FINAL Gastroenteritis Case Study, Pediatric Gastroenteritis SKINNY Reasoning : Harper Anderson, 5 months old (Answered)

written by

NOTEBANK

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It took me 9 hours to complete this case study.

Pediatric Gastroenteritis

SKINNY Reasoning : Harper Anderson, 5 months old

Primary Concept		
Infection		
Interrelated Concepts In order of emphasis		
Inflammation • Perfusion Fluid and Electrolyte Balance Acid-Base Balance Clinical Judgment		
NCLEX Client Need Categories	Percentage of Items from Each Cate o /Subcategory	Covered in Case Study
Safe and Effective Care Environment		
• Management of Care	17-23%	
• Safety and Infection Control	9-15%	
Health Promotion and Maintenance	6-12%	
Psychosocial Integrity	6-12%	
Physiological Integrity		
• Basic Care and Comfort	6-12%	
Pharmacological and Parenteral Thera les	12-18%	
Reduction of Risk Potential	9-15%	
Physiological Adaptation	11-17%	

SKINNY Reasoning

Part 1: Recognizing RELEVANT Clinical Data

Patient Care Begins:

History of Present Problem:

Harper Anderson is a 5-month-old female who was brought into the physician's office for diarrhea and vomiting over the past two days. She had two loose large loose stools the first day and now her mother reports that she has been less active, is not interested in playing, and has been more sleepy today. She is unable to keep any feedings down today. She has had four loose, watery stools and emesis x3 this morning. She has not had a wet diaper since yesterday evening. She is 25 inches (63.5 cm) in length and weighs 14 pounds, 2 ounces (6.4 kg). She weighed 15 pounds, 2 ounces (6.86 kg) at her Last office visit two weeks ago. Harper is a direct admit to the pediatric unit where you are the nurse responsible for her.

Personal/Social History:

Harper's mother Nicole is 21 years old. She is a single mother and this is her first child. Nicole is not currently working und lives with her parents. Though she has strong social support from her parents, she feels constantly overwhelmed as a new mother.

Past Medical History (PMH):

- Healthy full-term infant that weighed 6 pounds 10 ounces (3.0 kg) at birth. No current health problems. Mom is no longer breast feeding and Harper is on formula.
- Mother had no complications with pregnancy.
- Has not had any immunizations from birth, including rotavirus

RELEVANT Data from Present Problem:	Clinical Significance:
1. She has had diarrhea and vomiting over the past two days. 2. She has had four loose and watery stools. She has vomited 3 times in the morning. 3. She is less active, lethargic, and uninterested in play. Unable to keep feedings down. 4. Has not had a wet diaper since yesterday in the evening. 5. She currently weighs 14 lbs. and 2 oz. She has previously weighed 15 lbs. and 2 oz two weeks ago.	1 & 2. By vomiting and having loose stools over the course of two days, that is a short amount of time. Such a short amount of time can alter her hydration and electrolyte balance. Having loose stools removes the body from fluid which is being excreted. By vomiting 3 times, Harper is diminishing her potassium (3.5-5), sodium (135-145), and chloride levels (99-109). Her body is removing electrolytes without replenishing which will cause her body to become lethargic and could potentially create cardiac issues like dysthymias. 3. Her becoming lethargic, less active, and uninterested in playing is concerning because it can alter her level of consciousness. An altered level of consciousness can result from decreased electrolytes like sodium or potassium. Due to Harper vomiting 3 times a day, she is becoming dehydrated and unable to keep food down which can explain her lethargy since she has no energy after expelling. 4. Not obtaining a wet diaper indicates decreased urine output. A decreased urine output signifies an increase in dehydration. The kidneys are not receiving an adequate supply of nutrients and water which limit the production of urine within the kidneys. Kidney labs should be assessed to note functionality and filtration. 5. This weight fluctuation is abnormal. For every 1 lb. a child loses, it is significant in the loss of hydration of a child. Losing a pound within 2 weeks is about 7% of the child's weight. This finding is abnormal and could be due to dehydration since the child has been vomiting and has had frequent loose stools.
RELEVANT Data from Social History	Clinical Significance:

1. Her mother is 21 years old and Harper is her first child. 2. Harper's mother is unemployed. She also lives with her parents. She is constantly feeling overwhelmed with motherhood. 3. Harper has not been immunized since she was born.	1. Harper's mother being young and having her first child can be a lot to process and overwhelming due to not having a partner. Being so young, there are many aspects of motherhood that are difficult and she may be suffering from lack of knowledge when taking care of her child. She may be unaware of how to help her child with her vomiting and diarrhea episodes. 2. Being constantly overwhelmed is very stressful. She may not know how to cope with her daughter's medical issues and may need support from her family and other resources to best aid her daughter's future diagnosis. Some resources include support groups in the community, therapy, or parenting classes to better take care of her child. 3. Harper not being immunized creates a problem because younger children are more susceptible to bacteria and viruses. Having not been immunized, the child's defense and immunity is not matured so she is more at risk of developing an illness or infection. Education on immunization should be discussed with the mother as immunizations can prevent further infection and protection for future health as Harper keeps developing and coming in contact with other children and pathogens.

Patient Care Begins:

Current VS:	Pain Assessment- FLACC Behavioral Pain Scale	
T: 102.2 F/39.O C axillary) [96.8]	Face:	1
p: 158 [80-150]	Legs :	0
R: 38 [30]	Activity:	1
BP: 62/42 [95/58]	Cry:	1
02 sat: 95% RA	Consolability:	2/ Tota1 score: 5/10

FLACC Behavioral Pain Scale

	o	1	2
Face	Relaxed or smile	Occasional grimace, frown, withdrawn	Frequent frown, clenched jaw, quivering chin
Legs	Relaxed	Uneasy , restless, tense	Kicking or legs drawn up
Activity	Lying quietly, moves easily	Squirming, tense	Arched, rigid, or jerking
Cry	No cry (awake or asleep	Moans, whimpers. Occasional complaints	Crying, sobs, screams, frequent complaints
Consolability	Content or relaxed	Easy to console, distractible	Difficult to console or comfort
Each of the five categories is scored from 0-2, resulting in a total of 0-10			

What VS data are RELEVANT and must be recognized as clinically significant to the nurse?

RELEVANT VS Data:	Clinical Significance:
1. High temperature of 102.2 2. High pulse rate of 158 bpm 3. High respiration rate of 38 4. Low blood pressure of 62/42 5. FLACC score of 5/10	1. The normal temperature for a child is 96.8. Harper has a high temperature of 102.2 F, indicating that she is febrile. This means that her body is actively fighting off either a bacterial or viral infection. Her body temperature is increased due to her immune system responding to a pathogen through an inflammatory response. To confirm an infection, laboratory tests such as WBC count should be assessed. 2. The normal pulse rate is 80-150 bpm. Her HR is tachycardic at 158 bpm. This rapid HR can indicate body compensation. Her body is compensating due to either being febrile, her body fighting off an infection, or being dehydrated. She has had vomiting and diarrhea spells which could have diminished her fluid level within her body. If fluid is diminished, her blood volume could be decreased which could be manifested by the elevated HR. Because of this, the HR compensates by beating faster to provide the circulatory system with nutrients and to help increase fluid volume for dehydration. 3. Normal respiration rate is around 30. She is tachypneic at 39 breaths per min. This elevated level can be a result of her body compensating like her heart rate. Breathing faster decreases her oxygen which can be seen as her O2 saturation is at 95%. While it is not an abnormal finding, it should be monitored so it does not decrease below 94%. 4. Normal blood pressure for this child is around 95/58. This hypotensive finding is abnormal. Low blood pressure can be related to increased heart rate. In addition, her blood pressure can be an indication of decreased fluid volume in her body. A low fluid volume in the body is an indicator for dehydration which can be seen through the lack of wet diapers, vomiting and diarrhea, and weight loss of the child. Fluid should be replaced in order to increase blood pressure. Fluid replacement should be calculated according to weight which will be indicated under medical orders. 5. A FLACC score of 5/10 indicates the child is in moderate pain. The child is in discomfort due to not being able to be consoled, frowning, tense, occasional complaints of the child based on the scale. To decrease pain and discomfort the patient should be comforted to provide some relief to the pain and discomfort felt. Some ways of decreasing pain and discomfort is utilization of Sweet-ease, distraction therapy, music, peek-a-boo, and soothing voice tones. Her mother can also hold her to provide additional comfort.

	Current Assessment:	
	GENERAL APPEARANCE:	Irritable when awake, alternates with lethargy once quiet, when awake and crying, tears are not present
	RESP:	Breath sounds clear with equal aeration bilaterally , non-labored
	CARDIAC:	Skin is pale, cool to touch, cap refill 3—4 seconds in both hands, brachial pulses palpable bilaterally
	NEURO:	Lethargic, does not maintain eye contact with mom or caregiver
		Abdomen soft with hyperactive BS x4 quadrants, no apparent tenderness to palpation
	GU:	5 mL dark amber, cloud urine noted in urine collection bag-sent to lab

	SKIN:	Anterior fontanel depressed, eyes slightly sunken, lips and tongue are dry with no shiny saliva present, when skin over Abd. is pinched, remains tented for 2—3 seconds

What assessment data are RELEVANT that must be recognized as clinically significant by the nurse?

RELEVANT Assessment data	Clinical Significance:
1. Irritable when awake, lethargic, when crying no tears are present 2. Skin is pale, cool to the touch, and capillary refill delayed 3-4 seconds 3. Lethargic and does not maintain eye contact with mom 4. Abdomen is hyperactive and absence of tenderness when palpated 5. Urine is dark amber, only 5 mL, and cloudy 6. Anterior fontanel depressed, eyes sunken, lips and tongue dry, no saliva present, skin tenting for 2-3 seconds	1. The patient has a decreased LOC. She is lethargic, irritable, and produces no tears. This indicates that the child is dehydrated. Lack of production of tears shows that the child cannot produce fluid due to not having enough fluid volume within her body. Being lethargic and irritable could be a sign of electrolyte imbalance due to her diarrhea and vomiting. Her balance of electrolytes like potassium and sodium could be decreased. If the child is hypokalemic, potassium should be elevated quickly to prevent cardiac dysrhythmias. If the child has hyponatremia, it can could cause lethargy. 2. Her skin is pale, cool, and has a delayed capillary refill. These are all signs of a decreased blood volume circulating to the extremities. Because her blood volume is diminished in her extremities, this could mean that her body is going into shock due to her high HR and respiration rate. If her body is in shock, her blood would be shunted, which would explain the diminished capillary refill, coolness, and pallor in the distal extremities. 3. Lethargy and lack of eye contact with her loved one is a concerning sign of dehydration. This is due to a decreased LOC which is seen as the child will not make eye contact with her mother. Eye contact is sign of a healthy child since it would indicate growth and development. However, because the child will not make eye contact and is fatigued, the child's body is severely fighting off dehydration or decreased fluid volume. 4. Hyperactivity of the abdomen is an abnormal finding because it signifies increased gastrointestinal activity. The child is 5 months and should have seen started eating minimal solid foods only recently. It is abnormal for the child to be hyperactive as food has barely been introduced. An absence of tenderness upon palpation is also abnormal since GI activity is elevated. Tenderness when palpated is typically a sign of a gastrointestinal issue with a short onset. However because no tenderness is felt, it can indicate a more serious problem for the child as a long-term medical issue at this age is serious and could lead to more detrimental issues. 5. Urine being dark amber and cloudy is abnormal. This can indicate an infection within the urinary system as cloudiness indicates white blood cells being detected within the urine. 5 mL of urine is extremely little as the child should be producing about 1-3 mL per hour. A decrease in urine can indicate a functional issue with the kidneys as the organs are not producing enough urine. Dark amber color indicates there is a high concentration but lack of output. 6. A depressed anterior fontanel is a major sign of dehydration in children. Sunken eyes, dry mucus membranes and no saliva indicate the child has a low fluid volume circulating within the body and very dehydrated. Because there is a low fluid volume, the child could be dehydrated as seen through other systems. Skin

	tenting is another abnormal finding as skin should recoil in less than 2 seconds. All of these skin findings indicate the child is experiencing dehydration or extremely low fluid volume within her body.

Diagnostic Results:

Basic Metabolic Panel (BMP)						
	Na	K	Cl	C02	Gluc,	Creat.
Current:	151	3.1	92	15	102	1.4
Most Recent:	138	3.8	101	22	105	0.6
Range:	(135-145)	(3.5-5)	(99-109)	(27-40)	(60-100)	(0.2-0.4)

Complete Blood Count (CBC)									
	WBC		HGB		PLTs		% Neuts		
Current:	19.8		15.2		225		88		
Most Recent:	12.5		13.5		221		54		
Range:	(4.5-13.5)		(11.5-15.5)		(150-400)		(54-62)		
UA urine analysis	Color	Clarity	Sp. Gr	Protein	Nitrite	LET	RBCs	WBCs	Bacteria	Epithelial
Current:	Yellow	Cloudy	1.033	Neg	Pos	Pos	2	> 100	Few	Few
Range:	Clear-Yellow	Clear	1.016-1.022	neg	absent	neg	<1 or 2	<1-2	Few	Few

What data must be interpreted as clinically significant by the nurse? (Reduction o Risk Potential/Physiologic Adaptation

	RELEVANT Diagnostic Data:	Clinical Significance: *all normal values can be found underneath values*	TREND: 1mprove/Worsening (Stable:
	High Sodium level of 151	A high sodium level indicates a high concentration of sodium within the body. This signifies that there is a diminished amount of fluid level. The patient has been losing fluid with the frequent episodes of diarrhea and vomiting. Because sodium and water follow each other, sodium is in excess since there is a lack of volume inside the child. There is a higher concentration which is manifested by lethargy, sunken eyes, and a depressed fontanel.	Worsening
	Low Potassium of 3.1	A low potassium level of less than 3.5 is a serious abnormal finding. This low level is resulted from the child's diarrhea and constant vomiting. As the child is constantly expelling electrolytes, she is depleting her potassium level. A low potassium can cause cardiac issues such a dysrhythmias. This level is extremely important to raise immediately because the child could develop cardiac rhythm changes which could potentially become a life threat.	Worsening
	Low Chloride of 92	A low chloride level is an indicator of diminished electrolytes balance. Low chloride within the body is caused by the	Worsening

		patient's constant vomiting. When the body forcefully expels contents from the stomach, all gastric contents like acids leave the body. Chloride can be within the GI system, which is lowered when the patient is constantly expelling the contents of the GI system. Because chloride is an essential nutrient to the body, it is manifested by the child's lethargy and decreased LOC.	
	Low CO2 level of 15	A low CO2 level is typically due to a decrease in acid/base balance within the body. CO2 regulates the acid/base balance within the body from preventing acidosis and alkalosis. A decreased level from the GI system is due to the patient's constant loose stools. CO2 is being removed which alters the patient's acid/base balance. This can be manifested through lethargy and the child's irritability since electrolyte and acid/base balance are shifted.	Worsening
	Slightly high glucose of 102	While the glucose is only slightly elevated than the normal range, it is important to note due to the symptoms that can arise from an abnormal level. Glucose is one of the most important nutrients in the body because every cell within the body needs glucose (ATP) to function and for energy. An abnormal glucose level could create an altered level of consciousness and lethargy. However, because the level is not of significance due to being 2 units elevated, the child's fatigue and LOC are produced from another finding.	Stable
	High Creatinine of 1.4	High creatinine of 1.4 is extremely elevated. This can result from dysfunctional kidneys as a result of decreased fluid volume circulating through the organs. A high creatinine level indicates that the kidneys are not being perfused adequately and can be seen through the decreased urine output of 5 mL that the child is producing. Because the creatinine level is so high, it is a sign of dehydration and diminished fluid volume within the body.	Worsening
	High WBCs of 19.8 in blood	Increased level of WBCs can indicate many issues within the body. High white blood cells can mean that there is an active infection within the body and the body is fighting against it through an inflammatory response. WBC are the cells that actively migrate to the site of infection to help protect the body from the foreign pathogens.	Worsening
	High Neutrophils of 88	Percentage of neutrophils is the percentage of white blood cells. This lab level indicates an infection in the body or an inflammatory response to a pathogen within the urine. Neutrophils are the most common leukocyte to fight off an infection. A high level means that there is a bacterial or viral infection that the neutrophils are attempting to fight off. Because it is seeming to be an infection in the GU system, a decreased of urine output is common amongst the common side effects of an infection.	Worsening
	Yellow and cloudy urine	The normal color of urine is clear to pale yellow which indicates regular hydration status per medical order and weight. Yellow and dark amber color in urine mean a lack of fluid passing through the kidneys. This is common in dehydration since the body is not being supplied with enough	No other results are available to compare and determine a trend.

		fluids to filter the urine and create more output. Normal urine is free of sediment due to the kidneys actively filtering the urine through the glomerulus. However, because the kidneys are malfunctioning due to the lack of fluid volume, sediment is not being excreted adequately. Cloudy urine could be a result of white blood cells being dumped into the urine because of an active infection. Other signs and symptoms of an active GU infection is limited output and malfunction kidneys seen through creatinine results.	
	High Specific gravity of 1.033	A high specific gravity indicates that the urine obtains a high concentration. This can signify dehydration in the patient due to the lack of fluid readily available to dilute the urine upon excretion from the kidneys. A high specific gravity, cloudy urine, and high WBC count are signs of dehydration or infection within the urinary system.	
	Positive Nitrate in urine	Nitrates found within the urine indicate that the urine contains bacteria. The type of bacteria that creates a positive level are gram-negative bacteria. Because this level determines gram-negative bacteria, it also allows the determination of E.coli within the urinary system since it is the most common type of gram-negative bacteria. This test along with high specific gravity, yellow and cloudy urine provide indication that the patient obtains a positive urinary infection.	
	High WBCs of >100 in urine	A high level of WBCs within the urine means that there is an active infection within the urinary system. An infection or infectious pathogen can cause damage to the glomerulus within the kidney. Because acute injury occurs, the glomerulus cannot filter out adequately. As a result, white blood cells are dumped into the urine due to the increase in cells fighting against the infectious pathogens. An infection could be suspected due to the cloudiness of the urine in addition to the white blood cells count within the urine.	
	Positive LET	A positive LET level provides information that an enzyme from the WBCs is present within the urine. It may be evident that an infection is present due to the increased number that is being passed through the acutely damaged kidneys. A dumping of WBCs, WBC enzymes, and positive nitrate within the body can be resulted from an infectious pathogen or from the lack of fluid flushing the bacteria within the urinary system.	
	Few bacteria and epithelial cells	Few bacteria and epithelial cells alone do not provide enough indication of an active infection due to normal bacteria and epithelial cells. However, because other urine components have resulted in positive or high in number, the few bacteria and epithelial cells provide indication that there is an infectious pathogen present within the urinary system due to fluid volume deficit or infection.	

Part 11: Put it All Together to THINK Like a Nurse!

1. After interpreting relevant clinical data, what is the primary problem? Management of Care/Physiologic Adaptation)

Problem:	PATHOPHYSIOLOGY IN OWN WORDS:
1. Gastroenteritis 2. Urinary tract infection (UTI)	1. Harper's clinical manifestations and laboratory tests indicate Gastroenteritis. Gastroenteritis is caused by an infectious microorganism that inflames the intestinal tract and stomach lining. The infectious pathogens that reside within the GI tract release toxins that irritate the intestines and linings. Electrolyte receptors that are found within the GI tract are overwhelmed by the toxins. This impedes reabsorption of fluid and electrolytes within the GI tract which decreases overall fluid volume status. This is significant within a child because the majority of a child's weight is based on fluid balance. Severity of the fluid and electrolyte imbalance depends on the amount of fluid that is lost in reabsorption. Harper's dehydration is severe as a result of her clinical signs and symptoms. Her clinical manifestations are sunken eyes, depressed anterior fontanel, 5mL of urine output, frequent vomiting and watery stools, high sodium and low potassium. Because gastroenteritis is caused by an infectious pathogen, it most likely that Harper's condition is caused by a infection due to the lack of immunizations since birth. 2. Urinary tract infections (UTI) are one of the most common types of infection. A UTI is an infection that occurs in any part of the urinary system due to an infectious microorganism traveling up to the kidneys. Harper's laboratory results show that E. coli is present in her urine. As a result of this, it is most likely that she has contracted a UTI from the presence of E. coli that is found in the intestines and in the rectum. There are many ways that the urinary system is contaminated by E. coli. One way is that the bladder was not fully emptied, she was put in a bubble bath, is being washed with fragrant soaps, or if she was wiped from the anus to her vagina (back to front).

Collaborative Care: Medical Management

2. State the rationale and expected outcomes or the medical plan of care. (Pharm. and Parenteral Therapies)

Medical Management:	Rationale:	Expected Outcome:

Admit to peds w/contact precautions	The patient is put on contact precautions to minimize the chance of cross contamination since it is most likely that an infectious and contagious pathogen caused her medical issue. Some contact precautions include wearing a gown and gloves. The healthcare professional utilize hand hygiene on way into the room and on the way out.	This will prevent the spread of the infectious pathogen. It also allows the caretaker to be protected from potential exposure. It is important to practice hand washing to minimize any chance of exposure.
Daily weight with strict I&O	Daily weighing with strict intake and output allows indication of hydration status and monitors for any fluctuation in weight change. It is important because it allows the patient to be adequately hydrated according to weight per MD order.	Patient will become adequately hydrated with 640mL/day or 26.67 mL/hr per weight to minimize severe dehydration. Her sunken eyes, depressed fontanel, and lethargy will decrease as her urine output will increase to a normal of 1-3 mL/ hour.
Establish peripheral IV	It is essential to establish a patient peripheral IV for the necessary administration of IV fluids and medication administration. Peripheral site should be assessed for patency, reaction at insertion site, and phlebitis.	IV access will be established to provide the child with adequate hydration due to severe dehydration. Her blood pressure will increase, kidney labs will increase due to increase of perfusion, and urine output will be increased.
0.9% NS @ 20 mL/kg bolus over 30-60 minutes, then maintenance of D5 0.9% NS @ 4 mL/kg/hour	Normal saline bolus was ordered to provide the child with hydration, replace chloride, and replaced fluid and electrolytes. IV fluids should be adequately given according to weight and fluid amount to provide correct rehydration. IV should be assessed for any adverse reactions and if any infiltration, fluid overload, or lung crackles occurs.	As dehydration diminishes, all electrolyte level will return to normal, blood pressure returns to a normal level (95/58), HR returning to a normal level of 80-150, depressed fontanel rises, sunken eyes diminish, and urine become clear with around 6 diaper changes a day.
NPO if vomiting-may advance small feedings of Pedialyte as tolerated if no vomiting	Rehydration is the most important intervention as the patient was severely dehydrated. However, due to frequent vomiting spells and inability to keep food down, the patient has been ordered on NPO to retain hydration status and prevent further vomiting. If tolerated the patient could consume Pedialyte which contains electrolytes that will further replenish the child's supply.	The patient will remain with no vomiting spells to keep increasing hydration status. If able, the patient will be able to tolerate small feeding of Pedialyte which will elevate her electrolyte levels of sodium to 135-145 and potassium of 3.5-5.
acetaminophen 15 mg/kg PO/Rectal every 4 hours PRN for temp >101	This medication is used to lower the temperature of 102.2 F. It will also minimize discomfort and pain. Water loss that was lost from febrile episode will be minimized which would increase hydration status. This medication is preferred to minimize fever because it lessens the chance that a pediatric patient will develop GI upset rather than an NSAID which would irritate the lining even further.	As a result of this medication, the patient's high temperature will gradually return to normal limits of 96.8 F. 1 degree C every hour is typically the standard to prevent sudden change in temperature. Temperature should be reassessed after the onset of the medication of 15-20 minutes.
Trimethoprim/sulfamethoxazole PO 5mg/kg every 12 hrs	This medication is typically the drug of choice used to treat urinary tract infections. It does so by inhibiting the synthesis of the folic acid of the bacteria to prevent further spread. It is common to have an allergy to sulfa drugs. If a skin rash occurs, stop use and MD will provide another medication effective in stopping the spread of the infection.	Urinary tract infection will be minimized if not completely eradicated. If taken correctly the patient should start seeing improvement in the first 12-24 hours. The patient will obtain clear urine, decreased WBCs, more urine output of 1-3mL/ hr, negative nitrates and negative LET.

Collaborative Care: Nursing 3.

What nursing priority (ies) will guide your plan of care? (Management of care)

Nursing PRIORITY:		
PRIORITY Nursing Interventions:	Rationale:	Expected Outcome:
1. Vital signs should be assessed every 4 hours to assess for baseline and any abnormalities. 2. Hydration status should be assessed every 4 hours for decreased dehydration. 3. Urine output should be assessed to be within normal parameter of 1-3mL/hr 4. Assess and monitor daily weight	1. Assessing baseline provides the caretakers with a normal starting point to note any fluctuations. For hydration, blood pressure should be around 95/58, HR of 80-150, and temperature of 96.8 F. 2. 640mL/day or 26.67 mL/hr should be maintained to provide the child with adequate fluid for the size of the child. Fontanels, eyes, capillary refill, LOC, and lethargy should be assessed to provide indication of correct hydration. 3. Urine output should be 1-3mL/hr. Assessing urine output is a correct indicator of hydration status. If adequately perfused, kidneys should be producing urine that is clear and free of sediment. 4. Daily weighting of the child provides caregivers with indication that there is hydration and no abnormal weight loss or gain. It also provides indication that the child is not retaining too much fluid, causing fluid overload and backup into the lungs.	1. Vital signs will return WNL. HR will be within 80-150 bpm, blood pressure around 95-58, temperature of 96.8 F, and respirations of 30 breaths per minute. 2. Hydration will be reached. Fontanels will no longer be depressed, eyes will not be sunken, capillary refill will be less than 3 seconds, free of altered level of consciousness, and no lethargy detected. The skin will be pink, moist, and with moist mucus membranes. 3. Urine output will be with 1-3 mL/hr. Urine will be clear, free of sediment, obtain no WBCs, no nitrates, and no LET. The child will have around 6 diaper changes a day. 4. Weight will return to previous normal weight of 15 lbs. 2 oz. The child will not have any fluctuations that are greater than 1 lb. which indicate an abnormal finding, meaning dehydration or retention of fluid overload.

4. What psychosocial/holistic care PRIORITIES need to be addressed for this patient? (Psychosocial Integrity/Basic Care and Comfort)

A psychosocial/holistic care priority for the child is bonding. The child and mother should be bonding further for better relationship and interaction. By creating a bonding relationship, the mother could identify cues and abnormal behaviors of the child before a serious condition were to occur due to the importance of subtle changes making the difference when a child is unable to explain pain and discomfort. Per Erikson's developmental stages, trust vs. mistrust is stage that is of importance at this age. The child should be developing trust by bonding, interactions, soothing tones, and being comforted through holding or caressing. The child's emotional needs should be met in addition to her medical needs. Taking care of the child emotionally is just as important for development growth and socialization.

5. What educational/discharge priorities need to be addressed to promote health and wellness for this patient and/or family ? (Health Promotion and Maintenance)

Educational/ discharge priorities to promote health and wellness of the child would include interventions to prevent future infection. For a urinary tract infection, the mother should wipe the child from front to back (from vagina to rectum) this will prevent E.coli from reaching the urethra and causing an infection if it were to reach the urinary system and eventually kidneys. The mother should be taught and should repeat back to the caregiver how

to wipe for adequate prevention. The child so not be bathed in bubble baths due to the fragrance irrigating the urethra which can suppress immunity. In addition, the mother should be educated on the importance of noticing subtle details that are abnormal in the child. For example, the child should be urinating and going through about 6 diapers a day. This typically shows adequate fluid intake. If the child is not creating enough urine, a possible infection has occurred. The child should be actively getting hydrated to prevent dehydration through calculation of fluid status (640mL/kg/day). Another educational priority is to educate the mother on the importance of getting her child immunized. The child is more susceptible to acquiring infections because the immune system is not fully developed. The child can contract communicable diseases which could potentially be fatal to the child. Parvovirus, rotavirus, chicken pox, Hepatitis B, Influenza, and many more can be contracted the child does not have the antibodies or immunity to fight off such infection.