

Medications

Amoxicillin (Clavulanate)
 475mg gastric Q12H
 Pharmacologic: anti-infective (Jones & Bartlett, 2020).
 Therapeutic: aminopenicillins/beta lactamase inhibitors (Jones & Bartlett, 2020).
 Reasoning: Treat the pt. UTI.
 Key nursing assessment(s) prior to administration: Obtain specimens for culture and sensitivity prior to therapy (Jones & Bartlett, 2020).

Baclofen (Gablofen)
 10 mg gastric TID
 Pharmacologic: skeletal muscle relaxants (centrally acting) (Jones & Bartlett, 2020).
 Therapeutic: antispasticity agents (Jones & Bartlett, 2020).
 Reasoning: Decrease muscle stiffness
 Key nursing assessment(s) prior to administration: Assess muscle spasticity prior and periodically during therapy (Jones & Bartlett, 2020).

Glycopyrrolate (Glycate)
 442 mcg gastric TID
 Pharmacologic: corticosteroids, long-acting beta2-adrenergic agonists, anticholinergics (Jones & Bartlett, 2020).
 Therapeutic: corticosteroids, bronchodilators (Jones & Bartlett, 2020).
 Reasoning: Decreased airflow obstruction
 Key nursing assessment(s) prior to administration: Assess lung sounds, pulse, and BP before administration and during peak of medication (Jones & Bartlett, 2020).

Demographic Data

Admitting diagnosis: acute cystitis without hematuria.

Age of client: 6-years-old.

Sex: Female

Weight in kgs: 21 kg (46 lb. 4.8 oz).

Allergies: No known allergies.

Date of admission: 3/13/2024

Admission History

A 6-year-old female with a was transported to Carle Hospital by EMS on 3/13/2024. The patient was admitted for cyanosis and bradypnea. The caregiver reported that the patient was vomiting and lethargic the day before. Nothing seemed to relief the patient symptoms before being transported to the hospital.

Pathophysiology

Disease process: Urinary tract infections (UTIs) are the most common type of urological condition. Cystitis, another name for a UTI, is a frequent illness among women. Bacterial flora is often restricted to the urethral opening in a healthy, sterile urinary tract. In females, the urethra is colonized by germs due to the rectum and urinary tract. Urine's high osmolarity, urea content, and organic acid content, however, reduce the viability of bacteria in the bladder. Any blockage of the urine's outflow reduces the bladder's defense against bacterial infection. Urine's constant, unrestricted flow helps the body rid itself of pathogens. Additionally, WBCs in the urinary system release immunoglobulin A (IgA), which prevents germs from adhering to the bladder wall. Unfortunately, many women don't secrete IgA, making it harder for them to fight off bacterial invasion of the bladder (Capriotti, 2020). The patient had a urine culture and urinalysis, both of which revealed positive results for E. coli, suggesting a urinary tract infection.

S/S of disease: Urgency, discomfort, or burning during urinating (dysuria) are signs of a urinary tract infection. The symptoms of a disease may worsen, including hematuria, strong-smelling urine, and cloudiness (Capriotti, 2020). The patient's urine was cloudy, strong-smelling pee, and was lethargic.

Method of Diagnosis: To diagnose UTIs, urine cultures and urinalysis are performed. Red blood cells (RBCs), positive leukocyte esterase (WBCs), and nitrates (bacteria) are often seen in a dipstick urinalysis. Typically, a dipstick urinalysis reveals some red blood cells (RBCs), positive leukocyte esterase (WBCs), and nitrates (bacteria). A clean-catch midstream urine specimen on microscopic urinalysis has bacteria, RBCs, and neutrophils. A colony count of bacteria more than 10⁵/ml on a urine culture indicates infection (Capriotti, 2020). The patient had a urine culture, and a urinalysis was performed to test positive for E. Coli in her urine.

Treatment of disease:
 A lower UTI is often treated with an antibiotic. Culture and sensitivity tests can be used to identify the right antibiotic (Capriotti, 2020). The patient is on amoxicillin to treat her UTI.

Assessment

General	Non-verbal , smiles, coos, and oriented to caregiver.
Integument	Pale, warm, and dry. No bruising, lesions, or rashes. Capillary refills less than 3 seconds.

Relevant Lab Values/Diagnostics

WBC: 13.47 10³/uL (4.27 – 11.49 10³/uL)
Reason: The patient has an infection in her urinary tract, causing a UTI.

Absolute lymph: 5.78 10³/uL (1.16 – 4.28 10³/uL)
Reason: The patient has a bacterial infection.

Absolute mono: 0.13 10³/uL (0.19 – 0.81 10³/uL)
Reason: The patient has a bacterial infection and is more susceptible to infection with low levels.

Absolute basophils: 0.00 10³/uL (0.01 – 0.05 10³/uL)
Reason: The patient has an acute infection.

PCO3: 37.0 mmHg (41.0 – 51.0 mmHg)
Reason: The patient is in respiratory alkalosis.

RBC: 5.68 10⁶ uL (3.90 – 4.96 10⁶ uL)
Reason: The patient has a urinary tract problem that cause for high levels of RBC.

Diagnostics: N/A

Medical History

Previous Medical History:
Acute febrile, acute on chronic respiratory failure, acute viral bronchiolitis, adenovirus infection, G-tube, C difficile, cerebral palsy, congenital hip dysplasia, constipation, gastric reflux, hypoxic-ischemic encephalopathy (HIE), lymphadenitis, nonaccidental traumatic injury (intracranial hemorrhage subarachnoid, and intraparenchymal), respiratory distress, retinal hemorrhage, seizure, septic shock, spastic, and strabismus.

Prior Hospitalizations:
10/19/17 admitted with a UTI, 1/6/18 admitted for nonaccidental traumatic injury, 3/12/18 admitted for bilateral subdural peritoneal shunt placement, 1/27/21 admitted for concerns for abuse and neglect, 12/31/21 admitted for pneumonia, 8/16/22 admitted for shortness of breath (SOB), 10/9/22 admitted for respiratory distress, 1/9/23 admitted for sepsis, 2/5/23 admitted for feeding intolerance, 3/11/23 admitted for respiratory distress, 5/16/23 admitted for shortness of breath (SOB), 9/28/23 admitted for acute respiratory failure with hypoxia, and 2/5/24 admitted for acute respiratory failure with hypoxia and hypercapnia.

Past Surgical History: 3/12/18 bilateral subdural peritoneal shunt placement.

Social needs: Intellectual disability group home, 24-hour care, and case and social worker.

Active Orders

Diet: continuous feeding regimen.

Vital signs: maintain stable condition.

Warm patient: prevent hypothermia.

IV access: check patency of IV for infusion therapy, swelling, redness, coolness, or warmth to the touch

GJ tube care: receive feedings and medication.

Turn Q2H: prevent skin integrity.

Neonatal/Pediatric airway status: maintain open airway.

Most recent VS (highlight if abnormal)

Time: 1554

Temperature: 36.6 C (97.8 F)

Route: Axillary

RR: 28

HR: 120

BP and MAP: 118/73 and 90

Oxygen saturation: 96

Oxygen needs: N/A room air

Pain and Pain Scale Used	0 rFlacc scale used
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Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
<p>Impaired urinary elimination related to urinary dysfunction as evidenced by urinary culture (Phelps, 2020).</p>	<p>Risk for impaired skin integrity related to physical immobility (Phelps, 2020).</p>	<p>Risk for urge urinary incontinence related to ineffective toileting habits (Phelps, 2020).</p>
<p>Rationale</p>	<p>Rationale</p>	<p>Rationale</p>
<p>The nursing diagnosis was given because the patient has a positive urinary culture indicating a UTI.</p>	<p>This nursing diagnosis was given because the patient is bound to either the bed or her wheelchair.</p>	<p>This nursing diagnosis was given because the patient has a neurological condition that prevents her from using the toilet regularly.</p>
<p>Interventions</p>	<p>Interventions</p>	<p>Interventions</p>
<p>Intervention 1: Observe the patient's voiding pattern. Document urine color, characteristics, intake, and output (Phelps, 2020).</p> <p>Intervention 2: Palpate the abdomen above the symphysis every 2 hours to detect bladder distention and the degree of fullness (Phelps, 2020).</p>	<p>Intervention 1: Change the patient's position at least every 2 hours. Monitor the frequency of turning (Phelps, 2020).</p> <p>Intervention 2: Use preventive skin care devices, as needed, such as a foam mattress, alternating pressure mattress, pillows, and padding (Phelps, 2020).</p>	<p>Intervention 1: Ensure the patient's toilet environment is warm, clean, and odor-free to promote continence (Phelps, 2020).</p> <p>Intervention 2: Observe the patient's voiding pattern, document intake, and output to ensure correct fluid replacement therapy, and provide information about the patient's ability to void adequately (Phelps, 2020).</p>
<p>Evaluation of Interventions</p>	<p>Evaluation of Interventions</p>	<p>Evaluation of Interventions</p>
<p>The patient's urinary function will be free from complications and maintain urinary continence (Phelps, 2020).</p>	<p>The patient skin will remain intact and maintain adequate skin circulation (Phelps, 2020).</p>	<p>The patient will avoid complications of urge incontinence or complications that are tolerated by her (Phelps, 2020).</p>

		What do you expect?	What did you observe?
Erickson's Psychosocial Developmental Stage	Initiative vs. Guilt	Likes to please parents, begins to make up games, acts out roles of other people, develops sexual identity, develops a conscience, and sense of initiative, imagination, imitation of adult behavior.	The patient smiles to responses and coos.
Piaget's Cognitive Developmental Stage	Pre-operational (Intuitive stage ages 4-7)	Magical thinking classifies/relates objects, knows if something is right/wrong, and is curious about facts.	The patient is non-verbal and likes to watch cartoon movies.
Age-Appropriate Growth & Development Milestones	<ol style="list-style-type: none"> 1. Oriented to caregiver. 2. Smiles and coos in appropriate situations. 3. Cries appropriate to situations. 		
Age-Appropriate Diversional Activities	<ol style="list-style-type: none"> 1. Takes naps throughout the day. 2. Watch cartoons. 3. Listen to children's lullaby. 		

References (3):

Phelps, L. L. (2020). *Sparks and Taylor's nursing diagnosis reference manual* (11th ed.). Wolters Kluwer.

Capriotti, T. M. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F. A. Davis Company

Jones & Bartlett Learning. (2020). *2021 nurse's drug handbook* (20th ed.). Jones & Bartlett Learning.