



Case Study 124

Name _____ Class/Group _____ Date _____

Group Members _____

► Scenario

R.O. is a 12-year-old girl who lives with her family on a farm in a rural community. R.O. has four siblings who have recently been ill with stomach pains, vomiting, diarrhea, and fever. They were seen by their primary care provider (PCP) and diagnosed with viral gastroenteritis. A week later, R.O. woke up at 0200 crying and telling her mother that her stomach "hurts really bad!" She had an elevated temperature of 37.9° C (100.2° F). R.O. began to vomit over the next few hours, so her parents took her to the local emergency department (ED). R.O.'s vital signs, complete blood count, and complete metabolic panel were normal, so she was hydrated with IV fluids and discharged to home with instructions for her parents to call their PCP or to return to the ED if her condition did not improve or if it worsened. Over the next 2 days, R.O.'s abdominal pain localized to the right lower quadrant, she refused to eat, and she had slight diarrhea. On the third day, she began to have more severe abdominal pain, increased vomiting, and fever that did not respond to acetaminophen. R.O. has returned to the ED. Her VS are 128/78, 130, 28, 39.5° C (103.1° F). R.O. is guarding her lower abdomen, prefers to lie on her side with her legs flexed, and is crying. IV access is established, and morphine sulfate 2 mg IV is administered for pain. An abdominal CT scan confirms a diagnosis of appendicitis. R.O.'s white blood count is 12,000 mm³.

- Which of the following are common clinical manifestations of appendicitis? Select all that apply.
 - Diarrhea
 - Vomiting
 - Left lower quadrant abdominal pain
 - Constipation
 - Arthralgia
 - Diffuse rash
 - Fever

- Discuss why R.O.'s presenting clinical manifestations make diagnosis more difficult. Identify two other possible diagnoses.

CASE STUDY PROGRESS

The abdominal CT scan confirms that R.O. has appendicitis. The ED physician has written orders.

3. Note whether the orders are appropriate or inappropriate and give rationale.

Chart View

Emergency Department (ED) Orders

- a. Make patient NPO
- b. Place a peripheral IV and begin D5½NS at 80 mL/hr
- c. Administer Fleet Enema now to rule out impaction
- d. Administer morphine sulfate 2 mg IV q2h for pain
- e. Obtain surgical consent from patient
- f. Administer cefotaxime (Claforan) IVPB, at 150 mg/kg/day q6h

4. R.O.'s weight is 42 kg, and her height is 155 cm. Calculate her maintenance fluid needs and discuss how these will be met.

5. R.O.'s parents give informed consent, and R.O. assents to the surgery after the procedure is explained to her. Why is it important for R.O. to provide her assent for the procedure?

6. What should be included in the preoperative teaching for R.O. and her parents?

CASE STUDY PROGRESS

R.O. undergoes an appendectomy; the appendix has ruptured. The peritoneum is inflamed and abscesses are seen near the colon and small intestine. R.O. is admitted to the surgical unit; she is NPO, has a nasogastric tube (NGT), Foley catheter, IV line, abdominal dressing, and a Penrose drain.

7. Identify the priority nursing considerations. Select all that apply.
- Reduced bowel function
 - Pain
 - Skin integrity changes
 - Cardiac output changes
 - Changed family processes
 - Potential hypothermia
 - Potential fluid and electrolyte imbalance

CASE STUDY PROGRESS

On postoperative day 2, R.O. continues to improve and is tolerating ice chips. Breath sounds are clear, and she is performing her pulmonary hygiene. NGT has minimal drainage. The Foley catheter and Penrose drain have been removed, and her urine output is adequate. Her IV line is saline locked. The incision is well approximated with no drainage or redness. Her pain is 4 to 6 out of 10 with pain medication every 4 hours.

Later that evening your assessment shows that R.O. is pale and listless; bowel sounds are absent; abdomen is distended and tender to the touch; the NGT is draining an increased amount of dark, greenish black fluid. Her lung sounds are moist bilaterally, and her temperature has spiked to 40.2° C (104.4° F), O₂ saturation is 97% on room air. She rates her pain at 10 out of 10 and is having difficulty taking deep breaths because of the pain, which she says "hurts over my whole stomach."

8. What actions would you take?
9. Using SBAR, what would you communicate to the surgeon?

10. What will you consider as part of your nursing management of R.O.'s pain?

CASE STUDY PROGRESS

The surgeon assesses R.O. and orders an immediate return to the operating room. R.O. returns to surgery, where she has lysis of adhesions, removal of necrotic bowel, and drainage of an abscess. The surgeon has left her abdominal wound open and has ordered wound packing changes twice daily and abdominal irrigation with normal saline. R.O. cries and becomes agitated when you go to perform the procedure.

11. Which of the following pain and coping concepts would you question as you assist R.O. to prepare for the procedure?
- R. may fear loss of control during the dressing change.
 - R. may fear separation from family members during painful experiences.
 - R. is concerned about privacy during the dressing change.
 - Prior coping strategies can be used to prepare for the dressing change.

12. In anticipation of R.O.'s discharge, identify expected outcomes that must be achieved before discharge from the hospital.

CASE STUDY PROGRESS

After a week, R.O. continues to meet expected outcomes, with her wound healing well. Her discharge to home is planned for the next day. You provide discharge teaching to R.O. and her parents.

13. Which of these statements would indicate that more teaching is required?
- "We need to return if R.O. begins vomiting again or develops a fever."
 - "R.O. should wait 1 week before returning to her gymnastics program."
 - "We will keep the incision clean and call if we see redness or drainage."
 - "R.O. can advance her diet to the regular foods that she likes to eat."

CASE STUDY OUTCOME

R.O. is discharged to home with her parents and has an uneventful recovery. She is scheduled for a follow-up visit with the surgeon in 2 weeks.