SURGERY CANCELLATION IN PAEDIATRIC ORTHOPAEDICS: IDENTIFYING REASONS AND FINDING WAYS TO MITIGATE THEM

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Aims

1. Identify reasons for cancellations of paediatric orthopaedic surgeries.
2. Identify suitable interventions that may help reduce cancellation.
3. Lay out a long-term plan to implement interventions to mitigate the causes.

Introduction

Approximately 10-14% of elective operations are cancelled in the National Health Service (NHS), with only a third of these being for clinical reasons (1). It is estimated that the economic burden of cancelled operations in the United Kingdom could be as high as £400 million per year (1).
As well as the significant economic cost, cancelled operations increase waiting-times for surgery and reduce efficiency of clinician time (2). Further, delayed operations can cause distress and can negatively impact children's mental health if they are in pain for a prolonged period (3).

We present an assessment of cancelled operations over a 1-year period at the St George's Paediatric Orthopaedic Department, with an aim to identify interventions that may reduce the number.

Methodology

Theatre cancellations in the paediatric orthopaedic department in St George's hospital between May 15th 2023 and May 15th 2024 were retrospectively reviewed.

Parameters extracted were: date of cancellation, patient date of birth, patient age on the day of operation, procedure, reason for cancellation, consultant name, theatre and whether a whole session or individual patient were cancelled.

Reasons for operation cancellation were stratified into the following 5 categories:

1) Industrial action
2) Staff or resource shortage (for example no ITU beds or staff illness)
3) Unforeseen cancellation - medical reason (including reasons affecting the individual patient or the case being moved for a more urgent case)
4) Unforeseen cancellation by patient/guardian – non-medical reason
5) Planned changes by patient/guardian

Full session cancellations were stratified into categories 1, 2 or 3.
Individual cancellations were assigned to categories 2, 3, 4 or 5.

Results

- 67% of the cancellations were planned in advance - includes planned changes and industrial action (see figure 1).
- 33% of the cancellations were unpredictable - includes staff/resource shortages and both medical and non-medical unforeseen cancellations (see figure 1).
- 18 sessions were cancelled due to industrial action and 22 sessions were cancelled due to industrial action and planned meetings.
- 22 sessions were handed back due to meeting or leave but 21 of them did not result in cancellations of patients. 1 of these resulted in the cancellation of 1 patient.
- The total number of patients who had their operations cancelled in the paediatric orthopaedic department over this period was 88 (see table 2).
- In total there were 67 individual cancellations and 40 session cancellations (see table 2).
- 21 patients were affected by the 40 session cancellations (see table 2).
- All patients were 16 years old or younger as this is a paediatric department.

Industrial action	Staff/resource shortages	Unforeseen cancellations (medical)	Unforeseen cancellations (non-medical)	Planned changes
20	4	21	4	39

Table 1: Number of cancellations broken down by category

	Number cancelled	Number of patients affected	Median age (years)
Individual cancellations	67	67	9
Session cancellations	40	21	9
Total		88	

Table 2: Cohort that cancelled individually and as part of a session cancellation

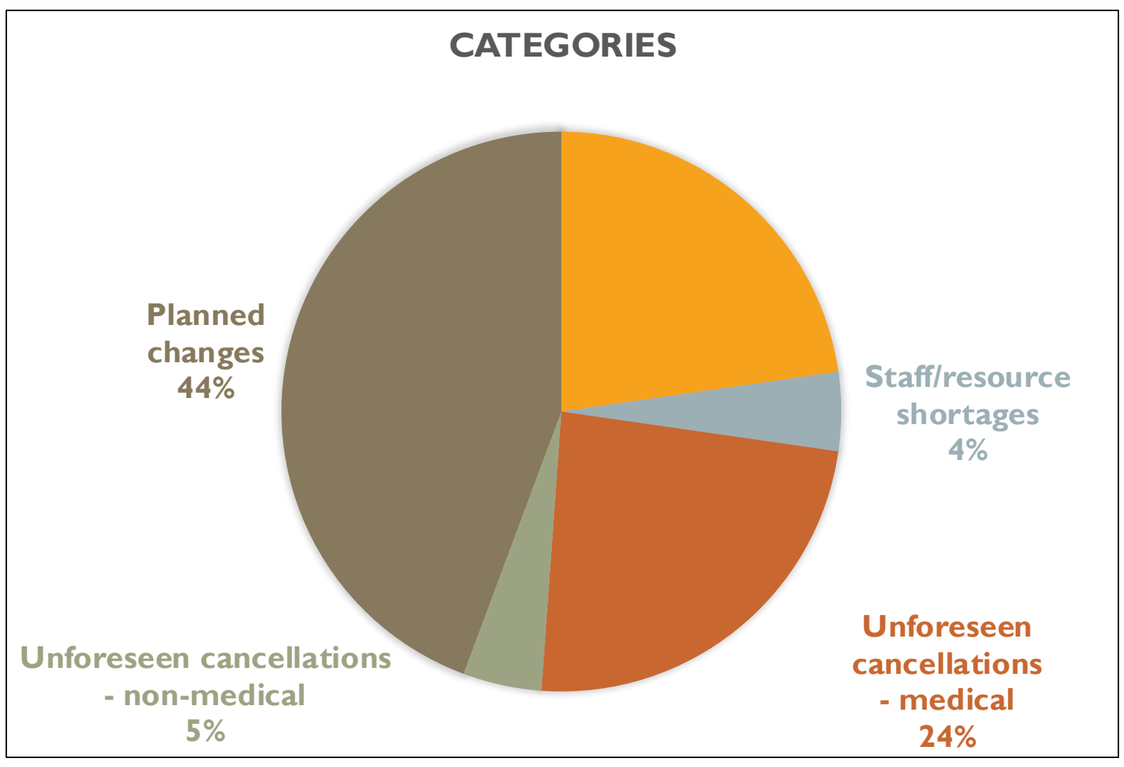

Figure 1: Percentage of cancellations broken down by category

Discussion

In total, 88 patients in the St George's paediatric orthopaedic department had their operations cancelled between May 15th 2023 and May 15th 2024.

Twenty three percent of the cancellations were due to industrial action. There were 4 consultant strikes in NHS England in this time, amounting to 192 hours of industrial action. Junior doctors also participated in 744 hours of industrial action. These cancellations were unavoidable and are unlikely to be repeated on a yearly basis.
Four percent of the cancellations were due to staff/resource shortages , twenty four percent were cancelled due to unforeseen medical reasons and five percent were cancelled due to unforeseen non-medical reasons. All three of these categories are also unavoidable. It would be useful to create a "backup" list of patients willing to be contacted on short notice to fill these slots. For this, patients would need to be educated in advance on how to prepare for their surgeries so they can begin as soon as they are contacted. Improved patient education and better communication would also prevent cases where operations were cancelled due to insufficient preoperative preparation such as fasting. Additionally, extra sessions could be added in on Saturdays to address the backlog of patients.

Forty four percent of cancellations were a result of planned changes, ranging from not accepting a date during school/holidays to requesting more thinking time. These are the cases where interventions should have the largest effect. The proposed change for this category is improving communication and education for patients and their guardians. This could be done using leaflets and videos emphasising the negative impacts of cancellations.

The limitation of this service evaluation is that it was completed retrospectively. Additionally, it would have been valuable to have a larger sample size.

Conclusion

Paediatric orthopaedic cancellations were found to be due to various reasons. Some can be mitigated, others cannot be controlled. Some cancellations in a service like this which deals with complex patients on many levels, are unavoidable. The "planned changes" category is the target for the majority of the suggested interventions and will potentially have the largest effect.

Acknowledgments

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References

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