

6 ACCESS TO THEATRES

Emergency (CEPOD) theatre access

One dedicated emergency (CEPOD) theatre (for all patients) was the most common arrangement among hospitals that had such theatres (T6.1). It was of note that in ten hospitals emergency procedures were carried out on children and young people but there was no dedicated emergency theatre (10/137; 7.3%).

Table 6.1 The number of emergency (CEPOD) theatres available	Number of hospitals	%
1 emergency CEPOD theatre	83	68.0
1.5 emergency CEPOD theatres	1	<1
2 emergency CEPOD theatres	25	20.5
3 emergency CEPOD theatres	9	7.4
4 emergency CEPOD theatres	3	2.5
Subtotal	122	
Unknown	21	
Total	143	

Organisational questionnaire data

In the hospitals that had dedicated emergency (CEPOD) theatres 119/122 (97.5%) had access for children and young people, and in all but two, the theatre was open and staffed on a 24/7 basis.

Lack of access to a 24/7 emergency theatre could lead to unnecessary delays in hospitals that provide emergency surgery for children and young people. Elective procedures were undertaken in emergency theatres in 22/119 (18.5%) hospitals. However, this is not their intended purpose and the usage should be reviewed locally. Multidisciplinary emergency theatre handover meetings could facilitate better use of theatres, but these occurred daily in only 90/116 (77.6%) hospitals (F6.1).

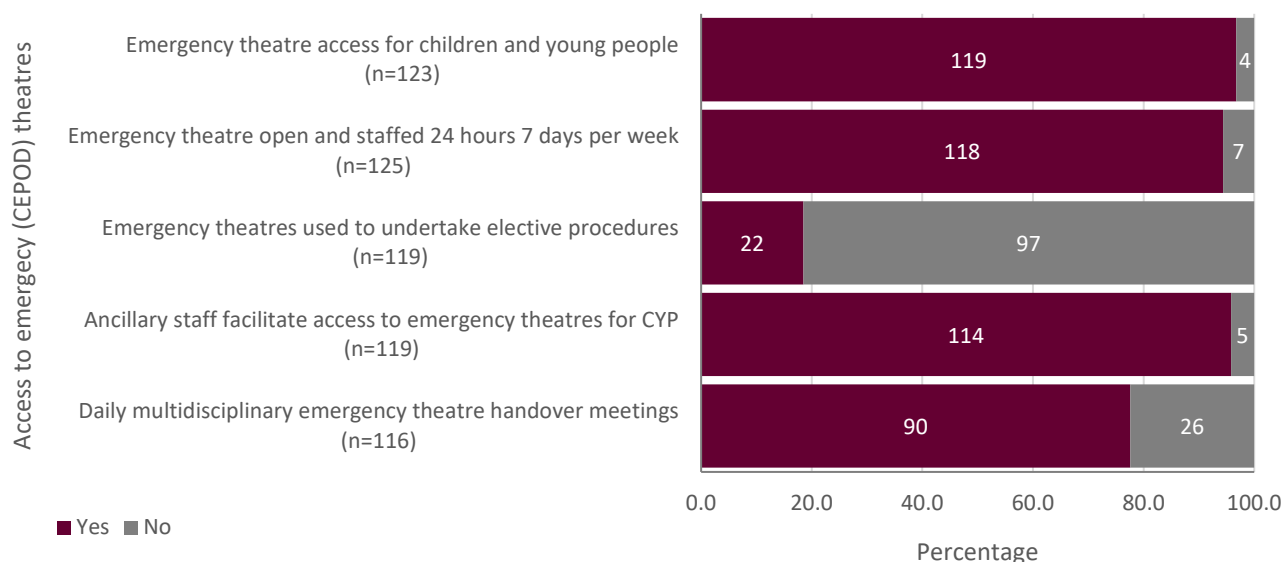


Figure 6.1 Access to emergency (CEPOD) theatres

Organisational questionnaire data

Booking systems

A theatre booking system was available in 135/143 (94.4%) hospitals, although six were unable to comment on this. Only 39/135 (28.9%) of those hospitals were able to confirm that the booking

system flagged patients who breached their allocated timeframe to surgery. This indicates that most hospitals are unable to accurately identify when children and young people are waiting too long for surgery, which has implications, such as fasting and risk of deterioration for all patients awaiting emergency surgery, including adults. Regardless of whether the booking system could flag a breach, only 24/135 (17.8%) hospitals with any booking system audited breaches to allocated booking times for emergency procedures in children and young people.

Theatre co-ordination

Theatre co-ordinating managers or clinicians were only available in 60/143 (42.0%) hospitals despite guidelines recommending this.^[9] When present there was still variation by hospital type with regard to the provision of a manager (F6.2). Only 52/143 (36.4%) hospitals had a clinician responsible for assessing capacity in theatres on a daily basis (F6.3).

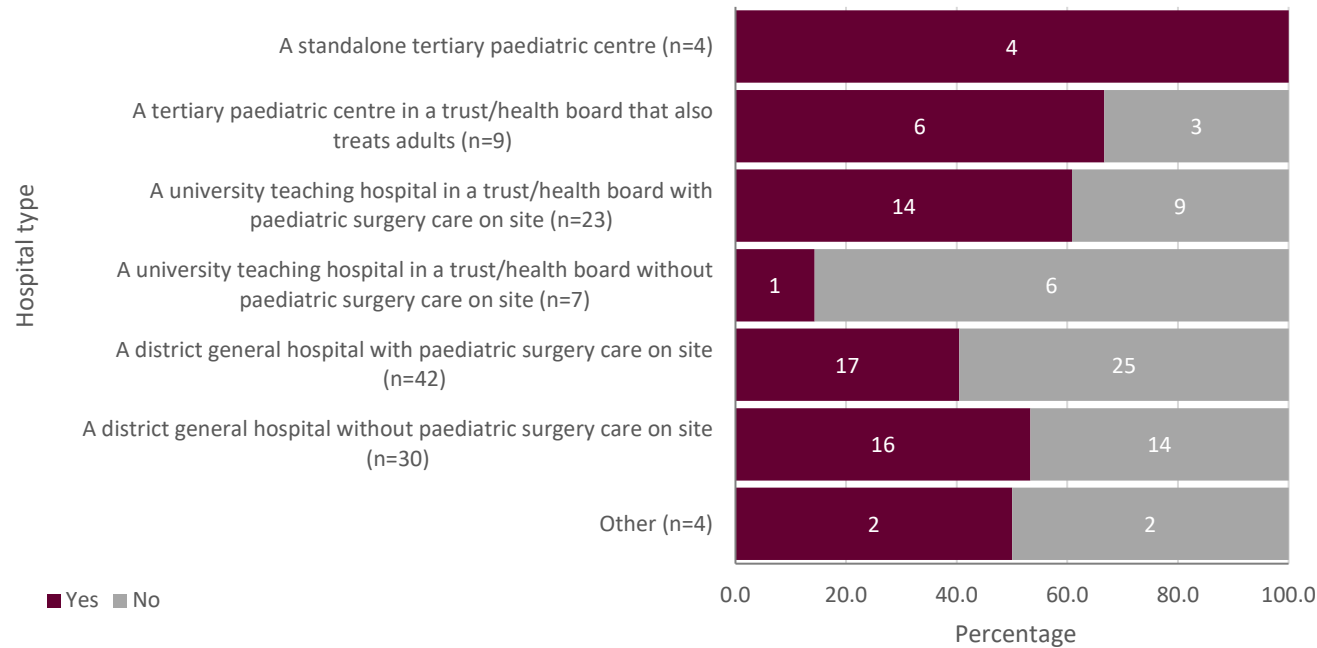


Figure 6.2 Presence of a manager responsible for co-ordinating non-elective procedures in children and young people by hospital type
Organisational questionnaire data

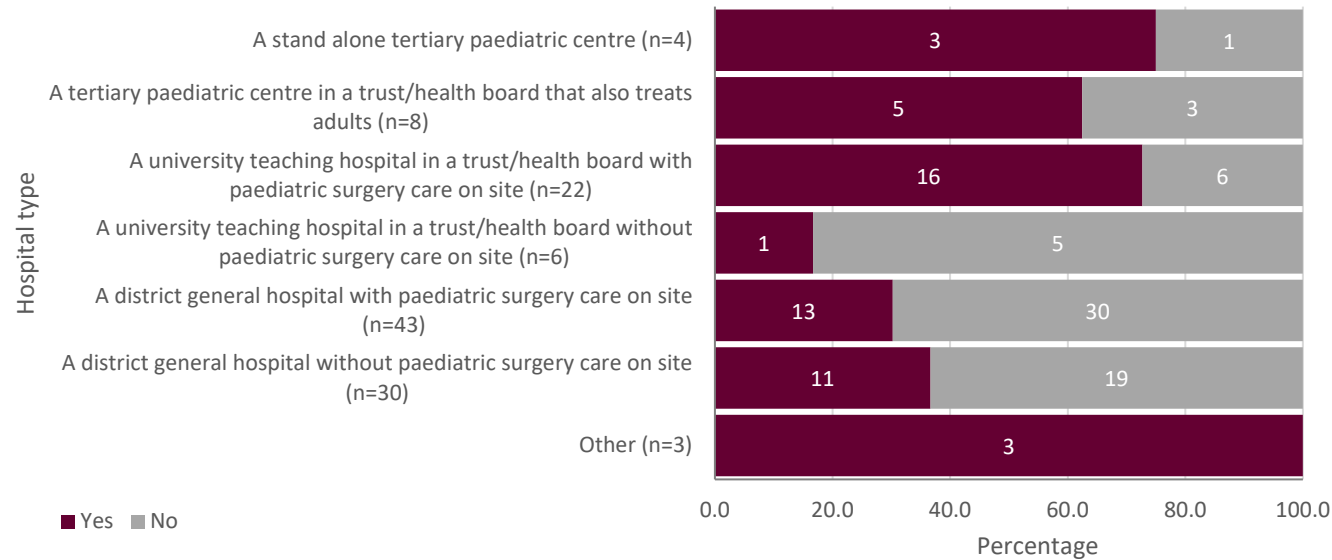


Figure 6.3 Presence of a clinician responsible for assessing capacity in theatres on a daily basis by hospital type
Organisational questionnaire data

Data from the real-time survey highlighted that not all patients had an emergency surgery co-ordinator involved in their care, with only 556/821 (67.7%) patients having one (T6.2).

Table 6.2 An emergency surgery co-ordinator was involved in the care of this patient	Number of patients	%
Yes	556	67.7
No	265	32.3
Subtotal	821	
Unknown	151	
Not answered	19	
Total	991	

Real-time survey data

Theatre co-ordination is important. Our data show that procedures were delayed less often when an emergency co-ordinator was involved (87/440; 19.8%) compared with when they were not involved (69/229; 30.1%) (F6.4).^[9]

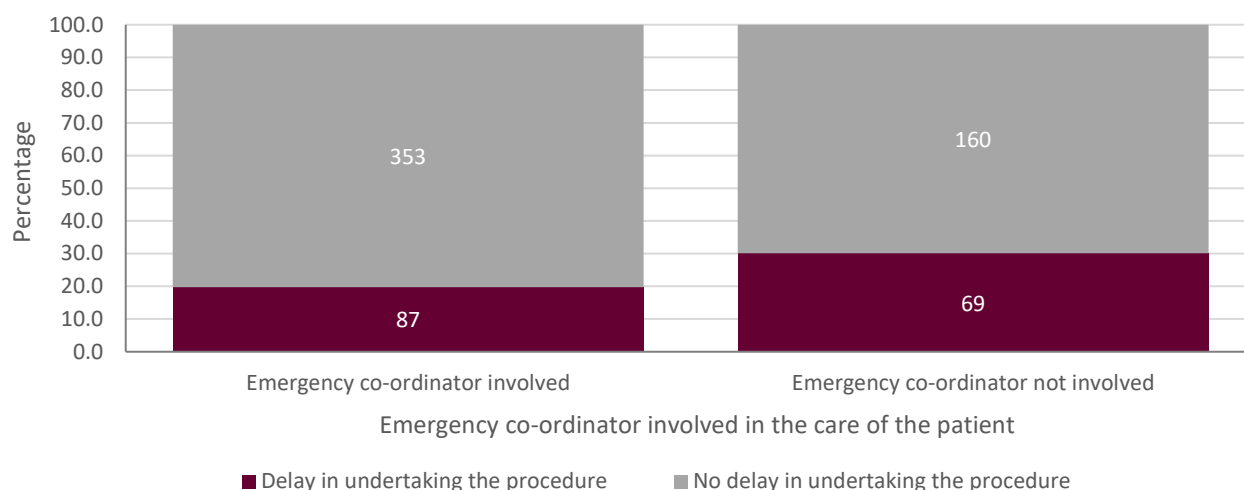


Figure 6.4 An emergency surgery co-ordinator was involved in the care of this patient and the impact on delays in the procedure

Real-time survey data

Booking urgency

The majority of patients in the study sample period were booked as urgent or expedited procedures (718/814; 87.9%) (T6.3). There were 732/897 (81.6%) who needed a procedure in under 24 hours, with 120/897 (13.4%) needing surgery in under one hour (T6.4).^[12]

Table 6.3 The booking urgency	Real-time survey		Reviewer assessment form	
	Number of patients	%	Number of patients	%
Immediate	70	8.6	69	9.4
Urgent	364	44.7	309	41.9
Expedited	354	43.5	359	48.7
Other	26	3.2	0	0.0
Subtotal	814		737	
Unable to answer or not answered	177		116	
Total	991		853	

Real-time survey and reviewer assessment form data

Table 6.4 The proposed time frame for procedure commencement from the time of booking	Real-time survey		Reviewer assessment form	
	Number of patients	%	Number of patients	%
<1 hour	120	13.4	74	11.1
<6 hours	206	23.0	193	28.9
<24 hours	406	45.3	297	44.5
>24 hours	165	18.4	103	15.4
Subtotal	897		667	
Unable to answer	94		186	
Total	991		853	

Real-time survey and reviewer assessment form data

The booking urgency was appropriate for the majority of patients (865/909; 95.2%) (T6.5). There were nine patients booked as urgent who reviewers reported should have been booked as immediate, seven booked as expedited who should have been urgent and 12 booked as urgent who should have been expedited. Overall, 17 patients should have been booked as a more urgent procedure and 12 as less urgent.

Table 6.5 The booking urgency was appropriate	Real-time survey		Reviewer assessment form	
	Number of patients	%	Number of patients	%
Yes	865	95.2	675	95.3
No	44	4.8	33	4.7
Subtotal	909		708	
Unable to answer	82		145	
Total	991		853	

Real-time survey and reviewer assessment form data

Reviewers reported delays from booking a case to the start of the procedure for 82/853 (9.6%) patients. This was more likely to affect patients who were booked for a more urgent procedure than those booked for a less urgent procedure (F6.5) and had an impact on the outcome for 6/82 patients. Age did not influence the likelihood of a delay to starting the procedure.

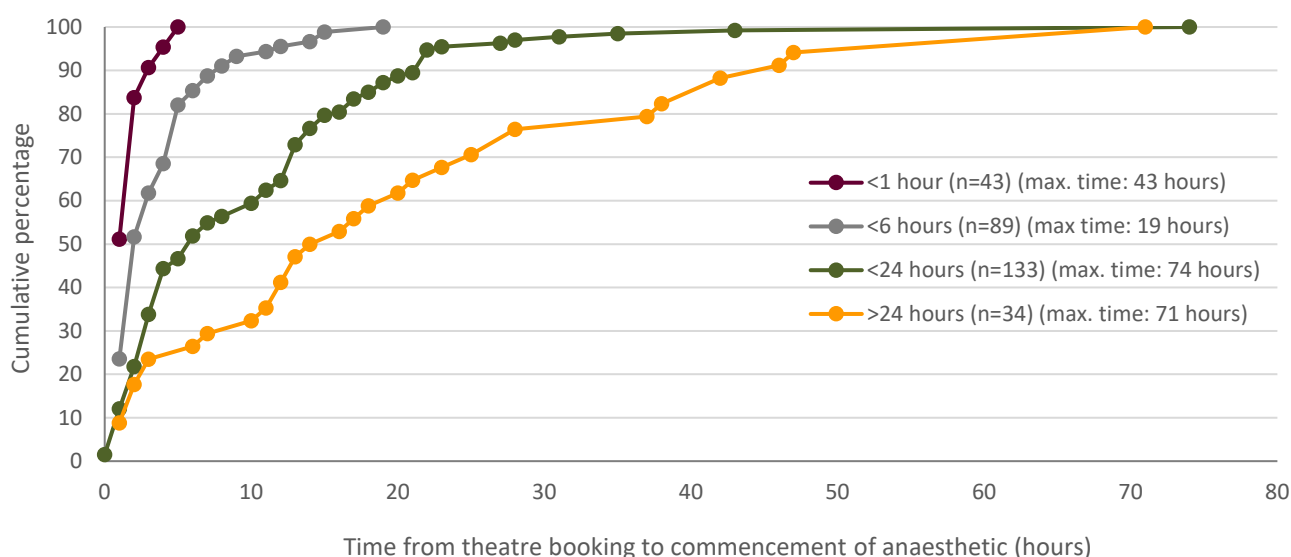


Figure 6.5 Time from booking to the start of the procedure

Reviewer assessment form data

Procedure delays

The most frequently reported delays from booking to starting a procedure were related to organisational issues including lack of theatre availability and emergency workload.

Clinicians reported that emergency procedures often displaced other emergency work and sometimes elective work (T6.6 and T6.7). These observations suggest that lack of organisation of emergency theatre workload often impacted on other patients. In particular, patients were not operated on within the expected timeframe and adequate escalation did not occur. Reviewers were of the opinion that hospitals should adopt processes that ensure robust monitoring of emergency theatre access, including proactive escalation if delays are foreseen.

Table 6.6 The emergency procedure displaced other surgery	Displaced elective work		Displaced emergency work	
	Number of patients	%	Number of patients	%
Yes	28	3.1	146	16.7
No	872	96.9	728	83.3
Subtotal	900		874	
Unknown	28		74	
Not answered	63		43	
Total	991		991	

Real-time survey data

Table 6.7 The operation undertaken displacing other surgery	Number of patients	%
Manipulation/fixation of joints	22	17.9
Suture laceration/wound washout/debridement	21	17.1
Appendicectomies	11	8.9
Scrotal exploration/orchidectomy/orchidopexy	10	8.1
Incision/drainage of abscesses	7	5.7
Oral and maxillofacial surgery procedure	5	4.1
Removal of foreign bodies	4	3.3
Nail bed repairs	4	3.3
Other	39	31.7
Subtotal	123	
Not answered	23	
Total	146	

Real-time survey data

Data from the real-time survey indicated that there was a delay in undertaking the procedure for 201/795 (25.3%) patients (F6.6). These data reflect those seen in the peer review (163/821; 19.9%).

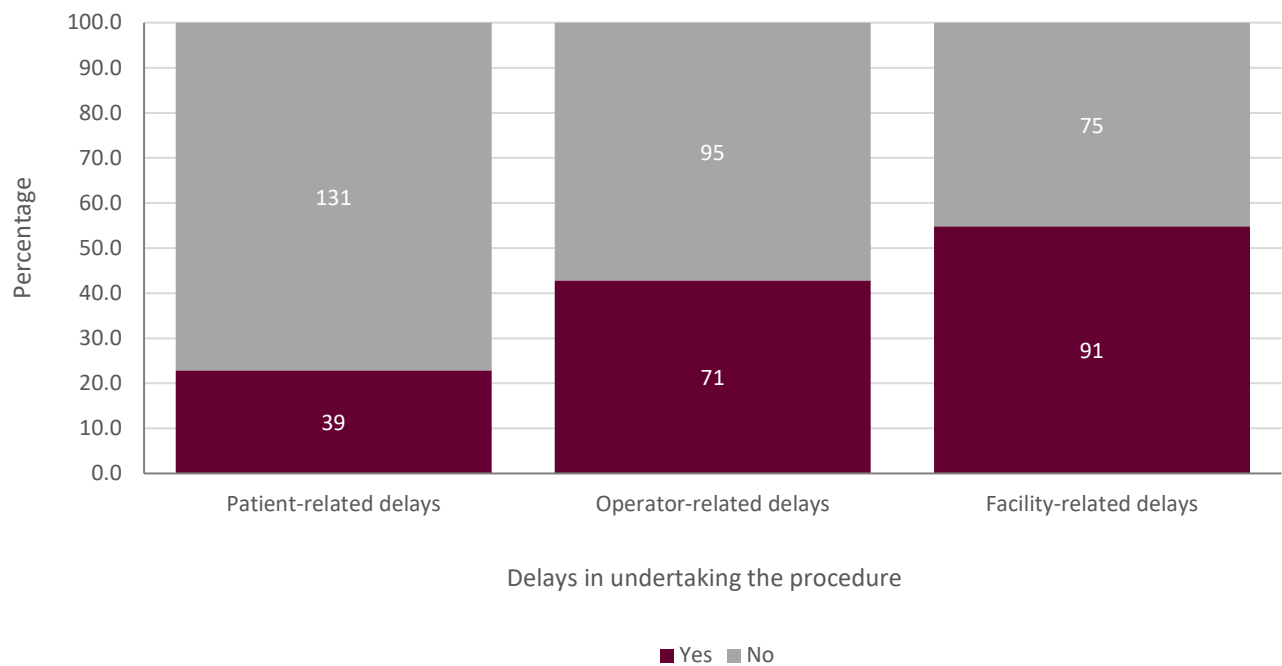


Figure 6.6 Causes of delay in undertaking the procedure
Real-time survey data

Facility-related delays were the most common cause of delay, primarily due to the emergency theatre being occupied or a more urgent case taking priority (F6.7).

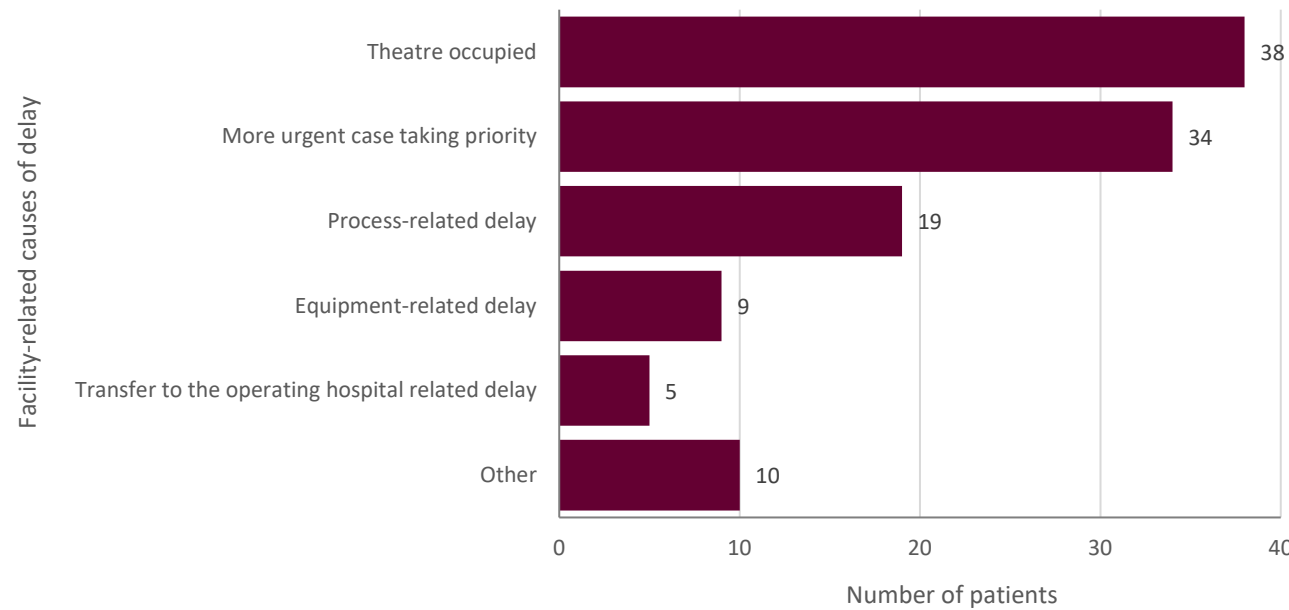


Figure 6.7 The facility-related causes of delay
Real-time survey data. Answers may be multiple; n=92

Where patient-related delays were identified, both the clinician real-time survey (11/39) and the reviewer assessment (9/30) identified lack of fasting as a cause of the delay to the procedure starting (F6.8 and F6.9). The differences were intentionally highlighted by collecting data at the time of the procedure where information may not get written in the case notes. The need for blood products being a good example.

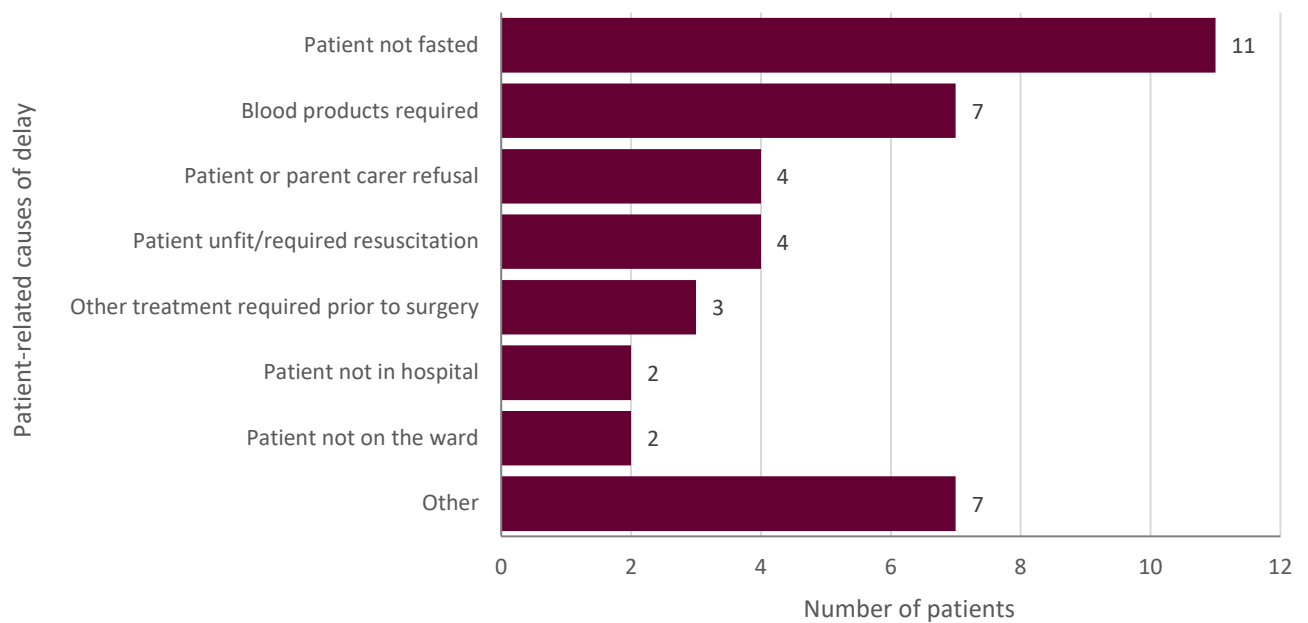


Figure 6.8 Patient-related causes of delay
Real-time survey data. Answers may be multiple; n=39

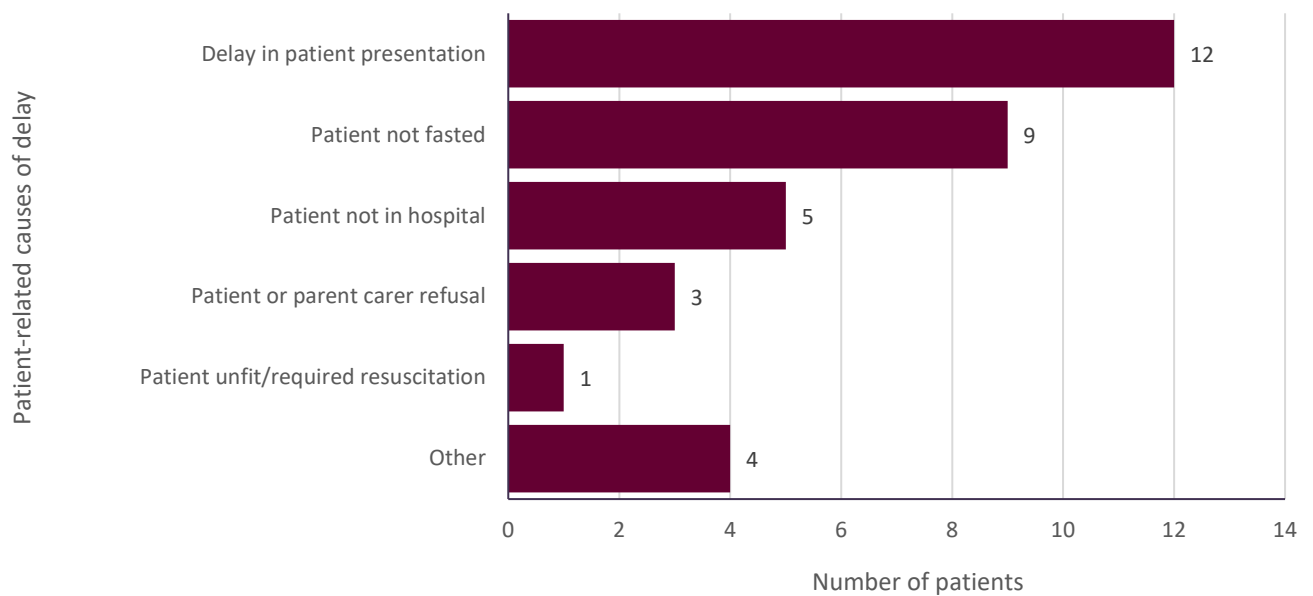


Figure 6.9 Patient-related causes of delay
Reviewer assessment form data. Answers may be multiple; n=30 (unable to answer for 10)

Operator-related delays included lack of consent (14/71), essential investigations not being undertaken (12/71), and the surgeon not being available (10/71) (F6.10 and F6.11).

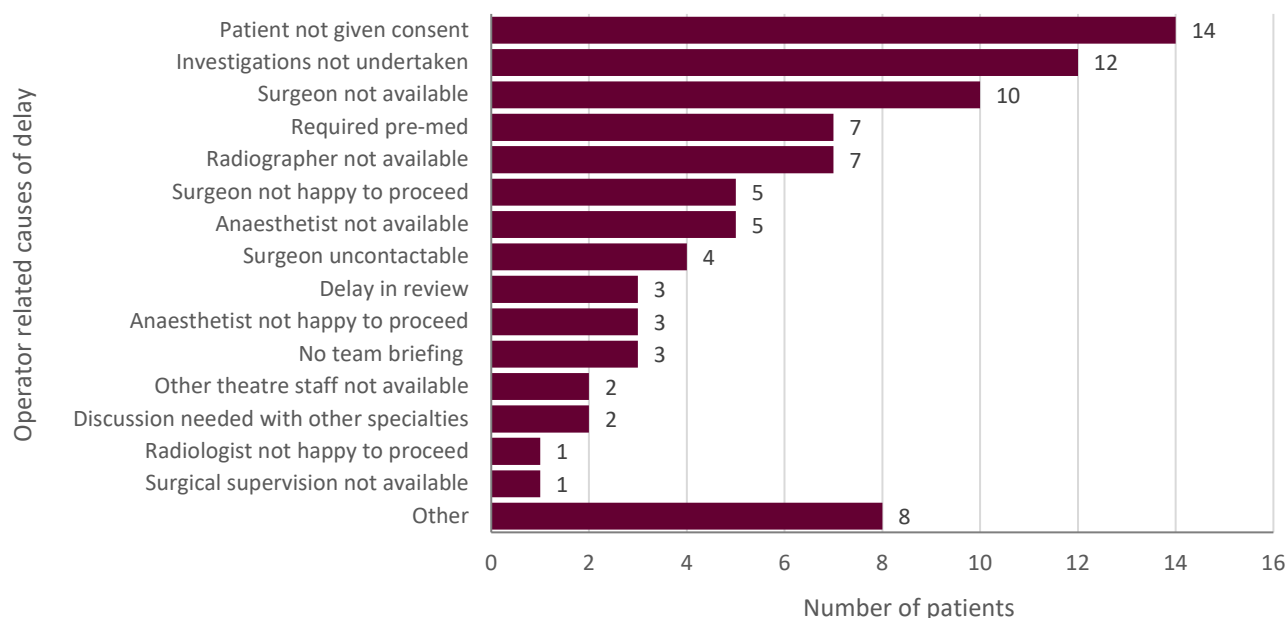


Figure 6.10 Operator-related causes of delay
Real-time survey data. Answers may be multiple; n=71

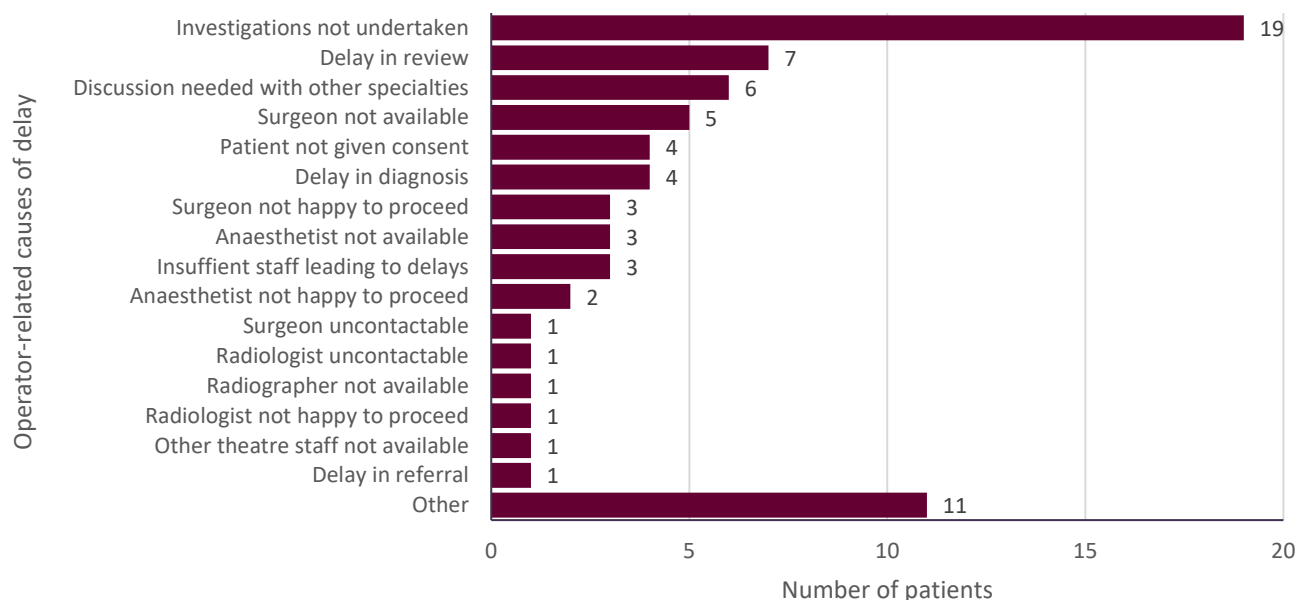


Figure 6.11 Operator-related causes of delay
Reviewer assessment form data. Answers may be multiple; n=65 (unable to answer for 22)

Where there was a delay, only 12 patients had documented evidence that there was escalation of care to the theatre team. The reviewers expressed concern about the number of cases (50 patients) where they were unable to determine whether there had been an escalation of care when a delay occurred. It was noted that electronic records can record data on booking and escalation and should be used to facilitate audit and quality improvement.

There were more likely to be delays during the early part of the week compared with later in the week and at weekends, suggesting capacity mismatch at certain times (F6.12). This could be due to batching as a result of lack of provision of 24/7 resources for investigation particularly at weekends and out of hours or inadequate theatre access such as hot (urgent) lists.^[15]

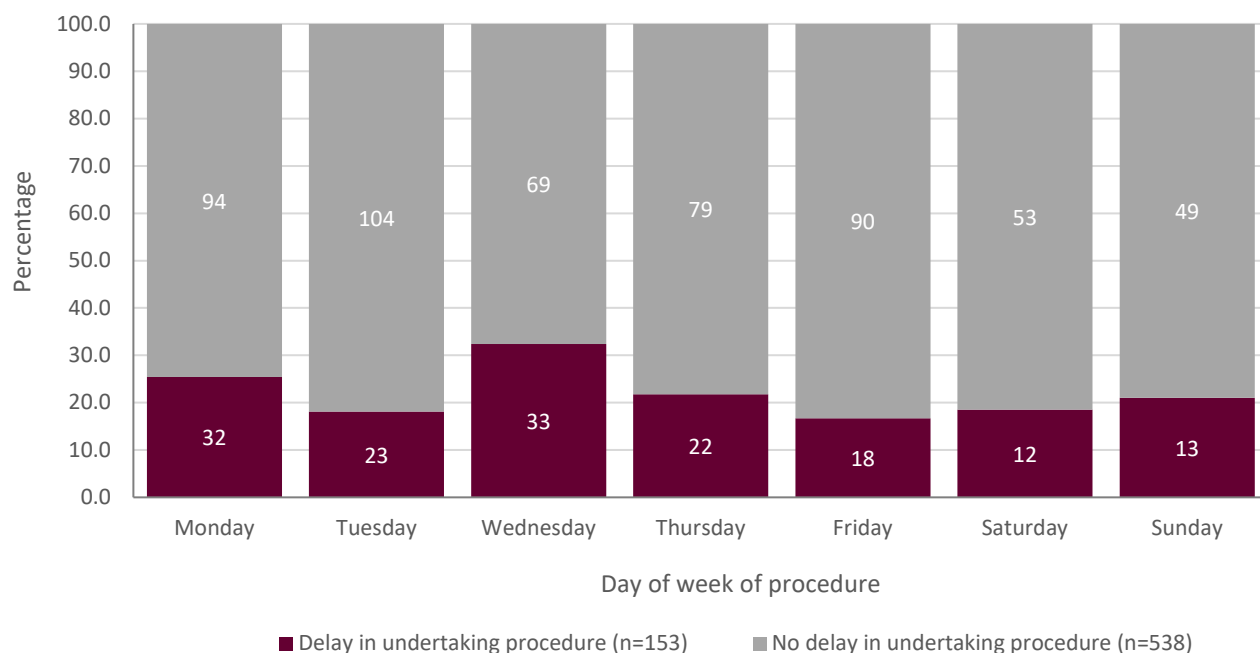


Figure 6.12 Delays in undertaking the procedure by the day of procedure

Real-time survey data

Nearly a fifth of patients experienced delays, with 141/163 (86.5%) experiencing multiple delays (T6.8).

Table 6.8 Cumulative number of delays	Number of patients	%
1 delay	22	13.5
2 delays	53	32.5
3 delays	30	18.4
4 delays	23	14.1
5 delays	12	7.4
6 delays	12	7.4
7 delays	4	2.5
8 delays	5	3.1
9 delays	1	<1
11 delays	1	<1
Total	163	

Reviewer assessment form data

Surgeons indicated that the care could have been improved in some way for 81/679 (11.9%) patients, while anaesthetists identified room for improvement in the care of 103/760 (13.6%) patients.

Reviewers rated the overall quality of care as being good for most patients (559/810; 69.0%) (F6.13). (see [Appendix 3](#) for some additional case studies of good practice.) However, there was room for improvement in 31% of patents, which mainly involved only slight amendments to the existing pathways of care to improve the quality of care provided.

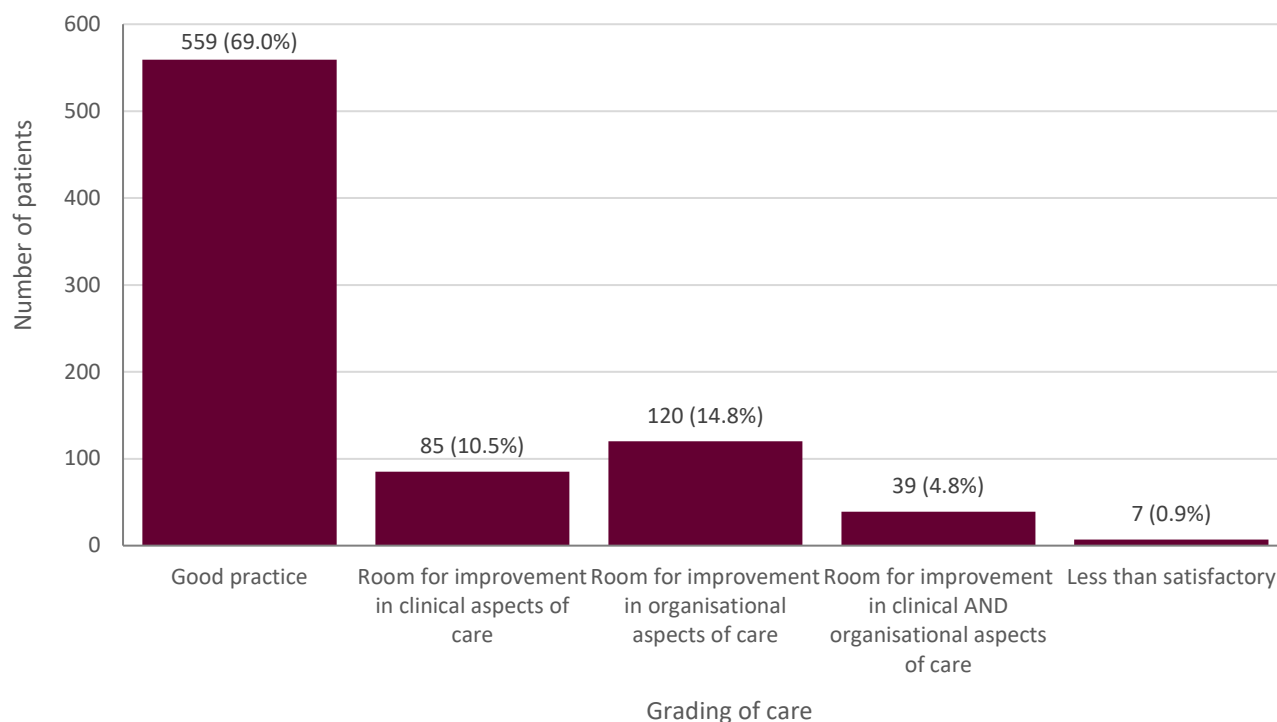


Figure 6.13 The overall quality of care provided to patients undergoing emergency surgery
Reviewer assessment form data

Reviewers identified organisational care as the area with the greatest room for improvement (F6.14), noting the fact that access to emergency theatres was often limited by the theatre being occupied or more urgent cases taking priority. Reviewers noted that good care was provided when specialties used planned lists for less urgent cases.

Emergency procedures are the 'stress-test' of a system and can reveal areas where care could be improved. Auditing these procedures can help to ascertain whether the system is working. However, such audits were undertaken in only 45/108 (41.7%) hospitals.

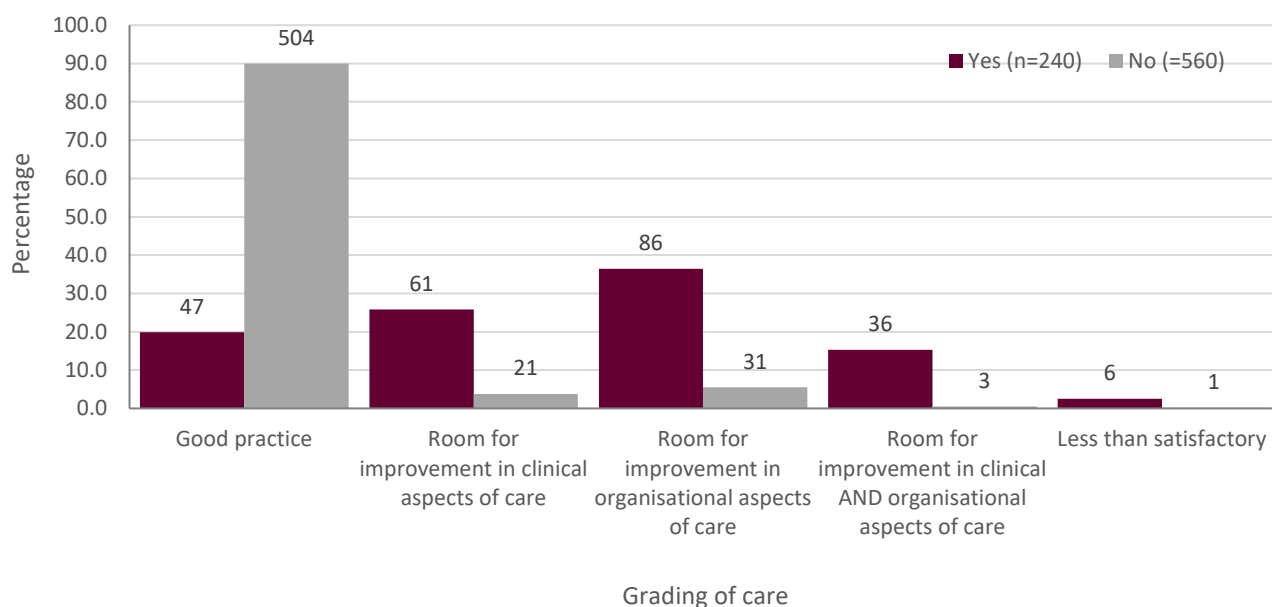


Figure 6.14 Reviewers' opinion on whether care could have been improved
Reviewer assessment form data