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Surgical Same Day Admissions and Patient Satisfaction

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Abstract

Background

With the advent of outpatient preoperative assessment services, it has been possible to admit patients on the day of their operation, allowing for greater comfort for the patient and a more efficient usage of healthcare resources. We plan to evaluate patients' views, experiences and satisfaction on this process.

Methods

We have conducted a service evaluation of surgical same day admissions (SDA) at a large teaching hospital in the northwest of England to assess the patient satisfaction with the SDA process.

Results

We have approached 96 patients (56 females and 40 males) who were waiting for major elective surgery to complete a questionnaire about their views, experiences, expectation and satisfaction with the SDA process. 94 patients (98%) did not express any concerns about the SDA process, with an overall mean satisfaction score for the SDA process was 9.25 (range 2-10).

Conclusion

A comprehensive preoperative assessment service has contributed to high level of patient satisfaction in SDA process and found to be the patient preferred option for their surgical journey.

Keywords: pre-operative assessment, patient satisfaction, same day admissions.

Introduction

Over 10 million operations are performed each year in the NHS in England with an overall expenditure of £4.5 billon (over 4% of the total NHS budget).[1] Between 1987/88 and 2019/20, the total number of NHS hospital beds fell by 53 per cent – from 299,4000 to 141,000.[2] This highlighted a critical need to deliver care in both cost and time effective ways with efficient bed management and hospital flow.

Historically, patients were admitted to surgical wards several days prior to an operation for their assessment and anaesthetic evaluation. As a result, a number of patients were cancelled after a long wait wasting further resources. The NHS Modernisation Agency's Operating Theatre & Pre-operative Assessment Programme report in 2003, and establishment of the Preoperative Association in 2004, led to the wide spread development of preoperative assessment services in the UK.[3] Multidisciplinary preoperative assessment services with nurse led clinics, overseen by an anaesthetist, are widespread and have reduced the burden of assessment on clinicians on the day of surgery.[4] The establishment of preoperative assessment services has led to the development of surgical same day admissions (SDA) in the UK.

Current practice in the UK in most centres is for elective surgical patients to undergo outpatient preoperative assessment. Almost all patients are admitted on the day of surgery to a dedicated elective surgical admissions ward or unit, where they can be prepared for surgery. Patients then undergo their procedure and move to a recovery area. At this stage they are streamed into those undergoing day surgery, who return to the day-case unit to await discharge, and those who are discharged from recovery to an appropriate ward environment to remain as inpatients. This system means that ward beds only fill with their day 0 surgical patients later in the day, allowing for that bed to contain a discharging patient in the morning. This has a positive effect on both bed occupancy and patient flow.

The Liverpool University Hospital City Site, which encompasses the Royal Liverpool and Broadgreen Hospitals, started same day surgical admissions in 2006 with continuous refinement of admission criteria and processes. In view of paucity of literature on patient satisfaction with same day surgical admissions, we have conducted a qualitative service evaluation to understand patients' needs, views, expectations and satisfaction on the same day surgical admission process.

Methods

At a large University Teaching hospital in the Northwest of England we conducted a service evaluation of SDA between January 2018 to March 2018 in all patients undergoing major elective surgical procedure. This service evaluation was approved by the hospital audit department, and no ethical approval was sought due to the non-interventional nature of the work. After admission to the surgical admissions unit or admissions lounge, verbal consent was obtained to take part in the evaluation.

Patients were then asked to complete a short questionnaire about their views, experiences and expectations with SDA for their surgical procedure, and to also quantify their satisfaction with the whole process. We also asked whether they had received clear preoperative information, such as fasting instructions, when to stop drinking clear fluids, medication instructions (i.e., which medications to take on the day of the operation and which to stop) and the overall satisfaction with admissions process.

Results

96 patients (56 females and 40 males) were identified as having major elective surgery and were recruited to the service evaluation (table 1). To assess the patients' thoughts behind the usefulness of the preoperative assessment team and the information they provided, a visual analogue scale (VAS) was employed, where 0 was useless, and 10 was very useful. Our patients found that the information provided during the preoperative assessment was very useful, with a mean of 9.43 (median 10, range 4 – 10). All 96 patients mentioned that they had received clear instructions about when to stop eating solid food and when to stop drinking clear water. Only three patients reported that they had not received any instructions about their medications, and this was their reasoning for giving scores of 4, 6, and 7 respectively.

Specialty	Number of patients
General Surgery	39
Orthopaedics	32
Urology	12
Vascular Surgery	11
Ear, Nose & Throat	2
Total	96

Table 1: *Showing number of patients from each surgical speciality.*

General surgery includes colorectal, breast surgery, pancreatic surgery.

Out of the 96 patients who participated in this service evaluation, 94 patients (98%) expressed no concerns about the SDA process. The two patients who did express concern were worried about getting to the hospital for 7.30 AM, and worried about the operation in general.

The overall satisfaction score for the SDA process, where 0 = not happy at all and 10 = extremely happy, was a mean of 9.25 (median 10, range of 2 -10). One of the patients had waited for 3 hours in the waiting area prior to being admitted into the surgical admissions lounge and gave a satisfaction score of 2. Table 2 summarises the comments given by the patients about SDA.

Better to come on the day, otherwise I would have been more nervous thinking about it.
Less anxious, as I have received clear Preoperative information.
Staff were very helpful and kept me informed.
Very useful Preoperative information about my medications, fasting time and especially clear water before 6am.
No waiting around, less disruption to my work.
Very Anxious - Same day admission is better; admission previous day would have made anxiety worse.
Staff kept me informed.
Staff were all very nice and reassuring.
May be beds would be better as the patients can relax more before being called to theatre, if you have to wait a long time.

Table 2: *Free text comments about SDA.*

Discussion

Same day admission (SDA) for surgical intervention is a premise which has gained near universal acceptance in UK secondary care. Between 2011 and 2016 total national bed state reduced by around 8500, or 7%, but bed occupancy has increased by 10%.[5] Therefore, at a time where efficiency and cost savings are of paramount importance, techniques by which length of stay can be shortened, and morbidity after surgery reduced, are of increasing significance.

Role of preoperative assessment services

The development of multidisciplinary preoperative assessment services that can identify, investigate and appropriately manage comorbid conditions has been at the heart of developing same day admission systems.[4,6] This has developed alongside the publication of a plethora of evidence by NICE and the Royal College of Anaesthetist's Guidelines for the Provision of Anaesthetic Services (GPAS).[7,8] The development of preoperative assessment (POA) services and the ability to complete wide-ranging investigations in outpatients has drastically reduced the need for preoperative admission. The role of POA is six-fold: 1. To ensure the patients' health is good enough to safely undergo the operation and the anaesthetic, 2. To complete any additional investigations, 3. To begin the process of preoperative optimisation (if necessary), 4. To plan for the admission and deliver preoperative instructions regarding medications, fasting etc., 5. To educate the patient and begin the process of their investment in their care (health education), 6. Early identification of social care needs and arranging them for smooth discharge planning.

Same day admission is widely considered to be an integral part of the Enhanced Recovery After Surgery (ERAS) programme. ERAS encompasses a vast number of surgical, anaesthetic and logistical interventions that are designed to minimise surgical complications, shorten hospital stay, improve patient experience, decrease hospital acquired infections, and provide cost savings to the healthcare provider.[9,10] Individual centres and specific surgical procedures all now adopt their own modified systems, each tailored to suit their individual circumstances.

According to our data, preoperative assessment and information played an important role in the success of SDA by alleviating patient anxieties. Similarly in elective head and neck surgery patients, Kulasegarah et al (2008) have concluded the same.[11] In another study, Concannon et al (2013) concluded that successful preoperative assessment for general surgical patients helped to produce cost savings and improved patient satisfaction in SDA process.[12] In an economic analysis by Boothe and Finegan on changing the admission process for elective surgical patients, they concluded that a same day admission process reduces cost and enhanced hospital productivity without compromising patient safety.[13] Silvay et al developed effective outpatient preoperative evaluation for elective cardiac surgery patients and implemented same day admission over the past 8 years with significant improvement in outcomes, patient satisfaction and costs.[14]

Some concerns

Bowel Preparation before colorectal surgery is minimised in most modern Enhanced Recovery After Surgery (ERAS) programmes to avoid fluid shifts and potential intravascular depletion preoperatively. The exception to this is low anterior resection with ileostomy, which requires comprehensive bowel preparation to safely undertake the procedure. Other left sided colonic resections get a package of 2 enemas in most centres, with right sided resections receiving bowel preparation at the surgeon's discretion.[15,16] An Australian study by Lincoln et al could not demonstrate any adverse outcome by SDA for patients having a resection of colorectal cancer.[17]

Traditionally, management of complex anticoagulant needs has been an indication for admission to secondary care perioperatively. With the establishment of an outpatient anticoagulation service, we were able to address this issue with good outcomes and high satisfaction for our patients.[18]

Patient Satisfaction

A surgical admission can be a once in a lifetime experience for a patient, and so services need to develop strategies that help patients feel comfortable and reassured. Patient satisfaction is a complex measure of quality of care which does not relate solely to the technical success of a procedure but also with the quality of the pre- and post-operative care given.[19,20] It is evident, therefore, that improving the hospital experience is vital for good outcomes in both the short and long term. Late operation cancellations, poor communication between the patient and their team and an inability to meet the patient's expectations can all contribute to poor patient satisfaction.

Efficiency also plays a key role in patient satisfaction. Improving the throughput of the system without compromising patient safety not only improves patient satisfaction but also allows for more patients to be treated. Brown et al employed Lean Six Sigma methodology to implement and improve SDA in elective thoracic surgery patients. By eliminating wasteful activities to improve efficiency through a data-driven process they were able to increase the day of surgery admissions to more than 75% without any increased patient anxiety or stress.[21]

In this service evaluation, 94 of 96 patients were satisfied with our SDA process. A review of literature has shown the importance of preoperative patient education and information in improving patient satisfaction. Our patients also appreciated the detailed personalised preoperative information they received during their assessment, which could also have contributed to their satisfaction. The interaction between the patient and their healthcare team in the preoperative phase is key to ensuring that patients feel comfortable and informed about their care. Preoperative patient education delivered by anaesthetists, surgeons and nurses in the form of pamphlets, videos and conversations may improve patient outcomes, reduce length of stay, alleviate anxieties, and most importantly improve patient satisfaction. [22.23]

'Same day admission should never be a synonym for inadequate assessment and preparation'.[24] This tenet should always be adhered to whilst planning and delivering a safe service that includes routine same day admission. There are, however, significant cost savings to be made by implementing a comprehensive preoperative assessment service that facilitates this. This is allied to improvements in patient satisfaction, and ultimately outcomes.

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Declaration of Conflicts of Interest:
The authors have no potential conflicts of interest to declare.

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