NATIONAL BOWEL CANCER AUDIT

The impact of hospital discharge services on length of stay after colorectal resection

NBCA: Short report 1

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Royal College of Surgeons
ADVANCING SURGICAL CARE

hscic Health & Social Care Information Centre

HQIP
Healthcare Quality Improvement Partnership

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Background

Efforts to improve efficiency and decrease costs within the National Health Service are increasing and reducing the length of hospital stay (LOS) is a priority for healthcare commissioners [1]. Shorter LOS for patients following colorectal cancer surgery may also decrease the risk of hospital acquired infections and improve quality of life post-operatively [2].

Since the widespread implementation of Enhanced Recovery After Surgery (ERAS) programmes in colorectal surgery units [3-5], additional inpatient discharge services have been introduced with the aim of facilitating a timely discharge. The impact of these services, which include dedicated discharge co-ordinators, ERAS nurses and more regular consultant reviews, on LOS in colorectal patients is not known.

The National Bowel Cancer Audit (NBOCA) reports trends in LOS over time in colorectal cancer patients following bowel resection and describes a wide geographical variation in the LOS in these patients. This short report examines the provision of inpatient discharge services in colorectal cancer units and the impact of these services upon LOS.

Methods

Patients in the NBOCA undergoing a major resection for a primary bowel cancer diagnosed between 2010 and 2014 were included (N=73,781). Audit records were linked to the Hospital Episode Statistics database. Length of stay was calculated as days from surgery to discharge to either usual place of residence, temporary residence, care home or hospice. Long LOS was defined as greater than 5 days. Data regarding Trust inpatient discharge services were gathered from a survey carried out by the Audit team and completed by each Trust in 2015.

Results

- The median length of hospital stay across all patients was 8 days.
- The proportion of patients with a LOS >5 days according to Trust inpatient discharge services are presented in Table 1.
- No Trust inpatient discharge service analysed was associated with a shorter LOS after adjusting for clinico-pathological variables.
- There was significant variation between Trusts in the proportion of patients with a LOS >5 days, which remained after adjusting for clinico-pathological variables and discharge services. The proportion of the total variation present between Trusts was 7.3% (95% confidence interval (CI) 5.7 to 9.2%). After risk adjustment this changed very little, to 7.6% (95% CI 6.0 to 9.6%).

Table 1- Proportion of patients with long length of stay according Trust inpatient discharge services

		Number of Trusts (%)	Number of patients (%)	Number of patients with length of stay >5 days (%)
Total		133	73781	52270 (70.8)
Ward type where majority of patients managed	**Colorectal surgery ward**	41 (30.1)	15788 (21.4)	11239 (71.2)
	Gastro-intestinal surgery ward	55 (41.4)	29392 (39.8)	21208 (72.2)
	Neither of above	37 (27.8)	28601 (38.8)	19823 (69.3)
ERAS programme	**Monday to Sunday**	100 (75.2)	55562 (75.3)	39039 (70.3)
	Monday to Friday	24 (18.1)	13144 (17.8)	9363 (71.2)
	Other	6 (4.5)	2967 (4.0)	2234 (75.3)
	None	3 (2.3)	2108 (2.9)	1634 (77.5)
≥1 ERAS specialist nurse	**Yes**	65 (48.9)	35191 (47.7)	25005 (71.1)
	No	68 (51.1)	38590 (52.3)	27265 (70.7)
≥1 specialist discharge co-ordinator	**Yes**	48 (36.1)	29317 (39.7)	20750 (70.8)
	No	85 (63.9)	44464 (60.3)	31520 (70.9)
Number of consultant reviews per week (elective patients)	**2**	27 (20.3)	15036 (20.4)	10417 (69.3)
	3	44 (33.1)	24048 (32.6)	16911 (70.3)
	4	24 (18.1)	13201 (17.9)	9221 (69.9)
	≥5	38 (28.6)	21496 (29.1)	15721 (73.1)
≥1 consultant review over weekend (elective patients)	**Yes**	98 (73.7)	54353 (73.7)	38389 (70.6)
	No	35 (26.3)	19428 (26.3)	13881 (71.5)

Conclusions

These findings suggest that inpatient discharge services do not reduce the number of patients with a long LOS. Efforts to facilitate discharge may need to be focused on improving the provision of, and reducing any regional disparity in, community and primary care services.

References

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