

UAMS MEDICAL CENTER
TRAUMA and CRITICAL CARE SERVICES MANUAL

SUBJECT: Management of Adhesive small Bowel Obstruction

SUPERSEDES: New

PAGE: 1 of 3

RECOMMENDATION(S): Kevin W. Sexton, MD
CONCURRENCE(S): All

APPROVAL: 03/15/2019
EFFECTIVE: 03/15/2019

PURPOSE:

1. Early identification of strangulated bowel allows for faster treatment and improved outcomes.
2. Accurate diagnosis of strangulation cannot be made using physical exam or laboratory studies.
3. The most sensitive and specific modality for diagnosing strangulation is a non-contrast CT scan followed by an arterial and venous phase looking for enhancement of bowel wall.
4. Oral Gastrografin has been shown to be both diagnostic and therapeutic in the management of adhesive small bowel obstruction.
 - a. Decreases time to resolution.
 - b. Decreases hospital length of stay.
 - c. Contrast in the colon after 24 hours is 99% predictive of resolution of obstruction.
5. 100% of patients who will resolve their obstruction non-operatively will show signs of resolution within 48 hours
6. Non-operative management can be safely carried out for up to 72 hours.

POLICY:

1. If ischemic SBO is present or suspected, proceed with operative intervention.
2. If ischemia is not present and patient has a simple small bowel obstruction, proceed with non-operative management and observation admission.
 - a. If this is the patient's first or second admission, allowing the patient to be managed in the CDU is appropriate
 - b. If this is the 3rd admission for SBO, the patient should be admitted to the EGS service
3. Using the UAMS CDU Small Bowel Obstruction (SBO) order set, the following should be accomplished.
 - a. Decompress the stomach with a NGT for 2 hours as soon as the diagnosis of simple small bowel obstruction has been made.
 - b. Once the stomach has been decompressed, order a single view abdominal film to be performed in radiology with the following comment "administer 150 mL of gastrografin via the NGT and clamp the NGT."
 - c. Use the communication order "After initial 2 hour decompression, clamp the ng tube. If patient develops severe nausea and emesis, unclamp the NGT tube and hook to continuous low wall suction. Then, immediately notify the APRN or resident caring for the patient.
 - d. Admit the patient for observation and serial abdominal exams.

UAMS MEDICAL CENTER
TRAUMA and CRITICAL CARE SERVICES MANUAL

SUBJECT: Management of Adhesive small Bowel Obstruction

SUPERSEDES: New

PAGE: 2 of 3

RECOMMENDATION(S): Kevin W. Sexton, MD
CONCURRENCE(S): All

APPROVAL: 03/15/2019
EFFECTIVE: 03/15/2019

- e. Obtain a single view abdominal film after contrast administration and at 8 hours post contrast administration.
 - i. If there is no contrast in the colon at 8 hours order an additional single view of the abdomen to be performed in radiology at 24 hours after placement of contrast.
- 4. Interpretation
 - a. If there is no contrast in the colon after 24 hours, the patient will not resolve their obstruction non-operatively and needs surgical intervention.
 - b. If there is contrast in the colon at any time point, then the NGT should be removed and the patient's diet advanced as tolerated.
 - i. If the patient does not tolerate diet advancement and has not shown signs of resolution by 24 hours after NGT removal, make the patient NPO and replace the NGT. The patient can be managed non-operatively for up to 72 hours as long as they do not clinically decompensate.
 - c. Failure of resolution within 72 hours means failure of non-operative management and surgical intervention is required.

UAMS MEDICAL CENTER
TRAUMA and CRITICAL CARE SERVICES MANUAL

SUBJECT: Management of Adhesive small Bowel Obstruction

SUPERSEDES: New

PAGE: 3 of 3

RECOMMENDATION(S): Kevin W. Sexton, MD
CONCURRENCE(S): All

APPROVAL: 03/15/2019
EFFECTIVE: 03/15/2019

1. Revisited. J Gastrointest Surg (2009) 13:93-99
2. Kumar P. Therapeutic role of oral water soluble iodinated contrast agent in post-operative small bowel obstruction. Singapore Med J. 2009. 50(4)
3. Kottler et al. Imaging the obstructed bowel and other intestinal emergencies. Applied Radiology. April 2005
4. Mallo, Rebecca et al. Computed Tomography Diagnosis of Ischemia and Complete Obstruction in Small Bowel Obstruction: A Systemic Review
5. Sarr MG, et al. Preoperative recognition of intestinal strangulation obstruction. Prospective evaluation of diagnostic capability. Am J Surg 1983; 145
6. Saverio, Salomone. Water Soluble contrast medium (Gastrografin) value in adhesive small intestine obstruction: a prospective randomized controlled clinical trial. World J Surg (2008) 32:2293-2304
7. Schraugnel, D. et al. How many sunsets? Timing of surgery in adhesive small bowel obstruction. J Trauma Acute Care Surg. 2013 Jan;74(1):181-9
8. Silen, William. Strangulation Obstruction on the small intestine. Archive of Surg. Vol 85. July 1962
9. Vieira, Lisa et al. An internal hernia causes abdominal pain and small bowel obstruction. JAAPA. Jan 9 2012
10. Weibel, MA et al Peritoneal adhesions and their relation to abdominal surgery. A post mortem study. Am J Surg. 1973; 126(3):345-353
11. Zalzman, Marc. Helical CT signs in the diagnosis of intestinal ischemia in small bowel obstruction. AJR: 175. December 2000
12. Stordahl, A. et. al. Water-soluble contrast media in radiography of small bowel obstruction. Comparison of ionic and non-ionic contrast media. Acta Radiologica. 1988 Jan; 29 (1):53-6.