Operative Surgical Yield from General Surgical Outpatient Clinics; Time to Change the Way We Practice?

Abstract:

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Abstract
The aim of this study was to compare the number of patients attending surgical outpatient clinics in a general hospital to the number of resulting elective procedures scheduled in a single year. Patients initially assessed at private consulting rooms are not included in this study. The number of surgical outpatient appointments issued in 2011 totalled 6503 with non-attendances running at 1489(22.9%).The number of elective surgical theatre cases performed in 2011(i.e. the surgical yield from that period) came to 1078 with an additional 1470 patients referred for endoscopy and 475 patients referred for minor operations. Operative surgical yield from the currently structured outpatient clinic model is low, with the number of theatre cases coming to only 16.58% of the original number of outpatient appointments issued. Recommendations for the improvement of outpatient services are made. These findings are relevant in the context of streamlining access to surgical services.

Introduction
With the advent of the austerity era, funding of hospital services in Ireland remains a significant challenge. It is likely that recessionary pressures will continue to have a serious impact on the capacity of publicly funded hospitals to deliver the range and volume of services required by an ageing population into the future. Changes in clinical practice are therefore necessary to meet multiple challenges ahead with particular emphasis on greater productivity and more efficient use of hospital resources. Significant changes in surgical practice were introduced at our institution in June 2010 with the introduction of ring-fenced inpatient beds. [1] The great majority of elective inpatients are admitted to our hospital on the morning of surgery in line with the objectives of the Elective Surgery Programme. [2] Despite such changes in resource utilisation aimed primarily at inpatient care, concern remains nationally regarding the administration of outpatient clinic services. Information regarding the large numbers of patients waiting to be assessed at existing outpatient clinics is now undergoing validation by the Health Service Executive. Against this background, we endeavoured to compare the relative numbers of outpatient attendees with the numbers of elective general surgical procedures generated from these clinics and performed at our institution over a one year period.

Methods
This study was carried out at Mayo General Hospital (MGH) which serves as the primary hospital for a population of over 130,000 people [3]. There are three consultant-led surgical teams in place at MGH and surgical outpatient clinics are held three times per week. Due to the heterogeneity of patients presenting to MGH, the surgical department performs a wide range of procedures. For reference purposes we have divided the surgical procedures performed into 5 categories as per Table 1.

Liaising with the outpatient department at MGH, the figures for surgical clinic attendances in 2011 were obtained. We then determined the number of patients who were classified as new attendees, the number classified as reviews and the number of missed appointments throughout the year. We subsequently reviewed our theatre records to determine the number of elective surgical procedures which took place in the same year for those patients who were seen at the surgical outpatient department. The type of surgical intervention received by each patient was categorised into one of five types as listed in Table 1. While our primary focus was on the theatre cases, we also compiled data on the numbers referred for endoscopy and minor operations. Patients were included in the study on the basis of having an elective episode following an outpatient surgical appointment as a public patient in MGH between the first of January 2011 and the thirty-first of December 2011. Patients were excluded on the basis of having private health insurance i.e. only those patients who had all aspects of their care managed within the public sector of the health service were deemed suitable for inclusion.

Results
The total number of outpatient appointments across all specialties at MGH during 2011 was 56847.The total number of surgical outpatient appointments issued during 2011 was 6503. The total number of new patients scheduled for surgical outpatient appointments in 2011 was 3075, less than half the total surgical outpatient list for that year. The ratio of new patients to reviews was 1:1.1. The number of patients who failed to attend surgical outpatient appointments came to 1489 (22.9%). The total number of surgical theatre cases (adult/paediatric and day-ward theatre cases) performed in the same year came to 1078 with an additional 1470 patients referred for endoscopy and 475 patients referred for minor operations. When we directly compared the number of theatre cases to the number of surgical appointments issued in the same year, we noted that the total number of theatre cases came to only 16.58% of the total outpatient appointments issued (1078 theatre cases vs. 6503 outpatient appointments).The breakdown of surgical procedures is displayed in Table 2.

Discussion

It is our experience that the surgical yield from general outpatient clinics is low when compared with the volume of patients attending clinic. We note that 16.58% of surgical outpatient appointments issued resulted in patient episodes requiring operative surgical intervention. Increasing outpatient referrals may delay patient assessment with potential to delay diagnosis and therapeutic intervention. A major priority of the health service in recent years has been to reduce patient waiting times and outpatient waiting lists are therefore coming under scrutiny .The current outpatient waiting list in our institution varies between six and nine months for non-urgent referrals. It is reasonable to suggest that the cohort of patients who are attending clinic but who are not undergoing any active surgical intervention should be targeted for discharge from clinic follow-up where possible.

There are numerous ways in which this could be achieved including more appropriate referrals by general practitioners and decreasing the number of â routineâ follow-up appointments for patients who are well post-surgery. The literature suggests that the number of unnecessary clinic appointments could be decreased by implementing stricter policies regarding patient attendance at clinic for review [4] and although patients must be considered on a case-by-case basis, criteria for follow-up should be made available to all junior staff to avoid unnecessary clinic attendances. Novel methods of patient follow-up have been attempted which are less labour intensive, one of the more practical being a â paper clinicâ , in which patient cases were reviewed on paper and subsequent management, investigation and discharge decisions being made without the patient actually attending hospital [5]. Although such methods are obviously less time-consuming and do not need the manpower of a normal clinic, they are not without their draw-backs, foremost among which is the lack of doctor/patient contact and the inability to examine a patient physically. It is known that the number of patients who fail to attend clinic on their appointment date is consistently high [6] and our findings showed a disturbing trend of non-attendance with almost twenty three per cent of patients failing to show up on the appropriate day. Several interventions have been suggested to decrease rates of non-attendance. A study of outpatient absenteeism in Urology outpatients suggested that those with benign pathology who failed to attend be issued no further appointments [7]. An electronic booking system in general practice is another intervention which has potential to improve attendance as choice of dates for clinic attendance is important to patients and increases the chances that they show up [8].

Considering the distribution of elective procedures performed during 2011(Table 2), it is clear that the commonest surgical intervention carried out at MGH, as with most general surgical departments, is endoscopic evaluation of patients thought to be at risk of gastrointestinal pathology. Given the relatively high number of endoscopies performed in comparison to other surgical procedures, it is obvious that such patients make up a considerable number of the outpatient attendees. A randomised clinical trial published in 2003 has suggested that patients requiring endoscopic evaluation for large bowel symptoms received no additional benefit from visiting a surgical outpatient clinic prior to the procedure and that properly selected patients could be effectively referred directly by the general practitioner to an open-access endoscopy unit [9]. This study also suggested that the open-access unit may be financially favourable although it could be argued that this system has the potential to over-investigate.

Based on our findings we have a number of recommendations which may help to address existing shortcomings in the management of outpatient referrals. Firstly, all outpatient referrals should be triaged by a Consultant member of surgical staff and in accordance with the nature and urgency of referrals. General practitioners should be allowed to add detail to their referrals to ensure that surgical staff grade referrals appropriately. Second, general practitioners should be made aware of the exact surgical specialties available at each hospital to avoid referral of patients to general outpatient clinics who cannot be dealt with at that centre. Third, junior staff in surgery should avoid booking patients for unnecessary follow-up and especially if they undergo uncomplicated minor surgery. Fourth, patients attending surgical clinic without any active surgical intervention planned should be targeted for discharge. Text message surveillance decreases outpatient waiting times and increases quality of care. [10] Fifth, general practitioners should be provided with the option of an electronic booking system. Such a system provides flexibility for patients with regard to outpatient appointments2. Sixth, we suggest that patients referred with benign pathology who fail to attend outpatient appointments should not be issued with further appointments. [7] Instead such patients should only be rebooked if requested by their general practitioner.

Finally, in addition to providing hospitals with improved information technology systems in order to properly validate outpatient waiting lists, a booking system whereby patients can reschedule appointments and offering more flexibility than the present fixed appointment system is desirable. The Department of Healthâ s Special Delivery Unit (SDU) [11] launched a national initiative in March 2012 to deal with outpatient waiting lists. The SDU has yet to define targets for waiting times for outpatient appointments. It is anticipated that outpatient waiting time will eventually become a key performance indicator linked to hospital funding. At our institution surgical inpatient beds have been ring-fenced since June 2010. [1] We have demonstrated multiple patient benefits as a consequence including decreased length of inpatient stay, decreased elective cancellation rates and decreased surgical site infection rates2. Such changes in working practices have the potential to considerably enhance the objectives of the Elective Surgery Programme [12] and where necessary the SDU [11].

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