

Continence Management: Arming Case Managers With Tools to Improve Outcomes

By Michelle Christiansen, MS, PA, CN-E, CCDS

Introduction

Incontinence is the involuntary and uncontrolled loss of urine and/or stool that represents a hygienic and/or social problem to the individual. The National Association for Continence (NAFC) defines incontinence as a symptom, not a disease in itself. Incontinence is a distressing and isolating condition. An estimated 25 million adult Americans experience transient or chronic urinary incontinence, yet many people do not report it, even to their own physician.¹ The etiologies of urinary incontinence are diverse and, in many cases, incompletely understood. Patients with urinary incontinence should undergo a basic evaluation that includes a history, physical examination, and urinalysis.

Urinary and/or fecal incontinence can affect people of any age and gender, impact all aspects of people's lives and those of their families, and can be costly if not proactively identified, assessed, and treated.^{2,3} An aging population, with an increasing prevalence of incontinence, creates a need for continence promotion, education, and training that can lead to a cure and better management. Urinary incontinence is an underdiagnosed and underreported problem that increases with age—affecting 50% to 84% of the elderly in long-term care facilities—and at any age is more than twice as common in women than men.⁴

Age is the single largest risk factor for urinary incontinence, although incontinence is not a normal part of aging. In a cross-sectional analysis of women who participated in the 2005–2006 National Health and Nutrition Examination Survey (NHANES), Nygaard and colleagues⁵ demonstrated that the prevalence of urinary incontinence increased with age, but reported a lower overall prevalence than did other researchers. The prevalence

was 6.9% in women aged 20 to 39 years, 17.2% in those aged 40 to 59 years, 23.3% in those aged 60 to 79 years, and 31.7% in women older than 80 years. Urinary incontinence affects up to 7% of children older than 5 years, 10% to 35% of adults, and 50% to 84% of the elderly persons in long-term care facilities.⁴ The incidence of urinary incontinence is 1.4% of adults aged 15 to 24 years and 2.9% of those aged 55 to 64 years.⁶ An age-related pattern also appears in the predominant type of urinary incontinence experienced. In general, studies have shown that

stress urinary incontinence tends to be more common in women younger than 65 years, while urge urinary incontinence and mixed urinary incontinence is more common in women older than 65 years. Stress incontinence affects 15% to 60% of women—both young and old individuals.

Cost/Financial Burden

Incontinence presents a significant financial burden to individuals and to society. In the United States, the cost of bladder incontinence among adults in 2000 was estimated at \$19.5 billion

(Figure 1),⁷ with \$14.2 billion incurred by community patients and \$5.3 billion by institutional patients.⁸ A majority (50%–75%) of the costs are attributed to resources used for incontinence management or “routine care” such as absorbent pads, protection, and laundry.⁹ The 2010 average annual cost for fecal incontinence was estimated at \$4110 per person for patients who had fecal incontinence for more than 1 year with at least monthly leakage of solid, liquid, or mucus stool: \$2353 for direct medical and nonmedical expenses and \$1549 for indirect costs associated with productivity loss.¹⁰ Greater incontinence symptom severity was associated with higher annual direct costs.

Quality of Life

Individuals who are incontinent may carry an emotional burden of shame and embarrassment in addition to the physical discomfort and disruption of their lives that occur with episodes

Figure 1

Challenges of Incontinence

- Incontinence presents a significant financial burden to the individual and to society. The U.S. cost of bladder incontinence among adults was estimated at **\$19.5 billion**⁷
- **50%–75%** of the costs are attributed to resources used for incontinence management or “routine care” such as absorbent pads, protection, and laundry⁹
- The annual cost of managing urinary incontinence in long-term care facilities is **\$5.3 billion**⁸

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of incontinence.¹¹ Bladder and bowel incontinence significantly impact quality of life even after adjusting for comorbidities and demographic differences. This impact increases with greater severity of incontinence. Research has found an association between incontinence and declining mental health¹² and increased risk of the onset of psychological distress,¹³ and depressive symptoms.¹⁴ Incontinence is a predictor of functional limitations¹⁵ and is associated with an increase in falls, which may result in injuries and mobility impairment.¹⁶⁻¹⁸ Incontinence adds to the psychological and physical burden of caregivers¹⁹⁻²¹ and can be a risk factor for nursing home placement, hospitalization, and death.²²⁻²⁵

Prognosis

The prognosis of a patient with incontinence is excellent with current health care. With improvement in information technology, well-trained medical staff, and advances in modern medicine, patients with incontinence should not experience the morbidity and mortality of the past. Although the ultimate well-being of a patient with urinary incontinence depends on the precipitating condition, urinary incontinence itself is easily treated and can be prevented by properly trained healthcare personnel.

Poor standards of continence care continue to be reported, and national audits of continence care have cited inadequate professional education as a major contributory factor. The results indicated that an average of 9 hours was spent on continence education in pre-registration nurse education, 4 hours in physiotherapy, and 3 hours in undergraduate medical education. In a *Nursing Times* survey of 1000 qualified nurses,²⁶ one-third of respondents reported receiving no education about caring for patients with incontinence during their undergraduate nursing program; 53% reported having no continence training after graduation. As a result, incontinence is often viewed as a normal part of aging, which is not the case. To truly promote quality of care for each patient, first you need to be able to identify the cause for the incontinence, and then develop an individualized care plan to treat it.

Without effective treatment, urinary incontinence can have an unfavorable outcome. Prolonged contact of urine with the unprotected skin can cause contact dermatitis and skin breakdown. If left untreated, these skin disorders may lead to pressure sores and ulcers, possibly resulting in secondary infections.

Pathophysiology

Micturition requires coordination of several physiological processes. Somatic and autonomic nerves carry bladder volume input to the spinal cord, and motor output innervating the detrusor, sphincter, and bladder musculature is adjusted accordingly. The cerebral cortex exerts a predominantly inhibitory influence, whereas the brainstem facilitates urination by coordinating

urethral sphincter relaxation and detrusor muscle contraction. As the bladder fills, sympathetic tone contributes to closure of the bladder neck and relaxation of the dome of the bladder and inhibits parasympathetic tone. At the same time, somatic innervation maintains tone in the pelvic floor musculature as well as the striated periurethral muscles. When urination occurs, sympathetic and somatic tones in the bladder and periurethral muscles diminish, resulting in decreased urethral resistance. Cholinergic parasympathetic tone increases, causing bladder contraction. Urine flow results when bladder pressure exceeds urethral resistance. Normal bladder capacity is 300–500 mL, and the first urge to void generally occurs between bladder volumes of 150 and 300 mL. Incontinence occurs when micturition physiology, functional toileting ability, or both have been disrupted.²⁷ The underlying pathology varies among the different types of incontinence.

A number of factors cause incontinence:

- Weak bladder
- Weakened muscles around the bladder
- Blocked urinary passage
- Damage to the nerves that help control the bladder
- Diseases that limit movement (such as those that confine a person to bed)
- Neurologic causes
- Pharmacologic causes

The latter two causes are further explained here.

Neurologic Causes

Cortical lesions from strokes, tumors, aneurysms, or hemorrhages can lead to inappropriate voiding secondary to depressed social awareness, decreased sensation, and/or inappropriate urethral sphincter relaxation. Cerebrovascular disease doubles the risk for urinary incontinence in older women. Spinal cord lesions can alter sympathetic and parasympathetic tone, resulting in urinary incontinence. Peripheral nerve disease such as diabetic peripheral neuropathy can cause urinary incontinence through a contractile dysfunction of the bladder. Metastatic carcinoma can cause epidural spinal cord compression. Back pain is the initial symptom in most cases. Almost 20% of cases involve the lumbosacral spine. If the sacral cord is involved, urinary incontinence or retention can be expected. Urinary incontinence symptoms represent an unfavorable prognostic indicator in this patient population. Early diagnosis and treatment of spinal cord compression is extremely important. Paraplegia or quadriplegia can develop within hours or days after the first neurologic deficit appears.²⁸

Pharmacologic Causes

Many medications contribute directly or indirectly to urinary incontinence. Medications must always be considered as the cause of new-onset urinary incontinence—especially in elderly persons,

in whom polypharmacy is often encountered.^{28,29}

Medication may result in incontinence through the following mechanisms:

- **Drugs with anticholinergic properties or side effects:** Urinary retention and thus overflow incontinence
- **Alpha-adrenergic agonists:** Urinary retention and thus overflow urinary incontinence
- **Alpha-antagonists:** Urethral relaxation
- **Diuretics:** Overwhelming of bladder capacity in elderly persons
- **Calcium channel blockers:** Decreased smooth muscle contractility in the bladder, causing urinary retention with overflow incontinence
- **Sedative-hypnotics:** Immobility secondary to sedation, leading to functional incontinence
- **Angiotensin-converting enzyme (ACE) inhibitors:** Diuretic effect, as well as side effect of cough with relaxation of pelvic floor musculature, can exacerbate incontinence
- **Antiparkinson medications:** Urinary urgency and constipation

Pace of Onset

Many cases of urinary incontinence present as a gradually progressive disorder. Progression from very mild symptoms to more severe and debilitating urine loss may take several years. The patient may come to medical attention only after experiencing a progressive worsening of symptoms. In other patients, symptoms may appear suddenly and may or may not be associated with a specific inciting event, such as genitourinary tract infection. In these instances especially, associated symptoms such as pelvic pain, urgency, frequency, dysuria, and hematuria may point to a specific etiology.

Types of Incontinence

Many people think a person is either continent or incontinent. They do not realize that there are many different types of incontinence.

- Urge
- Stress
- Overflow
- Mixed
- Functional
- Transient
- Bowel (Fecal)

Other terms describing urinary incontinence are as follows:

- **Enuresis:** Involuntary loss of urine

- **Nocturnal enuresis:** Loss of urine occurring during sleep
 - **Continuous urinary incontinence:** Continuous leakage
- Successful treatment of urinary incontinence must be tailored to the specific type of incontinence and its cause. The usual approaches are as follows:
- **Stress incontinence:** Pelvic floor physiotherapy, anti-incontinence devices, and surgery
 - **Urge incontinence:** Changes in diet, behavioral modification, pelvic-floor exercises, medications, and/or surgical intervention
 - **Mixed incontinence:** Pelvic floor physical therapy, anticholinergic drugs, and surgery
 - **Overflow incontinence:** Catheterization regimen or diversion
 - **Functional incontinence:** Treatment of the underlying cause

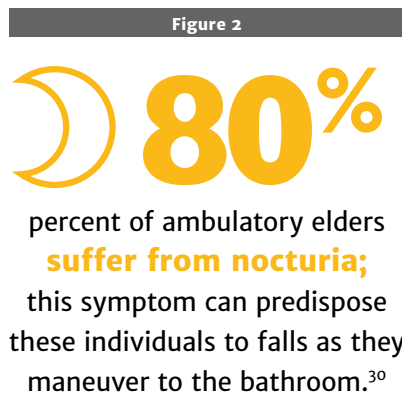
Stress Incontinence Pathophysiology

Stress incontinence is the loss of a small amount of urine with physical activity such as coughing, sneezing, laughing, climbing stairs, or lifting. Urine leakage results from an increase in intra-abdominal pressure on a bladder that is not overdistended and is not the result of detrusor (bladder) contractions. The major cause of stress incontinence is urethral hypermobility due to impaired support from the pelvic floor. A less common cause is an intrinsic sphincter deficiency, usually secondary to pelvic surgeries. In either case, urethral sphincter function is impaired, resulting in urine loss at lower than usual abdominal pressures.

Urge Incontinence Pathophysiology

Urge urinary incontinence is characterized by involuntary leakage accompanied by or immediately preceded by urgency. Also called overactive bladder, it is associated with detrusor (bladder) muscle overactivity (involuntary bladder contractions). It is characterized by abrupt urgency, frequency, and nocturia (urination at night) (Figure 2). It may be age-related or have neurologic causes or other causes such as bladder infection or urethral irritation. One can feel the urge to void but is unable to inhibit voiding long enough to reach the toilet. It is the most common cause of urinary incontinence in elderly persons.

Urge incontinence may result from detrusor myopathy, neuropathy, or a combination of both. When the identifiable cause is unknown, it is termed idiopathic urge incontinence. When a definable causative neuropathic disorder exists, the coexisting urinary incontinence disorder is termed *neurogenic detrusor overactivity*. Symptoms of overactive bladder or urge incontinence in the absence of neurologic causes are known as *detrusor instability*.



Mixed Incontinence Pathophysiology

Mixed urinary incontinence is a combination of stress and urge incontinence, marked by involuntary leakage associated with urgency and also with exertion, effort, sneezing, or coughing. The bladder outlet is weak and the detrusor is overactive. Often, stress incontinence symptoms precede urge incontinence symptoms in these individuals. Urgency without actual urge-related urine loss also is a common complaint of patients with stress incontinence. Some patients with stress incontinence have urine leakage into the proximal urethra that may, at first, trigger sensory urgency and/or bladder contractions, which initially are suppressible. Later, in a subgroup of these individuals, myopathic changes may occur in the bladder that make the spread of abnormally generated contractile signals more efficient and more difficult to suppress voluntarily. Approximately 40% to 60% of women with incontinence have this combination, and many elderly people will experience these symptoms. It is often diagnosed when incontinence continues in spite of appropriate treatment.

Overflow Incontinence Pathophysiology

Also known as *chronic urinary retention*, overflow incontinence is associated with leakage of small amounts of urine and occurs when the bladder has reached its maximum capacity and has become distended. Symptoms include weak stream, dysuria (painful urination), nocturia, incomplete voiding, and frequent or constant dribbling. A post-void residual (PVR) of more than 200 cc is characteristic of overflow incontinence. Urinary retention, due to obstruction, reduction of bladder contractions, or weakened bladder muscles, is the cause of overflow incontinence. However, urinary retention can also occur without incontinence. Acute urinary retention is accompanied by pain or abdominal discomfort and requires immediate treatment. Chronic urinary retention can be difficult to diagnose because there are often no symptoms of discomfort. Undetected urinary retention can lead to urinary tract infections (UTIs), renal complications, and overflow incontinence.

Common causes of bladder outlet obstruction in men include benign prostatic hyperplasia (BPH), vesical neck contracture, and urethral strictures. In women, urethral obstruction after anti-incontinence surgery such as a sling or bladder neck suspension can result in induced overflow incontinence.

Functional Incontinence

Functional urinary incontinence is the inability to hold urine for reasons other than neuro-urollogic and lower urinary tract dysfunction (eg, delirium, psychiatric disorders, urinary infection, and impaired mobility). Functional incontinence refers to incontinence that is secondary to urinary tract function. Functional incontinence is seen in patients with normal voiding systems but who have difficulty reaching the toilet because of physical or

psychological impediments.⁶

In some cases, the cause is transient or reversible. In others, a permanent problem can be identified. The etiology of the incontinence may be induced, environmental, situational, or disease related. The following common mnemonic, DIAPPERS, is helpful in remembering the functional contributors to incontinence.²⁸

- D** Delirium
- I** Infection, urinary
- A** Atrophic urethritis or vaginitis
- P** Pharmacologic agents
- P** Psychiatric illness
- E** Endocrine disorders
- R** Reduced mobility or dexterity
- S** Stool impaction

Transient Incontinence

Transient incontinence refers to temporary or occasional incontinence that may relate to a variety of causes. Transient incontinence has the potential to be reversed or improved.

Bowel or Fecal Incontinence

Fecal incontinence is the inability to control bowel movements. Severity can range from an occasional leakage of stool while passing gas to a complete loss of bowel control.

Common Causes

- Muscle damage (anal sphincters)
- Nerve damage due to spinal cord injury, multiple sclerosis, or diabetes
- Rectal prolapse, rectocele, hemorrhoids, fissures, or fistulas
- Diarrhea
 - Lactose intolerance
 - Malnutrition/malabsorption
 - Clostridium difficile* (C-diff) infection
 - Irritable bowel syndrome (IBS)
 - Chronic infections
- Rectal outlet obstruction
- Anal/rectal surgical complications

General Treatment

- Attempt to attain GI regularity and stool consistency.
- Limit or eliminate foods that can contribute to incontinence, such as greasy foods, caffeine, alcohol, spicy foods, dairy products, and cured or smoked meat.
- Implement a hydration program.
- Biofeedback has been shown to be very effective.
- Surgery may be required.
- Give pharmacologic treatment (physician consultation required).
- Use antidiarrheals, laxatives, stool softeners, and/or fiber.

Assessment of Incontinence

A thorough history is essential to the evaluation of urinary incontinence. The clinical presentation of urinary incontinence, based on severity, frequency, and amount of debilitation, varies from patient to patient. Patients may be reluctant to initiate discussions about incontinence; therefore, all patients, especially those older than 65 years, should be asked focused questions about voiding problems. In wording these questions, it is best to avoid nonspecific terms such as urge or nocturia, as they may have different meanings for different patients.

The clinical presentation of urinary incontinence can be varied in many respects. Patient complaints may be minor and situational or severe, constant, and debilitating. When obtaining a clinical history, determining whether the problem is a social and/or hygienic problem and the degree of disability attributable to the incontinence also is important. In addition, the following points regarding the clinical presentation should be sought when obtaining the history:

- Severity and quantity of urine lost and frequency of incontinence episodes
- Duration of the complaint and whether problems have been worsening
- Triggering factors or events (eg, coughing, sneezing, lifting, bending, feeling of urgency, sound of running water)
- Constant versus intermittent urine loss and provocation by minimal increases in intra-abdominal pressure, such as movement, changes in position, and incontinence with an empty bladder
- Associated frequency, urgency, dysuria, pain with a full bladder, and history of UTIs
- Concomitant symptoms of fecal incontinence or pelvic organ prolapse
- Coexistent complicating or exacerbating medical problems
- Obstetrical history, including difficult deliveries, forceps use, obstetrical lacerations, and large babies
- History of pelvic surgery, especially prior incontinence procedures, hysterectomy, or pelvic floor reconstructive procedures
- Other urologic procedures
- Spinal and CNS surgery
- Lifestyle issues, such as smoking, alcohol or caffeine abuse, and occupational and recreational factors causing severe or repetitive increases in intra-abdominal pressure
- Medications

Experiencing incontinence can have a profound psychological effect on patients. Many feel uncomfortable discussing the issue,

even with their physician. However, simple questions allow clinicians to assess the patient's condition and identify the type of incontinence the patient might be experiencing. Make sure to provide privacy during a physical exam and be patient during the incontinence assessment.

Incontinence histories can be very complex and time consuming. Most centers use some form of incontinence questionnaire as an aid. Sending the questionnaire to patients in advance so that they can give appropriate time and thought to their answers may be helpful. Part of the questionnaire should deal with

the patient's quality of life, lifestyle issues, and the relationship of these factors to the incontinence disorder.

Potential Complications

The warm, moist environment that incontinence episodes produce can lead to complications such as UTIs, incontinence-associated dermatitis, and fungal infections. Excellent perineal care is one essential component for preventing these complications.

Urinary Tract Infections

UTIs are infections occurring in any part of the urinary tract. These infections are commonly caused by bacteria that enter from the urethra and travel to the bladder. UTIs are most often caused by *Escherichia coli* when a patient is incontinent of stool. As a result, people with incontinence are at a higher risk for getting UTIs. Some symptoms of UTIs are fever or chills, burning or pain during urination, flank pain, dark urine or blood in urine, and decreased mental state. To help prevent UTIs, follow the simple strategies in Box 1.

Incontinence-Associated Dermatitis

Incontinence-associated dermatitis (IAD) (Figure 3) is another term used for diaper rash. It happens when skin comes in contact with urine or feces. IAD starts with the skin becoming macerated from being constantly wet. If the skin continues to be in contact with urine or feces, the skin can then become inflamed. If you touch the skin, it may feel firm or puffy. If patients are able to speak, they may tell you that it hurts or burns.

Perineal Care Tips

To help prevent someone from getting IAD (see Box 1), change their disposable products frequently, according to your facility/organization protocols, being sure to cleanse the perineal area thoroughly, and apply a barrier protectant. If the patient develops IAD, report the condition to the nursing team. A treatment such as zinc oxide can be used to protect the skin from further moisture.

Figure 3



Once IAD occurs, there is a high risk for pressure ulcer development; in fact, patients are at 37.5% greater risk of developing pressure ulcers.³¹

Box 1

Perineal Care Tips

- Use proper hand hygiene before patient care.
- Anticipate needed supplies before providing patient care (cleansing products, gloves, plastic bags, clean disposable absorbent products).
- Wear gloves and dispose of them afterwards. Do not use contaminated gloves for another task.
- Cleanse the perineal area thoroughly every time there is an episode of incontinence, following your protocols.
- For female patients, always cleanse from front to back.
- Use a new wipe for each cleansing stroke.
- After cleansing, dry the perineal area and apply a barrier cream (sparingly).
- Always wash your hands after performing care.

Fungal Infections

A fungal infection can look like IAD with inflamed red skin in the perineal area. Sometimes you will see little red dots or bumps.

Perineal Care Tips

To help prevent a fungal infection (see Box 1), change the disposable product frequently, according to your facility protocols, being sure to thoroughly cleanse the perineal area. Then apply a barrier protectant. Report any inflamed red skin or bumps to the nurse so the correct treatment can be used. An antifungal cream, ointment, or powder may be used to treat a fungal infection.

Establish a Voiding Pattern

Whether a patient is incontinent on admission or becomes incontinent later, it is important to perform an initial continence assessment on everyone at risk, and then develop a plan of care. It is also essential to regularly monitor, review, and revise the plan of care to best manage urinary incontinence and restore as much normal bladder function as possible.

Voiding Diary

A voiding diary is a key tool (Box 2) for gathering information about the patient's usual urinary pattern. The diary serves many purposes, including assessment of diurnal (daytime) and nocturnal (nighttime) voiding and incontinence patterns. A diary may be generalized or detailed to include behavioral or environmental factors that affect incontinence. A voiding diary should be completed for every patient suspected of having incontinence within 14 days of admission or whenever there is a change of status. Gathering voiding information for 3 days (72 hours) is usually sufficient to provide a solid baseline of information. Missing information during the 72-hour collection time frame can significantly alter the results. Discussing the voiding diary with the patient, family, and caregivers is also very

important. This discussion allows all parties to be involved in the proposed bladder management program. A positive and respectful attitude is essential for success.

Interpretation of a Voiding Diary

Review the patient's pattern of incontinence. Is there a pattern such as always wet at lunch time? Or during an activity? If so, a good strategy would be to toilet the patient before lunch or before the activity. Also, consider the timing of medications. A patient who receives a dose of diuretics may need to be taken to the toilet within an hour of that dose. Be sure to look for triggers such as coffee, caffeine, carbonated drinks, chocolate, or citrus juices; even noncaffeinated coffee can be a bladder irritant for some patients.

Behavioral Bladder and Bowel Programs

Behavioral techniques, such as toileting programs, are the least invasive form of treatment for incontinence, and they are beneficial for many patients. It's important to emphasize developing patient-specific toileting programs to promote normal fecal and urinary elimination patterns. Please keep in mind that check and change protocols are NOT considered a toileting program. To select the behavioral program for each patient, consider the underlying cause and specific type of incontinence before developing a patient-centered treatment plan. Once you have identified the type of incontinence, select the most appropriate behavioral program that is suitable for the patient (Boxes 3–6). Review information such as cognitive ability, ability to understand others and take direction, toilet use, and bowel and

Box 2

Completing a Voiding Diary (or Bladder and Bowel Record)

- Assess the patient every hour for 3 days (72 hours). When not with the patient, have the patient/family assess and document.
- Document time and nature of incontinent episodes and all voids.
- For each event, if possible, ask the patient whether he or she felt the urge to void.
- Identify activity during incontinent episodes.
- Document volume of fluid intake.
- Document type and amount of food intake.
- Document applicable information such as burning sensation, pain, or cognitive status.
- Document if the patient required support for toileting.
- If completing a bowel diary, conduct for 7 days and follow the steps listed above.

Note: The key to a successful diary is to provide as much information as possible. Even the smallest details can provide great value when it comes time to develop a plan of care.

bladder function. Some programs require the patient to have good cognitive skills and mobility.

Note: Develop a strategy for nighttime. Consider sleep patterns, voiding patterns, and fall risk.

Box 3

Bladder Rehabilitation/Bladder Retraining Guidelines

Objective: To promote the highest level of continence and decrease urine leakage by successfully controlling the urge to void

Candidates: Patients aware of urge to void, cognitive enough to control urge, motivated to control urge, and can learn to void on a schedule

Before Beginning Program

1. Complete a voiding diary.
2. Educate the patient, family/surrogate by defining goals and objectives.
3. Confirm willingness to control urge until scheduled times.
4. Determine the type of absorbent products and size to be used for episodic urine leakage.
5. Determine and start individualized voiding schedule and reevaluate periodically.
6. Encourage patient to control urge to void until scheduled times.

Procedure

1. Wash your hands and put on nonsterile gloves.
2. Approach the patient at scheduled times (intervals of 2 to 3 hours have been most successful).
3. Greet the patient.
4. Provide privacy.
5. Ask the patient if he or she is wet or dry.
6. Provide praise, positive feedback if the patient is dry. No comment if wet.
7. Encourage the patient to void.
8. Offer assistance with toileting.
9. Provide positive feedback for controlling urge until scheduled time.
10. If needed, clean and change the patient without further comment.
11. Inform the patient of the next scheduled toileting time.
12. Document results per facility policy (eg, patient's responses, changes in condition, indication of pain, change in voiding pattern).
13. Make adjustments as necessary based on voiding pattern.

Note: Develop a strategy for nighttime. Consider sleep patterns, voiding patterns, and fall risk.

Educating the Patient and Family

Patients and their families are just as much a part of the health-care team as physicians, nurses, and other personnel who interact with the patient. Therefore, patient and family education is a

Box 4

Pelvic Floor Muscle Rehabilitation Guidelines

Objective: To strengthen the voluntary periurethral and perivaginal muscles and prevent involuntary loss of urine

Candidates: Patients with stress or urge incontinence who are able and willing to communicate and follow instructions

Before Beginning Program

1. Complete a voiding diary.
2. Educate the patient by defining the goals and objectives of Kegel exercises.
3. Confirm willingness and ability to participate in the program.
4. Determine the type of absorbent products and size to be used for episodic urine leakage.
5. Determine and start an exercise program for 4 weeks.

Procedure

1. Approach the patient at scheduled times.
2. Greet the patient.
3. Provide privacy.
4. Assist the patient to identify pelvic muscles:
 - Instruct the patient to try to void and stop the stream (the muscles that control urination are the correct pelvic floor muscles), or
 - Instruct the patient to imagine trying to control passing of gas without tensing muscles of legs, buttocks, or abdomen by pulling or tightening the muscle around rectum.
5. Kegel exercises can be practiced anywhere at any time. They can be performed while sitting, standing or lying down, whichever is most comfortable. Research has shown that holding for 10 seconds 50 to 60 times per day, throughout the day over a 6-week period, is beneficial.
6. Teach the patient to avoid these common mistakes during Kegel exercises:
 - Tightening the wrong muscles. DO NOT tighten leg muscles, thighs, buttocks, or abdomen. Concentrate on and tighten only the pelvic floor muscles. If the patient's stomach moves, then the wrong muscles are being used.
 - Holding breath. Patients should NOT hold their breath during Kegel exercises. Advise them to breathe normally. Some people find it helpful to count out loud.
7. Provide praise and positive feedback for the patient's participation.
8. Inform the patient of the next scheduled session.
9. Document.

Box 5

Prompted Voiding Guidelines

Objective: To decrease the number of incontinent episodes, increase awareness of bladder fullness, and increase self-initiated toileting

Candidates: All types of incontinence, dependent and cognitively impaired

Before Beginning Program

1. Complete a voiding diary.
2. Educate the patient by defining goals and objectives.
3. Determine the type of absorbent products and size to be used for episodic urine leakage.
4. Determine and start an individualized voiding schedule. Reevaluate periodically.

Procedure

1. Wash your hands and put on nonsterile gloves.
2. Approach the patient at scheduled times. (Prompting intervals of 2 to 3 hours have been most successful.)
3. Greet the patient.
4. Provide privacy.
5. Ask if he/she needs to use the bathroom.
6. Ask if he/she is wet or dry.
7. Provide praise and positive feedback if dry.
8. Prompt the patient to void.
9. Offer assistance with toileting.
10. If needed, clean and change the patient without further comment.
11. Inform the patient of the next scheduled toileting time.
12. Document the results per facility policy (eg, patient's responses, changes in condition, indication of pain, change in voiding pattern).
13. Make adjustments as necessary based on voiding pattern.

Box 6

Habit Training: Scheduled Voiding Guidelines

Objective: To decrease the number of incontinent episodes by toileting the patient on a fixed schedule

Candidates: Patients who cannot self-toilet

Before Beginning Program

1. Complete a voiding diary.
2. Educate the patient by defining goals and objectives.
3. Determine the type of absorbent products and size to be used for episodic urine leakage.
4. Determine and start an individualized voiding schedule. Reevaluate periodically.

Procedure

1. Wash your hands and put on nonsterile gloves.
2. Approach the patient at scheduled times. (For habit training, follow the patient's voiding pattern. For scheduled voiding, follow a facility-determined schedule. Intervals of 2 to 3 hours have been most successful.)
3. Greet the patient.
4. Provide privacy.
5. Take the patient to the toilet or commode at established intervals (usually 2 to 3 hours).
6. Offer assistance with toileting.
7. Provide positive feedback if the patient voids.
8. If needed, clean and change the patient without further comment.
9. Inform the patient of the next scheduled toileting time.
10. Document the results per facility policy (eg, patient's responses, changes in condition, indication of pain, change in voiding pattern).
11. Make adjustments as necessary based on voiding pattern.

vital component of effective health care (see “Continence Care” and “Selecting the Right Incontinence Products”). When a patient receives targeted clinical education about their care, they can be more involved with their own care and monitoring. With this increased awareness, patient safety and satisfaction are improved, and anxiety can be decreased. Patient and family education can also help improve patient compliance with instructions from their healthcare providers.³²

Pressure ulcers are a serious problem, and many patients are at risk. In fact, over 70% of pressure ulcers occur in those 70 years and older.³² Pressure ulcers are also costly to treat and heal. The Agency for Healthcare Research and Quality estimates that the cost to treat pressure ulcers is \$9.1 to \$11.6 billion per year.³³ It is

important to inform patients about pressure ulcers and the steps that are being taken to help minimize their risk.

Outcomes

Improved patient and family education can lead to improved outcomes in some unexpected places. A recent study funded by the Agency for Healthcare Research and Quality (AHRQ) showed that patients who received education were 30% less likely to be readmitted to the hospital.³⁴ Patient and family education has also been listed as a standard for accreditation by the Joint Commission.³⁵ Better outcomes for the patient mean better outcomes for the facility/organization. This can result in cost savings, lower readmission rates, increased populations, and even improved facility image.

Contenance Care

Many cultures have very strong views about modesty, touching and viewing of the private areas of the body. In some cases, a patient may only want care from a person of the same gender. It is important to maintain the dignity of the patients you care for. Always be sure to provide privacy for all by drawing the curtain/closing the door (if possible) and uncovering only those areas of the body necessary. Maintain a respectful manner during care. If the patient is verbal, ask them if they have specific concerns or preferences and provide care accordingly.

You can help patients prevent episodes of incontinence by assisting them with toileting. You will have a good idea of when to toilet after you have completed the voiding diary.

Tips for Toileting

- Make sure the bathroom can easily be accessed and provide proper lighting.
- Provide as much privacy as safety allows.
- Avoid giving fluids or foods with caffeine such as coffee, cola, and chocolate.
- Make sure the person uses the bathroom before any activity.
- Offer a bedside commode or urinal.
- Remind the person where the bathroom is located.
- Select the appropriate size and type of absorbent products to provide protection from leakage.

Note Signs of a Full Bladder

- Chills
- Headache
- Sweating
- General feeling of restlessness
- Distention of abdomen
- Nonverbal patients may have a sad/pained expression or engage in repetitive movements

Stimulate Voiding

- Slowly run water.
- Provide a glass of water to drink.
- Blow bubbles with a straw in a glass of water.
- Place hands in warm water.
- Lightly press on bladder area.

Stimulate a Bowel Movement

- Use circular massage from right to left and down the abdomen.
- Lean the patient forward slightly.
- Place the patient's feet on a footstool.

Talking to Patients About Their Care

Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.³⁶ It is dependent on several factors, including the communication skills of both patient and healthcare worker, culture, and knowledge of health topics. This means that patients may not always understand the “clinical speak” of their caregivers, which may affect how they follow treatment guidelines. When relaying prevention and treatment information to patients, be sure to use simple and easy-to-understand terms; having patients teach back the information they just heard is an effective way to ensure it was properly understood and offers opportunity to correct misunderstandings.³⁷

Finding Time for Patient and Family Education

While the importance of patient and family education is clear, it can be difficult to fit into everyday nursing practice. This program reinforces for your nursing staff that every time they enter the patient's room, they have an opportunity to not just connect with the patient, but also to educate them on their care. It is important that you as a care manager foster a work environment that

embraces patient and family education. If the staff knows that their leadership supports and encourages open communication with patients and their families, they will be more likely to take the extra time for education.

Key Take Aways

- Most types of incontinence can be treated or managed.
- Incontinence is not normal and is usually triggered by other underlying causes.
- Restricting fluid can contribute to a UTI and is not necessary when treating incontinence.
- Behavioral methods, such as bladder training, are crucial for improving bladder control.
- Incontinence can easily lead to skin breakdown.
- When skin breaks down, it can quickly lead to a wound, which can be made worse if the area of skin is under pressure.
- Treatment methods should be based on your assessment of each person.

(continues)

Selecting the Right Incontinence Products

Once you have cared for the patient's skin, you will need to select a product. Disposable incontinence products must:

- ✓ Provide comfort and security
- ✓ Help protect the skin
- ✓ Provide odor control

Product selection should be based on:

- ✓ Degree of incontinence
- ✓ Gender
- ✓ Fit (proper sizing to the person)
- ✓ Ease of use

Why the Proper Size Makes a Difference

Products that don't fit well most likely will not perform well. When we talk about sizing of disposable incontinence management products, bigger is not better. It is true that the extra fabric can make proper application techniques less critical; however, when smaller patients wear large sizes, there is a price to pay in terms of dignity, comfort, cost, and leakage.

Products that are oversized create increased pressure over the entire groin and delicate perineal area when the wearer is "wrapped" in excess layers of product. Poorly fitting garments are unable to quickly wick away moisture, which can cause skin maceration, leading to further skin damage and potential infection. In addition, oversized products often leak, requiring more frequent changes. Multiple changes are more expensive in the long run. It is more cost effective to use the correct sizes for all patients in your care. The additional, unnecessary materials around a patient can prevent the product from breathing, increasing the microclimate of the patient's skin and putting their skin at risk for increased breakdown.

Tip

"Doubling up" absorbent products by inserting a brief or pad inside another product is not best practice and may lead to skin breakdown. Also not recommended is putting a pad inside a brief with the goal to change the pad but not the whole brief. This will increase the risk of infections because pulling the pad from the front drags the bacteria from the posterior across the perineal area.

Which Product Is Best for Your Patient?

Briefs can be worn by people who:

- Are bedridden
- Are difficult to turn or position
- Can be aggressive or combative
- Have frequent, loose or watery stools

Two-piece pant and liner are appropriate for people who:

- Can walk
- Only need one person to assist them
- Can wear underwear or self-toilet
- Are involved in a bowel and bladder program

Disposable underwear can be used by those people who are:

- Incontinent but active
- In a bladder and bowel program
- Restless or disoriented

Belted undergarments can be used by patients who have moderate incontinence. They are smaller than a brief and discreet. These undergarments are held in place with an elastic belt with buttons.

Bladder control pads can be used by those people who have light to moderate urinary incontinence. These pads have an adhesive strip to hold them in place on the patient's own underwear or incontinence mesh or knit pants. The pads are usually changed by the patient.

Underpads are used to protect the bed and furniture when a patient is incontinent. They can be used alone or in conjunction with other body-worn incontinence products.

Dry Pads protect the skin by wicking away moisture when a patient is incontinent. They can be used on both standard mattresses and air-support therapy mattresses.

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Questions

1. **Incontinence is a symptom not a disease.**
 - a. True
 - b. False
2. **Age is the highest risk factor for urinary incontinence.**
 - a. True
 - b. False
3. **The cost of bladder incontinence among adults in 2000 was estimated to be:**
 - a. \$16.5 billion
 - b. \$19.5 billion
 - c. \$20.5 billion
 - d. \$24.5 billion
4. **The quality of life of individuals who are incontinent is impacted in the following ways:**
 - a. Shame
 - b. Embarrassment
 - c. Physical discomfort
 - d. All of the above
5. **Incontinence is part of normal aging.**
 - a. True
 - b. False
6. **Reasons for incontinence include:**
 - a. Weakened muscles
 - b. Damage to nerves
 - c. Diseases that limit movement
 - d. All of the above
7. **Types of incontinence include:**
 - a. Urge
 - b. Stress
 - c. Overflow
 - d. All of the above
8. **Successful treatment of urinary incontinence may include:**
 - a. Pelvic floor exercises
 - b. Anti-incontinence devices
 - c. Anticholinergic drugs
 - d. All of the above
9. **The etiology of incontinence may be:**
 - a. Induced
 - b. Environmental
 - c. Situational
 - d. All of the above
10. **The assessment of incontinence includes:**
 - a. History
 - b. Physical
 - c. Laboratory test such as urinalysis
 - d. All of the above
11. **Behavioral techniques such as toilet training are the least invasive for treatment of incontinence and are beneficial for many.**
 - a. True
 - b. False
12. **Pelvic floor muscle rehabilitation such as Kegel exercises are particularly helpful for patients with stress or urge incontinence who are able and willing to communicate and follow instructions.**
 - a. True
 - b. False
13. **Patient and family education can help improve patient adherence and improve outcomes.**
 - a. True
 - b. False
14. **Disposable incontinence products will:**
 - a. Provide comfort and security
 - b. Help protect the skin
 - c. Provide odor control
 - d. All of the above
15. **Most types of incontinence can be treated or managed.**
 - a. True
 - b. False

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Objectives

November 2019

1. Define incontinence.
2. Describe four types of urinary incontinence.
3. State three categories of treatment for incontinence

Answers

Please indicate your answer by filling in in the letter:

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____
 11. _____ 12. _____ 13. _____ 14. _____ 15. _____

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