# Pediatric Track Final Case Study

## Overview

Think about all you have learned in regard to taking care of pediatric patients and consider the case presentation that follows. Answer all the questions completely and use peer-reviewed evidence to support your answers.

## Visit 1

Baby C is three months old, and her mom has brought her into the office because she has had severe watery diarrhea for the past three days, accompanied by fever for the past 24 hours. She has been well until this point and is up to date on her immunizations. Upon exam, she is apathetic and responds weakly to stimulation. The condition has been diagnosed as gastroenteritis.

1. List the major losses her body is experiencing as a result of her diarrhea and fever.
2. What symptoms would you expect Baby C to exhibit? How will you assess these symptoms in an infant. (Hint: Think about what questions would be important for you to ask her caregiver.)
3. What signs would you expect Baby C to exhibit? What will you be looking for on your exam of this infant? Include the specific signs you would expect for an infant as opposed to an adult.
4. Explain several reasons why infants become dehydrated quickly.
5. What are the most likely etiologies for Baby C’s diarrhea? What role would you expect diagnostic testing to play in caring for Baby C?
6. Thinking about the common etiologies from question 5, what differential diagnoses would be appropriate for Baby C? List at least three and explain your rationale.
7. Baby C’s mother asks if she should give her water or Pedialyte to help replenish the fluids lost through diarrhea. What is your best response to her?

## Visit 2

Baby C recovered from her bout with gastroenteritis and has been doing well since. She has come to the office for her well child check, and her mother is concerned because she has a moist, red, vesicular rash on her cheeks, the backs of her hands, and her arms. Her mother said she has been constantly trying to scratch the rash and often has difficulty sleeping. Mom reluctantly admits that she has been giving her diphenhydramine to help her sleep, and it seems to help with the itching as well. Her father has a family history of allergic rhinitis and asthma.

1. Based on Baby C’s signs and symptoms and what we have learned about immune, inflammatory, and skin disorders, what are some differential diagnoses that would be appropriate for Baby C? List at least three and explain your rationale.
2. Based on the information presented, what is the most likely etiology for Baby C’s rash? Is it infectious or non-infectious? Explain your rationale.
3. Using your answer to question 2, describe the pathophysiology of Baby C’s signs and symptoms.
4. Why is the father’s medical history significant? Are there any other family history questions you would like to ask Baby C’s mother to help understand the etiology of her rash?
5. Thinking about the pathophysiology of Baby C’s condition, identify one pharmacologic and one non-pharmacologic treatment that can help her; explain how they can normalize the pathology she is experiencing and return her to a state of homeostasis.
6. Part of your treatment plan should include limiting scratching. Explain why this is important to the pathophysiologic process occurring with Baby C and describe practical methods to achieve this.
7. Baby C’s mother asks you if the rash will get better, and what Baby C can expect as she grows up. What is your best response to her, including a patient-appropriate explanation of the pathophysiology, risk factors, and treatment you have described so far?