



# Short notice cancellations — an insight into Irish surgical waiting lists

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## Abstract

**Background** The reasons underlying prolonged waiting lists for surgery in Ireland are multifactorial. Patient-related factors including non-attendances contribute in part to the current waiting times.

**Aims** To determine the rate of short notice cancellation for day case surgery in a model 2 HSE hospital over a 1-month period and to implement an intervention to try and reduce the rate of cancellation.

**Methods** The cancellation rate was documented over a 1-month period in the hospital. An intervention was then implemented, involving a phone call to the patient from a member of the surgical team to attempt to reduce the cancellation rate. Cancellations were re-audited after the implementation of the phone intervention.

**Results** The initial audit revealed a cancellation rate of 39.7% during the first month prior to implementation of the phone intervention. A phone call intervention from a member of the surgical team was associated with a decrease in cancellations from 39.7 to 14.6% ( $p < 0.01$ ).

**Conclusions** While cancellations remained high even after our intervention, a simple phone call was effective and more than halved our cancellation rate. Future efforts need to focus on increasing awareness of patient responsibility for attending scheduled appointments and procedures.

**Keywords** Audit · Patient factors · Service provision · Quality improvement · Waiting lists

## Introduction

Over 1 million day-case surgeries are performed in Ireland every year. Some HSE surgical departments now exclusively carry out day case surgeries. Given the non-urgent nature of elective cases and the variability of everyday life, it is understandable that patients occasionally must cancel a planned procedure, but a simple postponement of surgery has major downstream effects. While non-attendance at outpatient clinics is a frustrating waste of resources, it is associated with only a fraction of the cost associated with non-attendance for surgical procedures [1]. Non-attendance to surgical

procedures result in surgeons, anaesthetists, nursing staff, healthcare assistants, porters, administration staff, operating theatres and equipment being underutilised.

Elective day-case surgical procedures serve to reduce waiting list times, reduce treatment cost, and improve patient flow. This is particularly important in the current climate where there are high demands on inpatient beds [2]. Some Irish model 2 hospitals exclusively carry out day-case surgeries. As waiting list numbers have dramatically increased and with waiting times longer than ever before, potential underutilisation of day-case surgical departments must be addressed to provide timely intervention for elective surgical procedures. Patient cancellations are just one of the factors contributing to underutilisation of resources and theatre time [3].

The first purpose of this study was to determine the rate of short notice cancellation for elective day case general surgery in this hospital. Secondly, we aimed to see if a simple phone intervention could help to reduce the rate of cancellation for surgical procedures.

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## Methods

Short notice cancellation rates (7 days or less) for elective day-case general surgery under both local and general anaesthetic were audited in a model 2 HSE Hospital during the month of October 2021. The total cancellation rate was calculated. A phone intervention was then put in place for the month of November 2021. This intervention involved a phone call by a member of the surgical team (senior house officer) to each patient scheduled to undergo surgery that month. The phone call was made within 5 days of the operation. During the phone call, the doctor confirmed the patient's intentions to attend their scheduled appointment, outlined the planned procedure to the patient and gave the patient the opportunity to ask any questions that may not have been addressed during their clinic appointment. Also, the patients were given a contact number to phone should some reason arise in the next 5 days that would prevent them from keeping their appointment. Any patient who informed the doctor at that point that they would not be able to attend their scheduled appointment was taken off the list and replaced with a suitable alternative patient who then also received a preoperative phone call. The rates of cancellation were then re-audited for the month that the phone intervention was in place to assess if a reduction in cancellations was achieved. Statistical analysis was performed using GraphPad Prism version 9.3.1 (350).

## Results

A total of 16 half-day operating lists, 8 per month, were assigned to the two general surgeons during the month of October and the month of November. The remainder of the operating lists was assigned to surgeons from other

specialties including vascular, plastics, urology and dentistry. A total of 99 general surgical procedures were scheduled to be carried out during the study period, 58 prior to the intervention and 41 after the implementation of the phone intervention.

In October, a total of 23 general surgical procedures under general anaesthetic and 35 local anaesthetic procedures were scheduled to be carried out under the care of the two general surgeons [See Table 1]. A total of 34.8% (n=8) of patients did not undergo their scheduled procedure under general anaesthetic, while 42.9% (n=15) of patients did not undergo their scheduled procedure under local anaesthetic. This gave a total cancellation rate of 39.7% (n=23). Cancellations due to medical reasons were responsible for 3.4% (n=2) of procedures not being completed, whereas patients cancelling themselves at short notice accounted for 36.2% (n=21) of the procedures not being completed.

Following introduction of the phone intervention, a total of 8 half-day operating lists were again assigned to the two general surgeons during November 2021. A total of 26 general surgical procedures under general anaesthetic and 15 local anaesthetic procedures were scheduled. A total of 19.2% (n=5) of patients did not undergo their scheduled procedure under general anaesthetic, while 6.7% (n=1) of patients did not undergo their scheduled procedure under local anaesthetic. This gave a cancellation rate of 14.6% (n=6). Cancellations due to medical reasons were responsible for 4.9% (n=2) of procedures not being completed, whereas patients cancelling themselves at short notice accounted for 9.8% (n=4) of the procedures not being completed.

The difference in the overall cancellation rate between the pre and post intervention periods was statistically significant (39.7% vs 14.6%,  $p < 0.01$ ). Specifically, unexpected non-attendances reduced during the post intervention period (36.2% vs 9.8%  $p < 0.01$ ). There was no difference

**Table 1** Procedures carried out pre and post intervention

| Pre-intervention              |                            | Post-intervention             |                            |
|-------------------------------|----------------------------|-------------------------------|----------------------------|
| Performed (n = 35)            | Cancelled (n = 23)         | Performed (n = 35)            | Cancelled (n = 6)          |
| <b>General anaesthetic</b>    | <b>General anaesthetic</b> | <b>General anaesthetic</b>    | <b>General anaesthetic</b> |
| EUA (n = 7)                   | EUA (n = 2)                | EUA (n = 6)                   | EUA (n = 1)                |
| Lap chole (n = 2)             | Lap chole (n = 2)          | Lap chole (n = 4)             | Lap chole (n = 2)          |
| Hernia (n = 5)                | Hernia (n = 3)             | Hernia (n = 8)                | Ganglion excision (n = 1)  |
| Nissen fundoplication (n = 1) | Haemorrhoidectomy (n = 1)  | Nissen fundoplication (n = 1) | Haemorrhoidectomy (n = 1)  |
|                               |                            | Lipoma excision (n = 1)       |                            |
|                               |                            | Wound exploration (n = 1)     |                            |
| <b>Local anaesthetic</b>      | <b>Local anaesthetic</b>   | <b>Local anaesthetic</b>      | <b>Local anaesthetic</b>   |
| Skin lesion (n = 10)          | Skin lesion (n = 6)        | Skin lesion (n = 9)           | Anal skin tag (n = 1)      |
| Lipoma excision (n = 2)       | Lipoma excision (n = 1)    | IGTN (n = 5)                  |                            |
| IGTN (n = 8)                  | IGTN (n = 8)               |                               |                            |

EUA Examination Under Anaesthesia, *lap chole* laparoscopic cholecystectomy, *IGTN* Ingrown Toenail Procedure

in cancellations due to medical reasons between the pre and post intervention periods (3.4% vs 4.9%,  $p=1.00$ ).

## Discussion

This audit has yielded two significant pieces of information. Firstly, almost 40% of patients cancelled scheduled day-case surgery in this hospital. Secondly, a simple phone intervention from a doctor at a short interval from the day of surgery had a significant impact on reducing cancellation for day-case surgery and allowed other cases to be scheduled when a patient was unable to attend their appointment. Unfortunately, despite the ability of a phone intervention to reduce cancellation rates, the number of patients who fail to undergo scheduled day-case surgery still remains undesirably high at 14.6%. The Model of Care for Elective Surgery guideline published as part of the National Clinical Programme in Surgery recommends that the elective surgery cancellation rate should be < 5% [4].

The responsibility of reduced utilization of theatre services secondary to unplanned cancellation is shared between healthcare providers and patients. Patients cannot be held responsible for cancellations due to medical reasons, and healthcare staff have a duty to ensure that patients are adequately pre-assessed either by phone or in person prior to surgery. A successful pre-assessment programme will ensure that all medical issues are resolved or optimised prior to the scheduled operation date and should prevent unexpected cancellations on the day of surgery. This is particularly relevant for direct access surgery where the patient may not meet the surgeon until the day of their procedure. Patient education and appropriate scheduling of cases are also the responsibility of the healthcare team and should be continuously reviewed.

Last-minute cancellation or non-attendance denies other patients the opportunity to be treated. This source of wastage is rarely confronted. Patients should understand the financial costs, time costs and cost to other patients on the waiting list associated with non-attendance [5]. There are many legitimate reasons as to why patients cannot attend appointments such as personal and family emergencies, fear of the procedure itself, and of course the fear of attending a healthcare setting during a period when COVID-19 cases were surging. However, in our study, most patients that gave advanced notice of cancellation left it too late to allow another patient to be booked into their designated time slot.

Further studies are needed to examine the issue of non-attendance for scheduled care [3]. We intend to further our understanding of this important area and develop this project by undertaking qualitative research in the form of interviews with non-attenders. Focused interviews with non-attenders may give us some insight into why certain

patients struggle to engage with the healthcare system and this could allow us to provide the support that these patients need.

Finally, we feel it is important to establish national guidelines for doctors on how to deal with patients who are recurrent non-attenders. Removing patients from clinics and surgical waiting lists is difficult, particularly when they may have serious conditions. A national guideline could be useful to aid doctors with decision-making regarding discharging non-attenders.

## Conclusion

Short notice cancellation for elective day-case general surgery remains a significant issue and contributes to longer waiting lists, greater patient suffering and improper use of staff time and resources. While a simple phone intervention appears to decrease the rate of cancellation, there are deeper issues that need to be investigated and addressed. Greater responsibility is needed to ensure that day-case surgery slots do not go to waste unnecessarily. A national guideline for dealing with recurrent cancellations would be useful to aid decision-making and to protect clinicians.

**Author contribution** All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by [Brian O’Riordan] and [Ian S. Reynolds]. The first draft of the manuscript was written by [Brian O’Riordan] and [Ian S. Reynolds] and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

**Data availability** Data can be made available upon reasonable request.

## Declarations

**Conflict of interest** The authors declare no competing interests.

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