

1           **Clinical Policy: Critical Issues in the Evaluation and Management of Emergency Department**  
2                           **Patients with Suspected Appendicitis (Executive Summary)**  
3                           **This DRAFT is EMBARGOED – Not for Distribution**

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6 From the American College of Emergency Physicians Clinical Policies Subcommittee (Writing  
7 Committee) on Appendicitis:

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22 <https://www.acep.org/patient-care/clinical-policies/>  
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25 **Background**

26 This clinical policy from the American College of Emergency Physicians addresses key issues in  
27 the evaluation and management of patients presenting to the emergency department with  
28 suspected appendicitis. A writing subcommittee conducted a systematic review of the literature  
29 to derive evidence-based recommendations to answer the below critical questions. For each  
30 question, a systematic literature search was performed, evidence was graded and synthesized,  
31 and recommendations were made based on the strength of the available data. The background  
32 text, systematic review, and critical analysis of the literature will be published later this year in  
33 the *Annals of Emergency Medicine*.  
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35 **Critical Questions**

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37 **1. In emergency department patients with possible acute appendicitis, can a clinical prediction rule**  
38 **be used to identify patients for whom no advanced imaging is required?**  
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40 **Patient Management Recommendations**

41           *Level A recommendations.*

42           *Level B recommendations.* In pediatric patients, clinical prediction rules can be used to risk  
43 stratify for possible acute appendicitis. However, do not use clinical prediction rules alone to identify  
44 patients who do not warrant advanced imaging for the diagnosis of appendicitis.

45 *Level C recommendations.* In adult patients, due to insufficient data, do not use clinical  
46 prediction rules to identify patients for whom no advanced imaging is required.

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48 **2. In emergency department patients with suspected acute appendicitis, is the diagnostic accuracy  
49 of ultrasound comparable to CT or MRI for the diagnosis of acute appendicitis?**

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51 **Patient Management Recommendations**

52 *Level A recommendations.*

53 *Level B recommendations.* In pediatric patients with suspected acute appendicitis, if readily  
54 available and reliable, use right lower quadrant (RLQ) ultrasound (US) to diagnose appendicitis.

55 An unequivocally\* positive RLQ US with complete visualization of a dilated appendix has  
56 comparable accuracy to a positive CT or MRI in pediatric patients.

57 *Level C recommendations.* In adult patients with suspected acute appendicitis, an unequivocally\*  
58 positive RLQ US has comparable accuracy to a positive CT or MRI for ruling in appendicitis.

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60 \*A non-visualized or partially-visualized appendix should be considered equivocal. Reasonable options  
61 for pediatric patients with an equivocal ultrasound and residual suspicion for acute appendicitis include  
62 MRI, CT, surgical consult, and/or observation, depending on local resources and patient preferences with  
63 shared decision making.

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65 **3. In emergency department patients who are undergoing CT of the abdomen and pelvis for  
66 suspected acute appendicitis, does the addition of contrast improve diagnostic accuracy?**

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68 **Patient Management Recommendations**

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70 *Level A recommendations.*

71 *Level B recommendations.* In adult and pediatric ED patients undergoing CT for suspected acute  
72 appendicitis, use IV contrast when feasible. The addition of oral or rectal contrast does not improve  
73 diagnostic accuracy.

74           **Level C recommendations.** In adult ED patients undergoing CT for suspected acute appendicitis,  
75 non-contrast CT scans may be used for the evaluation of acute appendicitis with minimal reduction in  
76 sensitivity.

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79 Translation of Classes of Evidence to Recommendation Levels

80           Based on the strength of evidence grading for each critical question, the subcommittee drafted the  
81 recommendations and the supporting text synthesizing the evidence using the following guidelines:

82           **Level A recommendations.** Generally accepted principles for patient care that reflect a high  
83 degree of clinical certainty (eg, based on evidence from 1 or more Class of Evidence I or multiple Class  
84 of Evidence II studies).

85           **Level B recommendations.** Recommendations for patient care that may identify a particular  
86 strategy or range of strategies that reflect moderate clinical certainty (eg, based on evidence from 1 or  
87 more Class of Evidence II studies or strong consensus of Class of Evidence III studies).

88           **Level C recommendations.** Recommendations for patient care that are based on evidence from  
89 Class of Evidence III studies or, in the absence of adequate published literature, based on expert  
90 consensus. In instances in which consensus recommendations are made, “consensus” is placed in  
91 parentheses at the end of the recommendation.

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