

# Colonic stenting – Is the bridge to surgery worth its cost?



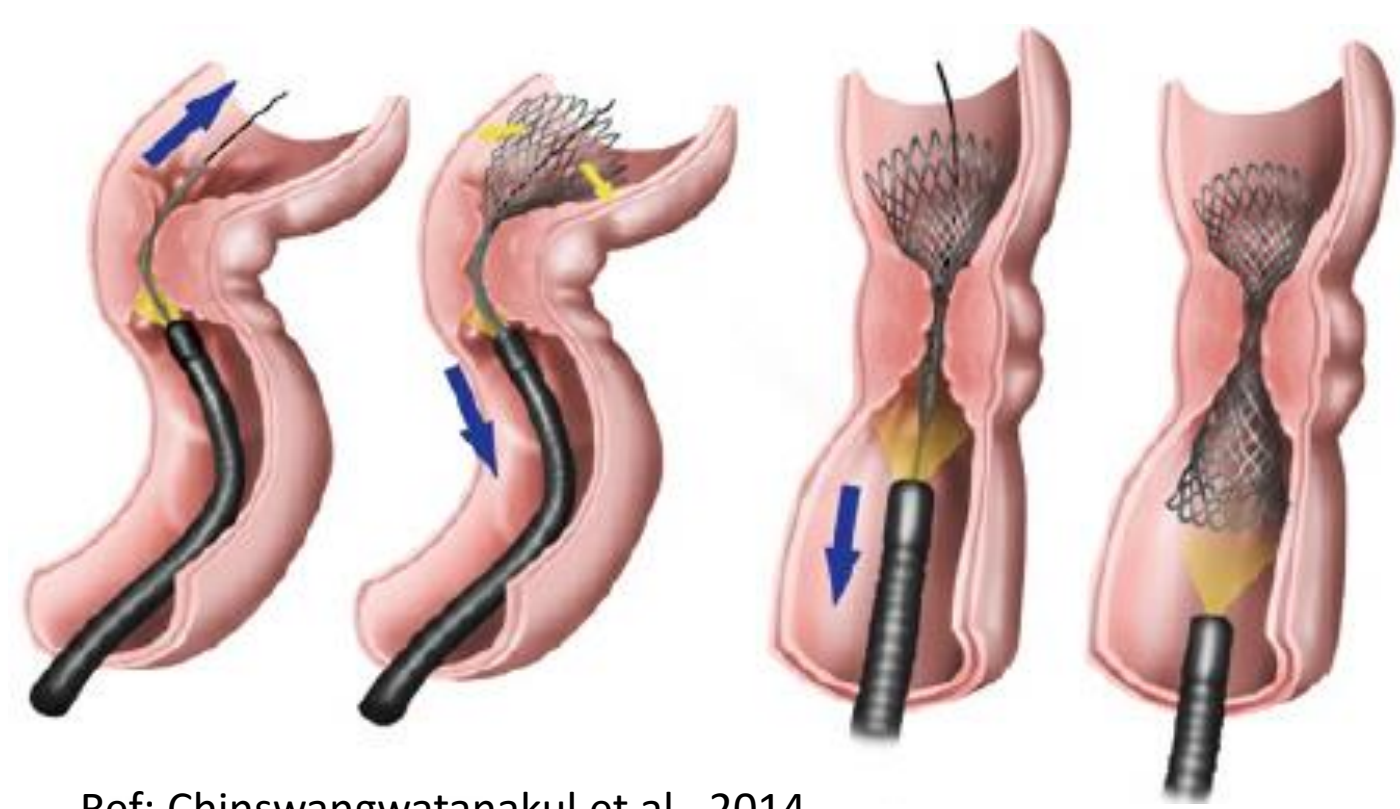
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A single Asian institution experience with cost-effectiveness analysis

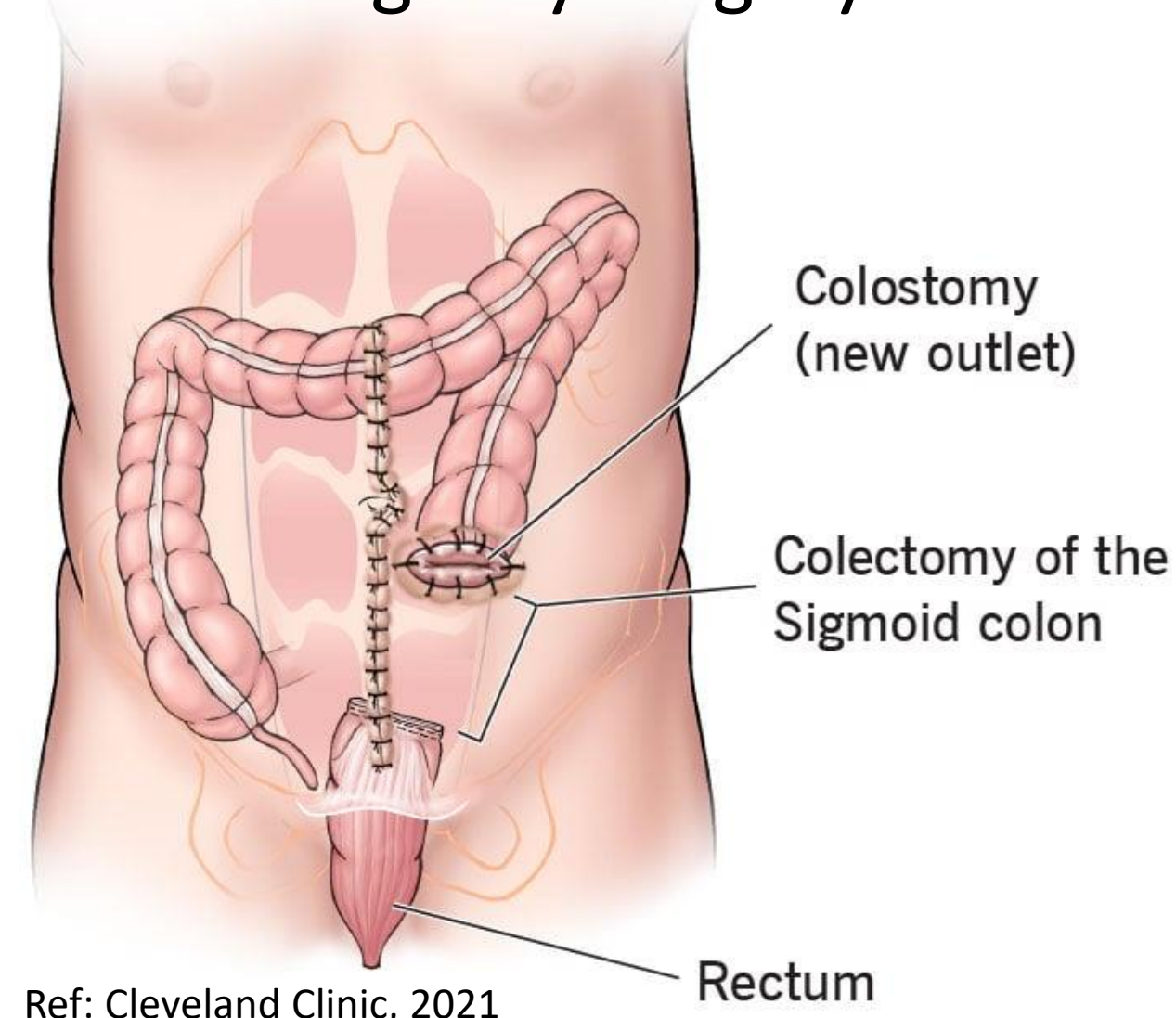
Michelle Shi-Qing Khoo<sup>1</sup>, Winson Jianhong Tan<sup>1</sup>, Fung Joon Foo<sup>1</sup>, Sharmini Su Sivarajah<sup>1</sup>, Leonard Ming-Li Ho<sup>1</sup>, Darius Kang-Lie Aw<sup>1</sup>, Cheryl Xi-Zi Chong<sup>1</sup>, Jasmine Ladlad, Nathanelle Ann Khoo<sup>1</sup>, Cheryl Hui-Min Tan<sup>1</sup>, Frederick Hong-Xiang Koh<sup>1</sup>  
<sup>1</sup> Colorectal Service, Department of General Surgery, Sengkang General Hospital, Singapore 544886  
michelle.khoo@mohh.com.sg

## Introduction

In patients presenting with left-sided colonic obstruction, guidelines recommend stenting as a valid alternative to emergency surgery.



Ref: Chinswangwatanakul et al., 2014



Ref: Cleveland Clinic, 2021

Colonic stent deployed successfully in an obstructed lesion via colonoscopy.

VS

Emergency surgery requiring midline scar and colostomy post-operatively

### Benefits of Colonic Stenting in Obstructed Patients

- 1 Convert emergency surgery to semi-elective, avoid high anesthetic risks
- 2 Avoid stoma creation and subsequent reversal
- 3 Avoid exploratory laparotomy – **no immediate surgery**

However there has been controversy with regards to clinical safety and efficacy of colonic stenting. In our single institution, we reviewed outcomes prospectively and performed a cost analysis on colonic stenting for acute colonic obstruction.

## Methods

Goal: to determine if colonic stenting is more cost-effective than surgery

Over a period from Apr 19 to Nov 22  
Prospective cohort study  
Endoscopic, surgical and financial data

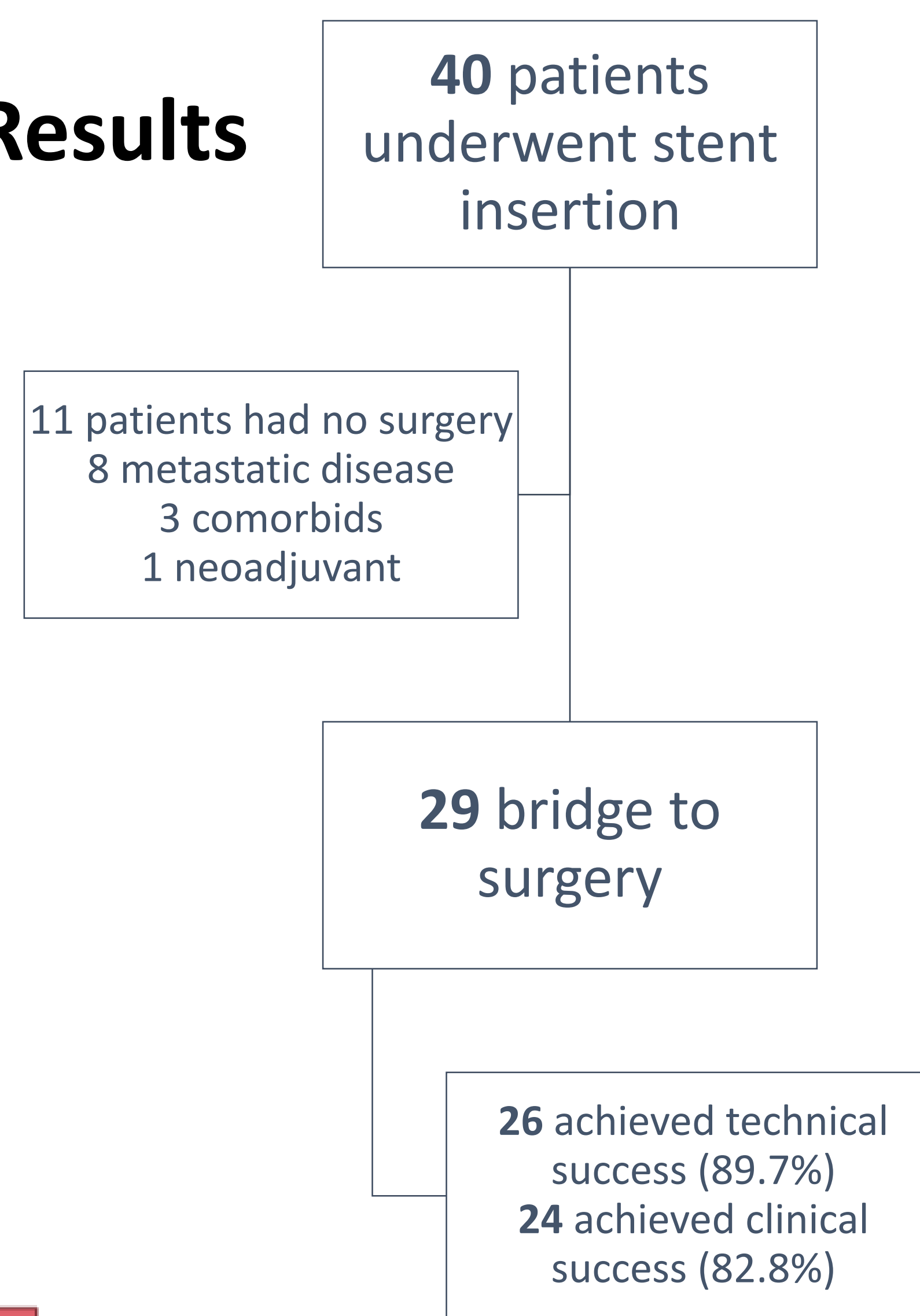
### Inclusion criteria

- Presenting with left sided colonic obstruction
- Underwent emergent colonic stenting

### Exclusion criteria

- Eventually declined surgery in favour of expectant management

## Results



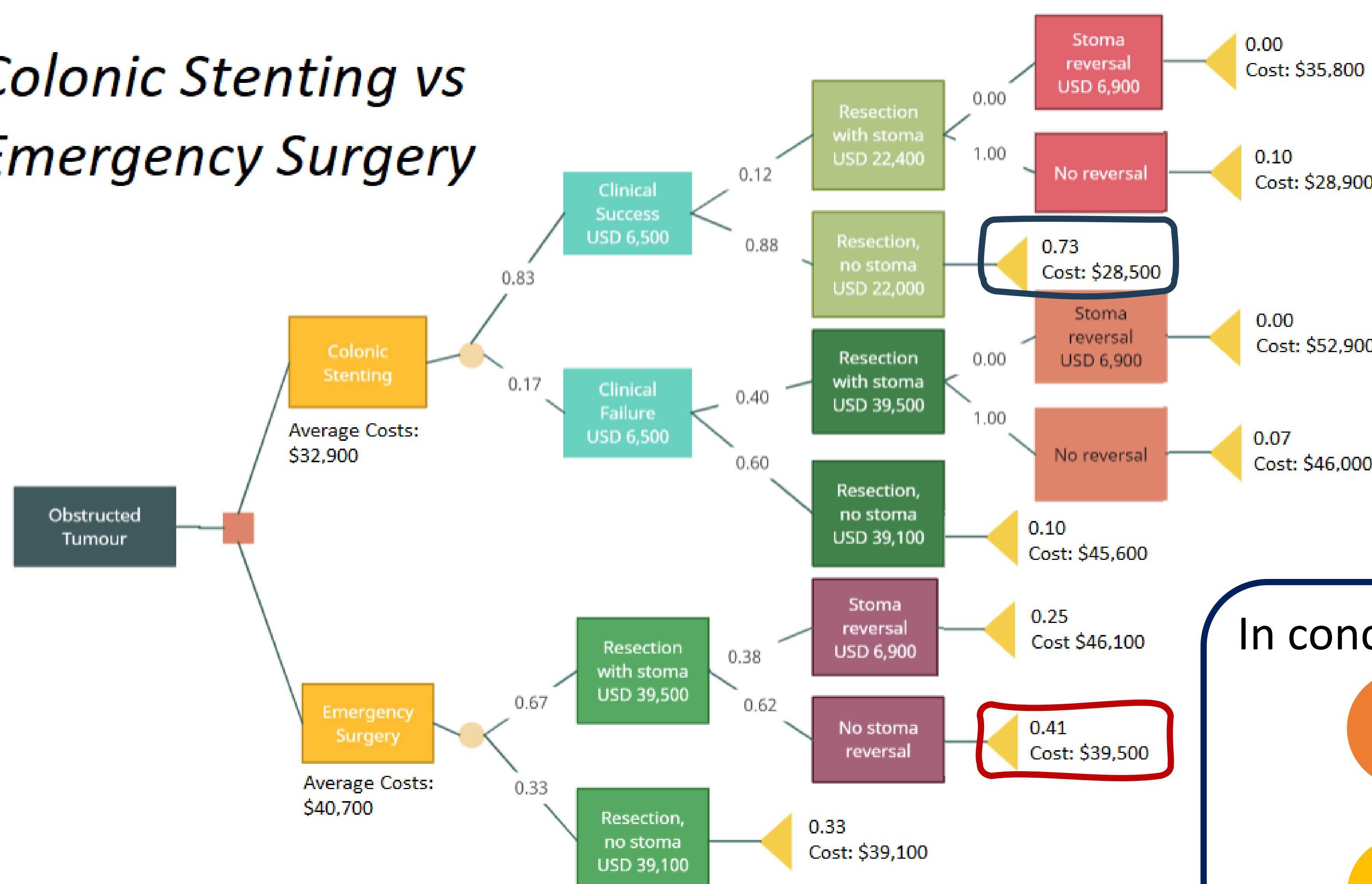
### Patients who underwent colonic stenting

Median Age	66 (IQR 57 – 71)
Malignant cause of obstruction	27 (93%)
Length of symptoms (days)	2 (IQR 3-7)
TNM stage	
Stage I	0 (0%)
Stage II	17 (59%)
Stage III	6 (21%)
Stage IV	4 (14%)
Tumour location	
Transverse colon	1 (3%)
Splenic flexure	1 (3%)
Descending colon	8 (28%)
Sigmoid	19 (66%)

### Outcomes

Stent complications	
Perforation	3 (10%)
Migration	0 (0%)
Time to surgery (range)	13 days (0-41)
Open vs Laparoscopic	8 (28%) vs 21 (72%)
Median procedure time (IQR)	226 (189-271)
Surgical complication	
I / II	1 (3%)
III	2 (7%)
IV	1 (3%)

## Colonic Stenting vs Emergency Surgery



When successful (83%), colonic stenting is **ALWAYS** more cost-effective than emergency surgery.  
**Overall incremental cost-effectiveness ratio 0.81, favouring colonic stenting**

In conclusion, colonic stenting has been shown to be

- Safe
- High rates of clinical success
- Cost effective ICER < 1
- Decrease in stoma rates