

Antibiotic Stewardship for Patients Undergoing Emergency Appendectomy

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Acute appendicitis is one of the most common causes of emergency hospital admissions. Operative management remains gold standard for most cases of appendicitis.

By applying the NICE guidance for SSI to patients undergoing emergency appendicectomy, the following should be part of our usual practice:

“Consider giving a single dose of antibiotic prophylaxis intravenously on starting anaesthesia.”

“Give antibiotic treatment (in addition to prophylaxis) to patients having surgery on a dirty or infected wound.”

Diagnosis and management of acute appendicitis, EAES consensus development conference 2015:

- In uncomplicated appendicitis, there is no evidence supporting routine administration of post-operative antibiotics.
- For complicated appendicitis, postop antibiotics are justified, but evidence on duration of treatment is limited.

Our Project:

We aimed to look at patients undergoing emergency appendicitis (Open and Laparoscopic) across our trust over the second half of 2019. 222 patients were eventually included.

We looked at:

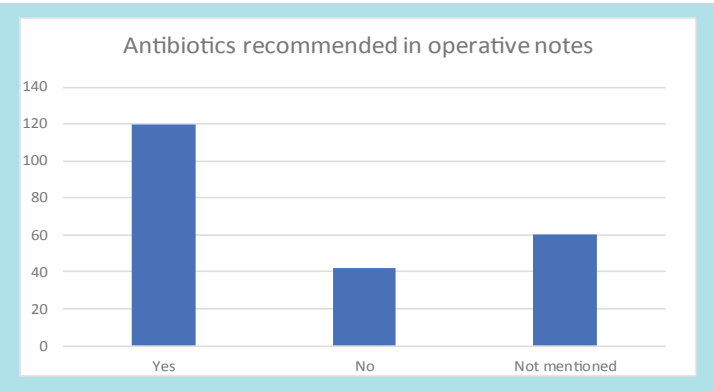
- Intraoperative findings: Indication for postop antibiotics?
- Clear instructions regarding postop antibiotic in operative notes?
- Duration of postop antibiotics.
- Postop antibiotic administration history (On trust IT prescribing program ePMA).

Results: Operative finding:

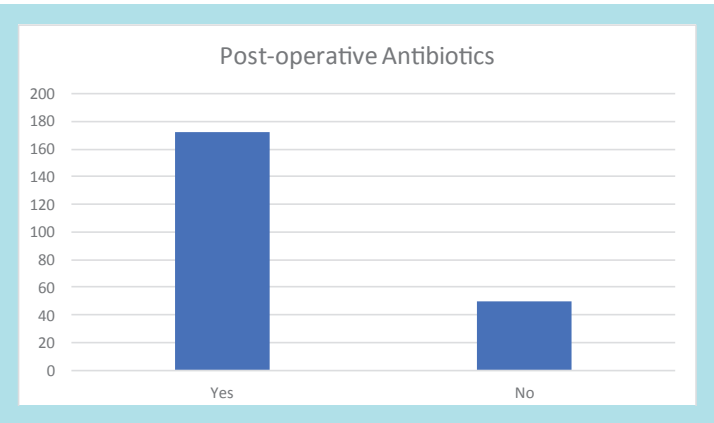
- 161: Uncomplicated appendicitis
- 61: Complicated appendicitis (Pus, gangrenous or perforated appendix >> Postop antibiotics justified).

Results: Antibiotic Instructions in Operative Notes:

- 60 out of 222: Postop antibiotics were not mentioned (whether to give or not to give)
- 42 out of 161 uncomplicated cases: operative noted instructed NO NEED for postop antibiotics.
- ONLY 15 out of 42 cases did not receive postop antibiotics (Antibiotics regularly prescribed on ePMA before surgery).



146 out of 161 uncomplicated appendicitis received postop Antibiotics. Reason? Antibiotics prescribed regularly, and not immediately reviewed on ePMA after surgery.



For a large number of patients who did not require postoperative antibiotics, IV antibiotics were given in 1, 2 or 3 doses.

	1 Dose	2 Doses	3 Doses
Uncomplicated Appendicitis	19	30	27

Conclusion:

- Postop antibiotics are continuously inappropriately prescribed for simple appendicitis.
- For properly indicated cases, there still remains no consensus for the duration for which they should be prescribed.
- Postop Antibiotics of 1, 2, 3 doses are of no value, yet are still commonly being instructed by surgeons.

Recommendations:

- Surgeons to construct sound clear and detailed operative notes.
- It should be the duty of the surgeon to review the antibiotics prescribed on ePMA.
- Unnecessary postop antibiotic prescribing is to be avoided.
- We intend to re-audit and we are in talks with our microbiology department to review trust guidance.