



Clinical practice guidelines

**MANAGEMENT OF FEMALE URINARY
INCONTINENCE IN GENERAL PRACTICE**

May 2003

Guidelines Department

Guidelines on management of female urinary incontinence in general practice were produced by the French National Agency of Accreditation and Evaluation in Healthcare (ANAES), at the request of the French National Health Executive. They update the 1995 ANDEM guidelines on the management of urinary incontinence in general practice.

The following learned societies were consulted:

- *Association des sages-femmes enseignantes françaises*
- *Association française d'urologie*
- *Association française pour la recherche et l'évaluation en kinésithérapie*
- *Centre de documentation et de recherche en médecine générale*
- *Collège national des généralistes enseignants*
- *Société de formation thérapeutique du généraliste*
- *Société française d'urologie*
- *Société française de médecine générale*
- *Société française de médecine physique et réadaptation*

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GUIDELINES

I. INTRODUCTION

I.1 Subject

This report updates the guidelines on urinary incontinence published by ANDEM in 1995. They are restricted to management of urinary incontinence in women aged over 15 who are not pregnant, and exclude enuresis and urinary incontinence caused by neurological problems.

They are intended for general practitioners, geriatricians, gynaecologists, physiotherapists and midwives.

I.2 Grading of guidelines

Guidelines are graded A, B or C as follows:

- A grade A guideline is based on scientific evidence established by trials of a high level of evidence, e.g. randomised controlled trials (RCTs) of high power and free of major bias, and/or meta-analyses of RCTs or decision analyses based on properly conducted studies;
- A grade B guideline is based on presumption of a scientific foundation derived from studies of an intermediate level of evidence, e.g. RCTs trials of low power, well-conducted non-randomised controlled trials or cohort studies;
- A grade C guideline is based on studies of a lower level of evidence, e.g. case-control studies or case series.

In the absence of scientific evidence, the guidelines are based on agreement among professionals.

II. DEFINITIONS

Urinary incontinence is defined as involuntary loss of urine reported by a patient.

Most common clinical forms of urinary incontinence in women:

- **stress urinary incontinence** is the involuntary loss of urine which does not follow a need to void and which occurs during stress (e.g. coughing, laughing, sneezing, jumping, running, lifting a load or any other physical activity that increases intra-abdominal pressure);
- **urge incontinence** is the involuntary loss of urine following an urgent need to void that cannot be inhibited, resulting in an inability to postpone voiding;
- **mixed urinary incontinence** combines both types of symptoms. The patient often finds one type of symptoms more bothersome than the other.

Other forms of urinary incontinence:

- **overflow urinary incontinence** is rare in women. It is the involuntary loss of urine associated with bladder distension or chronic urinary retention. It is caused by reduced or absent detrusor contractility, or by obstruction of the bladder neck or urethra which leaves the bladder permanently full. In women, subcervical obstruction may occur after

surgery for stress incontinence, during major prolapse of a pelvic organ (cystocele, uterine prolapse), or when a faecaloma is present.

- ***incontinence due to factors not involving bladder or sphincter abnormalities.*** This type of incontinence is caused by cognitive, mental, metabolic or iatrogenic disorders, or by lifestyle or dietary factors and/or reduced mobility (see section III).

III. REASONS FOR SCREENING FOR URINARY INCONTINENCE IN GENERAL PRACTICE

Why actively look for urinary incontinence in general practice:

- prevalence is high (estimated at 10–53 % depending on study population and definition of urinary incontinence used);
- it reduces quality of life;
- few patients go to see their doctor because of urinary incontinence (many regard it as part of normal aging; little is known about diagnosis and management; the subject is taboo; patients expect the doctor to raise the issue first);
- it may be a symptom of other conditions that could require specific treatment;
- effective forms of treatment do exist.

Risk factors for urinary incontinence:

- advancing age, particularly for urge urinary incontinence;
- previous pregnancy;
- history of vaginal delivery and gynaecological or obstetric trauma (e.g. forceps, ventouse, tears (it has not yet been established whether episiotomy aggravates the problem or protects against it));
- number of children (three or more);
- history of pelvic (hysterectomy) or abdominal surgery;
- obesity;
- intensive physical activity;
- bedwetting in childhood.

Related disorders and aggravating factors:

- repeated lower urinary tract infection;
- atrophic vaginitis;
- constipation or faecaloma;
- diabetes mellitus or diabetes insipidus, and any cause of polyuria;
- oedema related to congestive heart failure or venous insufficiency (increased diuresis at certain times, particularly at night because of nocturnal fluid redistribution);
- chronic bronchitis and any cause of chronic cough;
- neurological disease;
- any cause of reduced mobility, related to organic or mental disease (depression, confusion);
- cognitive disorders;
- deterioration in general health for whatever reason;

- use of drugs, particularly drug combinations, that provoke urinary incontinence:
 - diuretics,
 - drugs that decrease urethral tone (alpha-blockers),
 - drugs that provoke urinary retention and overflow incontinence (imipramine, antipsychotics, drugs used in parkinsonism, antihistamines, opioid analgesics, alpha-sympathomimetics – particularly certain over-the-counter medicines such as nasal decongestants, beta-sympathomimetics and calcium antagonists),
 - drugs with a sedative action (psychotropics, antihistamines and opioid analgesics as mentioned above, hypnotics and anxiolytics);
- lifestyle or dietary factors:
 - excessive fluid intake or even potomania, poor distribution of fluid intake during the day,
 - any substantial consumption of alcohol, coffee or caffeine-containing drinks.

Some of these factors are potentially reversible and/or may benefit from specific treatment. They should therefore be looked for routinely.

There is no proof that the menopause is an age-independent risk factor for urinary incontinence or that hormone replacement therapy improves urinary incontinence.

Urinary incontinence should also be looked for when the reason for consultation is:

- related to the genitourinary system (particularly a pre- or postnatal examination), when the patient is asking for contraception, when follow-up during the menopause or sexual problems are the reason for consultation;
- chronic cough;
- diabetes;
- constipation or anorectal dysfunction (soiling, inability to retain gas);
- to ask for a certificate that there is no contraindication to taking part in sports;
- neurological disorder.

IV. DIAGNOSTIC CRITERIA FOR THE PRESENCE AND TYPE OF URINARY INCONTINENCE

During history-taking, a simple question should be used to find out whether the patient has urinary incontinence, e.g. “Do you notice any leaking or loss of urine?”. The term “urinary incontinence” should not be used as it may put off the patient.

The type of incontinence (stress, urge or mixed) is also diagnosed during history-taking (no assumptions are made about the underlying mechanism of the incontinence):

- urine loss when patient coughs, sneezes, jumps, carries loads, changes position, etc.;
- urgent need to void (voiding frequently as a precautionary measure should not be confused with an urgent need to void);
- possible combination of both types of symptoms.

V. INITIAL WORKUP OF A PATIENT WITH URINARY INCONTINENCE IN GENERAL PRACTICE

V.1 Assessment of urinary incontinence and its effects

Once the type of incontinence has been clinically diagnosed, the following should be done:

- *estimate the approximate number of urine losses a day* (number of changes of underwear a day, need for wearing pads other than during menstrual periods, type and number of pads used a day);
- *assess how bothersome the patient finds urinary incontinence* (restriction of social or sporting activities, etc., fear of incontinence becoming worse). To assess the effects on the patient's quality of life, the use of the Contilife[®] and Ditrovie[®] questionnaires, which have been validated in France, is recommended;
- *enquire into the date and circumstances of onset*, particularly in the event of urgency (how recent is the onset, was there any bedwetting in childhood);
- establish the gynaecological, obstetric or surgical history (see section III);
- enquire into any previous investigations or treatment for incontinence;
- *ask the patient to complete a voiding diary* in her own time. It helps the patient to estimate the frequency of episodes of incontinence, the circumstances under which symptoms appear, and to become aware of these symptoms. It is completed by the patient for 2 or 3 - not necessarily consecutive - days (e.g. one weekday and one weekend day).

V.2 Factors to look out for during initial workup

Any signs or symptoms of an organic condition likely to trigger or aggravate urinary incontinence, which could require specific treatment:

- voiding problems, e.g. frequent voiding, dysuria, haematuria (urinary tract tumour), burning sensation on voiding (urinary infection);
- polyuria (diabetes, hypercalcaemia), nocturia (oedema caused by venous insufficiency or congestive heart failure);
- local irritation or pain during sexual intercourse (atrophic vaginitis);
- problems of transit or bowel action (constipation, or even faecaloma);
- sensory disorders such as dysaesthesia, anal sphincter dysfunction with loss of sensation when passing urine and stools combined with urinary incontinence of recent onset, that may or may not be associated with sexual disorders (neurological disorder);
- confusion, depression, cognitive disorders;
- reduced mobility.

Any iatrogenic, lifestyle or dietary factors that might increase urinary incontinence (see section III).

V.3 Clinical examination

This should include:

- *a urological and gynaecological examination* with the patient lying down, with a semi-full bladder, to eliminate vesicovaginal fistula; a check for prolapse of a reproductive

organ and distended bladder; a vaginal finger examination to assess pelvic floor quality and perineal muscle contraction strength;

- ***a provocation test for urine loss*** by repeated coughing or straining. Absence of this sign during clinical examination does not exclude a diagnosis of stress incontinence (in the event of prolapse, this test should be performed before and after prolapse reduction);
- ***a test of perineal sensitivity*** if a neurological disorder is suspected;
- ***a general clinical examination*** to look for any concomitant conditions that could trigger or aggravate urinary incontinence.

V.4 Further investigations during the initial workup

- ***A urinary infection test*** by urine test strip or urine microscopy and culture should be done:
 - in women with urge or mixed incontinence;
 - in elderly women or women who regularly use pads, irrespective of the type of incontinence;
 - before urodynamic testing or cystoscopy.
- ***A postvoid residual urine test*** using suprapubic ultrasound rather than catheterisation should be done:
 - in the event of stress or mixed incontinence, *only if surgery is planned* (routine testing for postvoid residual urine is not recommended before prescribing pelvic floor training as the first line of treatment);
 - in the event of urge or mixed incontinence, *only if anticholinergic drug therapy is planned* (in this case, a postvoid residual urine test is only suggested if urinary retention is suspected and/or in elderly patients). (NB. Postvoid residual urine volume cannot be estimated reliably by ultrasonography.)
- ***Urodynamic testing*** is not recommended before prescribing bladder training for stress urinary incontinence. It is proposed (possibly after soliciting a specialist opinion):
 - if the diagnosis of the type of urinary incontinence is uncertain or if no first-line treatment can be suggested after the initial workup (particularly in certain cases of urge or mixed incontinence);
 - in the event of urge incontinence, if incontinence is not resolved or alleviated by first-line anticholinergic treatment;
 - if surgery is envisaged in the event of stress urinary incontinence;
 - if there are any confirmed or suspected concomitant disorders (persistent problems in emptying the bladder, postvoid residual urine, history of surgery for urinary incontinence, history of pelvic surgery or radiation, major (stage 3 or 4) genital prolapse, neurological disorder).
- ***Cystoscopy*** is not recommended as part of the initial workup unless a concomitant tumour is suspected, e.g. in repeated urinary infection or haematuria.
- ***Ultrasonography of the upper urinary tract and intravenous urography*** are not recommended during the initial workup as their results do not influence treatment.

VI. INITIAL TREATMENT OF FEMALE URINARY INCONTINENCE IN GENERAL PRACTICE

VI.1 Treatment of stress urinary incontinence: *pelvic floor muscle training*

The recommended treatment for stress urinary incontinence is pelvic floor muscle training, on its own or combined with biofeedback or electrical stimulation. The use of several training techniques seems to be more effective than the use of a single technique (grade B for pelvic floor training, grade C for biofeedback or electrical stimulation). Training is done by a physiotherapist or midwife. Pelvic floor muscle training is the first line of treatment in a healthy and motivated patient with no cognitive disorders, unless the stress urinary incontinence is very incapacitating and might benefit from first-line surgery in the opinion of a specialist. If after proper training (10–20 sessions) symptoms do not disappear or improve, surgery should be discussed with a specialist.

Drug therapy with anticholinergics is not recommended in stress urinary incontinence unless there are concomitant symptoms of urge incontinence.

VI.2 Treatment of urge urinary incontinence

- ***Behavioural therapy and bladder training***

Behavioural therapy (adapting fluid intake, rescheduling voiding frequency, keeping a voiding diary), pelvic floor muscle training, and functional electrical stimulation (using electrical currents designed to inhibit the detrusor) are recommended (grade C). Combining these treatments to inhibit bladder contractions (“bladder training”) may be recommended as first-line treatment in a healthy and motivated patient with no cognitive disorders.

- ***Drug therapy with anticholinergics***

Anticholinergics may be used as first-line treatment or after failure of behavioural therapy and/or training (grade B). They are prescribed:

- after urinary infection and urinary retention have been excluded;
- if the patient has no contraindications to anticholinergics and no ongoing anticholinesterase therapy.

Anticholinergic therapy may be combined with keeping a voiding diary and with educational measures (spreading drinks through the day, changing the times when diuretics are taken).

Recommended anticholinergics are oxybutynin, tolterodine or trospium chloride (grade B). They are only moderately effective but significantly better than placebo in resolving or relieving urge urinary incontinence (mean reduction of about 1 episode of incontinence per 48-hour period). Tolterodine and trospium chloride are likely to be better tolerated than oxybutynin. All three drugs have a marketing authorisation for treatment of urge incontinence, but only oxybutynin and trospium chloride are reimbursed by French health insurance.

The recommended initial dose for oxybutynin is 2.5 mg, 3 times a day (see Summary of Product Characteristics, French drug reference Vidal®). This dose may be adjusted up to 5 mg, 3 times a day, because of interindividual variations in effective dose.

As maximum efficacy of oxybutynin, tolterodine and trospium chloride is achieved after 5–8

weeks' treatment, treatment should not be stopped earlier if the side-effects are acceptable (grade B). However, if the drug is poorly tolerated, a different anticholinergic should be used instead. There is no evidence in the literature to support any specific maximum treatment duration as long as side-effects are acceptable. In view of the risk of urinary retention with these drugs, patients should be monitored for onset of distended bladder, particularly elderly and vulnerable patients.

If anticholinergic therapy is ineffective after 1 or 2 months, there are two options:

- (i) if the anticholinergic was prescribed after urodynamic testing, a different anticholinergic should be tried. If this fails, the patient should be referred to a specialist;
- (ii) if the anticholinergic was prescribed as a test without prior urodynamic testing, urodynamic testing should be done and the patient should be referred to a specialist.

In elderly, vulnerable patients¹, the following additional action should be taken:

- cognitive function should be assessed before and monitored during anticholinergic therapy;
- the bladder should be examined by suprapubic ultrasound to eliminate postvoid residual urine before anticholinergic therapy;
- the initial drug dose should be half the recommended dose and, in the case of oxybutynin, longer intervals should be left between doses (2 doses instead of 3, one in the morning and one in evening);
- in particular, the patient should be monitored to check for onset of bladder distension.

VI.3 Treatment of mixed urinary incontinence

First-line treatment is pelvic floor muscle training on its own or combined with functional electrical stimulation, biofeedback or behavioural therapy (i.e. bladder training) depending on which symptoms are most bothersome to the patient, and/or anticholinergic therapy.

If symptoms do not resolve or improve after proper training (10–20 sessions) and/or after 5–8 weeks of anticholinergic therapy, urodynamic testing should be done and the patient should be referred to a specialist.

VI.4 Treatment of overflow incontinence

The patient should be referred to a urologist to establish a strategy for further investigations to diagnose the mechanism of overflow and to decide on type of treatment.

VI.5 Information to be given to the patient about treatment options

The patient should be informed of the various treatment options in order for a joint decision to be taken with the practitioner. The aim of this information is to help the patient understand that the choice of treatment depends on the type of her incontinence, how much it bothers her, and which treatment constraints she would accept best.

¹ In the absence of a standard definition, vulnerability may be defined as an unstable medical or social condition occurring at a given time in the life of an elderly person. The main characteristics of a vulnerable elderly person are: age over 85 years, multiple medication, impaired cognitive function, depression, malnutrition, neurosensory disorders, postural instability, sedentary lifestyle, loss of autonomy in everyday life and social isolation.

- ***In the event of stress urinary incontinence***, the patient should be precisely informed and reassured about the methods used in pelvic floor muscle training, i.e. vaginal examination with muscle testing, possible use of an intravaginal sensor for electrical stimulation or biofeedback (to be prescribed), the initial number of sessions (10–20), the possible need to extend the initial treatment period after assessment. The importance of her own work between training sessions should be emphasised.

The patient should also be informed of the surgical options, either immediately (e.g. if the patient feels that stress incontinence is very incapacitating) or after failure of pelvic floor muscle training. The procedures proposed will depend on the mechanism of urinary incontinence (impaired bladder neck or urethral support, or sphincter incompetence) and are not limited to tension-free vaginal tape (TVT)-type procedures.

- ***In the event of urge urinary incontinence***, the patient should be informed of the benefits of adapting her fluid intake, how to change her voiding behaviour (bladder training, including keeping a voiding diary), other reeducation techniques (electrical stimulation, pelvic floor muscle training) and the advantages and drawbacks of anticholinergic drugs.

If anticholinergic therapy is envisaged, the patient should be warned of the side-effects (dry mouth, constipation, cognitive disorders) and of the time to onset of maximum efficacy (which might be up to 5–8 weeks). She should be told to come back if the drug is not effective by this time (especially if the drug is being given as a test in the absence of prior urodynamic testing) or if she experiences urinary infection or voiding problems.

If these treatments fail, the patient should be informed of second-line treatments such as sacral nerve root neuromodulation and referred to a urologist.

- ***In the event of mixed incontinence***, the patient should be informed of the different treatment options (training, anticholinergic therapy), depending on her symptoms.
- ***In the event of overflow incontinence***, the patient should be informed of the need to see a urologist to establish the mechanism underlying the incontinence and to decide on type of treatment.
- ***Irrespective of the type of incontinence***, the patient should be fully informed of the potentially aggravating role on urinary incontinence and voiding problems of the drugs mentioned in section III, particularly those taken without medical prescription. She should be helped to identify lifestyle and dietary factors that could exacerbate incontinence (excessive fluid intake, consumption of alcohol or caffeine-containing drinks, etc).

