

# Utility of Intraoperative Imaging in BMI Cases

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# Project Background

- Retained foreign body following surgery is a significant but preventable cause of patient mortality/morbidity
- Universal indications include Level 1 Trauma and incorrect surgical counts
- Unclear benefit of performing imaging based solely on patients' elevated body mass index (BMI)
- Imaging exposes patient to radiation, longer surgery times, and longer anesthesia times

# Project Aim:



Evaluate the utility of intraoperative imaging for patients with elevated BMI but correct surgical counts.



Revise the hospital policy for intraoperative imaging.

# Audit Parameters

- All intraoperative films
  - “Reason for Exam” on order
  - BMI, “Retained Foreign Body by Policy”, Incorrect Count, Level 1 Trauma
- January 1, 2018 through December 31, 2020
- Total number exams: 487

## “Reason for Exam” Breakdown

- Total # cases 487
- Total cases for BMI 59
- Total cases “retained FB by policy” 74
- Total Level 1 cases 9
- Total cases Incorrect count 345

# Foreign Body Findings

Indication	Total Cases	Positive Findings
BMI > 35	133	0
Level 1 Trauma	9	0
Incorrect Count	345	21
Total	487	21

# Delays in Care

<b>Quality Measure</b>	<b>Average Time in minutes</b>	<b>Range</b>
Time from Completion to notification for all cases (for cases with notifications documented)	11	0 min to 1hr 10 min
Time from Completion to notification for all BMI cases	10	0 min to 43 min
Time from Completion to notification for incorrect count	11	0 min to 55 min
Time from Completion to notification for all "Retained Fb by Policy"	10	0 min to 18 min

# Suggestions for Quality Improvement

- Question need for intra-op radiograph in cases for BMI only
  - Did not add value
  - Extends the length of the surgery and anesthesia time
  - Unnecessary radiation exposure to the patient and staff
- Clinical history provided needs to be more descriptive in nature
  - Information regarding inadvertent foreign bodies need to be provided
  - Examples: surgical packing, lines, tubes, instruments, etc

# Limitations

- Unclear if foreign body noted on imaging was mistakenly left within patient's body
- No discrimination of BMI level within category of incorrect count
  - Unable to determine whether incorrect count case had correlation with elevated BMI

# SPECIAL THANKS

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