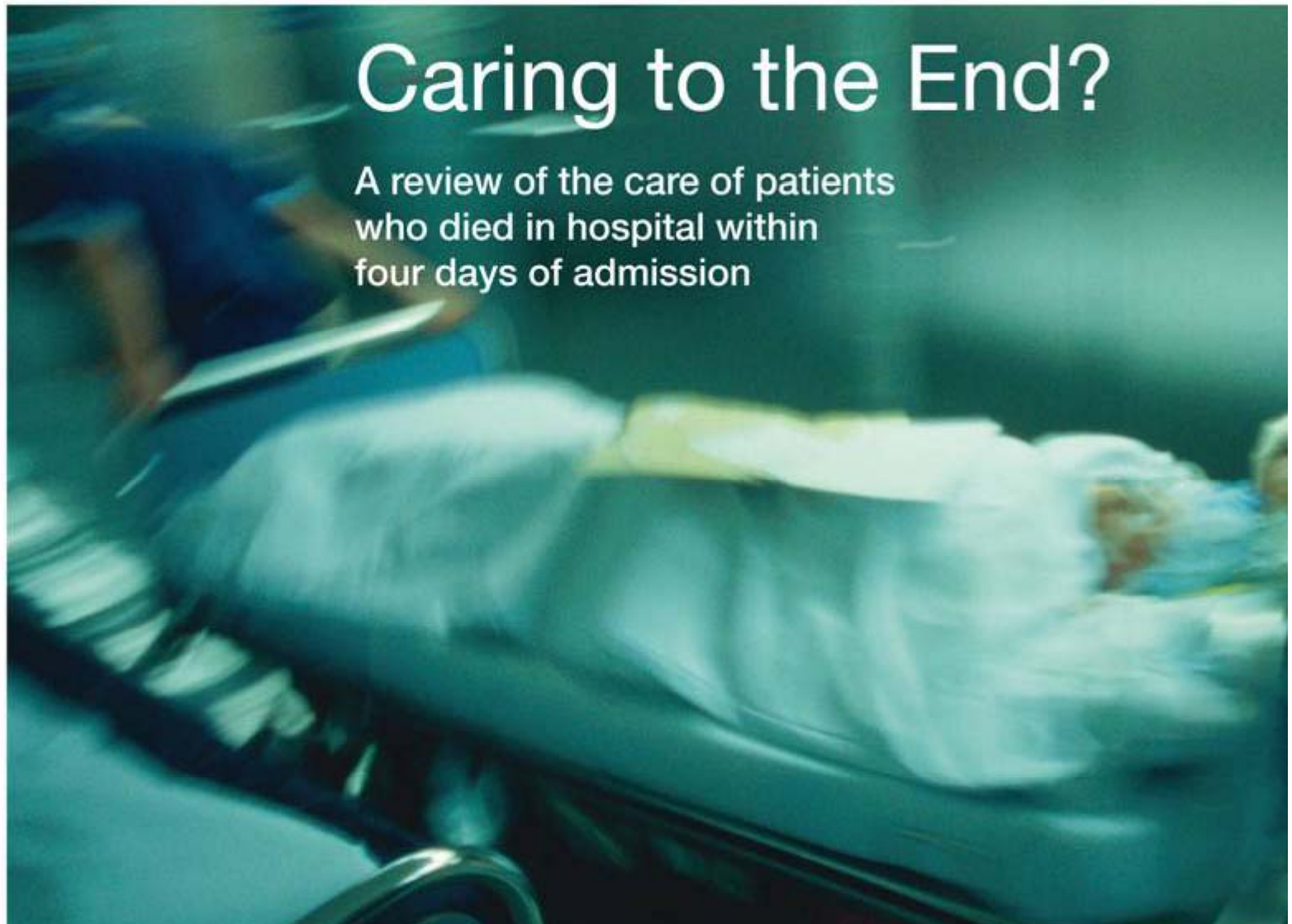


National Confidential Enquiry into Patient Outcome and Death

Caring to the End?

A review of the care of patients
who died in hospital within
four days of admission



Study aim



- To explore remediable factors in the processes of care for patients who died within 96 hours of admission to hospital.

Study objectives



- Processes of referral from admission to being seen by first consultant
- Handover and multidisciplinary team working
- Levels of supervision
- Appropriateness of surgery and anaesthesia

Study objectives



- General clinical issues including prophylaxis for venous thromboembolism and access to investigations including radiology services
- Paediatric practice
- Palliative care in an acute setting

Study population



- 1st October 2006 – 31st March 2007
- 96 hours of admission
- Exclusion
 - Neonates under 28 days



Method and data overview

Case ascertainment



- Notified of all patients who died within hospital during the study period regardless of disease type or disorder

Sample Size



- 121,405 cases reported
- 44,807 died within 96 hours of admission
- 4571 cases included in the study
 - 1 clinical questionnaire per consultant

Data collection



- Questionnaires
 - Clinical
 - Anaesthetic
 - Organisational
- Casenotes
- Advisors

Data returns

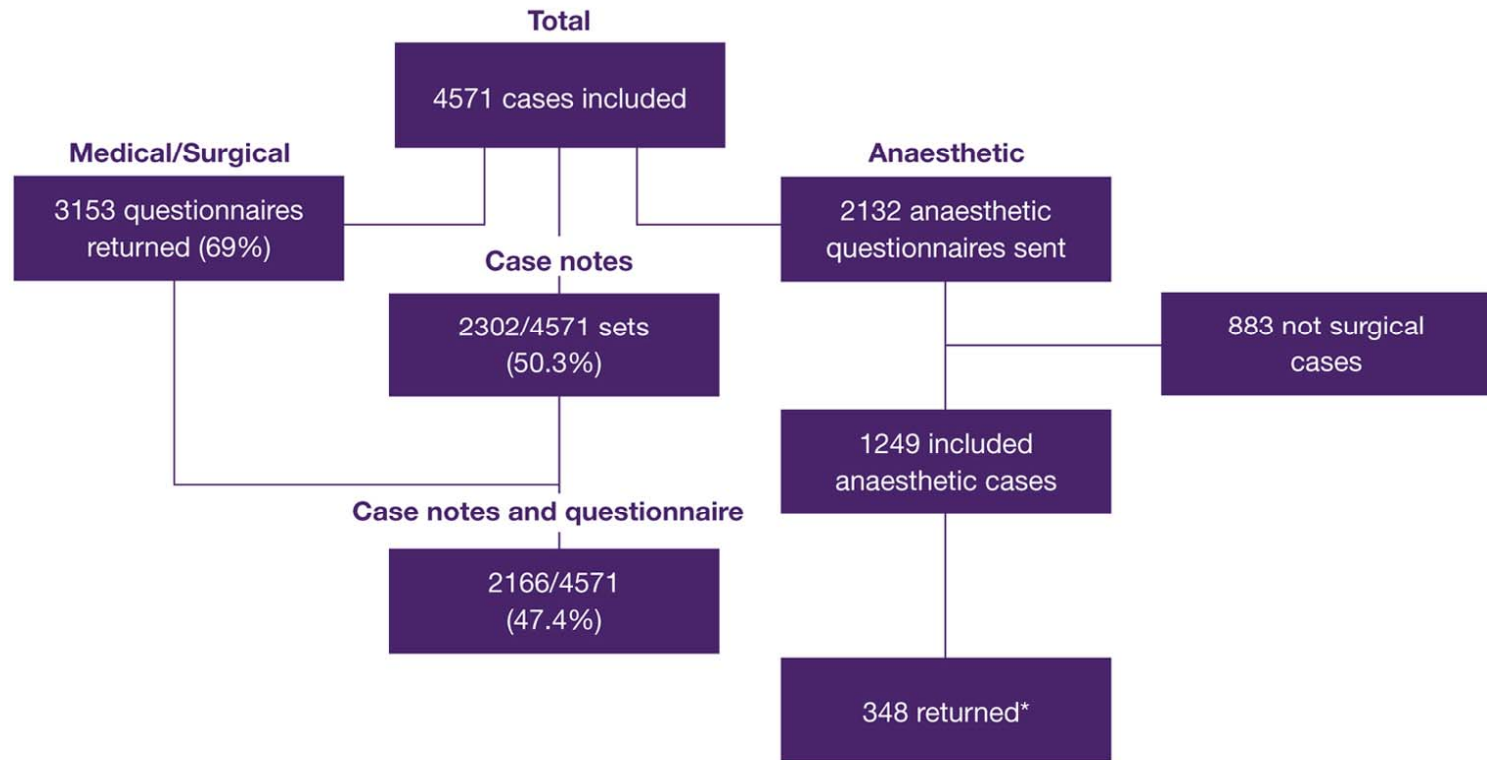


Figure 2.1 Data returns

Data returns



- Paediatric cases – analysed separately
- 3059 clinical questionnaires
 - 1442 admitted under a physician
 - 1354 admitted under a surgeon
 - 263 unable to determine admitting specialty
- 2225 casenotes
- 709 underwent a procedure

Age and gender

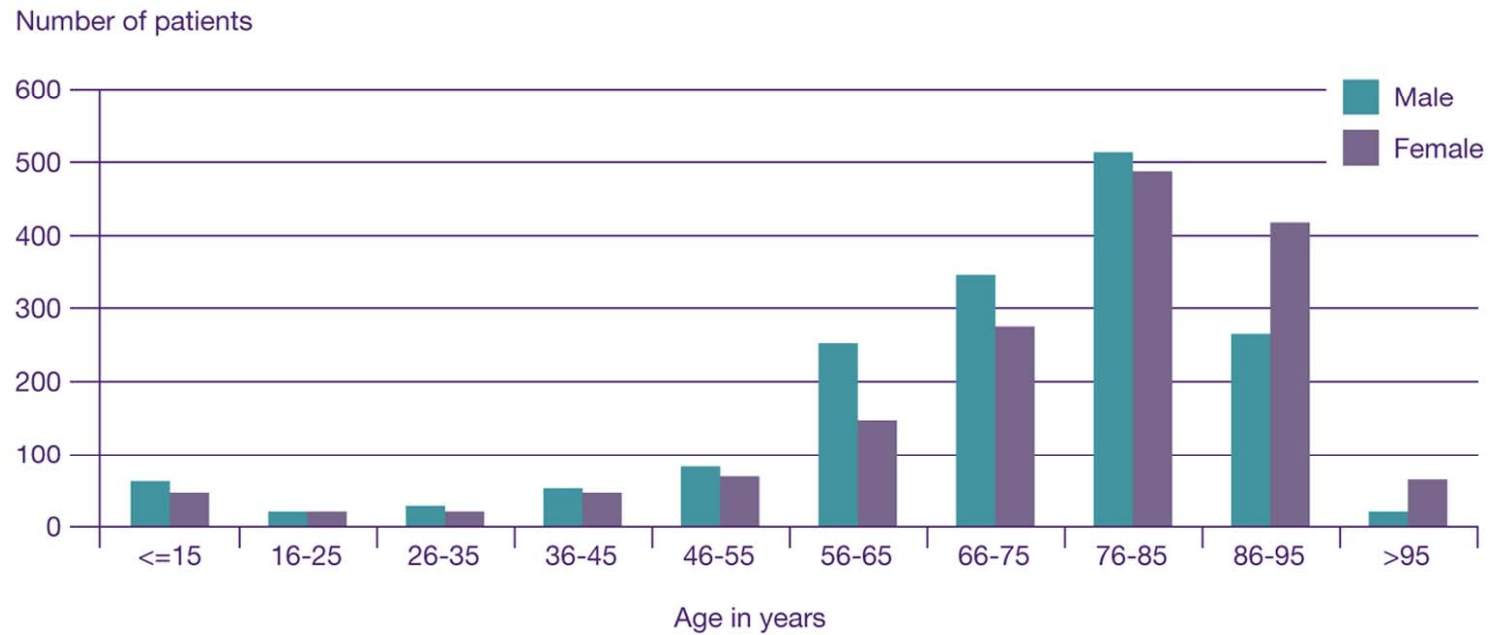


Figure 3.1 Age distribution of patients in this study by gender

Emergency admission



Table 3.3 Emergency admission

Emergency admission	n	%
Yes	2058	91.5
No	192	8.5
Subtotal	2250	
Insufficient data	52	
Grand Total	2302	

Health status on admission



Table 3.4 Health status on admission

Health status on admission	n	%
A normal healthy patient	52	1.7
A patient with mild systemic disease	244	8.0
A patient with severe systemic disease	743	24.2
A patient with incapacitating systemic disease	1368	44.6
A moribund patient	657	21.4
Subtotal	3064	
Not answered	89	
Grand Total	3153	

Overall quality of care

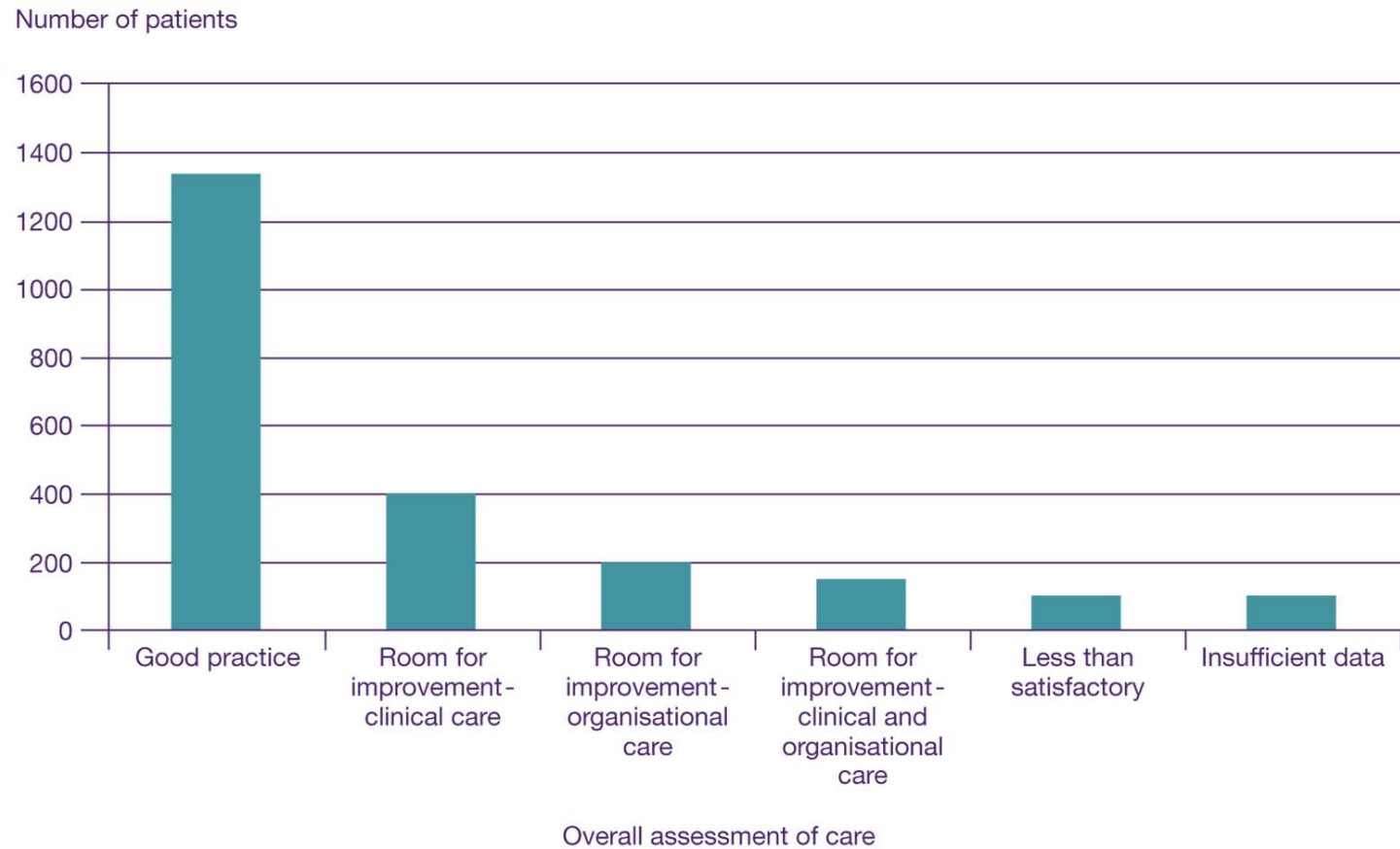


Figure 3.2 Overall assessment of care as judged by the advisors



Process of care

Delay between arrival and first assessment

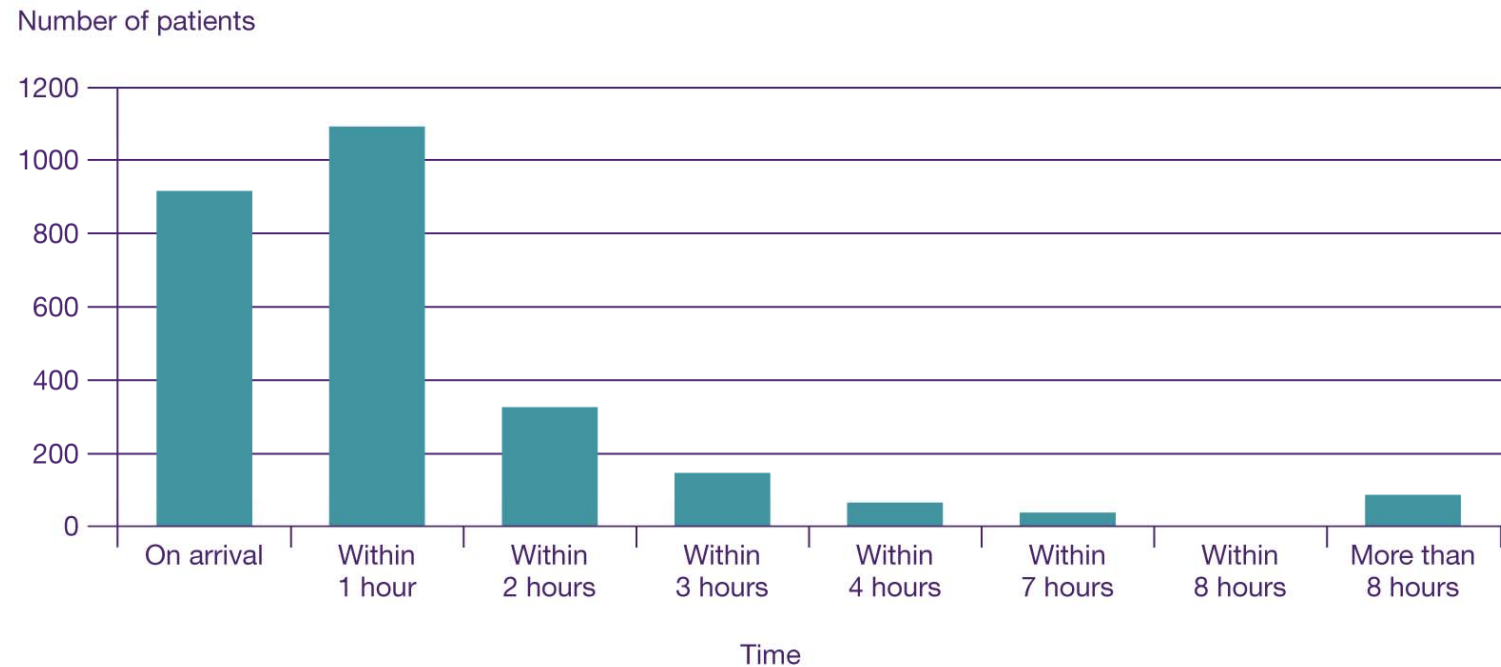


Figure 4.1 Time between arrival and initial assessment as assessed by self reporting from treating clinicians

Delay between arrival and first assessment

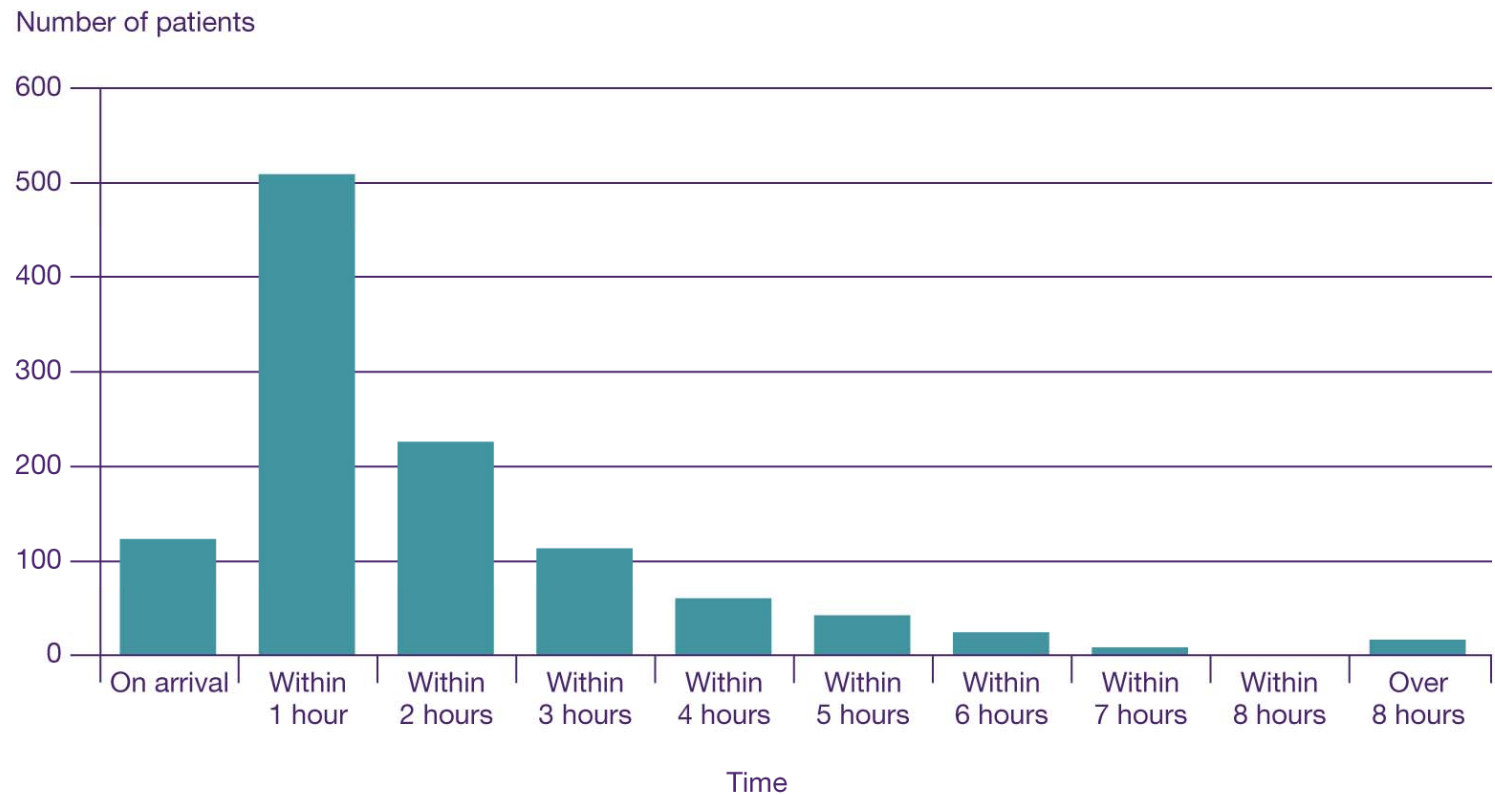


Figure 4.2 Time between arrival and assessment as judged by advisors from case notes

Initial assessment

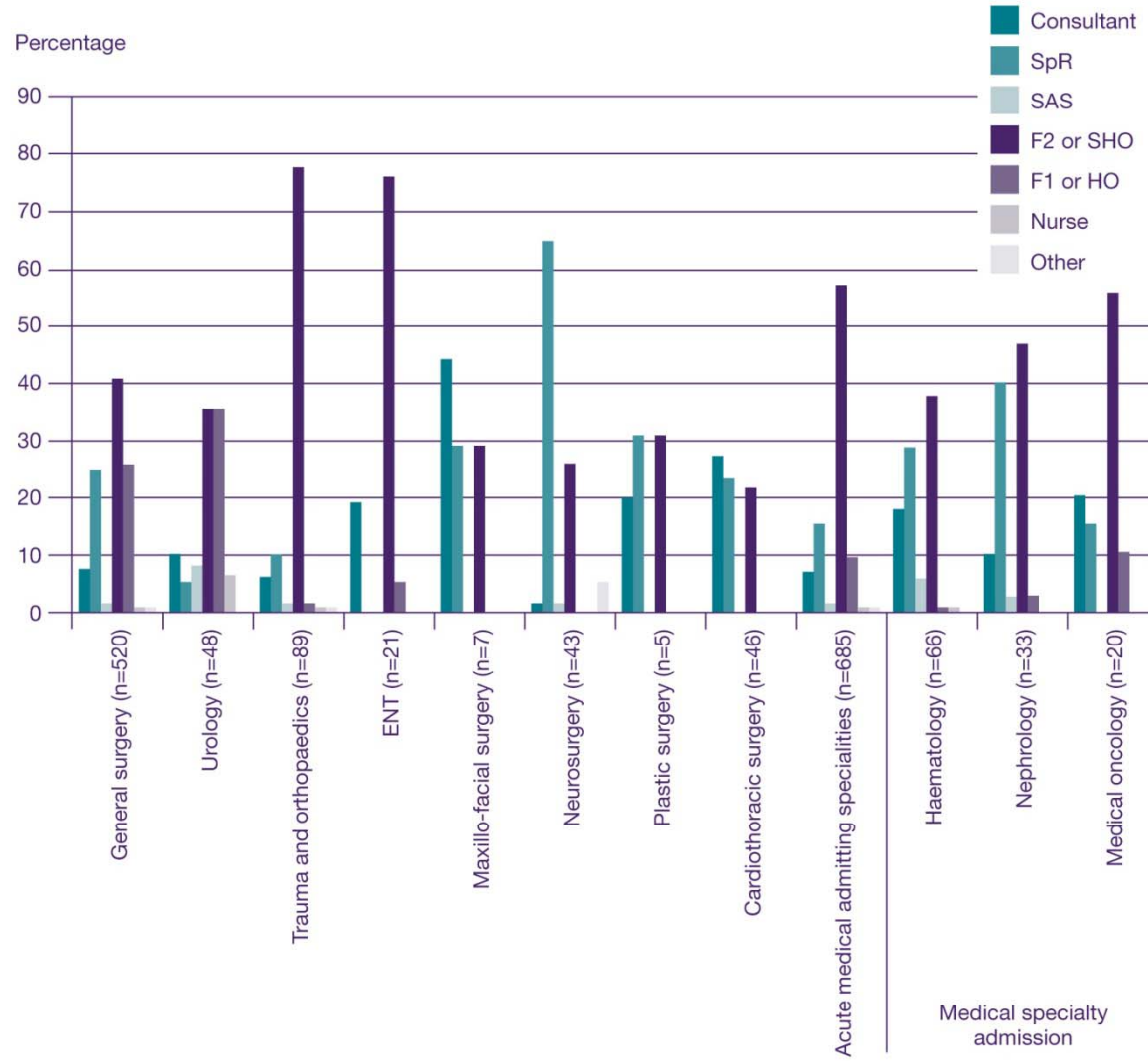


Figure 4.4 Specialty and grade of first assessor

Delays in initial assessment

- Overall 4.6% (136/2987)

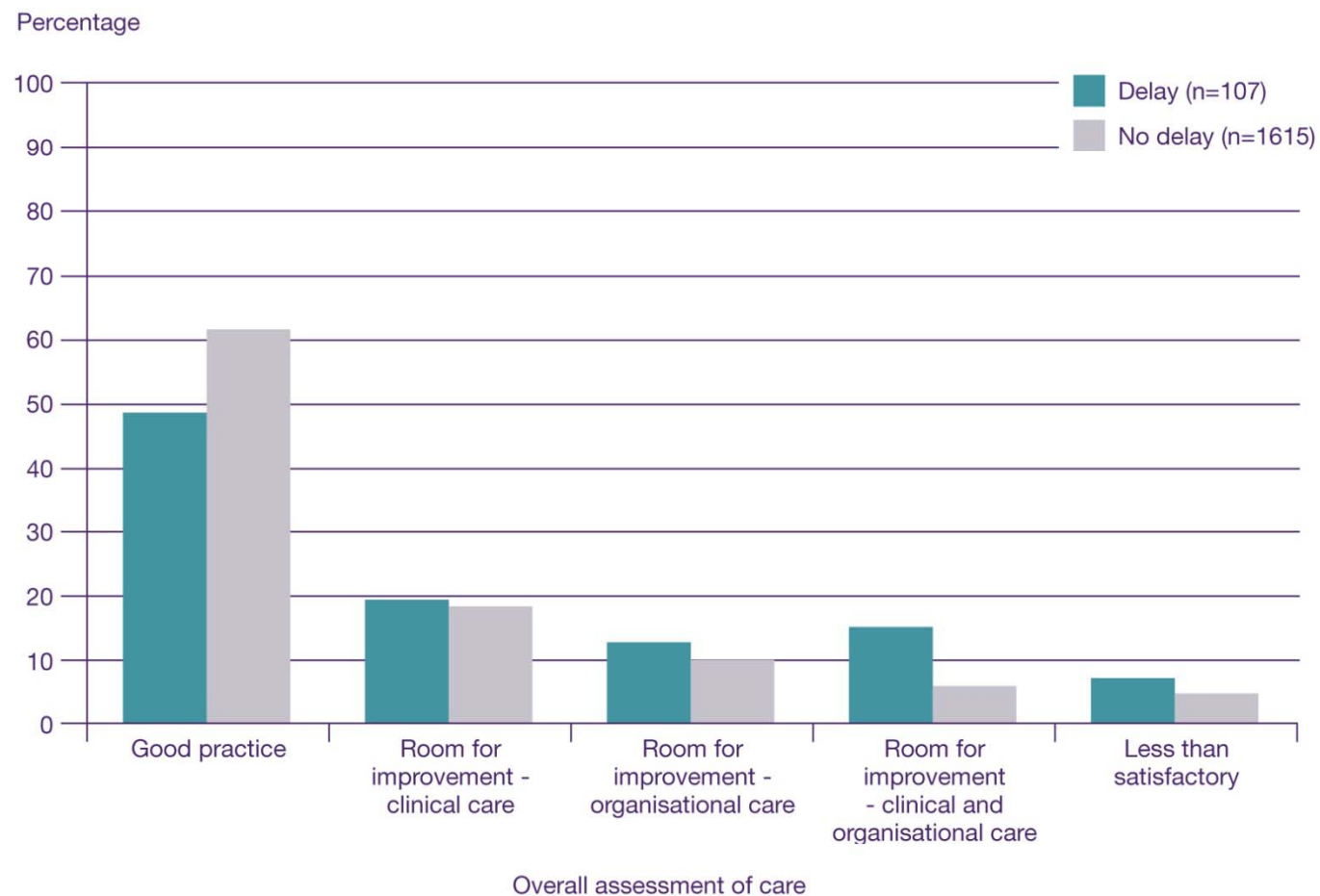


Figure 4.6 Overall assessment of care by delay in first review

Consultant involvement in diagnosis

- Overall 47% (1364/2990)

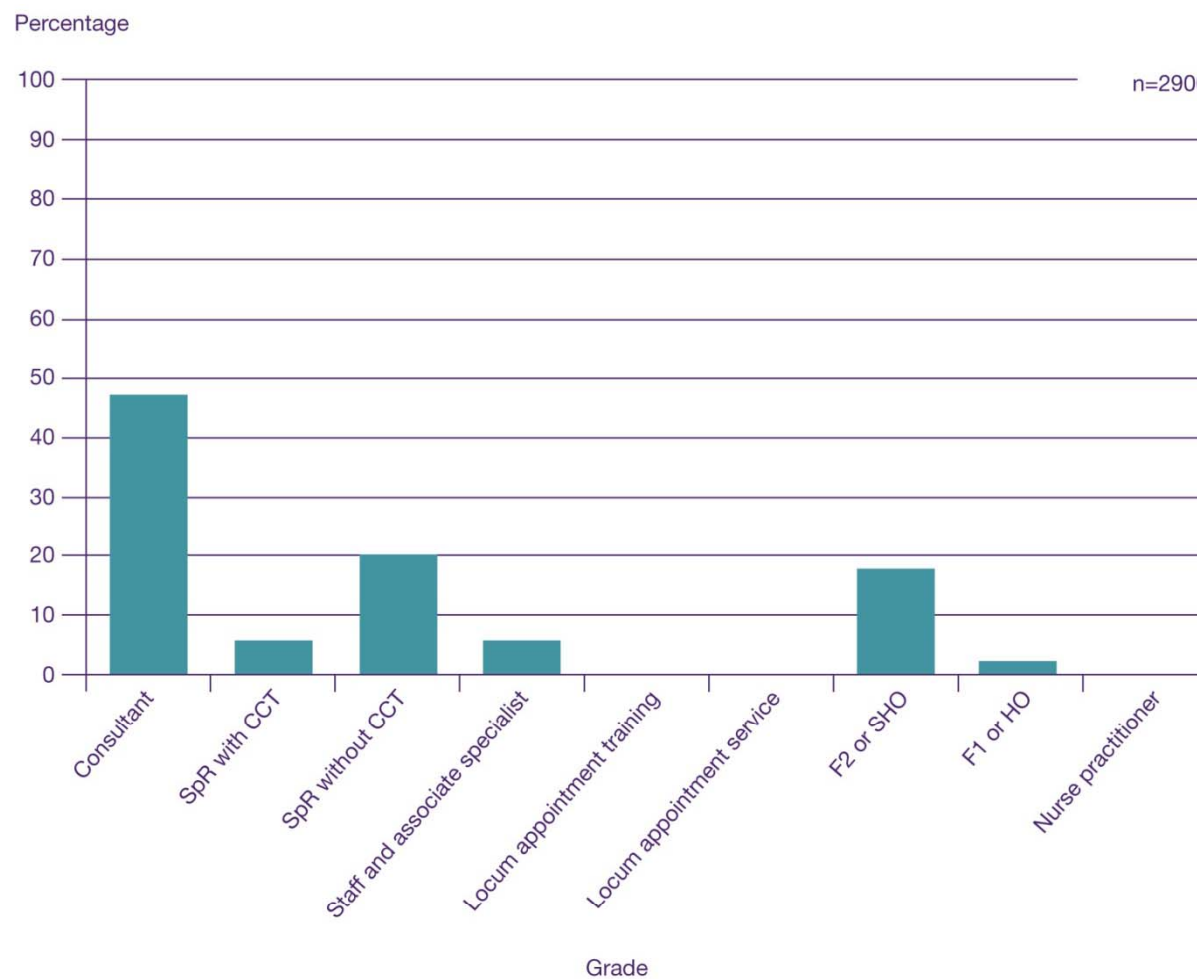


Figure 4.7 Grade of most senior healthcare professional making the diagnosis

Grade of doctor making diagnosis by time

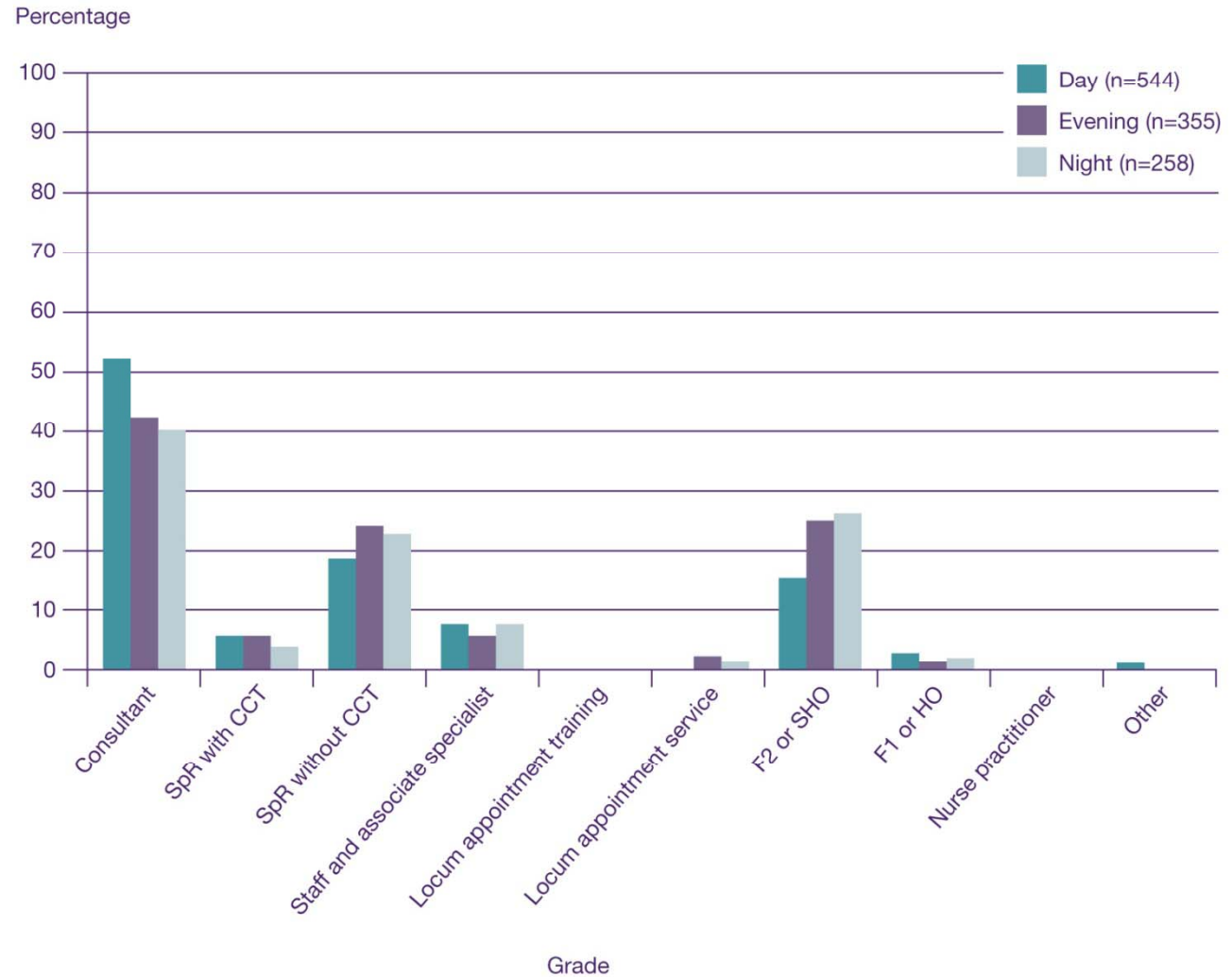


Figure 4.8 Grade of doctor making the diagnosis

Time from admission to first consultant review

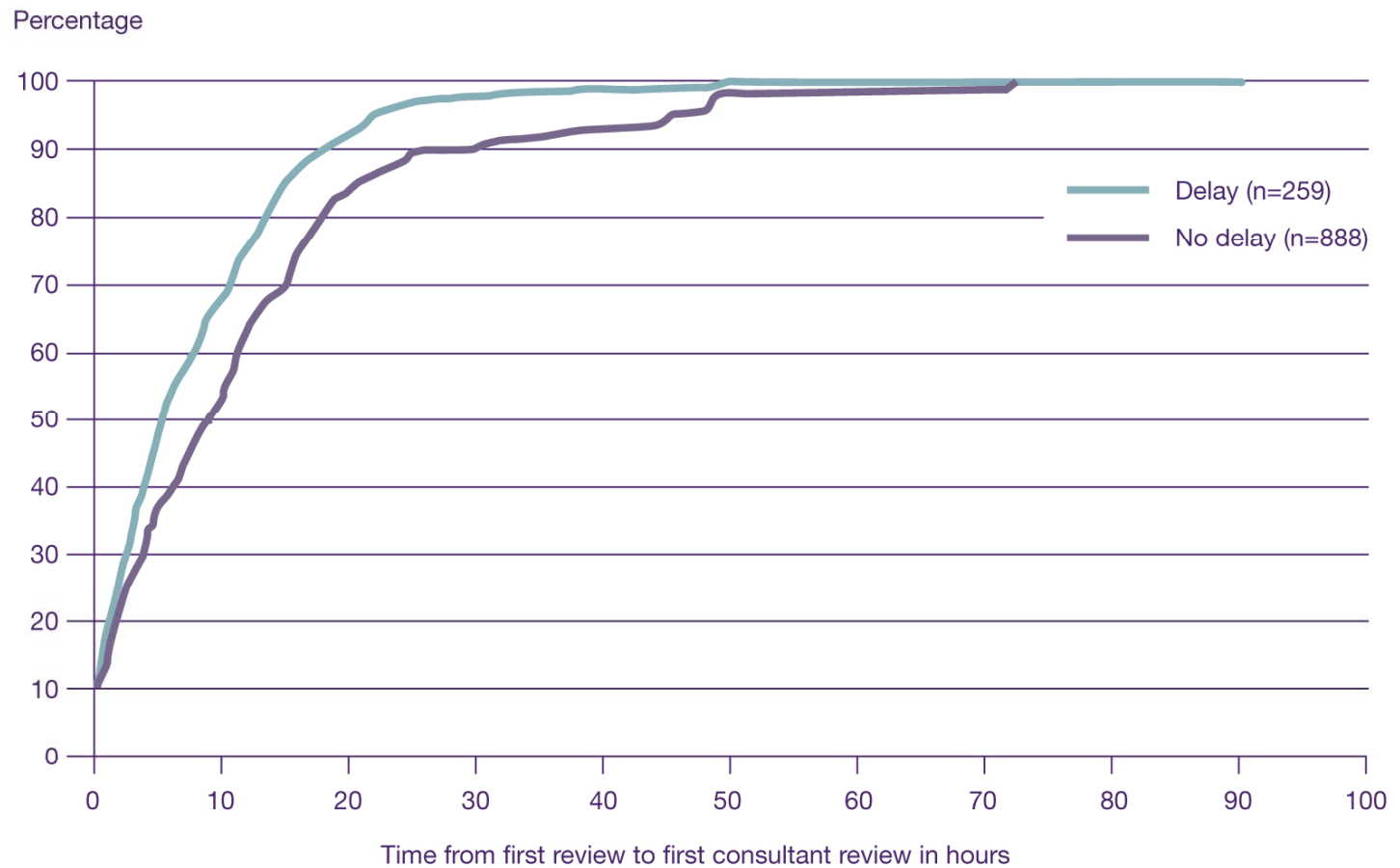


Figure 4.9 Time from first review to consultant review by delay in consultant review

Time from admission to first consultant review - paediatrics

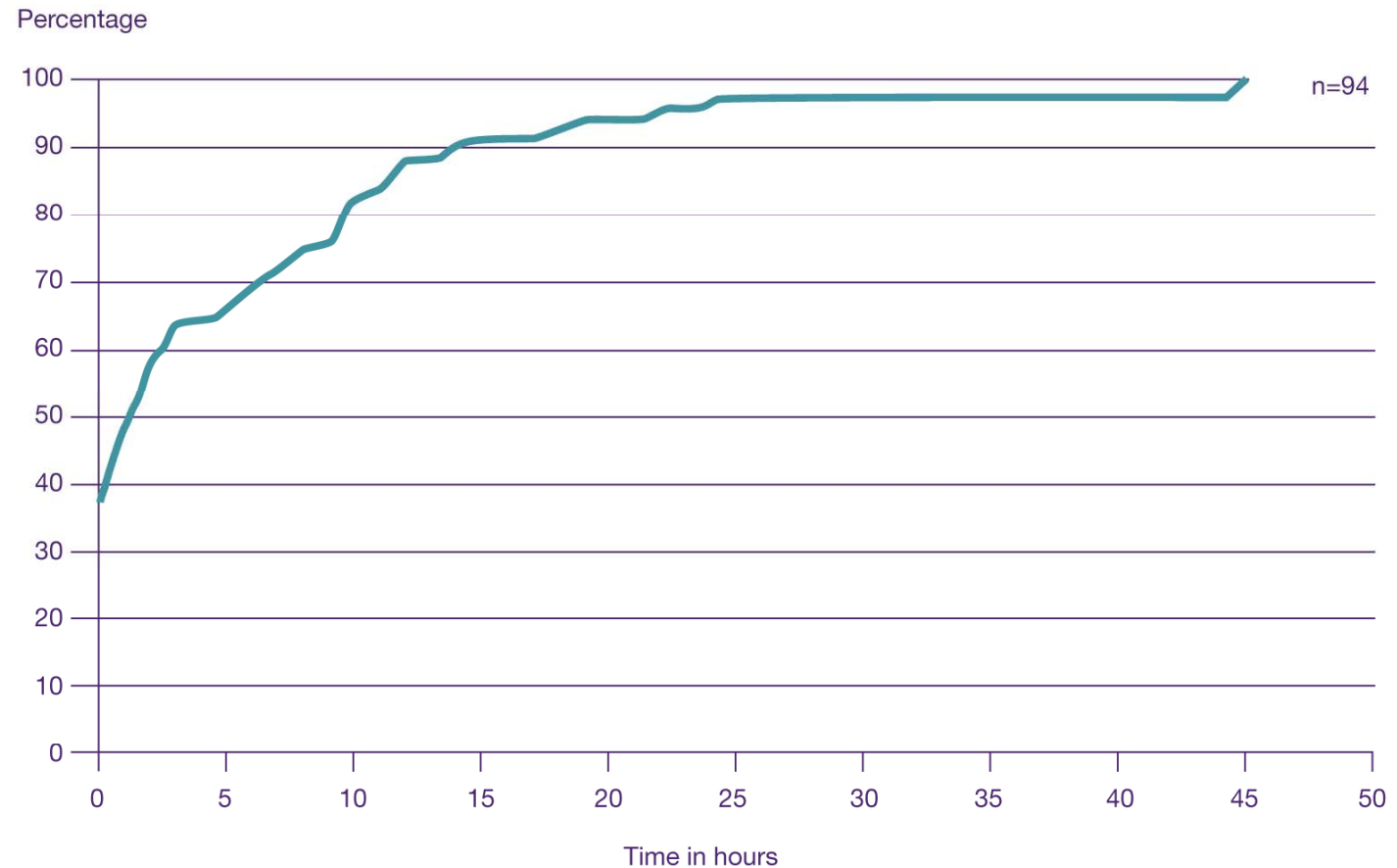


Figure 7.2 Time in hours to consultant assessment

Communication

- Overall 13.5% (267/1983)

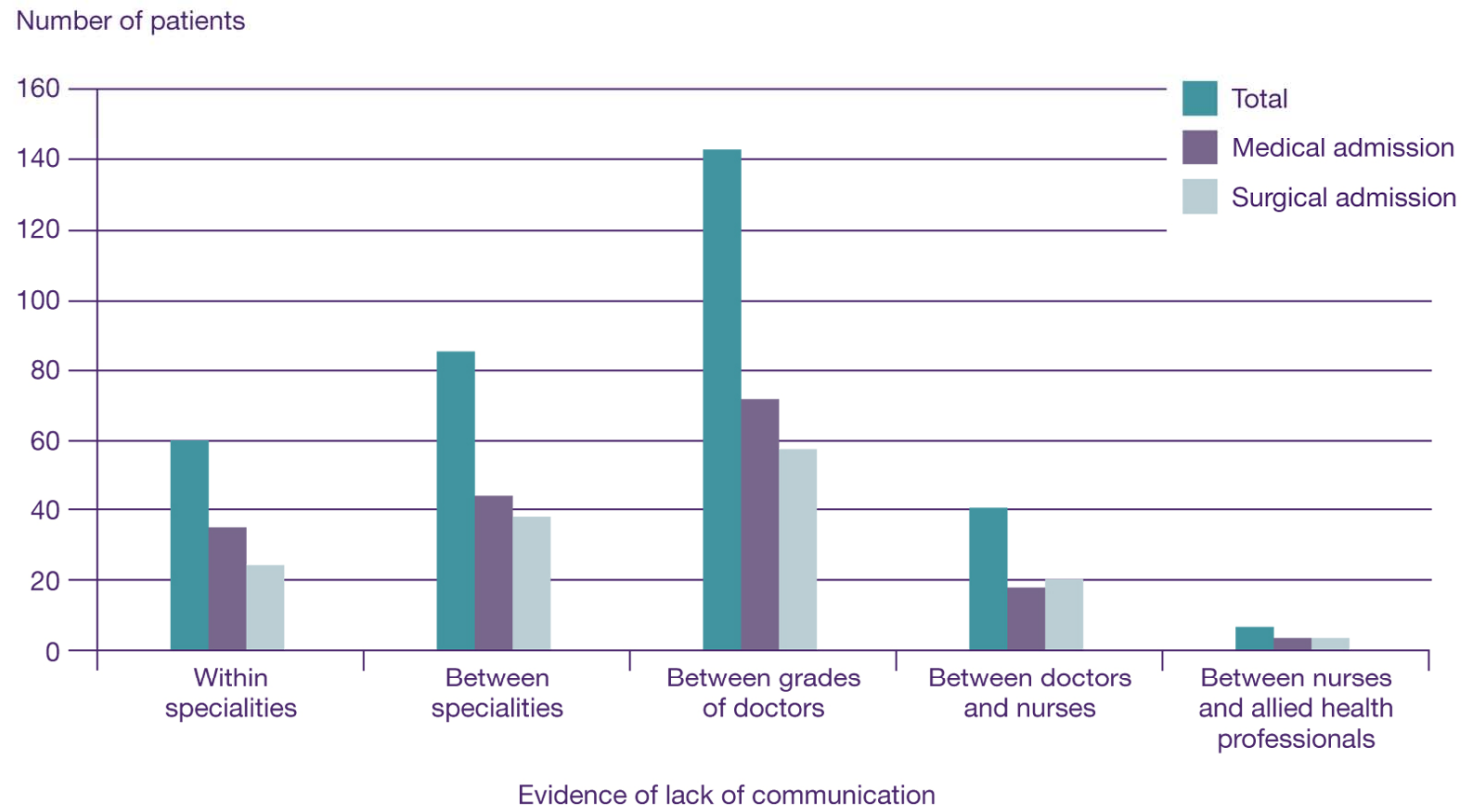


Figure 4.10 Lack of team communication

'Hospital at Night' teams

- Used in 62.4% (186/298) hospitals

Table 4.3 Hospital at Night cover

Type of cover	n	%
Multi-professional team	57	30.6
Multi-professional team and co-ordinated handover	13	7
Multi-professional team, co-ordinated bleep and multi-specialty cross cover	56	30.1
Multi-professional team and multi-specialty cross cover	5	2.7
Co-ordinated handover	45	24.2
Co-ordinated handover and multi-specialty cross cover	1	<1
Multi-specialty cross cover	9	4.8
Subtotal	186	
Not answered	111	
Grand Total	297	



Key Findings



- Consultant involvement in diagnosis becomes less frequent at night.
- Clinically important delays in 25% of first consultant reviews.
- Poor communication between and within clinical teams coupled with poor documentation.
- District hospitals may have particular problems delivering a high standard of care when dealing with very sick children and it is recognised that a well co-ordinated team approach is required

Recommendations



- Seniority of staff should be appropriate to the clinical need of the patient.
- Better systems of handover and better documentation must be established.
- Benefits and risks of reduced working hours should be fully assessed and clinical teams organised to ensure continuity of care.



Surgery and anaesthesia

Surgery and anaesthesia



- Of 1354 patients admitted under a surgeon, almost half (645) did not undergo an operation

Classification of urgency of procedure

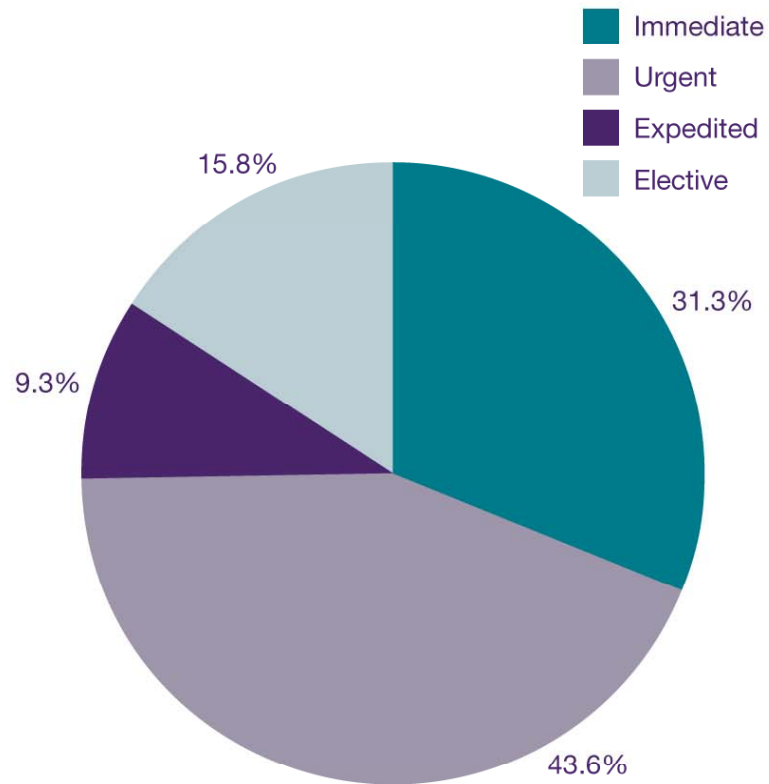


Figure 5.1 Classification of urgency of intervention

Classification of urgency and ASA

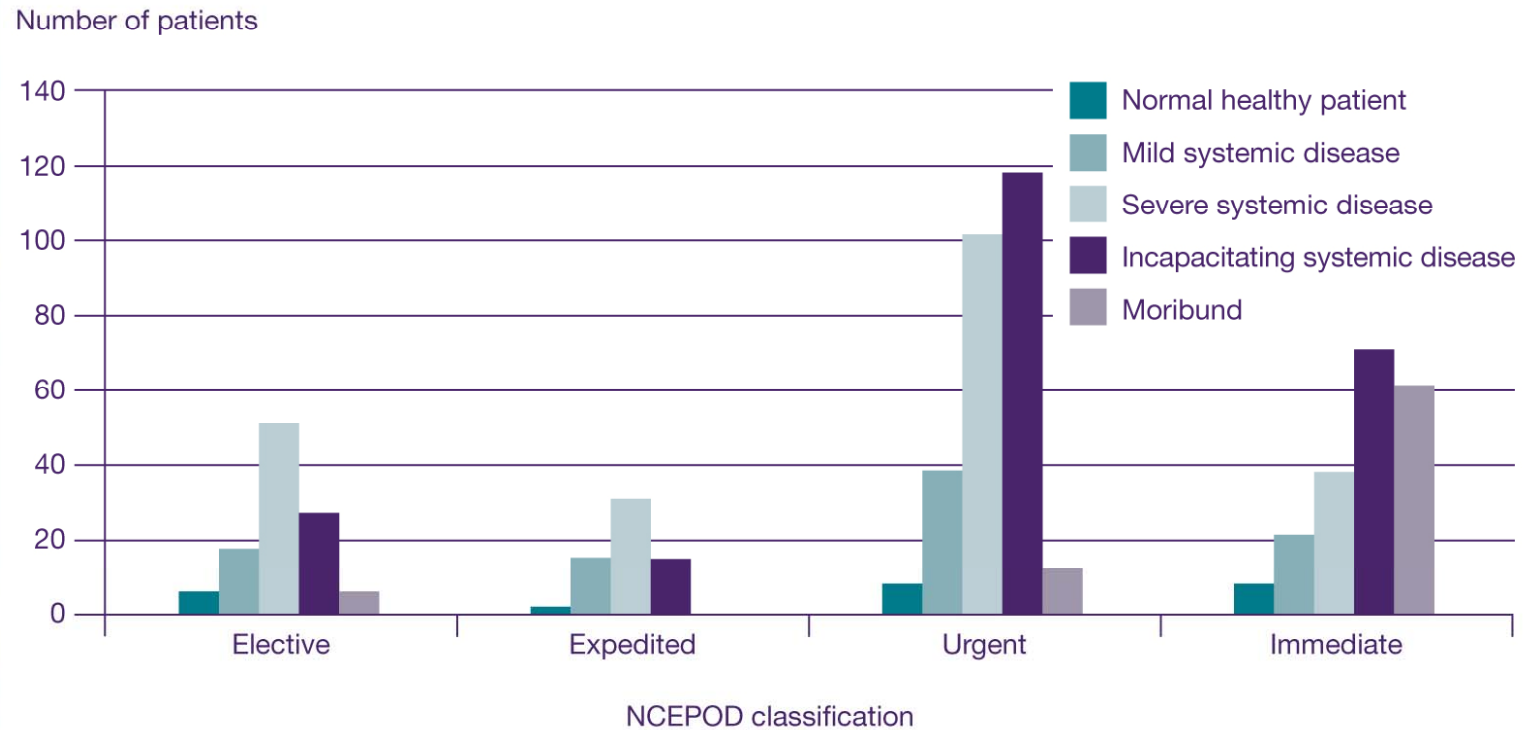


Figure 5.3 Physical status of the patient as defined by the ASA grading and urgency of procedure

Failure to recognise severity of illness and avoiding operation



A teenager became neutropenic following chemotherapy for a sarcoma. The patient was admitted under the general paediatricians, unwell and with soft tissue infection over the chest wall. A paediatric specialist registrar diagnosed cellulitis. The patient was reviewed by a surgical specialist registrar who raised the possibility of necrotising fasciitis. There was no senior surgical input and no action was taken. The patient deteriorated over the next 12 hours and died without further surgical review or intervention.

Failure to recognise severity of illness and avoiding operation



- *Un-operated necrotising fasciitis is fatal. In the view of the advisors early consultant review and active treatment might have prevented the death of this patient.*

Failure to recognise severity of illness and avoiding operation



A teenager was involved in a road traffic accident. On admission they had a Glasgow Coma Score (GCS) of 14/15. A CT scan demonstrated a subdural haematoma. An emergency department specialist registrar discussed the patient with a neurosurgical SpR and a further CT was ordered. Transfer was not accepted despite deterioration in the patients GCS to 12/15 over the next two hours.

Failure to recognise severity of illness and avoiding operation



Following a further deterioration over another hour to GCS 8/15 the patient was intubated and following further discussion with a neurosurgical specialist registrar a third CT scan was ordered. During the scan the patients endotracheal tube became blocked and the patient became hypoxic which lead to raised intracranial pressure. Thirty six hours later the patient was declared brain dead and ventilation withdrawn.

Failure to recognise severity of illness and avoiding operation



- *The advisors questioned whether with senior involvement at an earlier stage, clear diagnosis and a decisive management plan, could this patient have undergone craniotomy and potentially avoided this outcome? Was this a case of over-enthusiastic “gate keeping” to protect scarce neurosurgical resources?*

Consultant involvement in the decision to operate

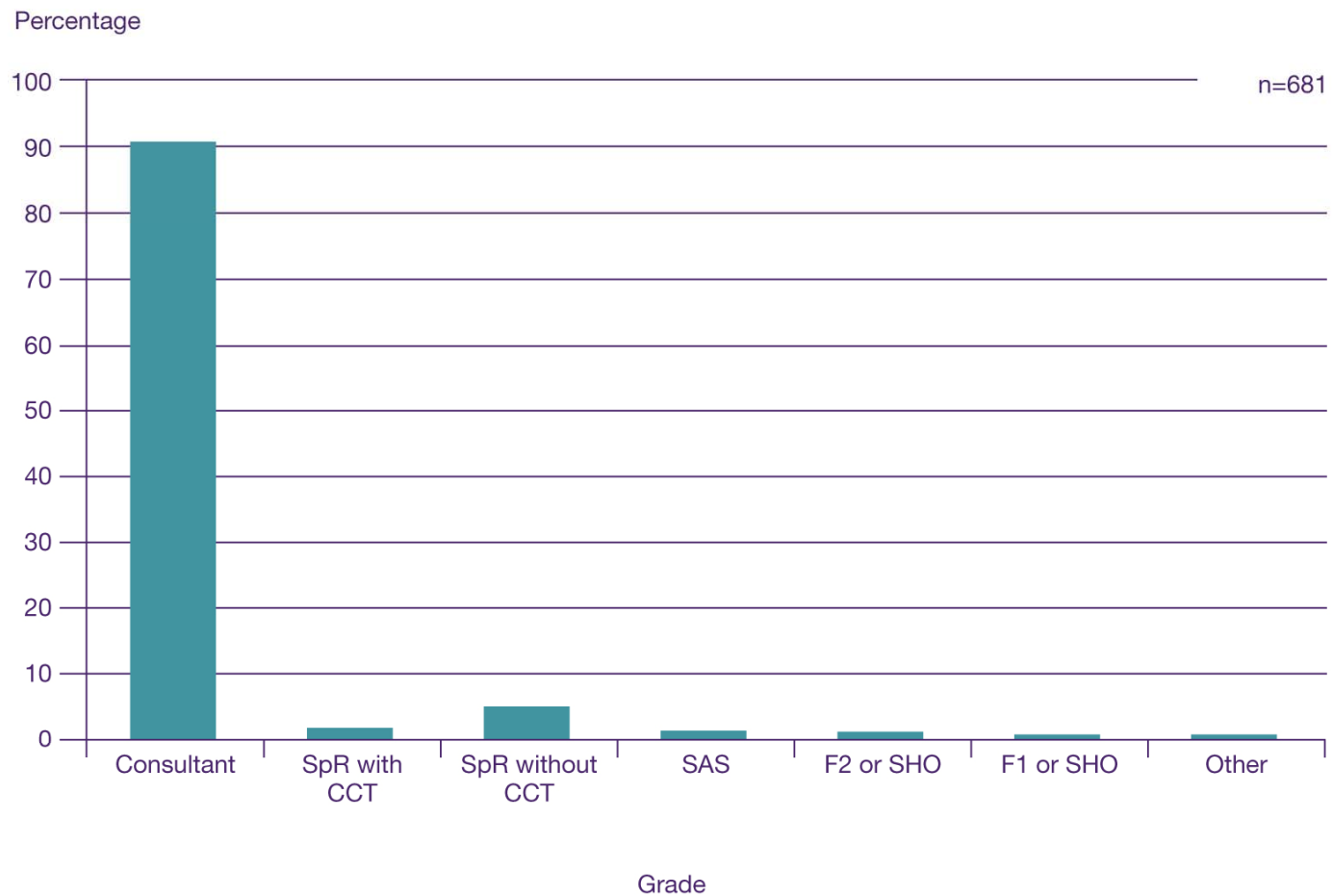


Figure 5.4 Grade of clinician consulted before procedure

Consent

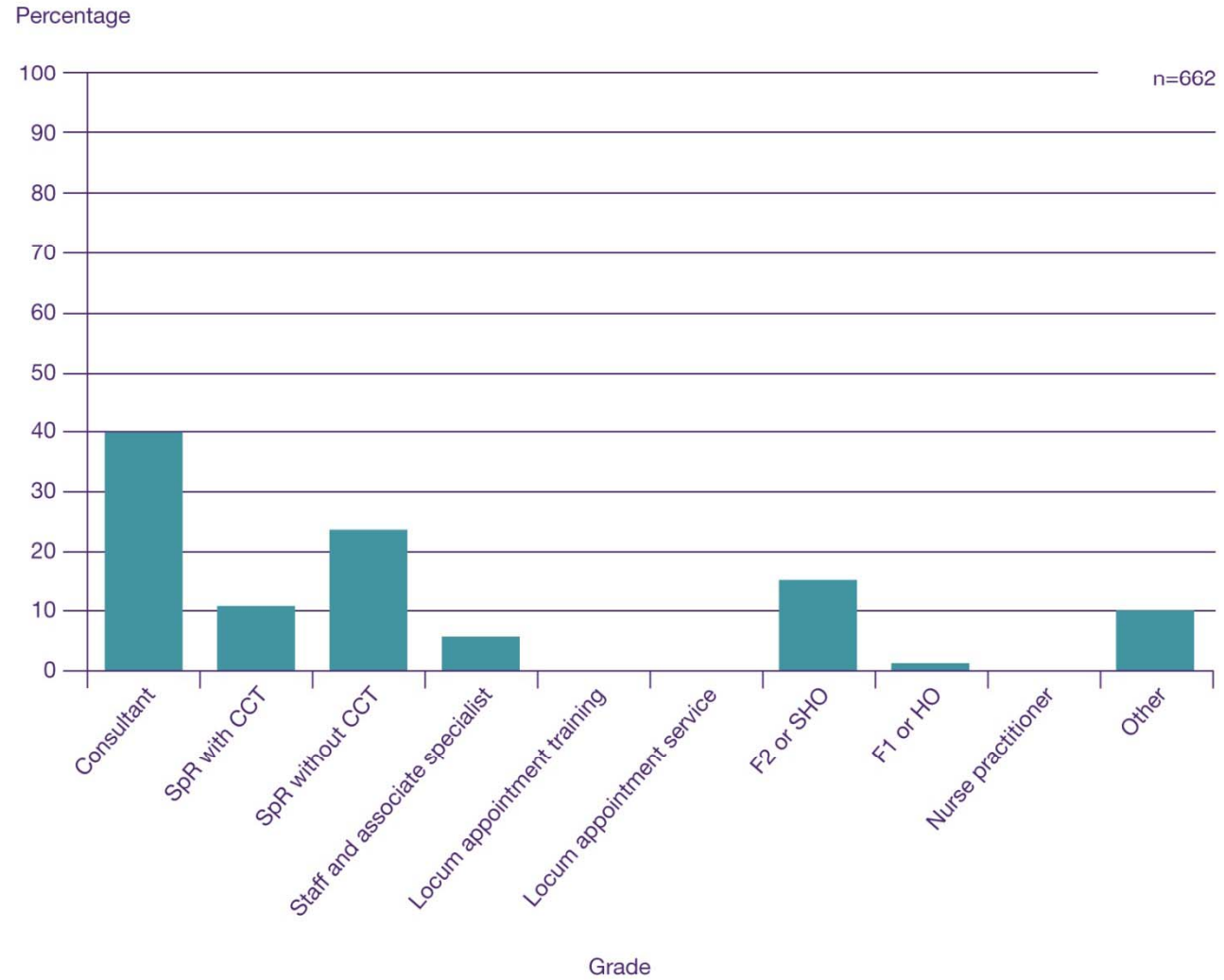


Figure 5.5 Grade of clinician taking consent

Delays between admission and surgery



- Overall delays in 13.8% (85/617)
 - Lack of theatre time
 - Delay in consultant review
 - Delay in junior reaching diagnosis
 - Failure to recognise seriousness of the condition
 - Failure by juniors to seek consultant advice

Grade of staff in theatre

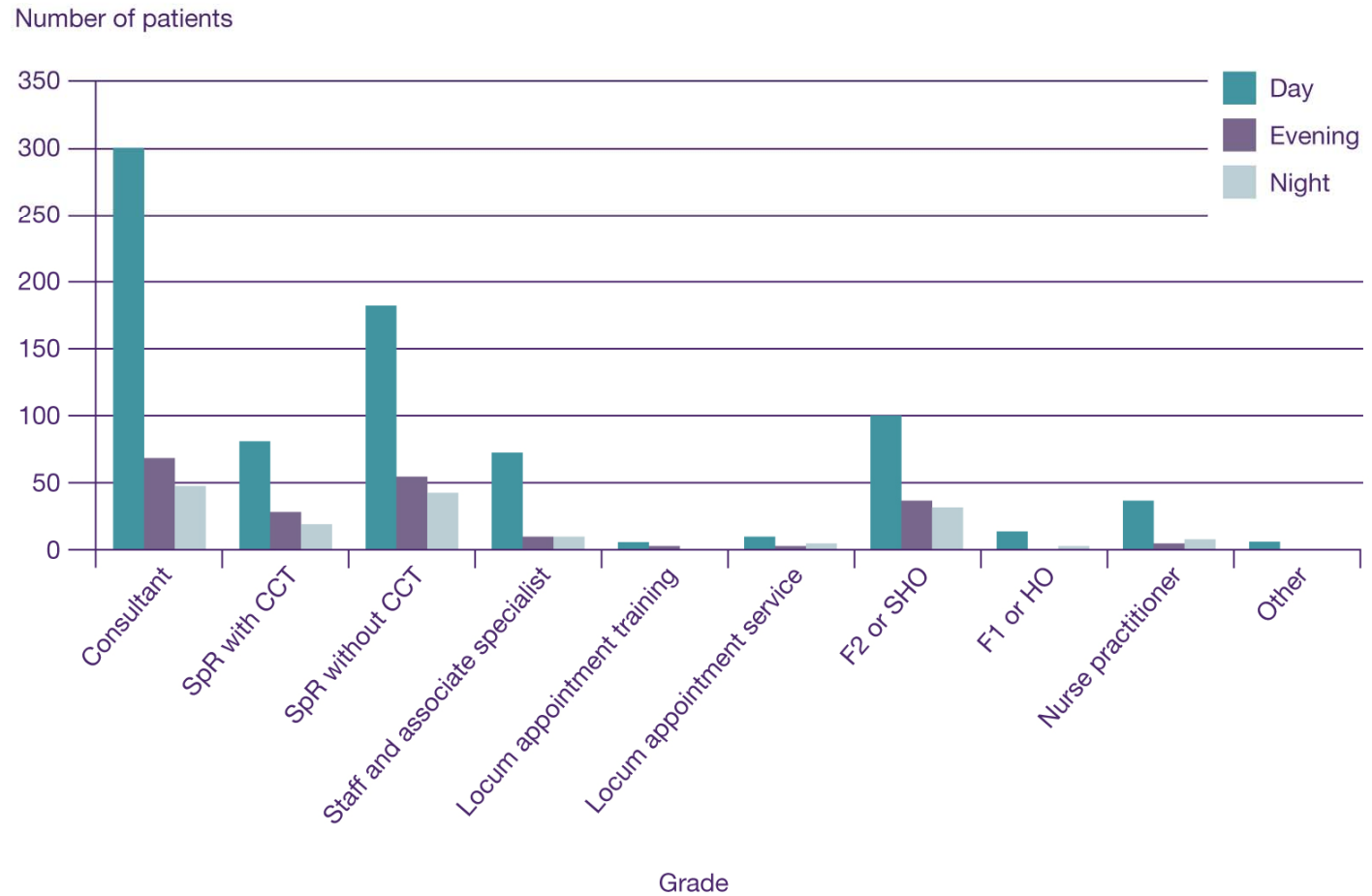


Figure 5.6 Grade of health care professionals in theatre by time of day

Supervision of trainees in theatre



Table 5.5 Levels of supervision when the most senior operating clinician was not a consultant.

Level of supervision	n	%
Supervised scrubbed	24	12.2
Unsupervised in theatre/procedural room	49	25.0
Unsupervised in hospital	85	43.4
Other	38	19.4
Subtotal	196	
Not answered	37	
Grand Total	233	

Appropriate grade of anaesthetist



Table 5.13 Appropriate grade of anaesthetist – advisors' view

Appropriate grade of anaesthetist	n	%
Yes	206	95.8
No	9	5.5
Subtotal	215	
Unable to answer	192	
Not answered	67	
Grand Total	474	

Grade of anaesthetist by severity of condition



Number of patients

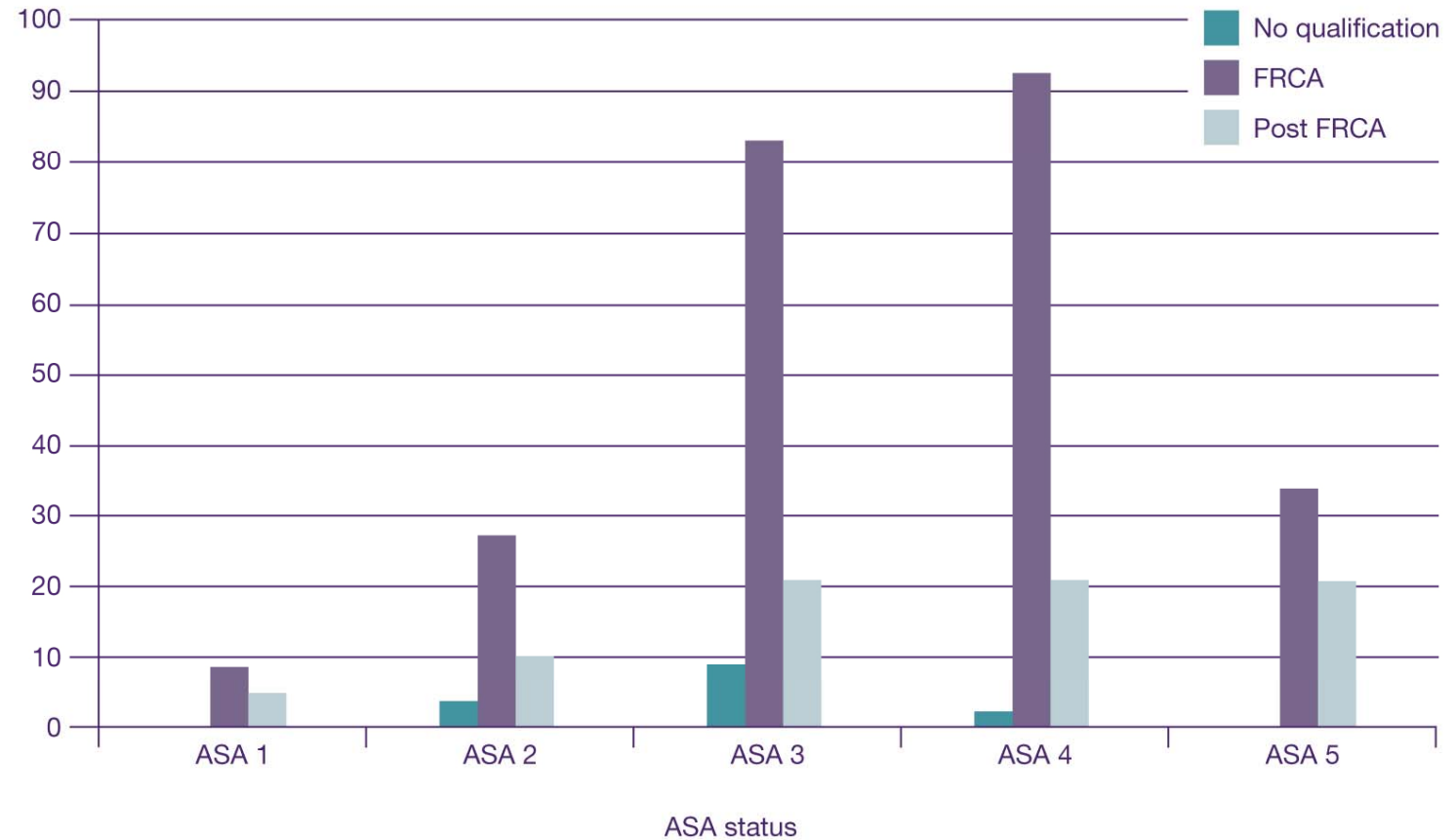


Figure 5.7. Grade of anaesthetist by severity of condition

Poor documentation



- No evidence of pre-operative anaesthetic assessment in 56.1% of cases (234/417)
- Anaesthetic information was not provided in 43.6% of cases (99/227)
- Advisors were only able to assess in 16/40 cases whether supervision was appropriate when a consultant was not a lead anaesthetist.



Venous thromboembolism

Venous thromboembolism



Table 6.25 Venous thromboembolism precautions taken by specialty

VTE precautions taken	Total population		Admitted by a surgeon		Admitted by a physician		Unknown
	n	%	n	%	n	%	n
Yes	1225	42.7	670	52.2	464	34.0	91
No	1333	46.5	481	37.5	753	55.2	99
Unknown	310	10.8	132	10.3	148	10.8	30
Subtotal	2868		1283		1365		220
Not answered	191		71		77		43
Grand Total	3059		1354		1442		263

Venous thromboembolism and surgical specialty



Table 6.26 Venous thromboembolism precautions taken by surgical specialty

Admitting specialty	VTE precautions taken	n	%
General surgery	Yes	374	51.6
	No	280	38.6
	Unknown	71	9.8
	Subtotal	725	
Trauma and orthopaedics	Not answered	36	
	Yes	158	73.1
	No	35	16.2
	Unknown	23	10.6
	Subtotal	216	
Grand Total		988	

Method of prophylaxis



Table 6.27 Method of venous thromboembolism precaution used by surgical specialty

Specialty admitted under	Method of precaution	n
General surgery	Heparin	309
	Graduated elasticated compression stockings	218
	Heparin and Graduated elasticated compression stockings	171
	Calf compressions	29
	Other	9
Trauma and orthopaedics	Heparin	104
	Graduated elasticated compression stockings	71
	Heparin and Graduated elasticated compression stockings	43
	Calf compressions	19
	Other	28

**Answers may be multiple*

Recurring themes



- Poor communication.
- Lack of multidisciplinary input.
- Poor end of life care planning.
- Lack of palliative care involvement.

Recurring themes



- Inadequate consent
- Deficiencies in diagnosis
- Delay in assessment and treatment

Recurring themes



- Poor fluid and electrolyte management.
- Failure to recognise or manage malnourishment.
- Poor documentation.

Recurring themes



- Failure to adapt to healthcare status.
- Failure of audit and critical incident reporting.
- Neglect of DVT and antibiotic prophylaxis.

Case study - general surgery



An elderly ASA 3 patient was re-admitted under general surgeons from a residential home. The patient had recently been discharged from a different team following care for abdominal pain associated with known diverticular disease; this had been resolved with conservative management. On this admission the patient complained of right hypochondrial pain and tenderness with a temperature of 38.5°C. Overnight the patient became hypotensive and was given 2 litres of intravenous fluids, but no antibiotics.

Case study - general surgery



At 09:00 the next day on the consultant ward round a diagnosis of peritonitis was established and arrangements were made to take the patient to theatre for laparotomy. However, before a theatre became available the patient suffered a gastrointestinal bleed and died.

Case study - general surgery



- *The advisors noted that the autopsy showed perforated diverticular disease and questioned whether there should have been a senior review earlier and whether the patient should have been given intravenous antibiotics.*

Case study - orthopaedics



An elderly patient was returned to a general surgical ward following a hemiarthroplasty for a fractured neck of femur. In the immediate postoperative period 10 litres of intravenous saline were administered over 12 hours. There was no senior input to care, which was managed by an orthopaedic senior house officer who did not seek any advice. No urinary catheter had been placed and the fluid balance charts were poorly completed. The patient died 20 hours postoperatively. The cause of death given on the death certificate was "cardiac failure".

Case study - orthopaedics



- *The advisors considered it inappropriate for this patient to have been sent directly to a general surgery ward. The patient would have benefited from a greater degree of senior input and interdisciplinary care with medicine for the elderly.*

Key Findings



- There was a lack of involvement of trainees in emergency surgery
- There was poor communication
- There was poor record keeping
- There was poor decision making and lack of senior input
- Some aspects of basic care continue to be neglected

Recommendations



- Systems of communication between and within teams must improve.
- Training of doctors and nurses must place emphasis on basic skills of monitoring vital functions, recognising deterioration and acting appropriately.

Recommendations



- All trainees need to be appropriately exposed to the management of emergency patients and the organisation of services must address training needs.



Investigations

Essential investigations



**Table 6.1 All essential investigations performed
– advisors' opinion**

All essential investigations performed	n	%
Yes	1899	91.3
No	182	8.7
Subtotal	2081	
Insufficient data	144	
Grand Total	2225	

Omission of investigations



**Table 6.2 Outcome affected by omission of investigations
– advisors' opinion**

Outcome affected	n	%
Yes	83	4.4
No	1800	95.6
Subtotal	1883	
Insufficient data	342	
Grand Total	2225	

Delays



Table 6.3 Delay in investigations being undertaken

Delay in investigations	n	%
Yes	107	5.2
No	1932	94.8
Subtotal	2039	
Unable to answer	126	
Not answered	60	
Grand Total	2225	

Table 6.4 Delay in obtaining investigations
– advisors' opinion

Delay in obtaining investigations	n	%
Yes	75	3.7
No	1947	96.3
Subtotal	2022	
Insufficient data	203	
Grand Total	2225	



Radiology

Radiology

- 2379 patients had radiological exam
- 605 patients underwent no radiology

Table 6.5 Radiological exam requested

Radiological exam requested	n
Chest x-ray	1716
Abdominal x-ray/ultrasound	524
CT head	273
CT abdomen	189



Radiology and expectation of survival



Radiology and expectation of survival

Radiology Performed?	Expectation of survival		
	No	Yes	Unsure
Yes	1087(73%)	306 (79%)	962 (87%)
No	384 (26%)	77 (20%)	141 (13%)

Radiology and health status



Radiology and health status

Radiology Performed?	Health status		
	Mild Disease	Severe Disease	Moribund
Yes	203 (87%)	600 (83%)	426 (69%)
No	29 (12%)	118 (16%)	184 (30%)

Radiology use



- 1471 patients not expected to survive on admission
 - 1087 had radiological investigation (73%)
- 610 patients moribund on admission
 - 426 had radiological investigation (69%)
- Appropriateness?
 - Patient care
 - Resource utilisation

Timing of radiology



Table 6.9 Radiology performed out of hours

Performed out of hours	n	%
Yes	1241	53.8
No	982	42.6
Unknown	84	3.6
Subtotal	2307	
Not answered	72	
Grand Total	2379	

Availability of radiology



Table 6.10 Conventional radiology

Conventional radiology	n	%
Not available	5	1.7
24 hours	260	89.9
<24 hours	24	8.3
Subtotal	289	
Not answered	8	
Grand Total	297	

Table 6.13 Angiography – non cardiac

Angiography - non cardiac	n	%
Not available	126	45.7
24 hours	76	27.5
<24 hours	74	26.8
Subtotal	276	
Not answered	21	
Grand Total	297	

Table 6.11 CT scanner

CT scanner	n	%
Not available	43	15.1
24 hours	198	69.7
<24 hours	43	15.1
Subtotal	284	
Not answered	13	
Grand Total	297	

Table 6.12 MRI scanner

MRI scanner	n	%
Not available	51	18.1
24 hours	81	28.8
<24 hours	149	53.0
Subtotal	281	
Not answered	16	
Grand Total	297	

CT scanning and hospital type



Table 6.14 No or limited access to CT Scanning

Type of hospital	n
Acute specialist	10
Acute teaching	3
Large acute	4
Medium multiservice	2
Small acute	7
Small multiservice	9
Children's services	1
Independent	42
Multiple answers	3
Subtotal	81
Not answered	5
Grand Total	86

Availability of radiology



Table 6.10 Conventional radiology

Conventional radiology	n	%
Not available	5	1.7
24 hours	260	89.9
<24 hours	24	8.3
Subtotal	289	
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Grand Total	297	

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MRI scanner	n	%
Not available	51	18.1
24 hours	81	28.8
<24 hours	149	53.0
Subtotal	281	
Not answered	16	
Grand Total	297	

First documented report



Table 6.15 Type of report produced

Documentation of first report	n	%
Provisional report	996	57.3
Final report	742	42.7
Subtotal	1738	
Not answered	641	
Grand Total	2379	

- Out of hours – 62% v 38%
- In hours – 52% v 48%

Grade of requesting doctor



Table 6.19 Grade of doctor requesting the investigation

Grade requesting exam	n	%
Consultant	307	16.1
SpR	477	24.9
SAS	100	5.2
F2 or SHO	911	47.6
F1 or HO	104	5.4
Nurse	3	<1
Other	10	<1
Subtotal	1912	
Not answered	467	
Grand Total	2379	

Did the results alter the management?



Table 6.20 The effect of the outcome of the investigation on the patients' management

Management changed	n	%
Yes	564	27.1
No	1376	66.1
Unknown	143	6.9
Subtotal	2083	
Not answered	296	
Grand Total	2379	

Provisional and final reports



Table 6.23 Discrepancies between the provisional and the final report

Final report differed from the initial report	n	%
Yes	40	2.2
No	1199	65.5
Unknown	592	32.3
Subtotal	1831	
Not answered	548	
Grand Total	2379	

Key Findings



- 182 patients did not have all essential investigations performed.
- 5% of patients had a delay in their investigations being performed.
- 1241/2338 (53.1%) of initial radiological investigations were performed out of hours.
- Access to CT scanning and MRI scanning is a substantial problem with many sites having no or limited (<24hours) on site provision.
- Only 150/297 hospitals have on site angiography (non-cardiac) and of these only 76 have 24 hour access.

Recommendations



- Hospitals which admit patients as an emergency must have access to plain radiology and CT scanning 24 hours per day, with immediate reporting (This recommendation was previously reported in 'Emergency Admissions: A Journey in the Right Direction?' in 2007).
- There should be robust mechanisms to ensure communication of critical, urgent or unexpected radiological findings in line with guidance issued by the Royal College of Radiologists.

Recommendations



- Any difference between the provisional and final radiology report should be clearly documented in the final report.
- Diagnostic and interventional radiology services should be adequately resourced to support the 24 hour needs of their clinicians and patients.



End of life care

Background



- >0.5 million die a year in UK
- Majority of people who die do so in acute hospitals
- >75 years of age from chronic illness
- Most would rather die at home
- Wide range of people who care for the dying
- Need for improvement in quality of care



<http://www.endoflifecareforadults.nhs.uk/eolc>

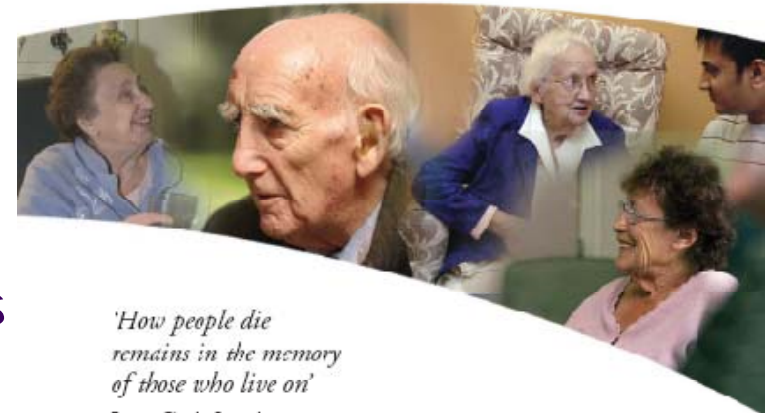
Background

- Better community care
- Improving links with specialist ELC services
- Enhancing education & training
- Further developing Palliative Care Teams
- Research
- Audit



End of Life Care Strategy

Promoting high quality care for all adults at the end of life



*'How people die
remains in the memory
of those who live on'*

Dame Cicely Saunders
Founder of the Modern Hospice Movement

July 2008



Themes



- Expectation of survival and admission process
- Decision making on end of life care pathways
- End of life care documentation
- Use of DNAR
- Involvement of Palliative Care Teams
- Skills and training of healthcare professionals
- Quality of end of life care management

Terminology



Expectation of survival on admission:

- not expected to survive for “terminal care”
 - mainly included patients with cancer.
- not expected to survive but “not terminal care”
 - the majority of these patients had end stage non cancer disease for example pulmonary, neurological, cardiac diseases and patients with inoperable surgical pathology

Expectation of survival



Table 8.1 Expectation of survival on admission

Expectation of survival	n	%
Not expected (terminal care)	745	24.7
Not expected (not terminal care)	760	25.1
Uncertain	1120	37.1
Expected	397	13.1
Subtotal	3022	
Not answered	37	
Grand Total	3059	

- Approximately 50% of admissions not expected to survive
- 24.7% should have had some consideration for treatment limitations & ELC

Necessity of admission



- 128/2981 (4.2%) of admissions unnecessary

Table 8.2 Expectation of survival where admission was unnecessary

Expectation to survive	n	%
Not expected (terminal)	80	63.0
Not expected (not terminal)	32	25.2
Uncertain	11	8.7
Expected	4	3.1
Subtotal	127	
Not answered	1	
Grand Total	128	



- Opinion of the advisors 123/2090 (5.9%) of admission was considered unnecessary

Case study [20]



An elderly patient was admitted from home, unconscious, to the ED in the early hours of the morning following a 999 call by a distressed relative. The patient was receiving palliative care at home through their GP for asbestosis and mesothelioma. There was a history of increasing shortness of breath in the last 24 hours and they had been waiting for the out of hours GP service to attend the patient's home. The patient died three hours after arrival.

Case study



- *Why was this patient admitted to the emergency department?*
- *The advisors considered that there was lack of community support for this patient and their family.*
- *Better arrangements should have been made for out of hours home care.*

Admission



Table 8.3 Expectation to survive by medical or surgical admission

Expectation of survival	Medical		Surgical		Subtotal	Mode of admission not specified
	n	%	n	%		
Not expected (terminal)	330	48.8	346	51.2	676	69
Not expected (not terminal)	432	61.9	266	38.1	698	62
Uncertain	527	51.4	499	48.6	1026	94
Expected	144	38.6	229	61.4	373	24
Subtotal	1433		1340		2773	249
Not answered	9		14			14
Grand Total	1442		1354			263

- More medical patients admitted for not terminal care compared to surgical patients
- 54/724 (7.5%) of patients who were not expected to survive, "terminal care" were admitted to level 3 units
- 91/739 (12.3%) of patients who were not expected to survive "not terminal care" were admitted to level 3 units

Decision making



- Delays in being seen by a consultant
 - Unable to determine in 32% (47.7% in EA)
 - 25% (385/1553) over all (16% in EA)
 - 22% for those not expect to survive

Table 8.4 Delay being assessed by a consultant by expectation of survival

	Delay in consultant review				Subtotal	Grade not recorded/ Not answered/Unable to answer	Total
	Yes		No				
Expectation of survival	n	%	No	%			
Not expected (terminal)	72	20.9	272	79.1	344	137	481
Not expected (not terminal)	93	23	312	77	405	122	527
Uncertain	157	26.6	434	73.4	591	192	783
Expected	56	28.3	142	71.7	198	79	277
Subtotal	378		1160		1538	530	2068
Not answered	7		8			7	22
Grand Total	385		1168			537	2090

Decision making

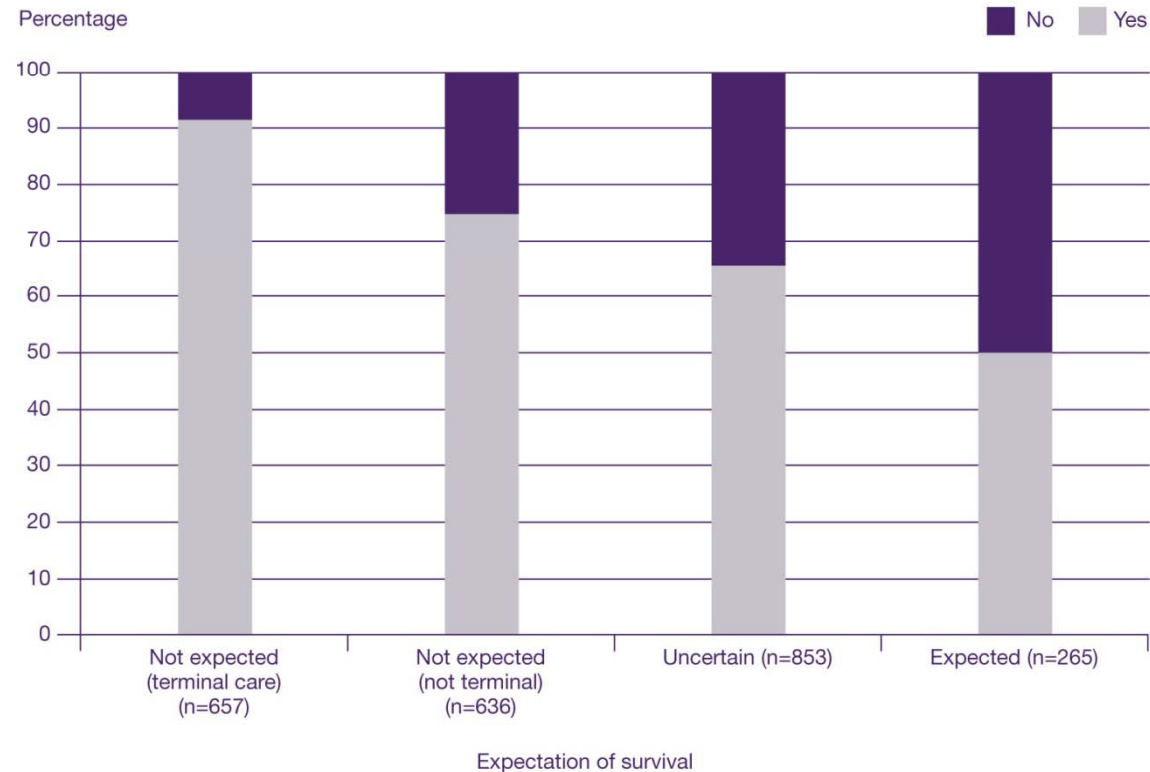


Figure 8.3 Treatment withdrawal discussed with patient and/or relative by expectation of survival on admission



- 654/2813 (23.9%) no discussion of treatment withdrawal
- 16.9% (219/1293) not expected to survive

End of life care pathways



- Only 33% (474/1436) of patients expected to die had an ELCP
- 46.1% (323 /701) of patients with known terminal disease had an ELCP
- 20.5% (151/735) of patients “not terminal care” had an ELCP

Table 8.6 Use of end of life care pathway for patients not expected to survive on admission.

End of life care pathway	n	%
Yes	474	33.0
No	757	52.7
Unknown	205	14.3
Subtotal	1436	
Not answered	69	
Grand Total	1505	

Do Not Attempt Resuscitation decisions



- 55% (1231/2225) of patients had a DNAR order
- Of the patients not expected to survive
 - 29.5% (298/1008) did not have a DNAR order
- 14.6% (157/1077) of DNAR orders not discussed with patient or relative

Grade of doctor signing the DNAR order

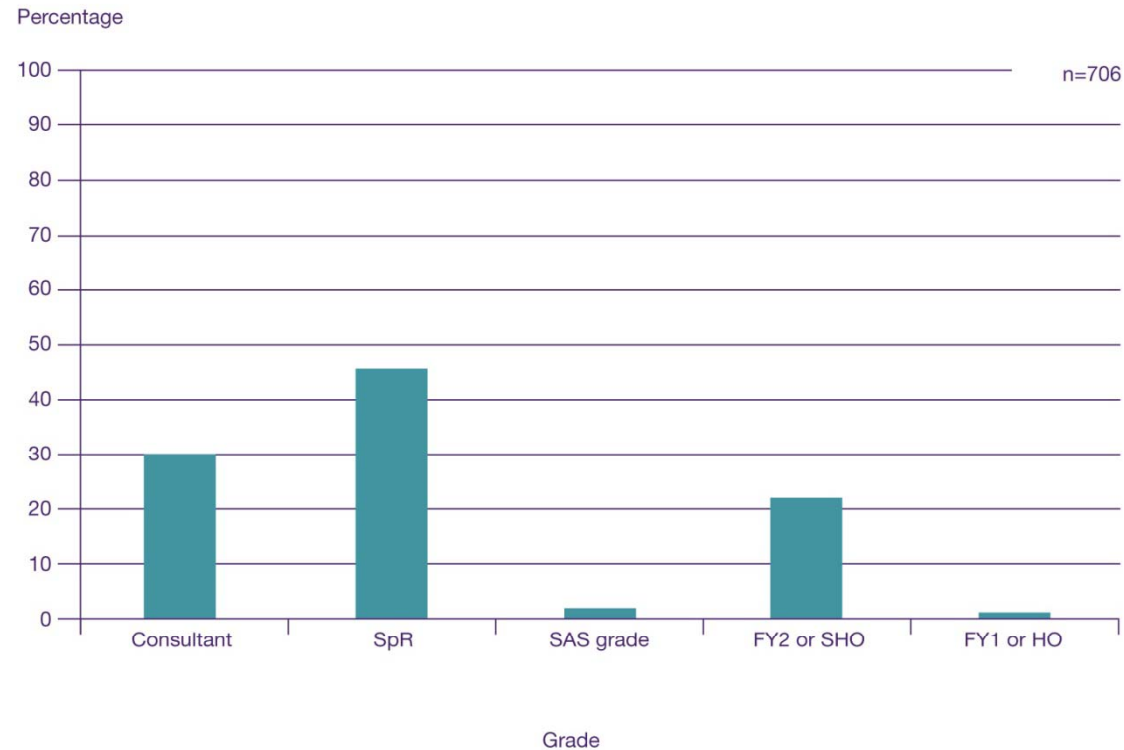


Figure 8.6 Grade of doctor who signed DNAR order

- Only 30.5% (215/706) consultants signed DNAR
- Very junior doctors signed 21.8% (154/706)
- Unable to answer or not answered in 527 cases

Involvement of palliative care team



Table 8.8 Involvement of palliative care team by expectation of survival.

	Palliative care involvement					Total n
	Yes		No		Insufficient data n	
	n	%	n	%		
Not expected (terminal care)	160	43.7	206	56.3	116	482
Not expected (not terminal)	45	12.1	328	87.9	153	526
Uncertain	47	9.8	432	90.2	304	783
Expected	8	5.2	146	94.8	123	277
Subtotal	260		1112		696	2068
Not answered	2		12		8	22
Grand Total	262		1124		704	2090

- Only 12.5% patients had involvement of palliative care teams.
- Palliative care teams mainly involved with “terminal care” patients.
- Even so only involved in < 50% of these patients.

Case study [21]



An elderly patient was admitted via the ED with abdominal pain, hypotension and hypothermia. An abdominal ultrasound revealed distended loops of bowel, ascites and an enlarged liver. A CT scan showed a large carcinoma.

The patient was admitted to an AU under the surgeons and given IV fluid resuscitation. The first consultant surgeon review was 18 hours later.

Case study [21]



The patient remained hypotensive and further intravenous fluids were given. A different consultant reviewed them a day later and stated that there was a “need to discuss resuscitation status with relatives”. A DNAR order was made but there was no documentary evidence of this discussion.

The patient was transferred to a HDU due to a persistent metabolic acidosis. The patient remained hypotensive and became progressively hypoxic. They died six hours later having had hourly observations and repeated arterial blood gas analysis.

Case study



- *What was the clinical management intent for this patient?*
- *The advisors considered that there was poor decision making by the surgical team and any active management was likely to be futile.*
- *The most appropriate care for this patient should have been involvement of a palliative care team and commencement of an end of life care pathway.*
- *Admission to a level 2 care was inappropriate and undignified in the last hours of this patient's life.*

Case study [22]



A middle aged patient with advanced carcinoma and bony secondaries was admitted following a GP referral via the emergency department complaining of abdominal pain. The patient lived in a warden controlled flat and was having daily visits from a community nurse. They were diagnosed as having cholecystitis and admitted to a surgical ward.

Case study [22]



Intravenous fluids and antibiotics were commenced. The patient was not considered fit for surgery. A do not attempt resuscitation order was made in the case notes following discussion with the patient by a surgical senior house officer. The patient died two days later without further review.

Case study



- *The advisors were of the view that a palliative care team should have been involved.*
- *There was no ELC pathway*
- *This patient's admission could have been avoided if there had been better communication with community care.*
- *Indeed admission to a hospice would have been the best scenario for this patient.*

Skills and training



- The Audit Commission found that only 18% of nurses and 29% of doctors stated that their pre-registration training covered end of life care.
- However in the same study healthcare professions were of the view that they were fairly confident in their abilities in identifying, delivering and communicating end of life care.
- Evidence that this may not be true....
 - Lack of skills:
 - to identify patients approaching the end of life
 - to implementation of ELC
 - to communicate with patients, relatives and other healthcare professions.

Case study [23]



An elderly patient with advanced lung carcinoma was admitted under the oncologists in the early hours of the morning due to increasing shortness of breath and chest pain. The patient was seen by a medical registrar who prescribed intramuscular morphine 10 mg 4 hourly and a DNAR order was written in the notes. There was no documentation of any discussions with the patient or relatives.

Case study [23]



Twelve hours after admission the patient had received 30 mg of morphine and was described as drowsy by the nursing staff. The patient was reviewed by a SHO who prescribed intramuscular naloxone 0.4 mg as required.

After administration of naloxone the patient became agitated, complained of increasing pain and died 4 hours later without being seen by a consultant.

Case study



- *The advisors considered that an ELC pathway should have been commenced on admission.*
- *While the DNAR order was appropriate, discussions with the patient and or their relatives should have taken place and have been documented.*
- *The patient's pain control management was very poorly managed and their last hours of life would have been unimaginably distressing.*
- *There was clear lack of knowledge amongst the healthcare staff. This patient should have had palliative care team involvement at an early stage following admission.*
- *The advisors regarded that the lack of senior level input may have contributed to this patient's substandard end of life care.*

Quality of care

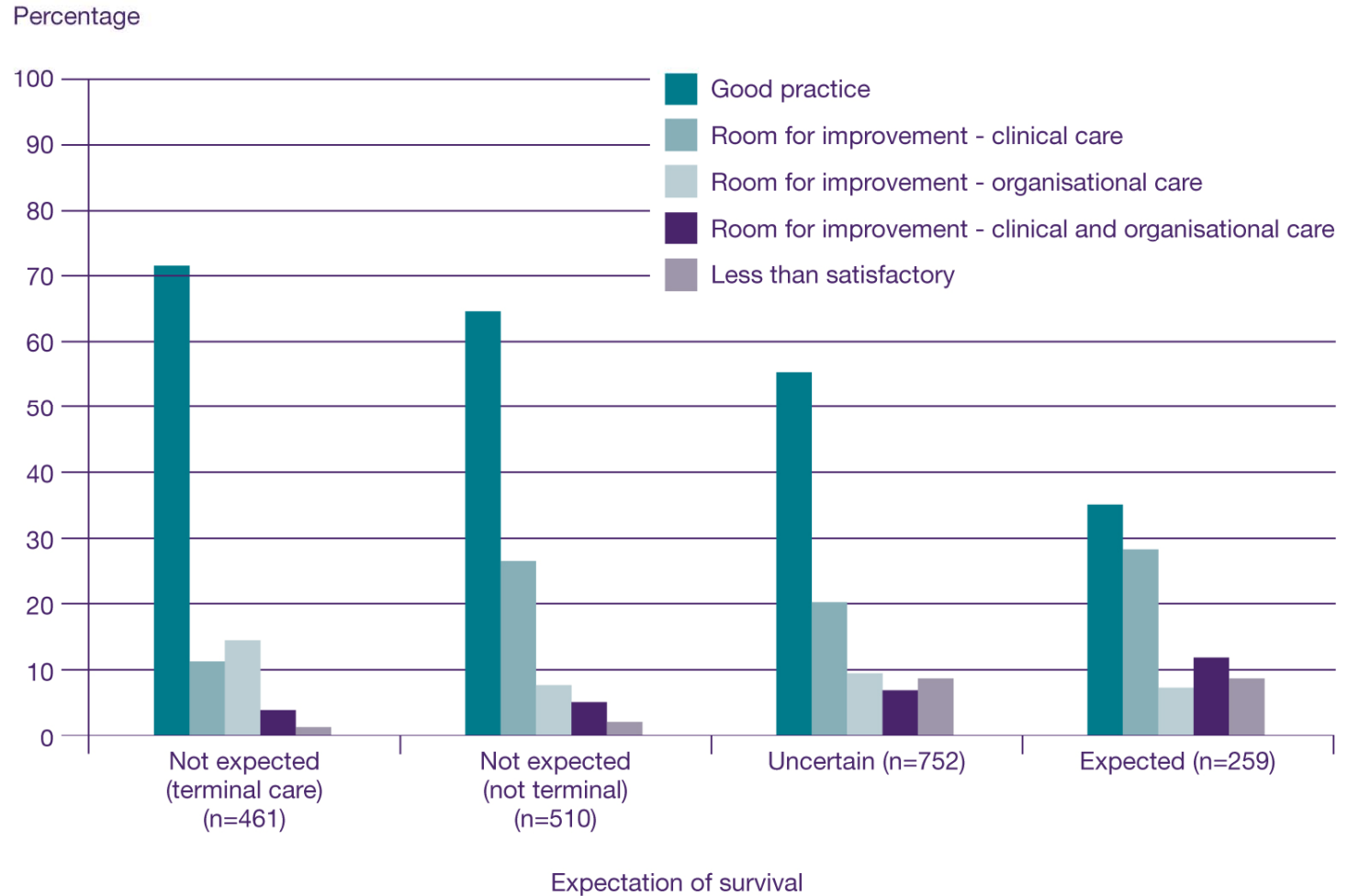


Figure 8.7 Overall quality of care by expectation of survival

Case study [26]



A middle aged patient with known metastatic carcinoma was receiving palliative care at home by their GP. Over the 24 hours prior to admission the patient became increasingly short of breath and was brought to the emergency department by a relative following discussion with the GP. A diagnosis of pneumonia was made and initially the patient wanted active treatment. They already had a DNAR order which was brought to the hospital with an advance directive.

Case study [26]



The patient was seen by a palliative care team within 24 hours of admission by which time his condition had deteriorated. Following further discussion with the patient and their relatives, active treatment was stopped and the patient were started on an ELC pathway. The patient received good analgesia and was visited on three further occasions by palliative care team before their death 24 hours later.

Case study



- *The advisors considered that the patient had received good care with a high standard of documentation.*
- *There had been good communication with the GP. There was early palliative care team involvement which resulted in appropriate change in management.*
- *This case study was viewed as an excellent example of combined community and hospital end of life care.*

Paediatric end of life care



- 45/94 children not expected to survive on admission (21 for terminal care)
- 28 had DNAR orders
- Discussion on treatment limitations with family in 66/77 cases
- In 12 cases discussion also with child
- Palliative care teams involved in 4 children
- 11 cases reviewed at M & M meetings

Paediatric end of life care



A young child with complex needs including microcephaly, asthma, renal impairment was admitted with pneumonia. During a previous admission, 6 months earlier including a stay on PICU, the child's parents had agreed that it would not be in the child's interests to undergo full resuscitation if they should arrest.

Ten hours after admission, in the early hours of the morning, the child deteriorated. The parents requested that the child undergo full treatment including PICU referral, which was accepted. The child arrested and died soon after intubation despite prolonged efforts to resuscitate.

Paediatric end of life care



The consultant commented that it had been difficult to discuss a care plan with the child's parents between admissions as "the patient was not improving and getting towards the end of their life". The consultant felt that the parents were not ready for discussions which might have prepared them for the future.

Paediatric end of life care



- *The advisors stated that it was unfortunate that no plan was in place*
- *The fact that latterly there was lack of recognition of the need for senior input into the decision making with this child was a particular issue.*

Key Findings



- 49.8% of patients, who died within 4 days of admission to acute hospitals, were not expected to survive and 68.7% of these were considered to have received good practice
- The advisors considered that 5.9% of patients had an unnecessary admission to hospital and this was due to a deficiency of social and medical support in the community.
- In 16.9% (219/1293) of patients who were not expected to survive on admission there was no evidence of any discussion between the healthcare team and either the patient or relatives on treatment limitation.

Key Findings



- Of those patients not expected to survive on admission in only a third were end of life care pathways used and 30% did not have do not attempt resuscitation (DNAR) orders.
- In 21.8% of cases DNAR orders were signed by very junior trainee doctors.
- Palliative care teams were rarely involved in the care of patients who died in this study.
- There were examples of where healthcare professionals were judged not to have the skills required to care for patients nearing the end of their lives
 - Lack of ability to identify patients approaching end of life
 - Inadequate implementation of ELC
 - Poor communication with patients, relatives & other healthcare teams



Death certification & autopsies

Coronial involvement



Table 9.1 Death reported to a coroner

Death reported to a coroner	n	%
Yes	1346	45.0
No	1132	37.8
Unknown	513	17.2
Subtotal	2991	
Not answered	162	
Grand Total	3153	

- Information on 2992/3153 cases (95%)

Coroner's autopsy



Table 9.2 Coroner's autopsy performed

Coroner's autopsy performed	n	%
Yes	410	30.9
No	708	53.4
Unknown	209	15.7
Subtotal	1327	
Not answered	19	
Grand Total	1346	

- 708 cases
 - 19 hospital autopsies
 - 623 no hospital autopsies
 - 85 unknown

Unexpected findings



- Clinicians - 36/222 cases
- Advisors - 101/330 cases

Table 9.3 Notable autopsy findings

Notable autopsy finding	n
Myocardial infarction/ischaemic heart disease	9
Pneumonia +/- empyema	9
Bowel ischaemia and infarction	3
Dissection of the aorta	4
Perforated gastric ulcer and peritonitis	3
Not pneumonia (as in the medical certificate of the cause of death - MCCD)	1
Not pulmonary thromboembolism (as in the MCCD)	1



Summary

Summary



- Appropriately trained doctors must see sick patients in a timely manner
- The systems of care need to be overhauled to ensure that emergency patients get a uniformly high standard of care

Summary



- Communication, documentation and handover must improve
- Care of dying patients should be better planned and coordinated across social, primary and secondary health care environments

National Confidential Enquiry into Patient Outcome and Death

Caring to the End?

A review of the care of patients
who died in hospital within
four days of admission

www.ncepod.org.uk

