

53° CONGRESSO NAZIONALE **SICUT 2025** 

# Analysis of factors influencing Textbook Outcome after emergency appendectomy

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The present study aims to establish the set of benchmarks that can define TO in patients undergoing appendectomy for acute appendicitis.

A secondary objective is to **identify the predictors associated with achieving TO**, thereby providing insights into the **quality of surgical care** and potential **targets for improvement**.





The **textbook outcome (TO)** is a **composite, multidimensional metric** for assessing the quality of surgical care, representing an **'optimal' result** defined by a series of **disease-specific benchmarks**.



Its application to benign conditions remains scarce, and evidence in Focusing on desired outcomes of care after colon cancer resection of acute cholecysticis

emergency surgery is virtually absent, with only a recent

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To date, the literature reports only **two studies addressing TO in acute cholecystitis**, while a **validated framework for urgent appendectomy is still lacking**.

Fugazzola et al.

World Journal of
World Journal of Emergency Surgery (2024) 19:12
https://doi.org/10.1186/s13017-024-00539-6

Emergency Surgery

#### RESEARCH

Textbook outcome in urgent early cholecystectomy for acute calculous cholecystitis: results post hoc of the S.P.Ri.M.A.C.C study



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#### **DEFINITION**

**TO for urgent appendectomy** as the concurrent fulfillment of the following criteria:

- ✓ absence of major complications (Clavien–Dindo < 3);
  </p>
- ✓ **hospital stay** below the 75th percentile (< 4 days);
- ✓ no 30-day mortality or readmission;
- ✓ fully laparoscopic approach.







The present study is a **retrospective monocentric observational** study run at **AOU Careggi** (Firenze, Italy). **From January 2020 to June 2024**, all **consecutive** patients who underwent **emergency appendectomy** at our institution were included.



Eligibility criteria: (1) patients with diagnosis of AA who underwent emergency appendectomy;

(2) age ≥ 18 years old; (3) providing a signed and dated informed consent form.

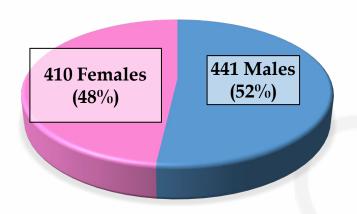
**Exclusion criteria**: (1) age < 18 years old; (2) pregnancy or lactation; (3) elective surgery; (4) appendectomy as secondary procedure.

This study was conducted according to the StrengThening the Reporting of OBservational studies In Epidemiology (STROBE) statement for retrospective cohort studies.



Azienda

A total of 857 patients were initially considered, of whom six were excluded due to incomplete data, resulting in 851 emergency appendectomies for AA included in the analysis.



Mean age: 38.03±17.60 years

Postoperative major complications: 32 cases (3.76%)

30-day readmissions: 20 cases (2.35%)

<u>30-day mortality</u>: 1 case (0.12%)

A total of **634 patients (74.5%) met all TO criteria**, whereas **217 (25.5%)** failed to achieve one or more parameters and were classified as **non-TO**.

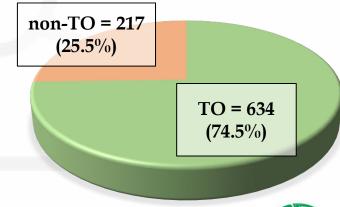




Figure 1: Textbook outcome and textbook outcome failure in emergency appendectomy due to acute appendicitis





<u>Table 1</u>: Perioperative univariate comparison between TO and non-TO groups.





<u>Table 2</u>: Multivariate logistic regression of variables associated with TO achievement.





#### **CONCLUSION**

This study introduces TO as a **novel endpoint for emergency appendectomy**, defines **standardized criteria** and identifies **independent predictors of TO failure**. Although most predictors are not modifiable, perioperative optimization may improve outcomes.

To date, this is the **largest series on TO in emergency appendectomy**, underscoring the need for an international consensus on TO parameters in this setting.







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# Analysis of factors influencing Textbook Outcome after emergency appendectomy

Surgical inspiration comes from a variety of sources — I will always be grateful to *mine*.