

## **NURSING FOUNDATIONS II (N11) STUDY GUIDE**

### Basic Nursing Skills in the Care of Clients with Urinary and Bowel Elimination Problems

#### **Introduction**

Hello students!

This session integrates what you have learned from the previous courses and sessions about maintaining homeostasis. In your Anatomy and Physiology, you have learned that the healthy human body has effective processes such as eating, digestion, absorption, and metabolism to fully operate its many functions. Just like how effectively the human body performs these processes, the body also has ways to remove itself of its waste products to maintain homeostasis.

Elimination of urine and feces as waste products is normally routine and uneventful, unless a change in lifestyle or illness occurs. Changes in bowel or bladder habits may be signs of illness, or they may cause illness. Assessing the client's products of elimination (urine and feces), observing his or her bladder and bowel function, and assisting the client who is experiencing alterations with these functions are fundamental nursing responsibilities.

Just like the previous sessions, the nursing process will be our primary approach in understanding the concepts of urinary and bowel elimination. A focus on the basic nursing skills will be expected as we are honing your skills to take care of clients with such conditions.

#### **Learning Outcomes**

1. Identify factors that influence urinary and bowel elimination and patterns of defecation
2. Describe common urinary and bowel elimination alterations
3. Describe the nursing care for clients with urinary and bowel elimination problems
4. Explain interventions to maintain and promote normal urinary and bowel elimination
5. Appreciate roles and responsibilities of nurses in performing the basic nursing skills to address concerns in urinary and bowel elimination

#### ***Basic Nursing Skills in the Care of Clients with Urinary Elimination Problems***

##### Overview of the Factors Affecting Urination

There are many factors affecting the volume and characteristics of urine and the ease of elimination. Have you noticed how many times you urinate in one day? More so, are you checking how many liters of water you drink in a day? For someone who drinks about two liters of water everyday, urinating about 5 to 8 times a day is normal. There are different factors affecting this, and it increases or decreases with age and medical conditions to name a few. The reasons for altered frequency can also be different among ages and sex.

This topic will cover the following factors:

- Age/Developmental Factors
- Psychosocial Factors
- Food and Fluid Intake
- Bladder capacity/muscle tone
- Pathologic/Medical Conditions
- Surgical and Diagnostic Procedures

Read Urinary Elimination Chapter 48, pp. 1174 - 1209. Berman, A., Snyder, S., & Frandsen, G. (2016). *Fluid and Electrolyte*. Kozier's & Erb's Fundamentals of Nursing: Concepts, Process, and Practice. 10th ed. Upper Saddle River, New Jersey: Pearson Education, Inc.

### Common Alterations in Urinary Elimination

In order to perform basic nursing skills as part of competent care to this type of clients, one should have a good understanding of the common alterations. This topic is the integration of your pathophysiology concepts that will help you plan and provide care for patients. The alterations are classified into production and elimination problems. In doing the learning tasks, make sure you are able to relate this with the next topic which is on nursing management.

#### **Activity 1. Elimination Pattern (Urinary)**

Answer the following question in the Chat Time.

*What do you think is the reason for others to "shiver" while urinating? Explain this briefly.*

Check the discussion forum at VLE for your answers.

### Urine Color

In a normal individual, the normal urine color ranges from pale yellow to deep amber, this the result of a pigment called urochrome and how diluted or concentrated the urine is. There are some factors that can affect urine color in certain foods and medications. Foods can also be a factor like berries and beans are among the foods most likely to affect the color. In doing the assessment, urine characteristics are one of the major findings you need to focus on. Please see this summary of color variations of urine and possible implications.

<b>URINE COLOR</b>	<b>COMMON CAUSES</b>
Clear; colorless (dilute)	Large amount of liquids Conditions (e.g., diabetes insipidus - impaired tubular reabsorption), diabetes mellitus) Diuretics (particularly if overused) Liver disorders (e.g., acute viral hepatitis, cirrhosis)
Bright, neon yellow	Vitamin supplements
Cloudy	Urine left standing, causing phosphates to precipitate out Pyuria (pus in the urine) Urinary tract infection, bacteriuria (bacteria in the urine) Epithelial cells Blood Leukocytes (white blood cells) Kidney stones
Green	Pseudomonas infection Bile pigments

Dark yellow, gold	Low fluid intake Dehydration (concentrated urine) Inability of kidneys to dilute urine Bile
Pink, red	Hematuria - blood in urine (kidney or bladder infection, cancer) Some laxatives Some foods (red berries, food dye, beets, red gelatin, some red juices)
Orange, red brown	Some medications, )e.g., rifampin, phenazopyridine, warfarin, doxorubicin) Some foods Some food coloring Dehydration
Blue, green	Some medications (e.g., amitriptyline, indomethacin) Some foods (e.g., asparagus) Some food dyes
Smoky, hazy	Hemoglobin (remnants of red blood cells) Chyle (product of digestion normally emptied into venous system) Prostatic fluid Yeast infection
Yellow, brown	Bile
Dark brown, black	Methylene blue Typhus infection Some medications (e.g., iron) Some foods and food dyes Hematuria (blood in urine) Liver disorders (especially with light stools and jaundice)

### Nursing Management for Clients with Urinary Elimination Problems

This topic emphasizes the role of nurses in the management of clients with urinary elimination problems which includes assessment, diagnosis, identification of outcomes, nursing interventions and evaluation of outcomes. The management is important as it may possibly prevent further complications such as impaired kidney functions, changes in fluid volume and electrolytes, skin breakdown, changes in quality of life, and other associated complications.

For the assessment, this will not only include the usual nursing history and physical examination. Assessing the urine will now be an important aspect of assessment as it gives valuable information about the client's condition. Aside from the volume and color, you need to be mindful about and detailed about the urination experience as this also gives information to help you identify the appropriate nursing problems.

Diagnostic tests related to urinary elimination includes:

- Urinalysis

- Blood urea nitrogen (BUN)
- Creatinine clearance

The focus of the nursing diagnosis on this session is impaired urinary elimination and readiness for enhanced urinary elimination. Although when you reach the intervention courses, problems of urinary elimination also may become the etiology for other problems experienced by the client, a good example for this is the Risk for Infection.

Nursing interventions in managing urinary elimination problems may be grouped into the following:

- A. Maintaining and Promoting urinary Elimination
- B. Preventing Urinary Tract Infections
- C. Managing Urinary Incontinence
- D. Managing urinary Retention
- E. Urinary Catheterization

Nursing actions include caring for clients with indwelling catheters as well as those with urinary diversions. With the word itself, diversions facilitates the rerouting of urine from the kidneys to another site other than the bladder. Clients with these contraptions require additional care to prevent complications.

Continue reading Urinary Elimination Chapter 48, pp. 1174 - 1209. Berman, A., Snyder, S., & Frandsen, G. (2016). *Fluid and Electrolyte*. Kozier's & Erb's Fundamentals of Nursing: Concepts, Process, and Practice. 10th ed. Upper Saddle River, New Jersey: Pearson Education, Inc.

### **Activity 2. Types of Urinary Catheterization**

Determine the best type of urinary catheter that should be used on the following cases:

1. For immediate relief of urinary retention
2. Patient with neurogenic bladder
3. Patient scheduled for major operation
4. Patient admitted in the ICU with hemiplegia
5. Patient who needs bladder irrigation
6. Admitted patient with benign prostatic hyperplasia
7. Patient with urinary incontinence but refused invasive catheterization
8. Patient on long term care with urinary incontinence
9. Patient for normal spontaneous delivery
10. Patient admitted at the emergency room with severe dehydration

### Activity 3. Nursing Care Plan

Instructions: Read the case below and answer the questions that follow. Submit your answer in the submission bin in your VLE. Check your VLE for due submission.

Submit your answers in PDF form.

You are the nurse assigned to Mr. Al, a 74 years old housekeeper, who was admitted to the hospital with complaints of feeling incomplete emptying of the bladder after urinating, some blood in the urine and low grade fever. Based on history, he had urinary frequency for the last 2 weeks and doesn't feel; he has emptied his bladder after urinating. He also has to wake up two or three times during the night to urinate. Days prior to admission, he had difficulty urinating and noticed dribbling afterwards. He was diagnosed with Benign Prostatic Hypertrophy and scheduled a surgery. He is taking antibiotics.

PE Findings:

Height: 170 cm.

Weight: 80 kg

Vital signs: Temp: 38.4C, Pulse Rate: 90 beats/min; Respiratory Rate: 22 breaths/min; BP: 150/90 mmHg

With an indwelling catheter draining amber-colored urine.

Diagnostic Exam Results:

Urinalysis: amber, clear, pH 6.5, specific gravity 1.025, negative for glucose, protein, ketone, RBCs, and bacteria

Guide questions:

1. What do you think Al is experiencing right now?
2. Based on the findings present in Al, what is your priority nursing diagnosis?
3. Identify goal and objectives for your identified problem.
4. What are your nursing interventions to address this? Make sure you support this with rationale.

### Basic Nursing Skills in Caring for Clients with Urinary Elimination Problems

- Inserting urinary catheter
- Performing bladder irrigation

The use of indwelling catheters is seen to be the one of the major causes of healthcare acquired infections. Nurses play a very important role in preventing catheter associated urinary tract infections through managing indwelling urinary catheters and employ evidence-based strategies. Read these links and materials through EBSCO Nursing Reference Center Plus:

<http://web.a.ebscohost.com/nup/pdfviewer/pdfviewer?vid=0&sid=2039dd57-97c2-450b-8d3f-46605efe011c%40sdc-v-sessmgr02>

<http://web.a.ebscohost.com/nup/pdfviewer/pdfviewer?vid=0&sid=dcbbde15-647e-4fe0-a248-5005020b17b5%40sdc-v-sessmgr01>

## **Basic Nursing Skills in the Care of Clients with Bowel Elimination Problems**

### Overview of the Factors Affecting Defecation

Bowel elimination is a basic bodily function that most people carry out in private and are often embarrassed to discuss publicly. Although bowel elimination is a natural process, several factors influence bowel elimination. Since bowel elimination, which is the way your body rids itself of solid wastes, is a process involving the digestive tract, it's easy to see that things like the types of foods you eat and the amount of water you drink could influence your ability or the inability to defecate. But, there are many other factors that influence bowel elimination. In this topic, we will focus on how these factors are integrated in providing care to these types of clients.

The topic will cover the following factors:

- Age/Developmental Factors
- Diet
- Fluid Intake and Output
- Activity and Exercise
- Psychological Factors
- Defecation Habits
- Medications
- Diagnostic Procedures
- Anesthesia and Surgery
- Pathologic Conditions
- Pain

After studying these factors, your nursing history will now be improved as you identify risk factors and in explaining the pathophysiology of disease when you start providing care.

#### **Activity 4. Elimination Pattern (Bowel)**

Answer the following question and post your answer in the discussion forum.

*What is for you is a normal bowel elimination? Explain briefly.*

Read Fecal Elimination Chapter 49, pp. 1210 - 1240. Berman, A., Snyder, S., & Frandsen, G. (2016). *Fluid and Electrolyte*. Kozier's & Erb's Fundamentals of Nursing: Concepts, Process, and Practice. 10th ed. Upper Saddle River, New Jersey: Pearson Education, Inc.

### Common Bowel Elimination Problems

Bowel habits and perception of bowel habits vary widely, making bowel elimination problems difficult to define. For this part, the common problems can be categorised in to:

- Constipation
- Bowel incontinence
- Flatulence
- Diarrhea

To fully appreciate the above common problems, make sure you have reviewed your pathophysiology concepts. Each problem has its own defining characteristics and causes. In this way, you can easily differentiate one bowel elimination problem from the other.

### **Activity 5. Disturbances in Bowel Elimination**

Answer the short assessment activity.

#### Nursing Management to Clients with Common Bowel Elimination Problems

Assessment of bowel elimination includes taking a nursing history; performing a physical examination of the abdomen, rectum, and anus, and inspecting the feces. You should also review any data obtained from relevant diagnostic exams. In checking the feces, just what we have discussed in the urinary elimination, a detailed and descriptive analysis of the feces will be very helpful in coming up with a sound nursing diagnosis. Ensure that the environment is suitable in order to minimise the client's embarrassment and develop a more trusting relationship.

Samples of bowel elimination nursing problems:

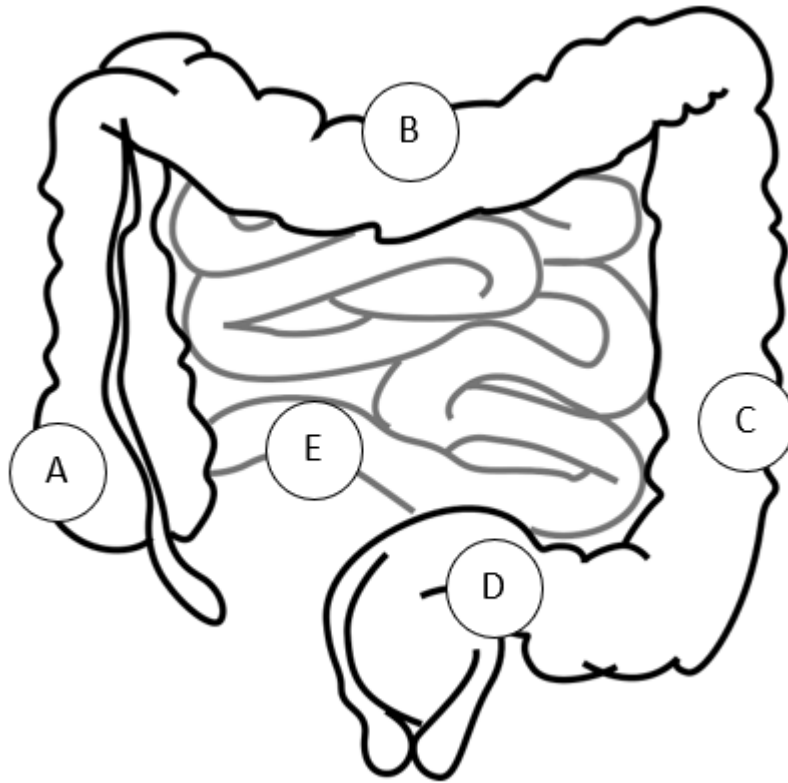
- Bowel incontinence
- Constipation
- Risk for Constipation
- Perceived Constipation
- Diarrhea
- Dysfunctional Gastrointestinal Motility

These samples of nursing diagnosis are just a few, bowel elimination problems may also affect many other systems and as a consequence may be the etiology of other nursing problems.

Nurses will encounter patients with bowel elimination issues in areas of care. Knowledge and understanding of both normal function and the problems that can occur with that process will enable nurses to support and care for patients with bowel elimination problems. The following nursing interventions highlight the importance of empathy, understanding, knowledge and consent.

### **Activity 6. Colostomy and Stool Formation**

Label the parts of the intestine and describe the stools that can be collected should stoma be created in these parts.



Fill up the the table based on the above illustration:

Mark	Location	Type of Stool Formed
A		
B		
C		
D		
E		

Submit this form in PDF form.

Basic Nursing Skills in Caring for Clients with Bowel Elimination Problems

- Giving and removing bedpan
- Administering enema



## Activity 7. Nursing Care Plan

Instructions: Read the case below and answer the questions that follow. Submit your answer in the submission bin in your VLE. Check your VLE for due submission.

Submit your answers in PDF form.

You are the nurse assigned to Mr. Jeffry, an 83-year old widower for 5 months. He lives alone in a low-income community. His three children live with their families in the province south of Manila. He has always enjoyed cooking for his family and friends, now that he is alone, he does not cook for himself. As a result, he has developed irregular eating problems and tends to eat instant food/meals. He gets a little exercise through walking around the community. For the last month, he complains of constipation. He states he has bowel movements about 5-7 days and describes his stools to be hard and painful to defecate. Mr. Jeffry sought assistance in the nearest health center.

PE Findings:

Height: 170 cm.

Weight: 50 kg

Vital signs: Temp: 36.0 C, Pulse Rate: 65 beats/min; Respiratory Rate: 22 breaths/min; BP: 130/90 mmHg

Diagnostic Exam Results:

Fecalysis: negative for parasite, negative for occult blood

Guide questions:

1. What do you think Mr. Jeffry is experiencing right now?
2. Based on the findings presented in Mr. Jeffry, what is your priority nursing diagnosis?
3. Identify goals and objectives for your identified problem.
4. What are your nursing interventions to address this? Make sure you support this with rationale.

## Summary

Addressing bowel elimination problems is a fundamental area of patient care that is frequently overlooked, yet it is of paramount importance for the quality of life of our patients, many of whom are hesitant to admit to bowel problems or to discuss such issues. In this session, we have covered:

- Patterns of bowel elimination which vary among people
- Various factors which affect defecation
- Common bowel elimination problems
- Nursing management to address these bowel elimination problems
- Basic nursing skills relevant to bowel elimination

## References

Berman, A., Snyder, S., & Frandsen, G. (2016). *Fluid and Electrolyte*. Kozier& Erb's Fundamentals of Nursing: Concepts, Process, and Practice. 10th ed. Upper Saddle River, New Jersey: Pearson Education, Inc. Chapter 52, pp. 1308-1324.

Elsevier Clinical Skills (2020). IV Therapy. Accessed from: <https://www.elsevierclinicalskills.co.uk/SampleSkill/tabid/112/sid/1589/Default.aspx#&&index=7>

Fluid and Electrolytes Easy Memorization Tricks in Nursing  
<https://www.youtube.com/watch?v=N1Db7re91GM>

<https://library.jeffersonstate.edu/c.php?g=571619&p=6212507#s-lg-box-19748683>

Read Wilkinson, J. M. (2014). *Pearson nursing diagnosis handbook with NIC interventions and NOC outcomes*. 10th ed. Boston, Mass.: Pearson.

Peralta, AB. (2019). Nursing Care for Clients with Fluid and Electrolytes Problems (PPS).  
*Uploaded to the course site*

UPCN procedure Checklist e-Manual