

**MetroHealth Medical Center****RESEARCH DAY 2023****Abstract Submission Form**

**Poster Title:** Acute Appendicitis Patient Outcomes and Management 3-Years Pre and Post CODA Trial

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In 2020, the Comparison of Outcomes of Antibiotic Drugs and Appendectomy (CODA) study, which found that short-term outcomes of antibiotics-only therapy were non-inferior to appendectomy, was published. This study supported the practice of treating appendicitis with antibiotics alone under certain conditions. We aimed to evaluate demographic variations and potential changes in practice patterns after the publication of the CODA trial. We utilized the accessed TriNetX US Collaborative Research Network, a federated database with deidentified electronic health record data from 100 million patients in 59 healthcare organizations. Using International Classification of Diseases-10 codes, we identified patients with uncomplicated acute appendicitis that were non-operatively managed, and divided them into two cohorts, one before November 1, 2020 (pre-CODA, n=33,400 patients) and the other comparison group after this date (post-CODA, n=30,177 patients). We matched the pre-CODA and post-CODA groups for age and sex. We compared the distribution of demographics as well as the prevalence of certain comorbidities within our cohorts. Prior to matching, patients who underwent nonoperative management post-CODA were older compared to pre-CODA (mean age 46.4 +/- 19.3 vs 42.3 +/- 20, p<0.001), and were less likely to be female (52.9% vs 54.5%, p<0.001). After matching, we had 29,935 patient pairs. Black and Hispanic patients underwent more non-operative management post-CODA. The prevalence of hypertension, heart disease, chronic lower respiratory disease, chronic kidney disease, and diabetes increased in non-operatively managed patients post-CODA. We describe a contemporary multi-institutional registry-based analysis of the management of uncomplicated acute appendicitis and demonstrate that patients who underwent nonoperative management after publication of the CODA trial were older and had an increased prevalence of comorbidities than those managed pre-CODA, which may allude to increasing confidence in nonoperative management as an appropriate treatment option.