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No. 127-The Evaluation of Stress Incontinence Prior to Primary Surgery

These guidelines have been prepared by the Urogynaecology Committee and were approved by the Executive and Council of The Society of Obstetricians and Gynaecologists of Canada.

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Key Words: Stress incontinence, evaluation, surgery

Abstract

Objective: To provide clinical guidelines for the evaluation of women with stress urinary incontinence prior to primary anti-incontinence surgery.

Options: The modalities of evaluation range from basic pelvic examination through to the use of adjuncts including ultrasound and urodynamic testing.

Outcomes: These guidelines provide a comprehensive approach to the preoperative evaluation of urinary incontinence to ensure that excessive evaluation is avoided without sacrificing diagnostic accuracy.

Evidence: Published opinions of experts, supplemented by evidence from clinical trials, where appropriate.

Values: The quality of the evidence is rated using the criteria described by the Canadian Task Force on the Periodic Health Examination.

Benefits, harms, and costs: Comprehensive evaluation of women considering surgery to treat urinary incontinence is essential to rule out causes of incontinence that may not be amenable to surgical treatment. Simplifying the evaluation minimizes the discomfort and embarrassment potentially experienced by women.

Recommendations:

1. Thorough evaluation of each woman is essential to determine the underlying etiology of the urinary incontinence and to guide management (II-3B).
2. Preoperative pelvic examination should be performed to identify pelvic masses that may provoke lower urinary tract symptoms (e.g., a large fibroid uterus impinging on the bladder), concomitant pelvic organ prolapse. and to rule out latent stress incontinence. All of these findings may necessitate a modification of the surgical approach (III-C).
3. Hypermobility of the urethra should be confirmed preoperatively, as women with fixed, well-supported bladder necks are less likely to experience a cure following standard anti-incontinence procedures (II-2B).
4. Stress incontinence should be objectively demonstrated prior to anti-incontinence surgery (III-B).
5. The volume of postvoid residual urine should be measured prior to anti-incontinence surgery. Elevated postvoid residual volumes are uncommon and should signal the need for further evaluation of the voiding mechanism (III-C).
6. Urinary tract infection should be identified and treated prior to initiating further investigation or therapeutic intervention for urinary incontinence (II-2B).
7. In women presenting with pure stress incontinence that can be objectively demonstrated during examination. Preoperative urodynamic testing is not necessary (II-3B). For women with other lower urinary tract symptoms and/or mixed urinary incontinence, the clinician's judgment must guide the use of preoperative urodynamic testing (II-3B).

Validation: These guidelines have been approved by the Urogynaecology Committee and the Executive and Council of The Society of Obstetricians and Gynaecologists of Canada.

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INTRODUCTION

These guidelines have been developed for the preoperative evaluation of uncomplicated stress urinary incontinence, and therefore apply only to women presenting with either pure stress incontinence or mixed incontinence who have not previously undergone anti-incontinence or pelvic organ prolapse surgery.

For purposes of clarity in the following discussion, the following terms are defined.

Stress urinary incontinence is the complaint of involuntary leakage on effort or exertion, or on sneezing or coughing.[1]

Pure stress urinary incontinence is used to describe the symptom of isolated stress incontinence, without urge incontinence or other symptoms of bladder or voiding dysfunction.[1]

Urge urinary incontinence is the complaint of involuntary leakage accompanied by or immediately preceded by urgency.[1]

Pure urge urinary incontinence is used to describe the symptom of isolated urge incontinence without stress incontinence or other symptoms of bladder or voiding dysfunction.[1]

Mixed urinary incontinence is the complaint of involuntary leakage associated with urgency and also with exertion, effort, sneezing, and coughing.[1]

Latent stress urinary incontinence is stress incontinence that occurs (or is unmasked) only when pelvic organ prolapse is reduced (during physical examination or after pessary insertion).[2]

It should be carefully noted that all the definitions above describe symptoms alone.

The quality of the evidence of the recommendations within this guideline have been ranked using the criteria described by the Canadian Task Force on the Periodic Health Examination (Table 1).[3]

BASIC ELEMENTS OF EVALUATION

Women presenting with urinary incontinence require careful and comprehensive evaluation in order to determine with certainty the etiology of the incontinence prior to undergoing anti-incontinence surgery. The following components comprise the minimal acceptable preoperative evaluation:

1. Focused history
2. Pelvic examination
3. Demonstration of mobility of the urethrovesical junction (i.e., the bladder neck)
4. Objective evidence of stress incontinence (including assessment for latent stress incontinence)
5. Postvoid residual urine volume measurement
6. Urinalysis and urine culture

For each element of the evaluation, the purpose, methodological options, and application of the information will be discussed.

Focused History

Though research has shown that historical information alone is not sufficient to establish a diagnosis[4] for urinary

Table 1. Key to evidence statements and grading of recommendations, using the ranking of the Canadian Task Force on Preventive Health Care

Quality of evidence assessment[a]	Classification of recommendations[b]
The quality of evidence reported in these guidelines has been described using the Evaluation of Evidence criteria outlined in the Report of the Canadian Task Force on the Periodic Health Exam.	Recommendations included in these guidelines have been adapted from the ranking method described in the Classification of Recommendations found in the Canadian Task Force on the Periodic Health Exam.
I. Evidence obtained from at least one properly randomized controlled trial.	A. There is good evidence to support the recommendation that the condition be specifically considered in a periodic health examination.
II-1: Evidence from well-designed controlled trials without randomization.	B. There is fair evidence to support the recommendation that the condition be specifically considered in a periodic health examination.
II-2: Evidence from well-designed cohort (prospective or retrospective) or case-control studies, preferably from more than one centre or research group.	C. There is poor evidence regarding the inclusion or exclusion of the condition in a periodic health examination, but recommendations may be made on other grounds.
II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category.	D. There is fair evidence to support the recommendation that the condition not be considered in a periodic health examination.
III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.	E. There is good evidence to support the recommendation that the condition be excluded from consideration in a periodic health examination.

[a]The quality of evidence reported in these guidelines has been adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

[b]Recommendations included in these guidelines have been adapted from the Classification of Recommendations criteria described in The Canadian Task Force on Preventive Health Care.