# Self Expanding Metal Stents in Acute Large Bowel Obstruction

**Descriptor:**

The initial (technical) and clinical success rate of stents placed for obstructing colorectal cancer, as well as early and late complication rates.

**Background:**

Self expanding metal stents are increasingly being used for treatment of obstructing colorectal cancer, both in palliation and as a bridge to surgery. The provisional results from the national CReST trial published in June 2016 highlighted that in patients fit enough to undergo surgery, stenting as a bridge to surgery reduced stoma formation without a detrimental effect on one-year survival. Post-operative mortality, length of hospital stay, critical care usage and quality of life were not different between the two treatment groups. Other studies have shown similar outcomes [3]. The CResT 2 trial is due to launch soon which will investigate if covered or uncovered stents are more effective in relieving bowel obstruction in patients with colorectal cancer.

This audit aims to evaluate whether colonic stents are being placed to an appropriate standard in individual trusts.

## The Cycle

**The standard:**

Appropriate patient selection and successful placement of a stent across a stricture (technical success), with subsequent relief of obstruction (clinical success) and avoiding the need for urgent surgery.

**Target:**

There is no nationally defined gold standard, but the success rates of 72-100 % have been reported (CResT trial stenting relieved obstruction in 82% of cases), with complication rates of 21-25%, including perforation, migration and PR bleeding [1-3].

Targets therefore set at:

• Success rate - minimum 80%

• Complication rate - maximum 25%

## Assess local practice

**Indicators:**

For all patients undergoing placement or attempted placement of self expanding endoluminal metal stents for obstructing colon cancer, recorded details of immediate outcome of stent placement and details of any subsequent complications.

**Data items to be collected:**

• Radiological evidence of large bowel obstruction likely due to a colonic malignancy with no evidence of visceral perforation

• Log of all procedures should be kept prospectively

• Retrospective review of notes or letters to assess for complications and outcome

• Operator (Radiologist, Surgeon, Endoscopist) technical success, clinical success, early complications, late complications, time from stent to complication

• Subsequent elective surgical intervention after stent insertion:

   - Was a stoma formation required?

   - Primary anastomosis performed?

   - Did tumour perforation occur prior to surgical intervention?

**Suggested number:**

All stents placed within 1 year.

**Suggestions for change if target not met:**

• If low success rate further training or refresher courses may be required

• Complications may relate to patient factors – ensure patients being considered are suitable for stenting – e.g. tumour not too low in rectum, no clinical evidence of perforation

**Resources:**

4-6 hours to collect all retrospective outcome data plus ongoing prospective collation of data for each case.

**References:**

1. Am Surg. 2009 Oct;75; (10):897-900. Long-term outcome of endoscopic colorectal stenting for malignant and benign disease. Rayhanabad J, Abbas MA.
2. Can J Surg. 2008 April; 51(2): 130–134. Safety and efficacy of gastrointestinal stents in cancer patients at a community hospital. Otto M et al.
3. Int J Colorectal Dis. 2013 Jun;28(6):855-63. Meta-analysis of randomized trials comparing endoscopic stenting and surgical decompression for colorectal cancer obstruction. Cennamo V1, Luigiano C, Coccolini F, Fabbri C, Bassi M, De Caro G, Ceroni L, Maimone A, Ravelli P, Ansaloni L
4. Management of acute malignant large-bowel obstruction with self-expanding metal stent. Int J Colorectal Dis. 2010 Dec;25(12):1481-5. Branger F et al.
5. Clin Endosc. 2014 Sep;47 (5):415-9. Colonic stent-related complications and their management. Han SH, Lee JH.
6. CResT trial preliminary results - <http://abstract.asco.org/176/AbstView_176_169602.html>

**Editor's comments:**

Awaiting results of CreST trial. To be updated based on this.

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**Published Date:**

Friday 25 February 2011

**Last Reviewed:**

Monday 26 June 2017