

Evidence Based Treatment of Urinary Incontinence

SBU Summary and Conclusions

Introduction

Urinary incontinence is a widespread health problem, affecting women more frequently than men. Urinary incontinence has a major negative impact on the quality of life and social interaction. Most people with incontinence are otherwise healthy. In older individuals, incontinence is often related to other diseases, eg, dementia and stroke.

Urinary incontinence receives relatively little attention in healthcare delivery systems, partly because it is not perceived as a well-defined condition and hence is seldom recorded in health statistics. To some extent, urinary incontinence has been a hidden problem.

Urinary incontinence is classified in different ways, ie, incontinence which is due to or triggered by stress, urge, overflow, or a combination of these factors. Diagnostics have been refined, and along with the opportunities for improved treatment, urinary incontinence has received increasingly more attention. Interest from the mass media has increased awareness about the problem and encouraged more people to seek help. Nevertheless, only 20% to 50% of those with urinary incontinence seek help from the health services.

The prevalence of urinary incontinence varies in different studies. Among women who experience incontinence at least once per week, the rate increases from 3%- 5% of women in their 20s to 10% in their 40s, and to 25% in their 80s. The corresponding figures in males are 2%-3% in their 20s, 7%-10% in their 70s, and 20% or more in men above the age of 80 years.

Literature review

This report is based on a systematic and critical analysis of the findings from studies published in the international scientific literature. The review relies in part on a report from the United States, which covers assessments of the scientific literature until 1996. The project group cited the findings from the American report, but also conducted their own literature search to cover the period since 1996 and to enhance the US report.

Relevant scientific studies were evaluated using a predetermined protocol for grading the strength of the scientific evidence. Some of the key works were reviewed by two different members of the project group. All chapters were thoroughly discussed by the entire project group, and all members were in agreement with the summaries and conclusions. Five external scientific reviewers were asked to comment on the report.

The quality of the scientific literature varies as regards assessment studies of drugs, surgery, and treatment methods involving training. Studies on quality of life among individuals with urinary incontinence and health economic analyses on the subject received particular attention. In both cases, the literature is limited and weak from a scientific perspective.

Each chapter includes a summary where the project group renders a judgment concerning the quality of the scientific evidence underlying each assertion.

This report does not include a literature review addressing the serious, but less common, reasons for urinary incontinence associated with cancer, neurological disease, or severe injury to the true pelvis. Studies concerning urinary incontinence in children are not included.

Results

Organization of care for urinary incontinence

Studies show that approximately 9% of all women and 3% of all men over the age of 35 years seek treatment for urinary incontinence. This corresponds to somewhat over one half of all individuals with incontinence symptoms, or approximately 300 000 people in Sweden. However, this means that many do not seek help for the disorder.

Most patients with urinary incontinence receive care through the primary care services. Somewhat over 40% of those women who visit a family practitioner have urinary incontinence. The corresponding figure for men visiting a family practitioner is 10%.

Gynecology and urology departments/clinics provide more specialized services. In Sweden, over 90 special continence clinics are available under various types of organizations. Most do not require a referral, and are usually managed by specially trained nurses or urotherapists. Many patients with total urinary incontinence are cared for in special housing situations, in nursing homes, or in departments for long-term care. District nurses, community care nurses for the elderly, and, more recently, specially trained urotherapists often have the direct contact with the patients.

Primary care services diagnose patients and provide treatment, mainly using drugs, pelvic floor training, and various types of bladder training. Other primary care interventions include informing patients, providing advice, and testing new medical devices. In some cases, primary care adheres to clinical practice guidelines which include the treatments mentioned above. An assessment of clinical practice guidelines shows that two thirds of treated women reported a substantial improvement in their condition. In long-term followup after 5 years, most women continued to be satisfied with treatment, although the need for medical devices increased somewhat compared to 1-year followup.

In elderly care settings, urinary incontinence is common in both women and men. It is often associated with other diseases. Elderly individuals usually use some type of medical device for incontinence, mainly absorbent products such as incontinence pads. Several studies have been conducted on older patients who have been treated by various methods, eg, training programs, drugs, and surgery. These studies suggest that more active treatment interventions can be effective even in elderly patients who often have multiple problems and diseases.

Quality of life

Urinary incontinence can influence the quality of life quite negatively and constitute an obstacle toward living a normal life for many individuals. However, there are few scientifically reliable studies on population-based groups addressing how quality of life is influenced and the factors which play the greatest role. The studies available concern small and disease-specific groups. They show that incontinence can lead to decreased initiative, reduced physical work capacity, reduced social contact, and lower self-esteem. Incontinence also leads to psychological problems, which are more pronounced in urge incontinence than in stress incontinence, and which becomes more intense with age.

Treatment

Many studies concerning different types of treatment are reported in the international literature. They address everything from different types of training programs to treatment using drugs and various types of surgery. Most treatments have, to varying extents, shown

good results, particularly in the short term. The results from different studies cannot, however, be compared since patient samples vary and descriptions of the conditions and results of treatment have not been standardized. Followup time in different studies has also generally been short or varied. The results of studies are often based on the patient's own descriptions, also making comparisons among studies difficult.

Behavioral therapy and physical treatment

Pelvic floor treatment may result in subjective improvement in 60% to 70% of the women with moderate stress incontinence. Long-term studies suggest that the effect can be maintained, particularly when supported by ongoing training. Pelvic floor training can also improve conditions in men effected by stress incontinence, eg, following prostate surgery. A few studies also show results in mixed and urge incontinence. Exercises using a weighted vaginal cone have shown to enhance the effect of pelvic floor training in some women. However, as an isolated form of treatment it has been insufficiently evaluated.

Bladder training is an effective treatment for urge incontinence. In elderly patients who cannot manage toilet routines themselves, toilet assistance, scheduled toilet habits, and so-called attention training can be effective measures.

Electrostimulation appears to reduce urine leakage in stress incontinence and urge incontinence. Studies, however, show contradictory results, and many patients discontinue treatment.

Studies concerning the effects of, eg, hypnosis, biofeedback, and acupuncture are of insufficient quality to draw conclusions.

It is unclear whether the effects of pelvic floor training can be enhanced by other methods used simultaneously, or if the effects of bladder training can be enhanced by concurrent drug therapy.

Pharmacological therapy

Some patients with urge incontinence have good results of treatment with anticholinergics (bladder-muscle relaxants). The risks for side effects vary among the various drugs.

To some extent, estrogen treatment appears to offer some improvement in postmenopausal women who have sensory urge incontinence. The results are poorly documented for other types of incontinence. Treatment using other drugs for urge incontinence have not been proven effective. Drug therapy has little effect on stress incontinence.

Several studies show that placebo, ie, non-active substances, yield subjective improvement in 30% to 50% of patients treated. This should be noted when assessing the results of various studies. The results of long-term drug therapy are poorly studied. The few studies available show that compliance with drug prescriptions is poor.

Drugs may also cause or contribute toward incontinence if patients already have problems, eg, in emptying their bladder or with urge symptoms. These apply mainly to diuretics and tranquilizers, and drugs with anticholinergic effects.

Surgery

Surgery has shown to be effective in women with stress incontinence where no other treatment methods have been successful. These patients experience good results with the so-called sling procedure and colposuspension. Anterior vaginal repair and needle bladder neck suspension have shown less favorable long-term results.

New, simplified surgical methods such as laparoscopic colposuspension and TVT (tension-free vaginal tape) have been tested and show promising results.

Surgical and recovery time and risks for complications differ for the various procedures. The long-term effects are poorly assessed.

Isolated comparative studies show that surgery can result in successful treatment even in women with mixed incontinence. Nevertheless, there is a risk for continued or more pronounced urge symptoms.

Stress incontinence is rare in men, and surgery is usually not necessary. In severe urinary incontinence, implantation of an artificial urinary sphincter has shown to be effective in some patients. However, this method can yield good results in women who do not improve with other treatment, and re-operation is common. Limited improvement can be achieved using so-called periurethral injection methods. Urge incontinence is seldom appropriate for surgical treatment.

Medical devices

The most common interventions for urinary incontinence involve the use of medical devices such as absorption products. The literature shows there are major deficiencies in knowledge concerning the type of devices which should be used in the individual case.

The percentage of incontinent individuals who use absorbent products has increased over the past 20 years. One of the reasons has been the desire to reduce the use of catheters in caring for the elderly, and catheters have been largely replaced by absorbent products.

Health economics

There are no economic studies addressing both the cost and effects of various methods for treating urinary incontinence. However, some studies address only the costs of caring for patients with urinary incontinence. The costs related to elder care and medical devices dominate, while the costs for diagnostics and the more active treatment alternatives account for a relatively low percentage of total costs. The costs to society for medical devices alone, mainly incontinence pads, are high and in 1996 exceeded 1 billion SEK in Sweden. The dramatic increase in the number of elderly in coming years is expected to further increase the cost of urinary incontinence.

SBU conclusions

- Urinary incontinence is a major health problem. In Sweden, half a million people suffer from urinary incontinence at least once per week, but only slightly over half of them seek treatment. It is essential to study the extent to which the public is knowledgeable about accessibility to treatment methods and opportunities to receive help. Furthermore, it is essential that information on urinary incontinence is designed to reach the public at large.

- Urinary incontinence can be treated via a range of medical interventions, eg, various training programs, drugs, surgery, and medical devices such as incontinence pads. Many methods show positive results, but the effects of different treatment methods are poorly studied. The same applies to preventive interventions such as training during and following pregnancy, and physical exercise for the elderly. There are few studies comparing the various treatment methods. It would be desirable to allocate more resources to research and assessment.
- Receiving help or treatment for urinary incontinence is of major importance for the quality of life among those affected. Attention should be given to patients' perceptions on how incontinence influences their quality of life. Hence, it is important to develop questionnaires for practical clinical use which can measure and assess the quality of life.
- Urinary incontinence is a hidden problem, and the number being treated via different medical interventions is unknown. Urinary incontinence should be registered as a separate diagnosis in health statistics so that the actual scope of the problem can be identified and trends can be monitored.
- Primary care plays a key role in the care of the urinary incontinence. New types of organizations have developed, eg, special continence clinics and specially designated staff. To offer everyone with incontinence appropriate care, it is essential to identify the resources and organizational structures available within different catchment areas.
- Primary care services are responsible for the basic treatment of urinary incontinence. It is essential to disseminate and implement evidence-based clinical practice guidelines more widely, and to commit greater resources toward training methods and other forms of treatment that can be offered in primary care.
- Elderly with disorders such as dementia are often incapable of determining whether the health services are adequately caring for their incontinence problems. It is important for the staff to notice problems and discuss opportunities for treatment with patients and relatives.
- It is important for care providers to develop information and continuing education programs on urinary incontinence to complement the information from manufacturers.
- Expenditures for medical devices and costs related to the care of the elderly comprise the greatest share of the cost for urinary incontinence. It is essential, both from humanitarian and economic considerations, to conduct assessment studies which can identify whether active treatment is better for patients and more cost effective for health care than passive interventions such as routine use of incontinence pads.