



Complete Summary

GUIDELINE TITLE

Nursing management of patients with urinary incontinence.

BIBLIOGRAPHIC SOURCE(S)

Singapore Ministry of Health. Nursing management of patients with urinary incontinence. Singapore: Singapore Ministry of Health; 2003 Dec. 40 p. [32 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Urinary incontinence, including:

- Stress incontinence
- Urge incontinence
- Mixed incontinence
- Overflow incontinence
- Transient incontinence
- Functional incontinence

GUIDELINE CATEGORY

Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine
Nursing
Obstetrics and Gynecology
Urology

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants

GUIDELINE OBJECTIVE(S)

To assist nurses in the management of adult patients suffering from urinary incontinence in the hospital

TARGET POPULATION

All adult patients with urinary incontinence

The guidelines are not applicable to children, or adults who have undergone urological or gynaecological surgeries.

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation

1. Patient history and physical exam
2. Direct observation of urine leakage
3. Urinalysis and culture
4. Measurement of residual volume
5. Recording of frequency, timing, and amount of voiding on a bladder chart

Management

1. Toileting assistance
 - Timed voiding, scheduled toileting
 - Habit training
 - Prompted voiding
2. Bladder training
3. Pelvic floor muscle exercise
4. Intermittent urinary catheterisation
5. Indwelling urinary catheterisation

6. External collection systems
7. Absorbent products
8. Skin care
9. Dietary and fluid management
10. Physical and environmental alterations
11. Patient and caregiver education
12. Nursing education

MAJOR OUTCOMES CONSIDERED

- Incidence of urinary incontinence
- Urge to urinate
- Time between urinary voiding
- Urinary output volume

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The workgroup reviewed a set of highly-regarded evidence-based guidelines by the Agency for Health Care Policy and Research. (AHCPR) Clinical Practice Guideline on *Urinary Incontinence in Adults: Acute and Chronic Management*.

The workgroup felt that a review of the literature identified from key specific topics found in the electronic databases (MEDLINE, CINAHL and Cochrane library) and through hand-searching of relevant journals (Geriatric Nursing, Journal of Advanced Nursing, Journal of Gerontological Nursing) from February 1996 to July 2002 would be sufficient.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Individual Study Validity Ratings

++

All or most of the criteria have been fulfilled. Where they have not been fulfilled the conclusions of the study or review are thought very unlikely to alter.

+

Some of the criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought unlikely to alter the conclusions.

-

Few or no criteria fulfilled. The conclusions of the study are thought likely or very likely to alter.

Study Design Designation

The study design is designated by a numerical prefix:

"1" for systematic reviews or meta-analyses or randomised controlled trials (RCTs)

"2" for cohort and case-control studies

"3" for case reports/series

"4" for expert opinion/logical arguments/"common" sense

Hierarchy of the Levels of Scientific Evidence

Each study is assigned a level of evidence by combining the design designation (1, 2, 3 or 4) and its validity rating (++ , + or -). The meanings of the various "levels of evidence" are given below:

1++

High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias

1+

Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias

1-

Meta-analyses, systematic reviews, or RCTs with a high risk of bias

2++

High quality systematic reviews of case-control or cohort studies

High quality case-control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal

2+

Well-conducted case-control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal

2-

Case-control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal

3

Non-analytic studies (e.g., case reports, case series)

4

Expert opinion

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The guideline developers adopted the revised Scottish Intercollegiate Guidelines Network (SIGN 2001) procedure which gives clear guidance on evaluating the design of individual studies, grading each study's level of evidence, and assigning a grade to the recommendation after taking into account external validity, result consistency, local constraints, and expert opinion.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The extensive reliance on the Agency for Health Care Research and Quality (AHRQ) guidelines is acknowledged and treated as a very special case of published expert opinion. For areas where available evidence is inconsistent or inconclusive, recommendations were made based on the clinical experience and judgement of the workgroup or expert committee reports.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Categories of the Strength of Evidence Associated with the Recommendations

A

At least one meta-analysis, systematic review, or randomized controlled trial (RCT) rated as 1++, and directly applicable to the target population; or

A body of evidence, consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results

B

A body of evidence, including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; or

Extrapolated evidence from studies rated as 1++ or 1+

C

A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; or

Extrapolated evidence from studies rated as 2++

D

Evidence level 3 or 4; or

Extrapolated evidence from studies rated as 2+

Interpretation of the D/4 Grading

The grading system emphasises the quality of the experimental support underpinning each recommendation. The grading D/4 was assigned in cases where:

- It would be unreasonable to conduct a RCT because the correct practice is logically obvious
- Recommendations were derived from existing high quality evidence-based guidelines. The guideline developers alert the user to this special case by appending the initials of the source in the original guideline document. e.g., (D/4 - Fantl et al 1996).

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Drafts of the guidelines were circulated to healthcare institutions for peer review on validity, reliability, and practicality of the recommendations.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

A summary of recommendations is shown below. Definitions for the grades of recommendations (**A, B, C, D**) and the levels of evidence (**1++ to 4**) are provided at the end of the "Major Recommendations" field.

Assessment

History-Taking

Take a history from the person identified to have urinary incontinence (UI). (**D/4** - Fantl et al., 1996)

Physical Examination

Conduct systematic physical examination to identify abnormalities that have a bearing on the incontinence. (**D/4** - Fantl et al., 1996)

Assess skin condition around the genital-perineal region and check for excoriation. (**D/4** - Fantl et al., 1996)

Assess functional state. Examine and determine patient's mobility, cognition, and manual dexterity. (**D/4** - Fantl et al., 1996)

Direct Observation of Leakage

Instruct patient to cough forcefully when the bladder is full and observe for urine leakage. (**D/4** - Fantl et al., 1996)

Urinalysis

Send a sample of urine for urinalysis and culture. (**D/4** - Fantl et al., 1996)

Measurement of Residual Volume

Measure Post Voided Residual (PVR) volume by in-out catheterisation or bladder scanning within a few minutes after voiding. (**D/4** - Fantl et al., 1996)

Bladder Chart/Intake-and-Output Chart

Record frequency, timing, and amount of fluid intake and voiding for a few days. (**D/4** - Fantl et al., 1996)

Behavioural Intervention

Toileting Assistance

Timed Voiding/Scheduled Toileting

Timed voiding/scheduled toileting is recommended throughout the whole day for patient who needs assistance in toileting. (**D/4** - Fantl et al., 1996)

Habit Training

Habit training is recommended for patient in whom a natural voiding pattern can be determined. (**D/4** - Fantl et al., 1996)

Prompted Voiding

Prompted voiding is recommended for patients who can learn to recognize some degree of bladder fullness or the need to void, or who can ask for assistance or respond when prompted to void. Patient is asked at regular intervals regardless whether voiding is required and is assisted to the toilet if the response is positive. (**A/1+** - Fantl et al., 1996)

When toileting is successful, reward with praise and words of encouragement. (**D/4** - Fantl et al., 1996)

Bladder Training/Bladder Re-education

Bladder training is strongly recommended for management of urge UI. (**A/1+**)

Bladder training is recommended for management of stress UI. (**D/4** - Fantl et al., 1996)

Pelvic Floor Muscle Exercise

Pelvic floor muscle exercise is beneficial to women with stress incontinence. It also enhances the benefits of other therapy. (**A++/1**)

Sustain a contraction of the perivaginal muscles or anal sphincter for at least 10 seconds followed by equal periods of relaxation. Perform this 30 to 80 times a day for at least 8 weeks or until desired muscle tone is achieved. (**D/4** - Fantl et al., 1996)

Other Measures and Supportive Care

Intermittent Urinary Catheterisation

Intermittent catheterisation is recommended as a supportive measure for patients with spinal cord injury, persistent UI, chronic urinary retention due to under-active or partially obstructed bladder. (**D/4** -- Fantl et al., 1996)

Indwelling Urinary Catheterisation

Indwelling catheter is recommended for patient with obstructive cause where other interventions are not feasible. It is also useful for the terminally ill; or patient with pressure ulcers, or for severely impaired individual in whom alternative interventions are not suitable. It may also be used when a caregiver is not available to provide other supportive measures. (D/4 - Fantl et al., 1996)

The patient is assessed periodically for voiding trials or bladder training. (D/4 - Fantl et al., 1996)

External Collection Systems

Uro-sheaths are recommended for incontinent men who have adequate bladder emptying and intact genital skin, and in whom other therapies have failed or are not appropriate. (D/4 - Fantl et al., 1996)

Absorbent Products

Absorbent products are recommended during evaluation, as an adjunct to other therapies, and for long term care of patients with chronic, intractable UI. (D/4 - Fantl et al., 1996)

Skin Care

Inspect genital-perineal area daily. Identify signs of contact dermatitis and skin excoriation. (D/4 - Fantl et al., 1996)

Cleanse skin immediately after urine leakage. (D/4 - Fantl et al., 1996)

Use appropriate skin cleansers and barrier creams. (D/4 - Fantl et al., 1996)

Dietary and Fluid Management

Encourage adequate fluid and fibre intake. Reduce caffeine intake (e.g. coffee, tea, colas). (D/4 - Fantl et al., 1996)

Education

Patient and Caregiver Education

The public should be informed that UI is not inevitable or shameful. UI is treatable, and, if not, it is manageable. Patient education should be individualised, involving caregivers and others. (D/4 - Fantl et al., 1996)

Nursing Education

Education and continuing education programmes on UI evaluation and management should be given to nurses. (D/4 - Fantl et al., 1996)

Physical and Environmental Alterations

Assess the environment in which the patient is in. Perform simple alterations, such as providing toileting or ambulation devices. (**D/4** - Fantl et al., 1996)

Definitions:

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CLINICAL ALGORITHM(S)

A clinical algorithm is provided in the original guideline document for the "Nursing Management of Patients with Urinary Incontinence."

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

[References open in a new window](#)

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate assessment and management of patients with urinary incontinence

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These guidelines offer recommendations that are based on available scientific evidence and professional judgement. They are not intended as the legal standard of care.
- Users of these guidelines should determine the appropriate and safe patient care practices based on assessment of the circumstances of the particular patient, their own clinical experiences, and their knowledge of the most recent research findings.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Health care administrators should consider these guidelines in their in-house quality assurance programmes. Nurses should critically review the implications of these guidelines for their routine care delivery, trainee teaching and patient education needs.

Parameters for Evaluation

In the nursing management of urinary incontinence (UI), the quality of care may be determined by assessing the changes in the following rates/ number:

Incidence of UI Symptoms That Developed During Hospitalization

Use of Behavioural Intervention

- Proportion of patients with symptoms of UI given behavioural intervention (toileting assistance/bladder re-education/pelvic floor muscle exercise)

Teaching of Pelvic Floor Muscle Exercise

- Proportion of women with stress UI who were given health teaching on pelvic floor muscle exercise

Continuing Education on UI for Nurses

- Number of continuing education programmes on UI evaluation and management for nurses
- Proportion of nurses who had attended continuing education programmes on UI evaluation and management

It is suggested that the above parameters be monitored on a regular basis.

Management Role

Health care administrators together with quality assurance teams should ensure that the targets for these indicators are met. They may benchmark against hospitals or institutions that perform well.

Implementation of Guidelines

It is expected that these guidelines would be adopted after discussion involving clinical and management staff of the health care institution. They may review how these guidelines would complement or be incorporated into their existing protocols.

Feedback may be directed to the Ministry of Health for consideration in future reviews.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Chart Documentation/Checklists/Forms
Clinical Algorithm
Staff Training/Competency Material

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Singapore Ministry of Health. Nursing management of patients with urinary incontinence. Singapore: Singapore Ministry of Health; 2003 Dec. 40 p. [32 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2003 Dec

GUIDELINE DEVELOPER(S)

Singapore Ministry of Health - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

Singapore Ministry of Health (MOH)

GUIDELINE COMMITTEE

Workgroup on Nursing Management of Patients with Urinary Incontinence

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [Singapore Ministry of Health Web site](#).

Print copies: Available from the Singapore Ministry of Health, College of Medicine Building, Mezzanine Floor 16 College Rd, Singapore 169854.

AVAILABILITY OF COMPANION DOCUMENTS

Audit indicators, a continuing medical education (CME) self-assessment, and a sample Time and Voiding Chart are available in the [original guideline document](#).

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on July 12, 2005. The information was verified by the guideline developer on August 24, 2005.

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Date Modified: 11/10/2008

