



Office of Health Services Technical Assistance Bulletin



Practical Applications of Medical, Mental Health and Substance Abuse Policies and Procedures

July- August 2010

Issue 4

Serving the Children of DJJ Providing Quality Medical, Mental Health & Substance Abuse Services

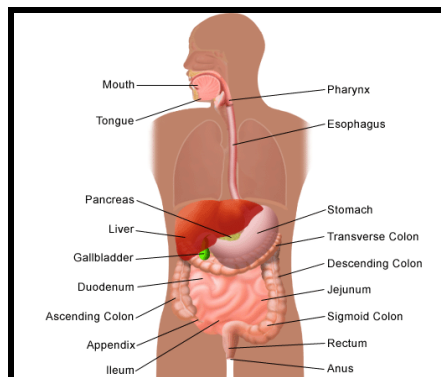
Medical

Appendicitis

Introduction

Abdominal pain is one of the most common complaints in children and adolescents and one that frequently requires urgent evaluation in the office or emergency department. The cause is typically a self limited minor condition such as gastroenteritis or viral syndrome. The challenge for the clinician is to identify those patients with abdominal pain who have either serious, potentially life-threatening conditions, such as appendicitis or bowel obstruction or infections that require specific treatment (such as streptococcal pharyngitis or pneumonia). The likely diagnosis is often suggested by the child's age and clinical features (such as associated symptoms, past medical history, and physical examination). Because of the age range of the children that we care for who are in the

custody of the Department, abdominal pain is a common complaint and there must be a high index of suspicion in diagnosing acute appendicitis. This issue of the Technical Assistance Bulletin is dedicated to appendicitis.



Background

Appendicitis, the most common pediatric surgical emergency, is caused by inflammation of the vermiform appendix. Four of 1,000 children younger than age 14 years will be diagnosed with appendicitis. Common symptoms of appendicitis include abdominal pain, fever, and vomiting. The diagnosis of appendicitis can be difficult in children and adolescents because the

classic symptoms are often not present.

A delay in the diagnosis of appendicitis is associated with rupture and associated complications, especially in young children. Appendicitis is a clinical diagnosis with radiologic imaging used to confirm equivocal cases.

The appendix arises from the inferior tip of the cecum as a long, thin diverticulum. For most children, the cecum is located in the right lower quadrant. The base of the appendix is fixed to the cecum. However, the tip can be located in the pelvis, retrocecum, or extraperitoneum.

The exact function of the appendix is unknown. It is a highly lymphatic structure, suggesting an immunologic role.

Appendicitis results from a luminal obstruction. This obstruction can be caused by fecaliths, lymphoid hyperplasia, foreign bodies, or parasites. Children and adults have also developed appendicitis following severe blunt abdominal trauma.

With delayed diagnosis of appendicitis, the obstruction progresses, the wall of the appendix stretches due to

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the rise in intraluminal pressure, and perforation occurs. When the inflammatory fluid and bacterial contents are released into the abdominal cavity, peritonitis develops. Concomitantly, the patient complains of more intense and generalized abdominal pain.

United States

Appendicitis has an incidence of 70,000 pediatric cases per year in the United States.

Appendicitis has an incidence of 1-2 cases per 10,000 children per year between birth and age 4 years.

The incidence increases to 25 cases per 10,000 children per year between 10 and 17 years of age.

The rate of appendiceal perforation is 80-100% for children younger than 3 years compared to less than 10-20% of children aged 10-17 years.

Race

The role of race, ethnicity, health insurance, education, access to health care, and economic status on the development and treatment of appendicitis are widely debated. Cogent arguments have been made on both sides for and against the significance of each socioeconomic or racial condition.

Sex

The male-to-female ratio of appendicitis is approximately 1.4:1.

Age

Appendicitis occurs in all age groups. Appendicitis affects patients in the second decade of life

most frequently (**aged 10-19 y**), at a rate of 23.3 cases per 10,000 per year.

History

Understanding the typical clinical manifestations of appendicitis is essential in order to make an early and accurate diagnosis prior to perforation. The classic history of anorexia and periumbilical pain, followed by right lower quadrant (RLQ) pain, fever, and vomiting, is observed in fewer than 60% of patients.^[1] The clinician is more likely to make the diagnosis by maintaining a high degree of suspicion and a broad differential diagnosis, and looking for the atypical case rather than the classic appendicitis.

Vomiting, RLQ pain, focal tenderness, and guarding are significantly associated with appendicitis.

The initial symptom is poorly defined periumbilical pain, often associated with anorexia.

A unique feature of appendicitis is gradual onset of pain followed by vomiting. Vomiting first is more typical of gastroenteritis.

Abrupt onset of pain should prompt the clinician to consider acute ischemic conditions, such as volvulus, testicular torsion, ovarian torsion, or intussusceptions (all of which are surgical emergencies).

After a few hours, the pain migrates to the RLQ due to inflammation of the parietal peritoneum.

This pain is more intense, continuous, and more localized than the initial pain.

This shift of pain rarely occurs in other abdominal conditions.

Most children with appendicitis either are afebrile or have a low-grade fever. High fever is not a common presenting feature unless perforation has occurred.

Becker et al found that 44% of patients diagnosed with appendicitis presented with 6 or more atypical features.

Examples of atypical features include absence of anorexia, nausea, migration of pain, RLQ pain, and pyrexia.

Abrupt onset of pain, diarrhea, and pain longer than 48 hours are further examples of atypical features of appendicitis.

Physical

Children vary in their ability to cooperate with the physical examination. It is important to tailor the physical examination with respect to the child's age and developmental stage. It is also important to exclude extra-abdominal causes of abdominal pain, such as urinary tract infection (UTI) or pneumonia.

In early appendicitis, children and adolescents may have focal tenderness in the RLQ without significant guarding or peritoneal signs.

A child or adolescent with advanced appendicitis typically prefers to lie still due to peritoneal irritation.

The child or adolescent may have localized guarding or rebound tenderness.

Typically, maximal tenderness can be found at McBurney's point, which is halfway between the umbilicus and the anterior superior iliac spine in the RLQ.

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On examination, bowel sounds may be decreased.

Rovsing sign is pain in the RLQ in response to palpation of the left lower quadrant (LLQ), suggestive of peritoneal irritation.

The psoas sign is elicited by placing the child on the left side and hyperextending the right hip.

The obturator sign is determined by internal rotation of the flexed right thigh. Pain on movement may be caused by an inflammatory mass overlying the psoas muscle.

A mass may be palpable in the RLQ if the appendix is perforated.

An external genitourinary (GU) examination is helpful to rule out testicular or scrotal tenderness in males and hematocolpos in pubertal females.

A rectal examination should be performed last and may reveal impacted stool, right-sided tenderness, or a mass. Be sure to perform a rectal examination (inspection, palpation, and digital examination) in children who have any abdominal tenderness, a history of constipation, a history of rectal bleeding, trauma, or suspected physical abuse. A retrocecal appendix may cause exquisite tenderness on rectal examination.

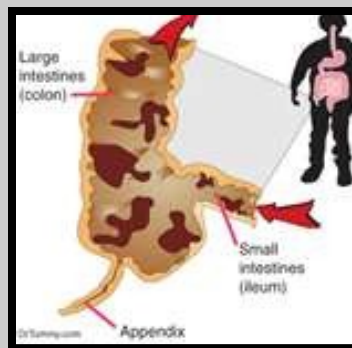
A pelvic examination should be considered in sexually active females to evaluate for tenderness (adnexal and/or cervical motion tenderness), masses, bleeding, or discharge. ❁

Differential Diagnoses

- ☑ Ovarian Cysts
- ☑ Ovarian Torsion
- ☑ Pancreatitis
- ☑ Pediatrics, Diabetic Ketoacidosis
- ☑ Pediatrics, Gastroenteritis
- ☑ Pediatrics, Henoch-Schönlein Purpura
- ☑ Pediatrics, Intussusception
- ☑ Pediatrics, Pneumonia
- ☑ Pediatrics, Sickle Cell Disease
- ☑ Pediatrics, Urinary Tract Infections and Pyelonephritis
- ☑ Pelvic Inflammatory Disease
- ☑ Pregnancy, Ectopic
- ☑ Renal Calculi
- ☑ Testicular Torsion

Other Problems To Be Considered

- ☑ Lymphoma
- ☑ Epiploic appendagitis
- ☑ Paratubal cysts
- ☑ Inflammatory bowel disease
- ☑ Volvulus
- ☑ Typhilitis



SB 1012

Rule-Making Authority

Sponsors: Senator Dennis Jones and Representative Luis Garcia

This bill amends Chapter 985 to provide DJJ with authority to promulgate administrative rules governing the procedure by which youth in the juvenile justice continuum are provided vital treatment services.

Specifically, the bill:

1. Defines “ordinary medical care” to include routine medical procedures which are administered or performed on a routine basis including:

- a. Inoculations;
- b. Physical examinations;
- c. Remedial treatment for minor illnesses and injuries;
- d. Preventive services;
- e. Medication management;
- f. Chronic disease detection and treatment;
- g. Other medical procedures that do not involve hospitalization, surgery, the use of general anesthesia, or;
- h. The provision of psychotropic medication (amendment adopted at the request of DCF).

2. Requires DJJ to promulgate rules to address:

- a. Ordinary medical care;
- b. Mental health services;
- c. Substance abuse treatment services; and,
- d. Services to youth with developmental disabilities.

3. Requires DJJ to coordinate its rulemaking with the Department of Children and Families and the Agency for Persons with Disabilities.

This bill will make it possible to formally promulgate DJJ’s current policy. These policies currently exist as unpromulgated manuals. ❁

Mental Health and Substance Abuse

The Designated Mental Health Authority in DJJ Facilities and Programs

The DJJ Mental Health and Substance Abuse Services Manual at Chapter 2, page 2-12 addresses the functions of a Designated Mental Health Authority in DJJ facilities and programs. An overview of the information provided in the Manual is provided below:

1. What is a Designated Mental Health Authority in a DJJ facility or program?

Answer: A Designated Mental Health Authority in a DJJ facility or program is a licensed mental health professional which means a psychiatrist licensed pursuant to Chapter 458 or 459, F.S., a psychologist licensed pursuant to Chapter 490, F.S., a mental health counselor, clinical social worker or marriage and family therapist licensed pursuant to Chapter 491, F.S., or a psychiatric nurse as defined by Section 394.455(23) F.S., who is designated as accountable to the facility superintendent or program director for ensuring appropriate coordination and implementation of mental health and substance abuse services in the DJJ facility or program.

2. Is a Designated Mental Health Authority required in all DJJ facilities or programs?

Answer: No. A Designated Mental Health Authority is required in the following departmental facilities and programs:

- All Detention centers;
- Facilities with an operating capacity of 100 or more youths; and
- Regardless of the size of the facility, each departmental facility providing DJJ specialized treatment services (e.g., mental health overlay services (MHOS), residential substance abuse treatment services (RSAT), residential substance abuse overlay services (RSAT Overlay Services), Medicaid behavioral health overlay services (BHOS), intensive mental health services, sex offender treatment services, developmental disability treatment services).

3. Is a Designated Mental Health Authority required to be an employee in the DJJ facility or program?

Answer: No. Retention of a Designated Mental Health Authority may be through employment or contract.

- If the contract for mental health services is with an agency or corporate entity, rather than a single licensed mental health professional, the agency or corporate entity must designate a single licensed mental health professional within the agency or corporate entity as the Designated Mental Health Authority for each facility or program.

4. How often must the Designated Mental Health Authority be on-site in a DJJ facility or program?

Answer: The Designated Mental Health Authority must be on-site in the DJJ facility or program weekly, at a minimum.

5. Who is responsible for appropriate coordination and implementation of mental health and substance abuse services in facilities where a Designated Mental Health Authority is not required?

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DMHA, continued

5. Answer: Facilities and programs with an operating capacity of less than 100 youths that do not meet any of the criteria which require a Designated Mental Health Authority (see question 2 above) must provide either a Designated Mental Health Authority or a Clinical Coordinator. If the facility or program chooses to provide a Clinical Coordinator, the facility or program must designate a licensed mental health professional or non-licensed mental health clinical staff person as a Clinical Coordinator who is responsible for coordinating and verifying implementation of necessary and appropriate mental health and substance abuse services in the facility or program. The Clinical Coordinator who is a non-licensed mental health clinical staff person must have received training specifically in mental health services coordination. ☺

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