Urgent vs Emergent Surgical Workflow for Acute Appendicitis in Children
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INTRODUCTION: There is no evidence-based consensus about timing for appendectomy after initial presentation with acute appendicitis. Our institution underwent a temporary initiative to emergently expedite all appendectomies to decrease length of stay; here, we evaluate the association of urgent surgical intervention on outcomes relative to historic controls.

METHODS: Patient records at a freestanding children’s hospital were reviewed from a 6-month period when appendectomies for acute appendicitis were performed within 2 hours of diagnosis (expedited workflow). Outcomes were compared with the same calendar dates of the previous year (standard workflow). Descriptive statistics between the 2 groups were performed, using rate of complicated disease as the primary end point, and including other clinical secondary outcomes.

RESULTS: One hundred and sixty-four patients underwent an appendectomy for acute appendicitis, with 93 (56.7%) presenting in the expedited workflow cohort. The expedited workflow cohort hospital length of stay was shorter, without differences in perforation rates, 30-day readmissions, or reintervention rates between the 2 groups. In multivariate regression, complicated disease was associated with prehospital duration of symptoms, without significant effect from in-hospital time to operating room.

CONCLUSION: We found that compared with standard practice, increasing the degree of urgency to appendectomy had no effect on clinical outcomes. Overall hospital length of stay was shorter in the expedited cohort, although this must be interpreted in the context of other ongoing quality improvement initiatives. We conclude that appendectomy outcomes are best predicted by prehospital factors, such as duration of symptoms, rather than in-hospital delays in surgical management.