measures fail. Generally, any surgical intervention is postponed for 6–12 months after surgery. Surgical treatment options include peri-urethral bulking agents, urethral slings and artificial urinary sphincters. Artificial sphincter is the gold standard treatment option for post-prostatectomy incontinence, with continence rates after surgery being more than 80%. Mixed urinary incontinence has components of both urgency and stress incontinence. Management first requires the clinician to determine the most bothersome complaint of the patient. It often involves a combination approach by a specialist, as the treatment of one may make the other worse. Continuous urinary incontinence. It may suggest the development of a fistula between the urethra beyond the distal sphincteric mechanism, or a grossly deficient sphincteric mechanism leading to no restriction of flow. Management of this condition involves surgery or continence devices.

**Conclusions.** Urinary incontinence in men can be debilitating for the individual. The psychosocial impact of the condition can vary and should be assessed before a tailored treatment is planned. Classification of urinary incontinence can help better identify the underlying causes and guide clinical management, although quite often patients present with complex symptoms that do not typically fit into any type of definition.

**Key words:** urinary incontinence, men, therapy.

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У дослідженні аналізується лікування нетримання сечі у чоловіків.

**Методи.** Статті, які відповідають критеріям для включення до цієї оцінки, були оцінені та внесені до матриці синтезу. Результати дослідження, які відповідали на питання дослідження, були оцінені та згруповані в методи лікування.

**Результати.** Лікування першої лінії ургентного нетримання сечі включає тренування сечового міхура та поведінкову терапію. Якщо ці заходи не приносять результатів, можна застосувати антихолінергічну терапію. У випадках, коли медична терапія не приносить результатів, варіанти лікування включають інтрадетрузорні ін'єкції ботулотоксину або нейромодуляцію. Лікування першої лінії для чоловіків із стресовим нетриманням сечі є консервативним. Це включає поведінкову терапію та тренування м'язів тазового дна/фізіотерапію тазових органів. Поведінкові втручання є переважно підтримуючими заходами в цій ситуації, які в основному передбачають втрату ваги для пацієнтів з високим ІМТ. Хірургічне лікування можна розглянути, якщо консервативні заходи не принесли результату. Як правило, будь-яке хірургічне втручання відкладається на 6–12 місяців після операції. Варіанти хірургічного лікування включають периуретральні наповнювачі, уретральні стропи та штучні сечові сфінктери. Штучний сфінктер є золотим стандартом лікування нетримання сечі після простатектомії, при цьому частота утримання після операції становить понад 80%. Змішане нетримання сечі має компоненти як ургентного, так і стресового нетримання. Лікування спочатку вимагає від клініциста визначити найбільш неприємну скаргу пацієнта. Часто це передбачає комбінований підхід спеціаліста, оскільки лікування одного може погіршити інший. Постійне нетримання сечі. Це може свідчити про розвиток нориці між уретрою за межами дистального сфінктерного механізму або серйозну недостатність сфінктерного механізму, що призводить до відсутності обмеження потоку. Лікування цього стану включає хірургічне втручання або пристрої для утримання.

**Висновки.** нетримання сечі у чоловіків може бути виснажливим для людини. Психосоціальний вплив стану може змінюватися, і його слід оцінити перед плануванням спеціального лікування. Класифікація нетримання сечі може допомогти краще визначити основні причини та керувати клінічним лікуванням, хоча досить часто пацієнти мають складні симптоми, які зазвичай не підходять під жодне визначення.

**Ключові слова:** нетримання сечі, чоловіки, терапія.

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Примітка. У статтях збережено орфографію, пунктуацію та стилістику авторів.

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The study analyzes the treatment of male urinary incontinence.

**Methods.** The article meeting the criteria for inclusion in this appraisal were evaluated and entered into the Synthesis Matrix. The study findings that answered the research question were assessed and grouped into therapies.

**Results.** The first-line treatment of urgency urinary incontinence involves bladder retraining and behavioural therapy. If these measures fail, anticholinergic therapy can be used. In cases where medical therapy fails, the treatment options include intradetrusor botulinum toxin injections or neuromodulation. First-line treatment for men with stress urinary incontinence is conservative. This involves behavioural therapy and pelvic floor muscle training/pelvic physiotherapy. Behavioural interventions are mostly supportive measures in this setting that mainly involve weight loss for patients with a high BMI. Surgical treatment