



Avoid Additional Antibiotics in Acute Appendicitis

Acute appendicitis may be classified as an uncomplicated or complicated intra-abdominal infection. Acute appendicitis is considered **complicated** if the infection spreads beyond the appendix as evidenced by the presence of perforation, peri-appendicular abscess, or purulent peritonitis.¹ Surgery and antibiotics are often utilized in the management of acute appendicitis. After appendectomy, how long should antibiotics be used in acute uncomplicated or complicated appendicitis?

What do guidelines recommend?

For acute uncomplicated appendicitis, the 2017 Surgical Infection Society (SIS) guidelines recommend that antibiotics be limited to 24 hours after laparoscopic appendectomy.² For acute complicated appendicitis, the 2024 SIS intra-abdominal guideline recommends 24 – 48 hours of antibiotics after appendectomy with adequate source control for both low and high risk patients.³

What is the evidence?

In a 2023 open-label non-inferiority trial of 1005 patients in the Netherlands, 2 days of post-operative antibiotics was found to be non-inferior to 5 days for the primary composite endpoint of infectious complications (e.g. intra-abdominal abscess or surgical site infection) and mortality within 90 days (10% vs. 8%; adjusted absolute risk difference 2%; 95% CI -1.6 to 5.6). No treatment related deaths occurred. Patients in the 2-day arm had less antibiotic adverse events (9% vs 22%) but more hospital readmissions (12% vs. 6%). Higher rates of the composite primary outcome occurred in a subgroup of patient who underwent open or laparoscopic converted to open appendectomy in the 2-day arm compared to the 5-day arm.⁴ In patients with open appendectomies, it is reasonable to treat for 4 days as described in the [STOP-IT trial](#).⁵

Antibiotics for 24 hours was compared with antibiotics for > 24 hours in a small randomized controlled trial of patients with complicated appendicitis who underwent appendectomy. The mean duration of antibiotics in the > 24 hours group was 6 ± 3 days. There was no difference in post-operative complications between the two groups after 1-month follow up and there was a decreased length of hospital stay with the 24 hours group.⁶

Key Takeaway: Stop antibiotics 24 hours after laparoscopic appendectomy in patients with acute uncomplicated appendicitis. Stop antibiotics 24 – 48 hours after laparoscopic appendectomy in patients with acute complicated appendicitis. In patients with acute complicated appendicitis who require open appendectomy, stop antibiotics 4 days after source control.

References:

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