



## AB095. Institutional behavioural changes in management of acute appendicitis following conduction of a randomised control trial

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**Background:** Acute appendicitis is a common abdominal emergency. Appendicectomy is often considered the gold standard management of appendicitis. There is a growing body of evidence for non-operative treatment of appendicitis (NOTA), including the currently unpublished conservative versus operative management of appendicitis trial (COMMA), a randomised control trial (RCT) comparing appendicectomy and NOTA which began recruitment in 2016. This study examines the effect COMMA had on the local use of NOTA.

**Methods:** A retrospective cross-sectional study was conducted using STROBE standardized reporting guidelines. Inclusion criteria were surgical admissions with a primary diagnosis of acute appendicitis between January

2014 and July 2019 that were managed non-operatively. Patients with phlegmonous appendicitis and those included in COMMA were excluded. Data was obtained through *Hospital In-Patient Enquiry (HIPE)* records. Variables analysed were: age, evidence and nature of complication, index treatment, length of stay, readmission, further intervention required, and histology.

**Results:** 49 patients met inclusion criteria. There was a clear positive trend in the use of NOTA: 0.97% (n=3) in 2014 increasing incrementally from 2016 up to 6.36% (n=18) in 2018. The use of NOTA in complicated appendicitis also rose: there were no such cases in 2014, rising to 6 cases in 2018 (2.12%). NOTA resulted in readmission for operative intervention in 28.5% (n=14).

**Conclusions:** In the era of a RCT, there was a trend of increasing use of the trial intervention outside of the study participants. There was a noted tendency to use NOTA inappropriately in complicated appendicitis. This occurred prior to the publication of the results of COMMA.

**Keywords:** Appendicitis; behavioural; conservative versus operative management of appendicitis trial (COMMA); nonoperative; uncomplicate

doi: 10.21037/map.2020.AB095

**Cite this abstract as:** Sexton G, de Marchi J, Hill A. Institutional behavioural changes in management of acute appendicitis following conduction of a randomised control trial. *Mesentery Peritoneum* 2020;4:AB095.