DATA FROM 1997/98 ANAESTHETIC QUESTIONNAIRES – THE ELDERLY

This data supplement should be read in conjunction with the 1999 NCEPOD Report, "Extremes of Age".

The question numbers in the supplement correspond to those in the anaesthetic or surgical questionnaire from which the data was derived.

Where a question is omitted from the supplement it is because the data was not statistically analysed; in most instances these were free text questions which were reviewed by the Advisors but could not be analysed on our database.

DATA FROM 1997/98 ANAESTHETIC QUESTIONNAIRES – THE ELDERLY

1. If you were not involved in any way with this anaesthetic and have filled out this questionnaire on behalf of someone else, please indicate your position:

Chairman of division	23
College tutor	46
Duty consultant	181
Other consultant	103
Other	16
Not applicable	575
Total	944

2. Which special care areas exist in the hospital in which the operation took place? 944 cases, answers may be multiple

Recovery area or room equipped and staffed for this purpose	917
High dependency unit	431
Intensive care unit	905
Other	64
None of the above	4
Not answered	7

3. Does the hospital have scheduled daytime "emergency" lists for urgent general surgical cases?

Total	944
Not answered	6
No	208
Yes	730

a. If yes, who provides the anaesthetic cover for these lists most of the time?

Consultant	284
Trainee	282
Associate specialist	13
Staff grade	28
Where answers multiple – some Consultant sessions	79
Where answers multiple – no Consultant sessions	34
Other	4
Not answered	6
Total	730

4. Does the hospital have scheduled daytime "emergency" lists for urgent trauma or orthopaedic cases?

Yes	882
No	54
Not answered	8
Total	944

a. If yes, who provides the anaesthetic over for these lists most of the time?

Consultant	477
Trainee	148
Associate specialist	30
Staff grade	77
Where answers multiple – some Consultant sessions	103
Where answers multiple – no Consultant sessions	36
Other	5
Not answered	6
Total	882

5. Age of patient (years) at time of final operation:

001	_
89*	7
90	181
91	173
92	133
93	129
94	82
95	78
96	62
97	38
98	22
99	11
100	10
101	9
102	3
103	3
104	1
105	1
107	1
Total	944

^{*} Although these patients were aged 89 at the time of the operation, at the time of death they were aged 90 and thus form part of the sample.

6. Day of admission:

Monday	162
Tuesday	155
Wednesday	153
Thursday	132
Friday	138
Saturday	105
Sunday	98
Not answered	1
Total	944

Number of days from admission to operation:

114
340
139
68
41
98
92
19
32
1
944

9. Coexisting medical diagnoses at the time of the final operation: 944 cases, answers may be multiple

None	44
Not answered	5
.	
Respiratory	121
COAD Asthma	131
	26
Chest infection	137 54
Other respiratory	54
<u>Cardiac</u>	
Previous MI	140
Angina	176
CCF	295
Valvular heart disease	85
Pulmonary oedema	44
Atrial fibrillation	248
Other cardiac	240
Sepsis	47
Naumalagiaal	
<u>Neurological</u> Dementia	257
CVA	115
Parkinson's disease	20
	178
Other neurological	176
<u>Endocrine</u>	
Diabetes	69
Hypothyroidism	48
Other endocrine	18
Alimentary	152
Renal	133
Hepatic	10
Musculoskeletal	105
Haematological	91
Other	118
ASA status:	
ASA 1	9
ASA 1	9 1 5 6

10.

Not answered	3
ASA 5	32
ASA 4	266
ASA 3	478
ASA 2	156
ASA 1	9

11. If the patient had diabetes mellitus, what type?

Diet controlled	33
Drug dependent	26
Insulin dependent	9
Not answered	1
Total	69

13. Was the blood sugar measured / estimated during surgery (e.g. BM stix)?

Not known Total	1 69
No	48
Yes	20

14. Was insulin given during surgery?

Yes	15
No	53
Not known	1
Total	69

15. Was insulin prescribed postoperatively?

Total	69
No	37
Yes	32

a. If yes, how was it given in the first 48 hours? 32 cases, answers may be multiple

Subcutaneously fixed dose	3
Subcutaneously sliding scale	3
Glucose, potassium and insulin infusion	4
Intravenously sliding scale	24
Other	1

16. Who principally supervised the diabetic management postoperatively?

Anaesthetist	12
Surgeon	43
Physician with and interest in care of the elderly	5
Physician with a general interest	1
Other	3
Not answered	4
Not known	1
Total	69

a. What grade was this person:

Consultant	14
Trainee	41
Other grade	4
Not answered	8
Not known	2
Total	69

17. Was a record of the patient's weight available?

Total	944
Not answered	11
No	770
Yes	163

19. Did the patient receive intravenous fluid therapy in the 12 hours before induction?

Yes	693
No	222
Not answered	24
Not known	5
Total	944

Patients who received intravenous fluid therapy in the 12 hours before induction by classification of operation:

	Yes	No	Not ans. / Not known	Total
Emergency	30	5	0	35
Urgent	547	105	15	667
Scheduled	97	85	12	194
Elective	3	25	2	30
Not ans. / Not known	16	2	0	18
Total	693	222	29	944

20. Was it necessary to delay the anaesthetic to improve the patient's state before operation?

Yes	232
No	703
Not answered	7
Not known	2
Total	944

a. If yes, which system(s) needed attention: 232 cases, answers may be multiple

Cardiac	102
Respiratory	59
Metabolic	74
Haematological	76
Not answered	15
Not known	1

21. Was surgery delayed for other reasons?

Yes	175
No	732
Not answered	31
Not known	6
Total	944

22. Were premedication drugs prescribed?

Yes	76
No	863
Not answered	5
Total	944

a. If yes, how was the premedication given? 76 cases, answers may be multiple

Orally	41
IM	9
Other	29
Prescribed but not given	1
Not answered	1
Not known	1

Which of the following investigations were done before the anaesthetic? (Including tests carried out in a referral hospital and available before the operation.) 944 cases, answers may be multiple

None		4	1
Haemoglobin		9	923
Packed cell volume (hae	ematocrit)	6	564
White cell count		8	882
Sickle cell test (e.g. Sick	(ledex)	2	20
Blood group +/- cross n	natch	7	740
Coagulation screen		2	227
Plasma electrolytes	Na	ç	902
·	K	8	396
	Cl	2	213
	HCO ₃	3	317
Blood urea		8	344
Creatinine		8	861
Serum albumin		3	349
Bilirubin (total)		3	319
Glucose		Δ	192
Amylase		7	71
Urinalysis (ward or lab)		2	214
Blood gas analysis	pН	6	53
•	pCO_2	6	53
	pO_2	6	52
Chest x-ray		ϵ	529
Electrocardiography		8	354
Respiratory function tes	ets	6	5
Special cardiac investig	ation (e.g. echocardiography)	3	37
CAT scan / ultrasound /	MRI / NMR	2	28
Special neurological inv	restigation (e.g. imaging)	1	1
Special vascular investi	gation (e.g. angiography)	1	16
Other		4	46
Not answered		4	1

24. Day of operation:

Monday	137
Tuesday	132
Wednesday	147
Thursday	151
Friday	169
Saturday	112
Sunday	96
Total	944

25. Classification of the final operation:

Emergency	35
Urgent	667
Scheduled	194
Elective	30
Not answered	16
Not known	2
Total	944

28. Was an anaesthetist consulted by the surgeon (as distinct from informed) before this operation?

Yes	407
No	489
Not answered	18
Not known	30
Total	944

29. Did an anaesthetist visit the patient before the final operation?

Yes	917
No	17
Not answered	1
Not known	9
Total	944

a. If yes, where?

Ward	896
Accident and Emergency department	4
ICU / HDU	5
Other	4
Not answered	4
Not known	4
Total	917

b. If yes, was this anaesthetist present at the start of the final operation?

Yes	829
No	83
Not answered	2
Not known	3
Total	917

30. Grade of the most senior anaesthetist present at the start of the anaesthetic?

Consultant	405
Associate specialist	52
Clinical assistant	7
Staff grade	90
SpR – Accred / CCST	11
SpR 4	28
SpR 3	42
SpR 2	25
SpR 1	28
SpR – year not stated	3
SHO >2 yrs	97
SHO 2	72
SHO 1	38
Other (trainee)	15
General practitioner	2
Hospital practitioner	4
Other (non-trainee)	18
Not answered	7
Total	944

a. Was this anaesthetist a locum appointment?

No	822
	022
Not answered	52
Total	944

34. Which higher diploma(s) in anaesthesia were held a the time of the operation? 944 cases, answers may be multiple

Total	944
Other	80
"New" Part 1 FRCA	34
Part 2 FRCA (physiology / pharmacology)	118
DA (or Part 1 of FRCA)	257
Fellowship (Royal College, College or Faculty)	560
None	109

35. If the most senior anaesthetist at the start of the anaesthetic was not a consultant, where was consultant help available?

A consultant came to the theatre before the end of the anaesthetic	17
A consultant was available in the operating suite but not directly involved	222
A consultant was available in the hospital, but was not present in the operating suite	112
A consultant was available by telephone	172
Consultant help not available	4
Not answered	8
Not known	4
Total	539

36. Was there more than one anaesthetist present during the operation?

Total	944
Not known	3
Not answered	8
No	571
Yes	362

If yes, please specify the assisting anaesthetist(s) 362 cases, answers may be multiple

Start of anaesthetic

Later in the procedure

Consultant	24	30
Associate specialist	5	3
Staff grade	14	10
SpR – Accred / CCST	3	5
SpR 4	9	11
SpR 3	9	8
SpR 2	10	9
SpR 1	19	13
SHO >2 yrs	61	42
SHO – 2	71	51
SHO – 1	151	94
Other (trainee)	5	6
Hospital practitioner	1	1
Other (non-trainee)	1	1
Not answered	21	94

a. Was any assisting anaesthetist a locum appointment?

Yes	15
No	299
Not answered	48
Total	362

37. Was advice sought, at any time, from another anaesthetist who was not present during the anaesthetic?

Total	944
Not known	14
Not answered	29
No	745
Yes	156

If yes, from what grade of anaesthetist was the advice sought?

Consultant	105
Staff grade	1
SpR – Accred / CCST	1
SpR 4	2
SpR 3	2
SpR 1	1
SpR – year not stated	3
SHO - >2	1
Other	14
Not answered	26
Total	156

a. When was this advice sought? 156 cases, answers may be multiple

Before the anaesthetic	135
During the anaesthetic	21
After the anaesthetic	21
Not answered	2

41. What was the grade of the most senior surgeon in the operating room?

Consultant	314
Specialist registrar	411
Senior house officer	39
Other	167
Not answered	7
Not known	6
Total	944

42. Is there a preoperative assessment and anaesthetic record for this operation in the patient's notes?

Yes	898
No	33
Not answered	12
Not known	1
Total	944

43. Did the patient receive intravenous fluids during the operation?

Yes	884
No	45
Not answered	9
Not known	6
Total	944

If yes, which: 884 cases, answers may be multiple

a. Crystalloid

Dextrose 5%	21
Dextrose 4% saline 0.18%	68
Dextrose 10%	2
Saline 0.9%	227
Hartmann's (compound sodium lactate)	601
NaHCO ₃	7
Other	11

b. Colloid

Modified gelatin (Gelofusine, Haemaccel)	397
Human albumin solution	10
Starch (HES)	34
Dextran	6
Mannitol	6
Other	1

c. Blood

Blood	127
Platelets	7
Fresh frozen plasma	12
Other component	1

46. Was the anaesthetic room used for the induction of anaesthesia?

Total	944
Not known	14
Not answered	11
No	104
Yes	815

47. Were monitoring devices used during the management of this anaesthetic?

Yes	933
No	0
Not answered	6
Not known	5
Total	944

	In place already	Used during induction	Used during operation
ECG	52	836	885
Pulse oximeter	49	894	897
Indirect BP	47	801	865
Expired CO ₂ analyser	16	364	698
O ₂ analyser	15	417	705
Inspired anaesthetic vapour analyser	8	182	576
Airway pressure gauge	8	176	545
Ventilation volume	6	114	477
Ventilation disconnect device	6	154	505
Peripheral nerve stimulator	2	32	136
Temperature	4	9	61
Urine output	43	127	270
CVP	11	35	91
Direct arterial BP (invasive)	5	27	58
Pulmonary arterial pressure	0	0	0
Intracranial pressure	0	0	2
Other	0	1	6

48. Did anything hinder full monitoring?

Yes	22
No	896
Not answered	21
Not known	5
Total	944

49. Was there a lack of monitoring equipment?

Total	944
Not known	2
Not answered	12
No	900
Yes	30

50. What type of anaesthetic was used?

General alone	451
Local infiltration alone	4
Regional alone	71
General and regional	208
General and local infiltration	40
Sedation alone	4
Sedation and local infiltration	10
Sedation and regional	152
Not answered	4
Total	944

GENERAL ANAESTHESIA (total number of cases = 699)

51. How was the airway established during anaesthesia?

Face mask (with or without oral airway)	13
Laryngeal mask	223
Tracheal intubation	460
Tracheostomy	1
Other	2
Total	699

52. Were there any problems with airway maintenace or ventilation?

Total	699
Not known	1
No	674
Yes	24

53. Was the patient ventilated mechanically during anaesthesia?

Yes	470
No	227
Not answered	2
Total	699

REGIONAL ANAESTHESIA (total number of cases = 431)

54. If the anaesthetic included a regional technique, which method was used? 431 cases, answers may be multiple

Epidural	- caudal	4
	- lumbar	41
	- thoracic	30
Intravenous	regional	1
Cranial or p	eripheral nerve blocks	29
Plexus block	k (e.g. brachial, 3-in-1 block)	107
Subarachno	id (spinal)	233
Not answere	ed	1
Not known		1

55. Which agent was used? 431 cases, answers may be multiple

Local	423
Narcotic	61
Other	11
Not answered	2
Not known	2

SEDATION (total number of cases = 166)

56. Which sedative drugs were given for this procedure (excluding premedication)? 166 cases, answers may be multiple

Inhalant	3
Narcotic analgesic	24
Benzodiazepine	126
Sub-anaesthetic doses of IV anaesthetic drugs	56
Other	20

57. Was oxygen given during the operation?

Yes	157
No	6
Not known	3
Total	166

a. If yes, for what reason?

Routine	143
Hypoxaemia	13
Not known	1
Total	157

58. Where did this patient go on leaving the operating room?

Recovery area or room equipped and staffed for this purpose	848
High dependency unit	14
Intensive care unit	41
Coronary care unit	1
Specialised nursing area	1
Ward	20
Another hospital	1
Died in theatre	13
Not answered	5
Total	944

59. Were you at any time unable to transfer the patient into an ICU, HDU etc?

Total	944
Not known	10
Not answered	57
No	842
Yes	35

60. Were monitoring devices used, or investigations carried out during the management of this patient in the recovery room?

Yes	806
No	3
Not answered	37
Not known	2
Total	848

If yes, which monitors were used? 806 cases, answers may be multiple

ECG	448
Pulse oximeter	802
Indirect BP	786
Expired CO ₂ analyser	11
O ₂ analyser	29
Airway pressure gauge	7
Ventilation volume	9
Ventilator disconnect device	8
Peripheral nerve stimulator	8
Temperature	185
Urine output	186
CVP	35
Direct arterial BP (invasive)	14
Blood gas analysis	11
Other	19

62. Where did this patient go next (i.e. after the recovery room)?

Ward	767
High dependency unit	20
Intensive care unit	11
Coronary care unit	2
Specialised nursing area	4
Another hospital	1
Died in recovery area	14
Other	1
Not answered	28
Total	848

63. Was controlled ventilation used postoperatively?

Yes	50
No	873
Not answered	21
Total	944

a. If yes, why? 50 cases, answers may be multiple

Routine management	6
Respiratory inadequacy	30
Cardiac inadequacy	13
Part of the management of pain	5
Poor general condition of patient	24
To allow recovery of body temperature	9
Other reasons	2

64. Did any of the following events, which required specific treatment, occur during anaesthesia or immediate recovery (i.e. the first few hours after the end of the operation)?

Total	944
Not known	1
Not answered	16
No	629
Yes	298

a. If yes, please specify: 298 cases, answers may be multiple

Air embolus	1
Airway obstruction	3
Anaphylaxis	1
Arrhythmia	35
Bradycardia (to or less than 50% of resting)	27
Bronchospasm	7
Cardiac arrest (unintended)	26
Hyperprexia (greater than 40°C or very rapid increase in temperature	1
Hypertension (increase of more than 50% resting systolic)	8
Hypotension (decrease of more than 50% resting systolic)	162
Hypoxaemia	48
Misplaced tracheal tube	1
Pulmonary aspiration	8
Pulmonary oedema	17
Respiratory arrest (unintended)	6
Tachycardia (increase of 50% or more)	18
Unintentional delayed recovery of consciousness	12
Ventilatory inadequacy	34
Other	15
Not answered	4

65. Was there any mechanical failure of equipment during anaesthesia or recovery?

Yes	9
No	927
Not answered	6
Not known	2
Total	944

66. What were the complications or events after this operation? 944 cases, answers may be multiple

Ventilatory problems	346
Cardiac problems	334
Hepatic failure	4
Septicaemia	61
Renal failure	144
Central nervous system failure	101
Progress of surgical condition	47
Electrolyte imbalance	81
Haematological disorder / coagulopathy / excessive blood loss	58
Other	77

67. Were inotropes given in the first 48 hours after the operation?

Yes	77
No	827
Not answered	40
Total	944

68. Does the hospital in which the operation took place have an acute pain service?

Yes	763
No	176
Not answered	5
Total	944

a. If yes, who is on the pain team? 763 cases, answers may be multiple

Anaesthetist consultant(s)	680
Anaesthetist trainee(s)	347
Specialised pain nurse(s)	629
Pharmacist(s)	105
Other	39

If anaesthetic consultant(s) on the team, how many?

69
416
97
53
19
18
3
1
1
1
2
680

b. When is this service available?

24 hours a day, seven days a week	362
Limited times	368
Not answered	33
Total	763

69. How many ward nursing staff are specially trained in epidural and / or PCA analgesia?

None	63
Some	725
All	103
Not answered	46
Not known	7
Total	944

70. Did this patient have a pain assessment chart?

Total	944
Not known	4
Not answered	54
No	651
Yes	235

71. Were drugs given in the first 48 hours after operation for pain?

Yes	794
No	127
Not answered	18
Not known	5
Total	944

a. If yes, which drug type? 794 cases, answers may be multiple

Opiate / opioid	680
Local analgesic	59
Non-steroidal analgesic	110
Paracetamol	175
Other	102
Not answered	6

b. Which method / route? 794 cases, answers may be multiple

Intramuscular injection	467
Oral	341
Rectal	30
Continuous intravenous infusion	52
PCA (patient-controlled analgesia)	40
Continuous epidural	56
PCEA (patient-controlled epidural analgesia)	1
IV bolus	57
Other	26
Not answered	6

Did complications occur as a result of these analgesic methods? 72.

Yes	39
No	748
Not answered	4
Not known	3
Not applicable (i.e. no analgesia given)	150
Total	944

73. Were other sedative / hypnotic or other drugs given?

Total	944
Not known	2
Not answered	53
No	744
Yes	145

a. If yes, which? 145 cases, answers may be multiple

Propofol	27
Midazolam	8
Other benzodiazepine	39
Major tranquilizers (e.g. phenothiazine, butyrophenones. etc.)	62
Other	17
Not answered	1

74. Number of calendar days between operation and death:

2 80 3 52 4 49 5 57 6 47 7 32 8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	Same day	57
3 52 4 49 5 57 6 47 7 32 8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	Next day	83
4 49 5 57 6 47 7 32 8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	2	80
5 57 6 47 7 32 8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	3	52
6 47 7 32 8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	4	49
7 32 8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	5	57
8 33 9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	6	47
9 38 10 38 11-15 14 16-20 98 21-25 79 26-30 55	7	32
10 38 11-15 14 16-20 98 21-25 79 26-30 55	8	33
11-15 14 16-20 98 21-25 79 26-30 55	9	38
16-20 98 21-25 79 26-30 55	10	38
21-25 26-30 79 55	11-15	146
26-30 55	16-20	98
	21-25	79
Total 94	26-30	55
	Total	944

76. Place of death:

Theatre	12
Recovery area	16
Intensive care unit	31
High dependency unit	15
Coronary care unit	3
Specialised nursing area	4
Ward	804
Home	11
Another hospital	26
Other	13
Not answered	6
Not known	3
Total	944

78. Do you have departmental guidelines relating to the care of the elderly?

Total	944
Not known	5
Not answered	39
No	849
Yes	51

79. Do you have morbidity / mortality review meetings in your department?

Yes	876
No	61
Not answered	7
Total	944

a. If yes, will this case be, or has it been discussed at your departmental meeting?

Total	876
Not known	4
Not answered	16
No	663
Yes	193

80. Has a consultant anaesthetist seen and agreed this questionnaire?

Yes	436
No	48
Not applicable (completed by consultant)	426
Not answered	34
Total	944