

Analysis for Ambulatory Class: September 30, 2010
Practice Parameters for Sigmoid Diverticulitis

Question: What is the role of CT scan in diagnosing diverticulitis? (i.e. is it required)

The guideline is brief which makes it more useful in real life. The very first section explains the methodology used to create the guideline. Specifically it is built on previous guidelines from 2000 enhanced by MEDLINE review of published literature from 2000-2005. The introductory section does a good job of contextualizing the problem. Specifically important facts include the prevalence of diverticulosis (30% by age 60, 60% by age 80, and it's relationship to diverticulitis (25%).

According to this guideline, "CT of abdomen and pelvis is usually the most appropriate imaging modality in the assessment of suspected diverticulitis. Level of Evidence: III; Grade of Recommendation A." The evidence for this strong recommendation is "The positive predictive value for diverticulitis by CT scan is 73% for the presence of sigmoid diverticula, 88% for pericolic inflammation, 85% for wall thickness of 7-10 mm, and 100% for wall thickness > 10 mm."

Medical Treatment is next presented. According to this guideline, conservative treatment of acute uncomplicated diverticulitis is successful in 70-100%. (Complications being defined as fever, excessive vomiting, marked peritonitis. Immune compromised patients should be considered with special sensitivity.

Emergent surgery is recommended if diffuse peritonitis is present or medical management fails. Finally elective surgery is considered.

Answer: Based on this guideline, there are at least two reasons why CT scan should be obtained in cases suspicious for diverticulitis. 1) CT scan is a sensitive and often specific diagnostic test for diverticulitis 2) CT scan can help determine which therapeutic maneuvers should be performed next i.e. percutaneous drainage of an abscess, medical management with antibiotics, emergent surgery.

I would have to further read the sources cited in order to gain a sense of how strongly supported these recommendations are by evidence. The recommendations do have internal validity and are logical.

Moving from Evidence to Action ; Guyatt et al

1. Did the recs consider all relevant patient groups, possible outcomes, positives and negatives?

---Discussed prevalence

---Did not discuss subpopulations, the possible negatives of obtaining a CT scan

2. Is there a systematic review of evidence linking options to outcomes for each relevant question? Define evidence.

--Built off previous ASCRS guideline in 2000

--MEDLINE search Jan 200-Aug 2005

3. Specification of values

---No mention of the values of the authors

---The authors are colorectal surgeons which is a perspective

4. Indicate strength of recs?

--CT scan abd/pelv assessment of suspected diverticulitis

Level of Evidence: III; Grade of Recommendation A

--PPV 73% sigmoid diverticula

88% pericolic inflammation

85% wall thickness 7-10 mm

100% “ “ > 10 mm