



# Acute Appendicitis in an 11-Year-Old Boy: A Case Report with Nursing Care Plan

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**Abstract:** This case report presents an 11-year-old male who was admitted with complaints of fever, abdominal pain, and vomiting for 8 days. Following clinical evaluation and investigations, he was diagnosed with acute appendicitis. Surgical management via appendectomy was performed, followed by post-operative nursing care. This report highlights the clinical course, diagnostic workup, and a comprehensive nursing care plan for a pediatric patient with appendicitis.

**Index Terms** – Fever, Appendicitis, appendectomy

## INTRODUCTION

Appendicitis is one of the most common causes of acute abdominal pain in children and adolescents. Timely diagnosis and intervention are critical to prevent complications such as perforation and peritonitis. Pediatric patients often present with atypical symptoms, making clinical assessment challenging. This case illustrates the clinical presentation, management, and nursing care provided to an 11-year-old boy with acute appendicitis.

## PATIENT INFORMATION

Age/Sex: 11-year-old male

Weight: 34 kg

Past Medical History: Unremarkable

Family History: Non-contributory

Immunizations: Up-to-date

Allergies: None reported

## CHIEF COMPLAINTS

- Fever (intermittent) – 8 days
- Abdominal pain (right lower quadrant) – 6 days
- Vomiting – 4 episodes/day for last 3 days

## CLINICAL FINDINGS

- General appearance: Ill-looking, lying still, guarding abdomen
- Vitals:
  - Temperature: 38.6°C
  - Pulse: 102 bpm
  - Respiratory Rate: 22/min
  - Blood Pressure: 102/64 mmHg
- Abdomen: Tenderness in right iliac fossa, rebound tenderness present, guarding noted
- Bowel sounds: Hypoactive
- McBurney's point tenderness: Positive

**DIAGNOSTIC ASSESSMENT****Laboratory Investigations:**

Test	Result	Normal Range
Hemoglobin	12.1 g/dL	11.5–15.5 g/dL
Total Leukocyte Count (TLC)	14,800 /mm <sup>3</sup>	4,500–11,000 /mm <sup>3</sup>
Neutrophils	82%	40–70%
Lymphocytes	12%	20–45%
Platelets	350,000 /mm <sup>3</sup>	150,000–450,000 /mm <sup>3</sup>
CRP (C-Reactive Protein)	39 mg/L	<10 mg/L
Serum Electrolytes	Na <sup>+</sup> : 137 mEq/L, K <sup>+</sup> : 4.2 mEq/L	Normal
Urinalysis	Normal	—

**Imaging:**

- Ultrasound Abdomen: Non-compressible, tubular structure in right lower quadrant measuring 9 mm with peri-appendiceal fluid collection—suggestive of acute appendicitis.
- Abdominal X-ray: No free air under diaphragm.

**DIAGNOSIS****Acute Appendicitis****THERAPEUTIC INTERVENTION**

- Preoperative: IV fluids, NPO, antibiotics (Ceftriaxone + Metronidazole), analgesics
- Surgical: Open appendectomy under general anesthesia
- Postoperative: IV fluids, pain management, gradual oral reintroduction, wound care

**NURSING CARE PLAN****Assessment Data:**

- Pain in right lower abdomen
- Fever and vomiting
- Signs of dehydration
- Anxiety related to hospitalization and surgery

**Nursing Diagnoses:**

1. Acute pain related to inflammation of appendix
2. Risk for infection related to surgical wound
3. Deficient fluid volume related to vomiting and NPO status
4. Anxiety related to unfamiliar environment and procedures

**Nursing Interventions:**

Nursing Diagnosis	Goals	Interventions	Rationale	Evaluation
Acute pain	Patient will verbalize pain relief	<ul style="list-style-type: none"> <li>• Assess pain using scale</li> <li>• Administer analgesics</li> <li>• Provide comfort measures</li> </ul>	Reduces pain perception and improves comfort	Pain reduced from 7/10 to 2/10 within 24 hrs
Risk for infection	Wound will remain free of signs of infection	<ul style="list-style-type: none"> <li>• Monitor vital signs and wound</li> <li>• Use aseptic technique</li> <li>• Administer antibiotics</li> </ul>	Prevents postoperative complications	No signs of wound infection

Deficient fluid volume	Maintain adequate hydration	<ul style="list-style-type: none"> <li>• Monitor I/O</li> <li>• Administer IV fluids</li> <li>• Monitor electrolyte levels</li> </ul>	Prevents dehydration and maintains balance	Hydration status normalized
Anxiety	Patient will express reduced anxiety	<ul style="list-style-type: none"> <li>• Provide emotional support</li> <li>• Explain procedures</li> <li>• Encourage parental presence</li> </ul>	Reduces fear and promotes coping	Anxiety reduced; patient cooperative

**OUTCOME AND FOLLOW-UP**

Patient showed steady postoperative recovery. Oral intake resumed 2 days after surgery. Discharged on day 5 with advice on wound care and follow-up after 1 week. At 1-week follow-up: No fever, wound healing well, normal bowel movements.

**DISCUSSION**

Appendicitis in children can present with vague symptoms, making diagnosis difficult. In this case, prolonged duration of symptoms raised concern for complications, but timely imaging and surgical management prevented perforation. Nursing care played a vital role in pain management, infection control, and emotional support.

