Genitourinary Issues in ElderCare

Part of the ElderCare Series
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Introduction/Purpose Statement

The quality of life and the self-esteem of elders can be greatly affected by the changes occurring within the genitourinary system through aging. In this educational offering we will take a look at some particular issues related to disease and disorders in the geriatric genitourinary system.

The purpose of this home study is to review the changes that may occur in the genitourinary system with aging and describe measures that can be taken to prevent or treat disease in this body system.

Target Audience

This home study was designed for nurses with no familiarity with genitourinary issues in eldercare; however, all health care professionals are invited to complete this packet.

Content Objectives

1. Identify the physical, psychological, and social changes that may occur due to the aging genitourinary system.
2. Describe methods to assist the geriatric patient in prevention and/or treatment of disease and disorder in the genitourinary system.

Disclosures

In accordance with ANCC requirements governing approved providers of education, the following disclosures are being made to you prior to the beginning of this educational activity:

Requirements for successful completion of this educational activity:
In order to successfully complete this activity you must read the home study, complete the post-test and evaluation, and submit them for processing.

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**Expiration Date for this Activity:**
As required by ANCC, this continuing education activity must carry an expiration date. The last day that post tests will be accepted for this edition is **December 31, 2017**—your envelope must be postmarked on or before that day.

**Planning Committee/Editors**

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**Criteria for successful completion:** You must read the home study packet, complete the post-test and evaluation, and submit them to TCHP for processing.

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Please see the last page of the packet before the post-test for information on submitting your post-test and evaluation for contact hours.
Introduction

The quality of life and the self-esteem of elders can be greatly affected by the changes occurring within the genitourinary system through aging. In this educational offering we will take a look at some particular issues related to disease and disorders in the geriatric genitourinary system.

What is the Genitourinary System?

The genitourinary system includes all organs that are involved with urination and reproduction.

Problems of the Urinary Tract

Urinary Incontinence

Urinary Incontinence (UI), when experienced by the elderly, can lead to loss of self-esteem, depression, decreased social interaction, pressure sores, urinary tract infections, falls, and risk of institutionalization.

UI is approximately twice as prevalent in older women as in older men. In some women, stress incontinence and urge incontinence, the two most common forms of UI, may coexist.

While age itself is not a cause of UI – age-related changes such as diabetes, sleep disturbance, restricted mobility, chronic cough, hormonal changes, and altered mentation, have been found to contribute to UI.

Treatment

Stress incontinence can be treated with Kegel exercises to help strengthen the muscles that control the bladder.

Some people with urge incontinence use bladder training to lengthen the time between urges to go to the bathroom. A gradual lengthening of the time between urination is accomplished by urinating at set intervals whether the need to go is felt or not.

Bladder Cancer

Each year, nearly 55,000 people in the United States learn that they have bladder cancer. About 90 percent of bladder cancers are transitional cell carcinomas, cancers that begin in the cells lining the bladder.

Cancer confined to the lining of the bladder is called superficial bladder cancer. Cancer that spreads through the inner lining of the bladder and invades the muscular wall of the bladder is known as invasive bladder cancer.

Bladder cancer cells may also be found in the lymph nodes surrounding the bladder. If the cancer has reached these nodes, it may mean that cancer cells have spread to other lymph nodes and to distant organs, such as the lungs.

Symptoms

Some common symptoms of bladder cancer include:
- Blood in the urine
- Pain during urination
- Frequent urination or feeling the need to urinate without results.

Diagnosis

To find the cause of symptoms, a physical exam will include a rectal or vaginal exam to check for tumors that can be felt. A urine sample will be ordered to check for blood and cancer cells.

A cystoscopy may be ordered to look directly into the bladder. A cystoscope (a thin, lighted tube) is inserted into the bladder through the urethra to examine the lining of the bladder. A biopsy may be performed through this tube. In many cases, performing a biopsy is the only sure way to tell whether cancer is present.

Treatment

Treatment for bladder cancer depends on the stage of the disease, the grade of the cancer, and the patient's general health.

Early bladder cancer may be treated at the time of diagnosis through a procedure called transurethral resection (TUR). During TUR, the doctor inserts a cystoscope into the bladder through the urethra. The doctor then uses a tool with a small wire loop on the end to remove the cancer or to burn away cancer cells with an electric current.

Surgery to remove part or the entire bladder is called cystectomy. The most common form of surgery for invasive bladder cancer is radical cystectomy – removal of the entire bladder, nearby lymph nodes,
and any surrounding organs that contain cancerous cells. In men, the nearby organs that are removed are the prostate and the seminal vesicles. In women, the uterus, the ovaries, and part of the vagina are removed. When the bladder must be removed, the doctor creates another way for urine to leave the body.

Women who have had a radical cystectomy are not able to have children because their uterus has been removed. In addition, the vagina may be narrower or shallower, which may make sexual intercourse difficult.

Men who have had their prostate and seminal vesicles removed no longer produce semen, so they do not ejaculate when they have an orgasm and are not able to father children.

In some cases, patients may have part of the bladder removed in an operation called segmental cystectomy. This type of surgery may be done when a patient has a low-grade cancer that has invaded the wall of the bladder but is limited to one area of the organ. Because most of the bladder remains intact, a patient urinates normally after recovering from this surgery.

Renal Infections

Urinary Tract/Bladder Infections

In elderly populations, urinary tract infections (UTI’s) are the second most common form of infection. The elderly are predisposed to UTI’s by anatomic changes in the genitourinary system, by underlying disease, by instrumentation, and by residing in long-term care settings.

The frequency of bladder infections varies significantly according to age and sex. The male/female ratio of UTI’s in adults is 1:50. After age 50, however, the incidence among males increases due to prostate disorders.

Indwelling urinary catheters are a frequent cause of UTI and catheter-associated sepsis in hospitals. Resistant organisms, prevalent in long-term care settings and hospitals, are increasingly responsible for UTI.

Bacteriuria is more common in the elderly because of poor emptying of the bladder, neuromuscular diseases, and increased use of instrumentation and bladder catheters in both sexes. Diabetics who have neurogenic bladders or who have been catheterized have an increased incidence and severity of infections.

Cystitis is an inflammation of the urinary bladder. Urethritis is an inflammation of the urethra, which is the passageway that connects the bladder with the exterior of the body. Cystitis and urethritis are referred to collectively as a lower UTI. Infection of the upper urinary tract involves the spread of bacteria to the kidney and is called pyelonephritis.

The causes of cystitis vary according to sex because of the differences in anatomical structure of the urinary tract.

Most bladder infections in women are called ascending infections, which means that they are caused by bacteria traveling upward through the urethra to the bladder. The most common bacteria associated with UTI’s in women is E. coli.

Risk factors for UTI’s in women include:

- Sexual intercourse. The risk of infection increases if the woman has multiple partners and uses a diaphragm.
- An abnormally short urethra
- Diabetes or chronic dehydration
- The lack of needed enzymes makes it easier for the vagina to harbor bacteria.
- Inadequate personal hygiene
- History of previous UTI’s

The early symptoms of cystitis in women are dysuria, or pain on urination, urgency, and increased frequency of urination. Many female patients experience fever, pain in the lower back, nausea and vomiting, or shaking chills. These symptoms indicate a spread of the infection to the upper urinary tract.

Most UTI’s in males are complications of kidney or prostate infections. They are usually associated with a tumor or kidney stones that block the flow of urine and are often persistent infections. UTI’s in men are most likely to be caused by E. coli.

Risk factors for UTI’s in men include:

- Lack of circumcision. The foreskin can harbor bacteria that cause UTI’s.
- Urinary catheterization. The longer the period of catheterization, the higher the risk of UTI’s.
The symptoms of cystitis and pyelonephritis in men are the same as in women.

**Treatment**

Uncomplicated cystitis is treated with antibiotics. Treatment for women is short-term; most patients respond within three days. Men do not respond as well to short-term treatment and require seven to 10 days of oral antibiotics for uncomplicated UTI’s.

**Chronic Renal Failure**

It is estimated that 3 million Americans will have chronic renal failure by the year 2008. Diabetes and hypertension account for two thirds of persons with chronic renal failure. Other high-risk patients include those with chronic glomerulonephritis or a family history of renal disease.

Chronic renal failure is caused by a number of diseases and inherited disorders, but the progression of chronic renal failure is always the same. The kidneys, which serve as the body’s natural filtration system, lose their ability to remove fluids and waste products from the bloodstream. They also fail to regulate certain chemicals in the bloodstream, and deposit protein into the urine.

Chronic renal failure is irreversible, and will eventually lead to total kidney failure, also known as end-stage renal disease (ESRD). Without proper treatment and intervention to remove wastes and fluids from the bloodstream, ESRD is fatal.