

# Hidden morbidity following colorectal resection: postoperative evaluation

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## Introduction

The implementation and evaluation of Enhanced Recovery after Surgery programmes over the past 15 years has ensured the accurate reporting of inpatient morbidity post colorectal resection. However, there is a paucity of audit or research examining post-operative morbidity (POM) in the early discharge period. A clinical survey was conducted May-August 2014, funded by Research Capability Funding, to ascertain the incidence of post-discharge morbidity following colorectal resection.

## Methods

The sample comprised 142 consecutive patients undergoing colorectal resection (see table 1 for sample characteristics). Audit data were collected on 138 patients in a nurse-led outpatient clinic at 30 days following discharge. Data collection templates were developed using the Postoperative Morbidity Survey<sup>1</sup>, Clavien-Dindo classification criteria<sup>2</sup> and additional colorectal-specific evidence of post-operative morbidity<sup>3</sup>. Templates were piloted and modified to include additional data, such as information from the entire discharge period that could indicate surgical site infection (SSI) (table 2). Results were recorded and analysed using SPSS.

Table 2: Patient questions to ascertain post-discharge SSI

Since leaving hospital, has (have) your wound(s):

- Been red/inflamed/hot/more painful?
- Opened? If so how much and how deep?
- Produced any discharge? If so how much, what was its appearance and did it smell?
- Been assessed by a healthcare professional who said it was infected?
- Required dressing (and packing)?
- Been swabbed?

Have you taken any antibiotics for your wound?

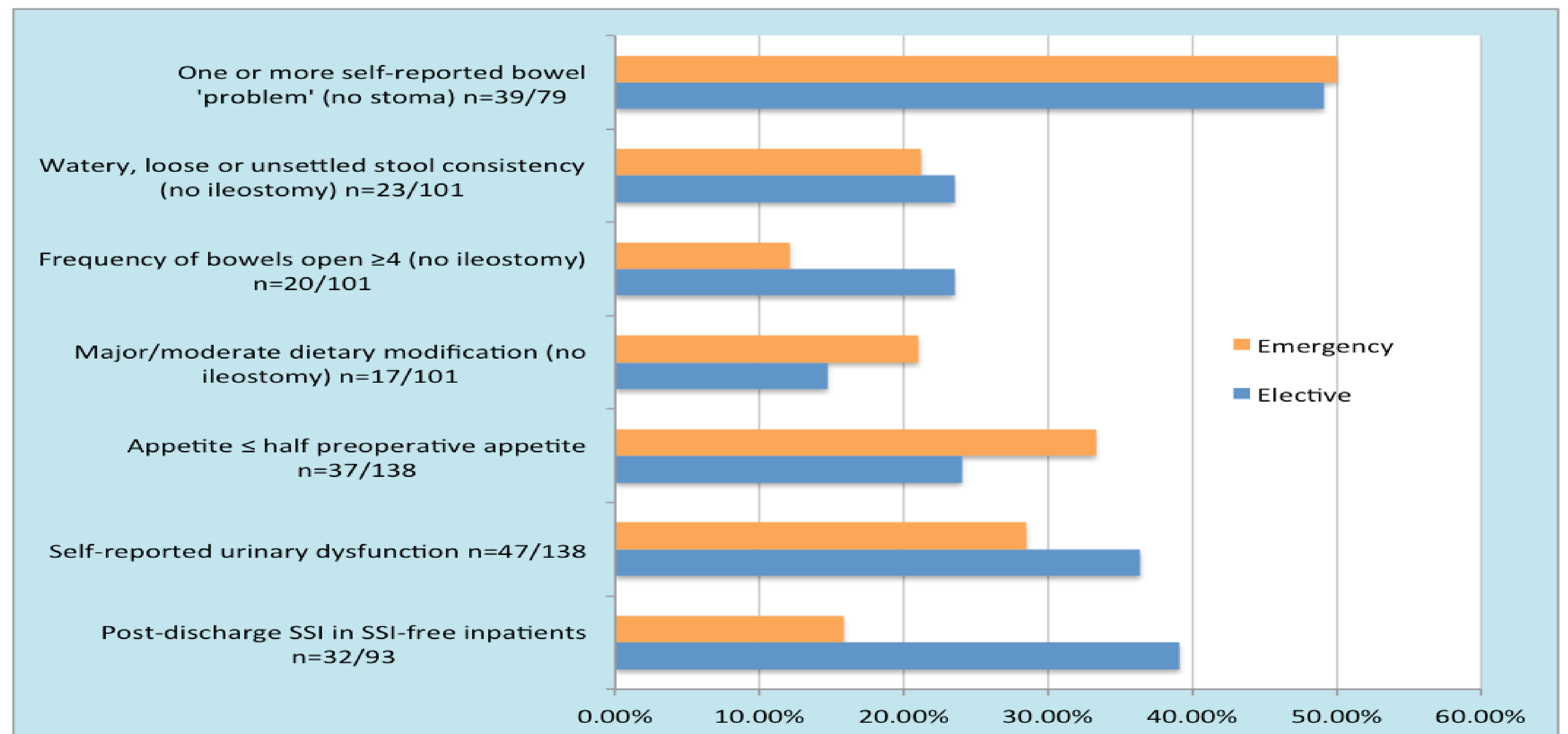


Figure 1: Post-operative morbidity post colorectal resection at 30 days following discharge from hospital

## Results

Findings revealed unexpectedly high levels of post-discharge morbidity in the following areas (figure 1):

- 35% (n=32) of infection-free inpatients developed SSI following discharge (n=29 elective surgery).
- 34% (n=47) of all patients had one or more significant urinary problem (UTI, incontinence, sensory change, hesitancy, frequency, urgency, self-retaining catheter).
- Questions regarding dietary intake revealed an appetite of half, or less than half, usual intake in 27% of patients (n=37), with moderate to major changes in dietary intake in 17% (n=17) of people without an ileostomy compared to their pre-operative diet.
- Of those without an ileostomy, 20% (n=20) had four or more daily bowel movements, with 22% (n=23) describing their stool consistency as watery, loose or unsettled. 50% (n=39) of those without a stoma reported one or more problematic new bowel symptom related to their surgical experience at 30 days post-discharge (urgency, incomplete emptying, constipation, diarrhoea, tenesmus, excessive wind, incontinence, pain).

Table 1: Description of Sample

Age	Mean 67.39y (SD 13.692)
Gender	
Male	n=73 (51.4%)
Female	n=69 (48.6%)
Presentation	
Elective	n=98 (69%)
Urgent/Emergency	n=44 (31%)
Stoma	
Ileostomy	n=38 (26.8%)
Colostomy	n=22 (15.5%)
Diagnosis	
Malignant	n=87 (61.3%)
Benign	n=55 (38.7%)
Operation Site	
Left-sided	n=91 (64%)
Right-sided	n=51 (36%)

## Conclusion

Findings suggest that individuals undergoing colorectal resection experience significant levels of post-discharge morbidity, extending the burden on them and the services required to support them for longer than may have been previously anticipated. Nurse-led follow-up using an auditable documentation template can identify the incidence of complications following discharge, providing both data to inform service improvement and valuable support for patients.

## References

- <sup>1</sup>Grocott MPW et al (2007) The Postoperative Morbidity Survey was validated and used to describe morbidity after pelvic surgery. *Journal of Clinical Epidemiology* 60: 919-928
- <sup>2</sup>Dindo, D. et al (2004) Classification of Surgical Complications: a new proposal with evaluation in a cohort of 6336 patients and results of a survey. *Annals of Surgery* 240(2):205-213
- <sup>3</sup>Spanjersberg, W.R. et al (2011) Fast track surgery versus conventional recovery strategies for colorectal surgery. Cochrane Database of Systematic Reviews CD007635