Recommendations

Review guidance on which staff should anaesthetise and operate on day case patients.

Review the level of supervision of trainee anaesthetists working on their own in dedicated day case units.

5 DAY CASE SURGERY

INTRODUCTION

Day case surgery is a major part of hospital services. 52% of the elective operations in this report were managed as day cases. It is over ten years since it became accepted that large numbers of surgical patients could be treated without an overnight stay in hospital so it is timely to examine whether care is being delivered to appropriate and acceptable standards.

THE ROLE OF DAY CASE UNITS IN THE PROVISION OF ELECTIVE SURGERY

Only 40% of NHS day case patients were treated in a dedicated day case facility.

Table 5.1 shows, for elective operations, how many patients were admitted as day cases, and how many as inpatients, for both independent and NHS hospitals. The percentage of the total elective workload made up of day cases is also shown.

In 1998, 93% of Trusts carrying out day surgery had at least one dedicated day case unit [16]. NCEPOD asked hospitals to report whether an operation had been performed in a dedicated day case unit or elsewhere. Despite the growth in day surgery, only 40% of NHS day cases were done in a dedicated day case unit and 2% of independent cases were in dedicated units.

Dedicated day case units should have protocols for the preoperative assessment of patients [17,18,19]. These protocols assess whether the patient's social circumstances are suitable for them to be treated as a day patient, and ensure that any extra requirements for nursing and other care, consequent on being treated as a day case, can be put in place. Furthermore, these protocols assess whether the patient is likely to suffer complications postoperatively because of concurrent medical problems. If these assessments result in a judgement that it is inadvisable for the patient to be treated as a day case then the patient can be referred back to the surgical consultant for care to be arranged as an inpatient. Dedicated day units are also likely to have guidelines for the management of anaesthesia and the provision of postoperative analgesia.

Patients booked to be managed as day cases outside dedicated day units may bypass the protection of these assessment protocols unless the Trust has protocols in place for the assessment of day cases managed from inpatient beds and appearing on inpatient operating lists. Moreover they may be cared for by medical and nursing staff who are not used to looking after patients who will be discharged from hospital shortly after surgery. Such patients can be vulnerable to avoidable postoperative problems. Trusts should ensure that all day case patients receive the same standard of preoperative assessment, intraoperative care and postoperative support, whether they are managed in a dedicated day case unit or elsewhere in the hospital.

Table 5.1 Day cases by specialty

	Independent			NHS		
	Day case	Inpatient - elective	Day case %	Day case	Inpatient - elective	Day case %
Accident and Emergency	0	0	0.0	70	9	88.6
Cardiac/Thoracic/ Cardiothoracic	23	137	14.4	52	806	6.1
General	472	853	35.6	3529	4274	45.2
Gynaecology	444	482	47.9	4095	2528	61.8
Neurosurgery	3	78	3.7	22	355	5.8
Ophthalmology	525	239	68.7	5244	996	84.0
Oral & Maxillofacial	199	101	66.3	1456	529	73.4
Orthopaedic & Trauma	753	1261	37.4	3200	4462	41.8
Otorhinolaryngology	195	471	29.3	1462	3019	32.6
Paediatrics	14	11	56.0	253	258	49.5
Plastic	195	249	43.9	1176	731	61.7
Transplantation	0	0	0.0	8	58	12.1
Urology	335	379	46.9	2382	2231	51.6
Vascular	33	143	18.8	386	627	38.1
Other	189	83	69.5	770	358	68.3
Blank	305	427	41.7	3709	3133	54.2
Total	**3685**	**4914**	**42.9**	**27814**	**24374**	**53.3**

WHO IS PROVIDING THE SERVICE FOR DAY SURGERY?

Non-consultant staff cared for more than 40% of day case patients.

The staff performing day surgery in the independent sector will be fully trained independent practitioners.

In the NHS it is recommended that patients undergoing day surgery should be treated by experienced personnel. Guidelines for Day Case Surgery (Royal College of Surgery) [18] states:

"The high standards required demand that both the operator and the anaesthetist must be experienced in the practice of day surgery. Junior trainees should be personally and closely supervised by experienced staff."

Guidelines for the Provision of Anaesthetic Services (Royal College of Anaesthetists) [19]states:

"For this work, anaesthetic involvement must be by experienced personnel working on a regular basis."

"Anaesthesia for day surgery should be a consultant-based service."

"The non-consultant career grades… may provide anaesthesia for day surgery. They require supervision by consultant anaesthetists."

The data returned to NCEPOD have been analysed to explore whether Trusts were implementing these guidelines for day case surgery, and whether patient selection was satisfactory.

Anaesthetics

Table 5.2 shows the number of anaesthetists of each grade caring for day case patients in the NHS, and that number expressed as a percentage of all day cases when an anaesthetist was present. Of the total number of day cases (27,814), 4,853 gave no grade of anaesthetist and in 3,855 no anaesthetist was present.

Table 5.3 shows the number of anaesthetists of each grade caring for day case patients in the NHS divided amongst each location where day patients were treated.

Table 5.2 Grade of anaesthetist caring for NHS day case patients

Grade of anaesthetist	Number (%) n=23959
Consultant	12092 (50.5)
SAS	3834 (16.0)
SpR 3 and above	779 (3.3)
SpR 1/2	576 (2.4)
SHO	652 (2.7)
Other	1173 (4.9)
Blank	4853 (20.3)

Table 5.3 Location of procedure and grade of anaesthetist for NHS day case patients

Grade of anaesthetist	Location of procedure			
	Theatre suite	Day case unit	Other	Blank
Consultant	6785	4292	338	677
SAS	2067	1527	67	173
SpR 3 and above	455	274	26	24
SpR 1/2	326	205	21	24
SHO	419	181	20	32
Other	535	548	16	74
Blank	1828	2313	250	462
Total	**12415**	**9340**	**738**	**1466**

Surgery

Table 5.4 shows the number of surgeons of each grade caring for day case patients in the NHS, and that number expressed as a percentage of all day cases.

Table 5.4 Grade of surgeon caring for NHS day case patients

Grade of surgeon	Number (%) n=27814
Consultant	15960 (57.4)
SAS	4958 (17.8)
SpR 3 and above	1881 (6.8)
SpR 1/2	1106 (4.0)
SHO	706 (2.5)
Other	1938 (7.0)
Blank	1265 (4.5)
Total	**27814**

Table 5.5 Location of procedure and grade of surgeon for NHS day case patients

Grade of surgeon	Location of procedure			
	Theatre suite	Day case unit	Other	Blank
Consultant	8485	6185	465	825
SAS	2339	2235	185	199
SpR 3 and above	1074	586	103	118
SpR 1/2	619	367	59	61
SHO	312	301	46	47
Other	766	970	84	118
Blank	441	572	28	224
Total	**14036**	**11216**	**970**	**1592**

Table 5.6 NHS day case surgery analysed by specialty and grade

Surgical specialty	Consultant %	SAS %	SpR 3 and above %	SpR 1/2 %	SHO %	Other %	Blank %	Total n=22274
General	56.5	20.7	5.9	5.8	3.9	5.3	2.0	**3259**
Gynaecology	64.7	15.1	6.3	3.8	1.2	6.0	2.9	**4095**
Ophthalmology	72.6	12.1	8.0	2.7	1.0	1.9	1.7	**5244**
Oral & Maxillofacial	32.3	32.8	3.6	3.6	5.3	18.5	3.9	**1456**
Orthopaedic & Trauma	57.3	23.0	7.8	4.6	0.9	3.7	2.7	**3200**
Otorhino-laryngology	52.9	25.9	5.8	4.7	1.4	6.3	3.1	**1462**
Plastic	31.0	18.2	12.8	9.0	12.2	11.2	5.5	**1176**
Urology	54.2	19.3	7.7	3.6	3.7	8.5	3.1	**2382**

Table 5.5 shows the number of surgeons of each grade caring for day case patients in the NHS divided amongst each location where day patients were treated.

The data were analysed to examine whether some surgical specialties used non-consultant staff more than others.

Table 5.6 shows the proportions of different grades of surgeons, expressed as percentages, that performed day surgery procedures in the surgical specialties that reported more than 1,000 cases.

SHOs operated on 12.2% of plastic surgery patients and 5.3% of oral and maxillofacial surgery patients. In all other surgical specialties the involvement of SHOs was less than 4%. Of the 132 plastic surgery cases where the most senior surgeon present was an SHO, 121 were performed under local anaesthesia, and were mainly excision of skin lesions. The great majority of the cases performed by "Other" surgeons in oral and maxillofacial surgery were extractions of teeth associated with dental decay under general anaesthesia. These may have been cases that in the past would have been carried out in general dentists' surgeries, until the introduction of the stringent standards that effectively ended general anaesthesia in dentistry outside hospital. In addition, oral and maxillofacial surgery uniquely engages practitioners who hold a dental qualification and who are on a specialist list in surgical dentistry held by the General Dental Council. This means that they are judged competent to practice independently up to a certain level.

ASA STATUS AND GRADE OF DOCTOR

Trainee doctors were involved in anaesthetising patients of poor health, apparently unsupervised.

Anaesthetics

Table 5.7 shows the number of patients by ASA status who were treated by different grades of anaesthetists, by percentages.

As can be seen, very few of the patients managed as day cases were assessed as ASA 4, 5 or 6. On examination none of the ASA 6 patients were listed as undergoing organ donation, and it is also very likely that the day cases reported as ASA 5 had been wrongly coded. The two ASA 4 patients anaesthetised by SHOs were undergoing cataract extraction under local anaesthesia.

Surgeons

Table 5.8 shows the number of patients of the different ASA grades who were treated by different grades of surgeons, by percentages.

There is a suggestion that patients of ASA 4 were more likely to have a consultant surgeon than patients of ASA 1 to 3, but the numbers assessed at the higher ASA status were small. No operations performed on patients assessed as ASA 4 or 5 were performed by SHOs.

Table 5.7 NHS day case patients analysed by grade of anaesthetist and ASA status

	ASA status							
Grade of anaesthetist	**1 % n=11405**	**2 % n=4873**	**3 % n=1060**	**4 % n=57**	**5 % n=13**	**6 % n=18**	**Blank % n=10388**	**Total % n=27814**
Consultant	55.2	55.9	60.9	62.7	63.6	40.0	41.0	**50.5**
SAS	16.9	19.4	17.7	15.7	9.1	30.0	13.1	**16.0**
SpR 3 and above	4.0	3.3	3.4	3.9	0.0	0.0	2.4	**3.3**
SpR 1/2	2.8	3.2	2.2	0.0	0.0	10.0	1.5	**2.4**
SHO	3.2	3.2	3.2	3.9	9.1	0.0	1.9	**2.7**
Other	4.6	3.9	3.8	3.9	9.1	0.0	5.9	**4.9**
Blank	13.3	11.1	8.9	9.8	9.1	20.0	34.2	**20.3**

Table 5.8 NHS day case patients analysed by grade of surgeon and ASA grade

	ASA status							
Grade of surgeon	**1 % n=11405**	**2 % n=4873**	**3 % n=1060**	**4 % n=57**	**5 % n=13**	**6 % n=18**	**Blank % n=10388**	**Total % n=27814**
Consultant	57.7	63.8	63.4	75.4	53.8	27.8	53.4	**57.4**
SAS	18.3	16.6	14.6	7.0	7.7	27.8	18.3	**17.8**
SpR 3 and above	6.8	7.3	7.0	1.8	0.0	27.8	6.5	**6.8**
SpR 1/2	4.1	3.8	3.4	3.5	15.4	11.1	3.9	**4.0**
SHO	2.5	1.4	2.2	0.0	0.0	0.0	3.2	**2.5**
Other	7.6	4.3	4.6	5.3	23.1	<0.1	7.8	**7.0**
Blank	3.1	2.8	4.8	7.0	0.0	5.6	6.9	**4.5**

SUPERVISION OF TRAINEES

There was a low level of consultant supervision of trainee anaesthetists.

Based on the data, day surgery was definitely not a consultant-based service. Consultants gave only 50% of day case anaesthetics and consultants performed 57% of operations. The next biggest staff group was SAS doctors but significant numbers of anaesthetics and operations were being performed when the most senior doctor present was a trainee doctor, including doctors of SHO level. Less experienced doctors were treating not only fit patients but also patients with an ASA status of 3, 4 or 5. This shift away from what has been regarded as good practice in the past is acceptable, so long as there is proper supervision of doctors in training. When dedicated day case units are often sited away from other surgical facilities, it is important that trainees are not left working unsupported in a location geographically distant from more senior help.

When the most senior anaesthetist present was not a consultant, respondents were asked to specify the level of supervision, using the definitions of the Royal College of Anaesthetists. These were:

- Immediately available – in the theatre, or available in the theatre suite without other responsibilities
- Local – on the same geographical site and able to attend within 10 minutes
- Distant – on a different geographical site, or unable to attend within 10 minutes.

Table 5.9 illustrates the level of consultant supervision of trainee anaesthetists working on their own anaesthetising day cases in dedicated day case units.

It is of concern that apparently only one in five SHOs anaesthetising patients on their own was being supervised by a consultant who was immediately available. The numbers may appear small but equate to a total of 5,000 a year.

NCEPOD is unable to judge whether some of the SHOs without immediate consultant supervision might have been able to call on a more senior trainee for assistance. Anaesthetic departments should review their arrangements for the supervision of trainee anaesthetists, especially SHOs, working on their own in dedicated day case units.

Table 5.9 Supervision of trainee anaesthetists

Level of supervision	Immediately available	Local	Distant	Blank	Total
SpR 3 and above	46	103	78	47	**274**
SpR 1/2	32	135	19	19	**205**
SHO	40	75	26	40	**181**