

## Evaluation of Patients with Suspected Appendicitis

### I. Assess clinical probability of appendicitis, and obtain white blood cell (WBC) count and C-reactive protein level.

Ohmann Score		Alvarado (MANTRELS) Score	
Clinical Finding	Points	Clinical Finding	Points
Tenderness in the right lower quadrant	4.5	Migration of pain to the right lower quadrant	1
Rebound tenderness	2.5	Anorexia	1
No difficulty with micturition	2.0	Nausea/vomiting	1
Steady pain	2.0	Tenderness in the right lower quadrant	2
Leukocytosis ( $\geq 10,000$ WBCs per $\text{mm}^3$ [ $10 \times 10^9$ per L])	1.5	Rebound pain	1
Age less than 50 years	1.5	Elevated temperature ( $\geq 99.1^\circ\text{F}$ [ $37.3^\circ\text{C}$ ])	1
Migration of pain to the right lower quadrant	1.0	Leukocytosis ( $\geq 10,000$ WBCs per $\text{mm}^3$ [ $10 \times 10^9$ per L])	2
Abdominal rigidity	1.0	Shift of WBC count to the left ( $> 75$ percent neutrophils)	1
<b>Total:</b>	_____	<b>Total:</b>	_____

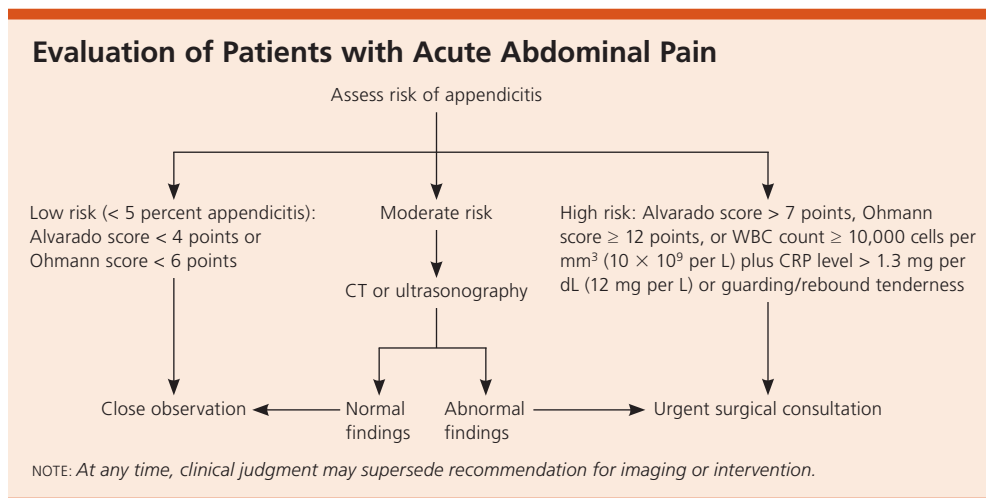
NOTE: Previously published with interpretation in the March 15, 2008, Point-of-Care Guides.

Adapted with permission from Ohmann C, Franke C, Yang Q, for the German Study Group of Acute Abdominal Pain. Clinical benefit of a diagnostic score for appendicitis: results of a prospective interventional study. Arch Surg. 1999;134(9):994.

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Adapted with permission from Alvarado A. A practical score for the early diagnosis of acute appendicitis. Ann Emer Med. 1986;15(5):561, with additional information from Andersson RE. Meta-analysis of the clinical and laboratory diagnosis of appendicitis. Br J Surg. 2004;91(1):28-37.

### II. Assess risk, and use algorithm to guide diagnostic evaluation.



**Figure 1.** Suggested algorithm for the evaluation of patients with acute abdominal pain. This algorithm is based on studies that were largely limited to adults and children six years and older. (WBC = white blood cell; CRP = C-reactive protein; CT = computed tomography.)

Information from 3 through 6.