



## National Report of the Paediatric Intensive Care Audit Network

January 2004 – December 2006



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## KEY

- A** Cambridge University Hospitals NHS Foundation Trust
- B** Brighton & Sussex University Hospitals NHS Trust
- C** Cardiff & Vale NHS Trust
- D** Central Manchester & Manchester Children's University Hospitals NHS Trust
- E** Great Ormond Street Hospital for Children NHS Trust
- F** Guy's & St. Thomas' NHS Foundation Trust
- G** Hull & East Yorkshire Hospitals NHS Trust
- H** King's College Hospital NHS Trust
- I** Leeds Teaching Hospitals NHS Trust
- J** The Lewisham Hospital NHS Trust
- K** Newcastle upon Tyne Hospitals NHS Foundation Trust
  - K1** Newcastle General Hospital
  - K2** Newcastle Freeman Hospital
  - K3** Newcastle Royal Victoria Infirmary
- L** University Hospital of North Staffordshire NHS Trust
- M** Nottingham University Hospitals NHS Trust
- N** Oxford Radcliffe Hospitals NHS Trust
- O** Royal Brompton & Harefield NHS Trust
- P** Royal Liverpool Children's NHS Trust
- Q** Sheffield Children's NHS Foundation Trust
  - Q1** Sheffield Children's Hospital (NICU)
  - Q2** Sheffield Children's Hospital (PICU)
- R** Southampton University Hospitals NHS Trust
- S** South Tees Hospitals NHS Trust
- T** St. George's Healthcare NHS Trust
- U** St. Mary's NHS Trust
- V** Birmingham Children's Hospital NHS Trust
- W** United Bristol Healthcare NHS Trust
- X** University Hospitals of Leicester NHS Trust
  - X1** Leicester Glenfield Hospital
  - X2** Leicester Royal Infirmary
- Y** NHS Lothian – University Hospitals Division

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## CONTENTS

1	CONTENTS .....	4
2	ACKNOWLEDGEMENTS .....	10
3	FOREWORD .....	11
4	EXECUTIVE SUMMARY .....	12
5	RECOMMENDATIONS .....	14
6	BACKGROUND .....	15
7	INTRODUCTION AND AIMS .....	16
8	THE PICANet DATASET .....	17
8.1	Development and description of the current dataset .....	17
8.2	The Paediatric Critical Care Minimum Dataset .....	17
8.3	Retrievals dataset .....	17
8.4	Data collection and validation .....	18
8.5	Clinical coding .....	18
8.6	Confidentiality .....	18
8.7	Data transmission .....	19
9	DATASET DEFINITIONS FOR THIS REPORT .....	20
10	DESCRIPTION OF TABLES AND FIGURES .....	21
11	ADMISSION DATA .....	22
11.1	Admission numbers by age, sex, month and year of admission, NHS trust and diagnostic group .....	22
11.2	Admissions by Strategic Health Authority (SHA) / Health Board (HB) .....	22
11.3	Admissions by mortality risk category .....	22
11.4	Admissions by admission type .....	22
11.5	Admissions by primary diagnostic group .....	23
11.6	References .....	23
12	RETRIEVAL DATA .....	24
13	INTERVENTION DATA .....	25
14	BED ACTIVITY AND LENGTH OF STAY .....	26
15	OUTCOME DATA .....	27
15.1	References .....	27
16	DATA ON INDIVIDUAL CHILDREN .....	28
17	PREVALENCE FOR ADMISSION .....	29
18	CHILDREN RECEIVING CARE IN ADULT INTENSIVE CARE UNITS .....	30
19	DATA QUALITY .....	31
19.1	Data quality assurance processes .....	31
Table DQ1	Data completeness .....	32
Figure DQ1	Percentage of exception or blank values in the PICANet dataset ....	33
Figure DQ2	Data completeness for 30-day follow-up information .....	33
Table DQ2	Data completeness by year (all variables) .....	34
Table DQ3	Data completeness by PICU .....	35
Table DQ4	Data completeness for NHS number by NHS trust .....	35
Figure DQ3	Data completeness for NHS number .....	36
20	A CLINICIAN'S COMMENTARY .....	37
20.1	Inter unit comparison .....	38
20.2	Equity of provision .....	38
20.3	Research .....	39
20.4	References .....	39



21	THE PAEDIATRIC CRITICAL CARE MINIMUM DATASET (PCCMDS), HEALTHCARE RESOURCE GROUPS (HRGS) AND PAYMENT BY RESULTS (PBR).....	40
21.1	What were the findings of the observational study and the costings exercise?.....	41
<b>Figure PCCMDS1</b>		
	Breakdown of costs for each PICU .....	41
21.2	What system of HRGs was chosen? .....	42
<b>Table P1</b>	Breakdown of cases over 3 month period, according to HRG level..	42
21.3	How many HRGs will be allocated to a patient? .....	43
21.4	What about patient transport services? .....	44
21.5	How will the Paediatric Critical Care Minimum Dataset be collected? .....	44
21.6	Should a pre-term neonate looked after in PICU or a ward area have the Neonatal Critical Care Minimum Dataset collected rather than PCCMDS? .....	44
21.7	What are the key milestones over the next few years? .....	44
21.8	Will we be stuck with the current HRGs or can they be modified? ...	45
21.9	How else can we use the PCCMDS data? .....	45
21.10	Further information.....	45
22	DEVELOPMENT OF THE RETRIEVALS DATASET .....	46
22.1	Example .....	46
22.2	Forms completed .....	47
<b>Figure RET1</b>	Referral, retrieval and PICU admission, the data collection pathway	48
23	PICU HEALTH INFORMATICS .....	49
23.1	National PICS Health Informatics Group: News update .....	49
23.2	PICU Clinical Information Systems Survey.....	49
23.3	SNOMED PICU Subset Development Project .....	49
23.4	What is SNOMED-CT? .....	49
23.5	What is a SNOMED subset?.....	50
23.6	Why develop a subset?.....	50
24	UK PICU STAFFING STUDY .....	51
24.1	Background.....	51
24.2	The 3 different phases of the study.....	51
24.3	Progress phase 2.....	52
24.4	Progress phase 3.....	52
24.5	Outstanding work.....	53
25	SPECIALISED COMMISSIONERS PERSPECTIVE ON PICANet...	54
25.1	Introduction .....	54
25.2	The Context of Commissioning Paediatric Intensive Care.....	54
25.3	Commissioners views on the usefulness of PICANet .....	55
25.4	Commissioners thoughts on how PICANet could be utilised more efficiently and developed in the future .....	58
25.5	Access to data .....	58
25.6	Quarterly Reporting.....	58
25.7	Strategic planning from a National perspective .....	58
25.8	Commissioning the patient pathway .....	59
25.9	Integration of PICANet information with Connecting for Health .....	59
25.10	Capturing data on PIC Transport .....	59
25.11	Conclusions .....	59
25.12	Recommendations .....	60
25.13	References.....	60

26	USES AND DISSEMINATION OF PICANet DATA.....	61
27	TABLES AND FIGURES.....	62
Table 1	Admissions by age and sex, 2004 - 2006.....	62
Figure 1	Admissions by age and sex, 2004 - 2006.....	62
Table 2	Admissions by age (<1) and sex, 2004 - 2006.....	63
Figure 2	Admissions by age (<1) and sex, 2004 - 2006.....	63
Table 3	Admissions by age by NHS trust, 2004 - 2006.....	64
Table 4	Admissions by age (<1) by NHS trust, 2004 - 2006.....	65
Table 5	Admissions by age (16+) by NHS trust, 2004 - 2006.....	66
Table 6	Admissions by month and age, 2004 - 2006.....	67
Figure 6	Admissions by month and age, 2004 - 2006.....	67
Table 7	Admissions by month and primary diagnostic group, 2004 - 2006 ...	68
Figure 7	Admissions by month and primary diagnostic group, 2004 - 2006 ...	68
Table 8	Respiratory admissions by month and age, 2004 - 2006.....	69
Figure 8	Respiratory admissions by month and age, 2004 - 2006.....	69
Table 9	Admissions by month by NHS trust, 2004 - 2006.....	70
Table 10a	Admissions by 2004 SHA / HB and year, 2004 - 2006.....	71
Table 10b	Admissions by 2006 SHA / HB and year, 2004 - 2006.....	72
Figure 10a	Map showing 2004 SHA / HB boundaries.....	73
Figure 10b	Map showing 2006 SHA / HB boundaries.....	74
Figure 10c	Map showing 2006 SHA / HB / PCO boundaries.....	75
Table 11	Admissions by mortality risk group by NHS trust, 2004 - 2006.....	76
Table 12	Admissions by admission type and age, 2004 - 2006.....	77
Figure 12	Admissions by admission type, 2004 - 2006.....	77
Table 13	Admissions by admission type by NHS trust, 2004 - 2006.....	78
Table 14	Admissions by source of admission (admission type 'unplanned - other') by NHS trust, 2004 - 2006.....	79
Table 15	Admissions by care area admitted from (admission type 'unplanned - other'; admitted from hospital) by NHS trust, 2004 - 2006.....	80
Table 16	Admissions by primary diagnostic group and age, 2004 - 2006.....	81
Figure 16	Admissions by primary diagnostic group, 2004 - 2006.....	81
Table 17	Admissions by primary diagnostic group and age (16+), 2004 - 2006.....	82
Figure 17	Admissions by primary diagnostic group (16+), 2004 - 2006.....	82
Table 18	Admissions by primary diagnostic group by NHS trust, 2004 - 2006.....	83
Table 19	Admissions by primary diagnostic group (planned - following surgery) by NHS trust, 2004 - 2006.....	84
Table 20	Admissions by primary diagnostic group (unplanned - following surgery) by NHS trust, 2004 - 2006.....	85
Table 21	Admissions by primary diagnostic group (planned - other) by NHS trust, 2004 - 2006.....	86
Table 22	Admissions by primary diagnostic group (unplanned - other) by NHS trust, 2004 - 2006.....	87
Table 23	Most commonly returned Read Codes for primary reason for admission, 2004 - 2006.....	88
Table 24	Most commonly returned Read Codes for primary reason for 'unplanned - following surgery' admissions, 2004 - 2006.....	89
Table 25	Most commonly returned Read Codes for primary reason for 'unplanned - other' admission, 2004 - 2006.....	90
Table 26	Retrievals by team type and age, 2004 - 2006.....	91
Figure 26	Retrievals by team type, 2004 - 2006.....	91

<b>Table 27</b>	'Non-specialist team' retrievals by diagnostic group and age, 2004 - 2006.....	92
<b>Table 28</b>	Retrievals by retrieval type by NHS trust, 2004 - 2006.....	93
<b>Table 29</b>	Interventions received by NHS trust, 2004 - 2006.....	94
<b>Table 30</b>	Admissions by ventilation status and age, 2004 - 2006.....	95
<b>Table 31</b>	Admissions by ventilation status by NHS trust, 2004 - 2006.....	96
<b>Figure 31a</b>	Percentage of children receiving invasive ventilation.....	97
<b>Figure 31b</b>	Percentage of children receiving invasive ventilation.....	98
<b>Figure 31c</b>	Percentage of children receiving invasive ventilation.....	99
<b>Table 32</b>	Bed days by age and sex, 2004 - 2006.....	100
<b>Figure 32</b>	Bed days by age and sex, 2004 - 2006.....	100
<b>Table 33</b>	Bed days by age by NHS trust, 2004 - 2006.....	101
<b>Table 34</b>	Bed census by month, 2004 - 2006.....	102
<b>Figure 34</b>	Bed census by month, 2004 - 2006.....	102
<b>Table 35</b>	Bed census by NHS trust, 2004 - 2006.....	103
<b>Figure 35a</b>	Bed census by NHS trust, 2004.....	103
<b>Figure 35b</b>	Bed census by NHS trust, 2005.....	103
<b>Figure 35c</b>	Bed census by NHS trust, 2006.....	103
<b>Table 36</b>	Bed activity by month, 2004 - 2006.....	104
<b>Figure 36</b>	Bed activity by month, 2004 - 2006.....	104
<b>Table 37</b>	Bed activity by NHS trust, 2004 - 2006.....	105
<b>Figure 37a</b>	Bed activity by NHS trust, 2004.....	105
<b>Figure 37b</b>	Bed activity by NHS trust, 2005.....	105
<b>Figure 37c</b>	Bed activity by NHS trust, 2006.....	105
<b>Table 38</b>	Length of stay by age and NHS trust, 2004 - 2006.....	106
<b>Table 39</b>	Length of stay by primary diagnostic group and NHS trust, 2004 - 2006.....	107
<b>Table 40</b>	Admissions by length of stay by NHS trust, 2004 - 2006.....	108
<b>Table 41</b>	Admissions by unit discharge status and age, 2004 - 2006.....	109
<b>Table 42</b>	Admissions by unit discharge status and age (<1), 2004 - 2006....	110
<b>Table 43</b>	Admissions by unit discharge status and sex, 2004 - 2006.....	111
<b>Table 44</b>	Admissions by unit discharge status and sex (age <1), 2004 - 2006.....	112
<b>Table 45</b>	Admissions by unit discharge status by NHS trust, 2004 - 2006....	113
<b>Table 46</b>	Admissions by unit discharge destination and age, 2004 - 2006....	114
<b>Table 47</b>	Standardised mortality ratios by trust, 2004.....	115
<b>Figure 47a</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004: unadjusted.....	115
<b>Figure 47b</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004: risk adjusted (PIM).....	115
<b>Table 48</b>	Standardised mortality ratios by trust, 2005.....	116
<b>Figure 48a</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2005: unadjusted.....	116
<b>Figure 48b</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2005: risk adjusted (PIM).....	116
<b>Table 49</b>	Standardised mortality ratios by trust, 2006.....	117
<b>Figure 49a</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2006: unadjusted.....	117
<b>Figure 49b</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2006: risk adjusted (PIM).....	117
<b>Figure 49c</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2006: risk adjusted (PIM2).....	117

<b>Table 50</b>	Standardised mortality ratios combined by trust, 2004 - 2006.....	118
<b>Figure 50a</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004 - 2006 combined: unadjusted .....	118
<b>Figure 50b</b>	PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004 - 2006 combined: risk adjusted (PIM) .....	118
<b>Figure 50c</b>	Risk adjusted mortality (PIM) by 2004 SHA in England and Wales, 2004 - 2006.....	119
<b>Figure 50d</b>	Risk adjusted mortality (PIM) by 2006 SHA in England and Wales, 2004 - 2006.....	120
<b>Table 51</b>	Admissions by follow-up status and age, 2004 - 2006.....	121
<b>Table 52</b>	Admissions by follow-up status and age (<1), 2004 - 2006 .....	122
<b>Table 53</b>	Admissions by follow-up status and sex, 2004 - 2006 .....	123
<b>Table 54</b>	Admissions by follow-up status and sex (age<1), 2004 - 2006.....	124
<b>Table 55</b>	Admissions by follow-up status by NHS trust, 2004 - 2006 .....	125
<b>Table 56</b>	Re-Admissions by NHS trust and source of previous admission, 2004 - 2006 .....	126
<b>Table 57</b>	Number of admissions of individual children by their NHS trust of first admission, 2004 - 2006 .....	127
<b>Table 58</b>	Number of individual children by NHS trust and diagnostic group of first admission, 2004 - 2006 .....	128
<b>Table 59</b>	Individual child admissions by diagnostic group and readmission status, 2004 - 2006 .....	129
<b>Table 60</b>	Age specific prevalence (per 100,000 per year) for admission to paediatric intensive care in England and Wales, 2004 - 2006.....	130
<b>Table 61a</b>	Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2004 SHA in England and Wales, 2004 - 2006.....	131
<b>Table 61b</b>	Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2006 SHA in England and Wales, 2004 - 2006.....	132
<b>Figure 61a</b>	Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2004 SHA in England and Wales, 2004 - 2006.....	133
<b>Figure 61b</b>	Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2006 SHA in England and Wales, 2004 - 2006.....	134
<b>Figure 61c</b>	Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2006 PCO in England and Wales, 2004 - 2006.....	135
<b>Table 62</b>	Admission of children to AICUs by age and sex, England, 2005....	136
<b>Table 63</b>	Admission of children to AICUs by age and month of admission, England, 2005.....	137
<b>Table 64</b>	Admission of children to AICUs by age and diagnostic group, England, 2005 .....	138
<b>Table 65</b>	Mortality of children admitted to AICUs by age and diagnostic group, England, 2005 .....	139
<b>Table 66</b>	Discharge destination for children admitted to AICUs, England, 2005 .....	140
<b>Table 67</b>	Length of stay for surviving children admitted to AICUs, England, 2005 .....	141

<b>APPENDIX A</b>	<b>PARTICIPATING NHS TRUSTS AND HOSPITAL CHARACTERISTICS .....</b>	<b>142</b>
<b>APPENDIX B</b>	<b>CLINICAL ADVISORY GROUP MEMBERSHIP .....</b>	<b>144</b>
<b>APPENDIX C</b>	<b>STEERING GROUP MEMBERSHIP .....</b>	<b>145</b>
<b>APPENDIX D</b>	<b>DATA/INFORMATION REQUESTS RECEIVED TO DATE .....</b>	<b>147</b>
<b>APPENDIX E</b>	<b>DATA COLLECTION FORM.....</b>	<b>159</b>
<b>APPENDIX F</b>	<b>INFORMATION LEAFLET .....</b>	<b>163</b>
<b>APPENDIX G</b>	<b>DATA VALIDATION REPORT .....</b>	<b>164</b>
<b>APPENDIX H</b>	<b>MONTHLY ADMISSIONS REPORT .....</b>	<b>165</b>
<b>APPENDIX I</b>	<b>ERROR RATE REPORT .....</b>	<b>166</b>
<b>APPENDIX J</b>	<b>POLICY FOR UNITS FALLING OUTSIDE THE CONTROL LIMITS.....</b>	<b>167</b>
<b>J.1</b>	<b>Background - mortality ratios and funnel plots.....</b>	<b>167</b>
<b>J.2</b>	<b>Data outliers.....</b>	<b>168</b>
<b>J.3</b>	<b>References.....</b>	<b>169</b>
<b>APPENDIX K</b>	<b>PUBLICATIONS/PRESENTATIONS .....</b>	<b>170</b>
<b>K.1</b>	<b>Presentations.....</b>	<b>170</b>
<b>K.2</b>	<b>Publications.....</b>	<b>172</b>
<b>K.3</b>	<b>Abstracts.....</b>	<b>173</b>
<b>APPENDIX L</b>	<b>MEMBERSHIP OF THE PAEDIATRIC CRITICAL CARE EXPERT WORKING GROUP.....</b>	<b>174</b>
<b>APPENDIX M</b>	<b>MAPPING OF INTERVENTIONS TO DIFFERENT HRG LEVELS .....</b>	<b>175</b>
<b>APPENDIX N</b>	<b>PCCMDS: HIGH COST DRUGS WHICH ARE UNBUNDLED .....</b>	<b>178</b>
<b>APPENDIX O</b>	<b>CHANGES TO THE STRUCTURE OF NHS PRIMARY CARE IN ENGLAND ON 1ST OCTOBER 2006.....</b>	<b>181</b>
<b>APPENDIX P</b>	<b>GLOSSARY .....</b>	<b>191</b>

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PICANet was established in collaboration with the Paediatric Intensive Care Society (PICS) and their active support continues to be a key component of our successful progress. The PICANet Steering Group (SG) has patient, academic, clinical, government and NHS members all of whom are thanked for their continuing assistance and advice. Members of our Clinical Advisory Group (CAG) are PICANet's formal interface with clinical care teams and their valuable support and contribution is gratefully acknowledged.

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The organisation and functioning of PICANet is dependent on IT programming and development from Martin Perkins (University of Leicester), who we thank for his essential contributions.

### **3 FOREWORD**

PICANet is showing the way both internationally in paediatric intensive care and, within the UK, to other areas of health care. This report demonstrates what can be achieved when clinicians and health services researchers work together. The combination of, on the one hand, clinical knowledge and experience, and on the other hand epidemiologists, statisticians and information technologists has resulted in the development of one of the finest clinical databases in the UK.

This report includes many examples of how such data can be used to shed light on the clinical management of severely ill children, the organisation of paediatric intensive care and the quality of care in intensive care units. Without such data, improvements in care would be seriously limited.

Increasingly there is a tendency to believe that routine data collected largely for administrative purposes are sufficient to audit care and provide a base for conducting research studies. Such a view ignores the shortcomings of such data. This report demonstrates why we need sophisticated, complex specialised databases. Rather than bemoan the fact, we should celebrate the multiple purposes and versatility of databases such as PICANet. It can underpin not only clinical and organisational audits, but also research, management and planning of services, individual patient care and the training needs of clinicians. These diverse uses are reflected in the contents of this report, such as contributions on the use of the database for commissioning care and developing financing mechanisms.

With increasing recognition by policy makers of the need for accurate information on the outcomes of care, PICANet can and should make a crucial and valued contribution over the coming years. Its quality is a tribute to the health services researchers and clinicians who have developed and lead this important work.

**Nick Black**  
**Professor of Health Services Research**  
**London School of Hygiene & Tropical Medicine**  
**and Chair, PICANet Steering Group**



## 4 EXECUTIVE SUMMARY

- 1 PICANet is a clinical audit of paediatric intensive care (PIC) activity in England and Wales aiming to improve patient outcomes through providing information on delivery of care to critically ill children and an evidence base for clinical governance. PICANet was established in 2001 and functions in close collaboration with members of the PIC clinical community.
- 2 The specific objectives of PICANet are to identify best practice, monitor supply and demand, monitor and review outcomes of treatment episodes, facilitate strategic health care planning, quantify resource requirements and study the epidemiology of critical illness in children.
- 3 The national PICANet dataset continuously records details of admission, discharge, diagnoses (coded using Clinical Terms 3 (The Read Codes)), medical history, physiology, interventions and outcome. The outcome information is adjusted by 'case mix' to provide reliable evidence on patients' outcomes for clinicians, managers, patients. From 2006 the casemix adjustment tool is the updated Paediatric Index of Mortality 2.
- 4 Rigorous data quality procedures, incorporating iterative feedback loops between PICANet and the units, continue to ensure the dataset is of high quality.
- 5 PICANet are developing and expanding the core dataset in response to changes in the infrastructure and funding streams of the NHS. PICANet will provide the software for units to record the Paediatric Critical Care Minimum Dataset (PCCMDS) to support the Paediatric Critical Care Healthcare Resource Groups (HRGs) and Payment by Results (PbR). The flexibility for the collection of unit specific additional items will remain, whilst additional modules, such as that on retrievals, are under construction.
- 6 Data are presented on 42,221 paediatric intensive care admissions to 24 NHS trusts in England and Wales and the Royal Hospital for Sick Children, Edinburgh over the 3 year period January 2004 to December 2006. Detailed tables present information nationally, by Strategic Health Authority/Health Board (SHA), Primary Care Organisation (PCO) and named individual NHS trust. For the first time, data are available for downloading from the Web in spreadsheet format.
- 7 Children under 1 year comprise 48% of all admissions with an overall excess of boys (57%) compared to girls (43%). The majority of admissions (54%) are unplanned. Retrievals of 75% of children are by specialist paediatric intensive care teams.
- 8 Invasive ventilation procedures are recorded for 67% of admissions. This varies by trust between 6% and 95% over the three years.
- 9 A total of 242,997 bed days were delivered between 2004 and 2006. Length of stay has been calculated to the minute and presented as numbers of admissions by length of stay category ranging from less than an hour (0.8%) to 7 days or longer (16%). A 'bed census' has been calculated for children actually occupying a bed at 10 minutes past midnight on each day to provide a more accurate assessment of daily occupancy in the PIC service.

- 10 It is extremely rare for a child to die in paediatric intensive care and 95% are discharged alive. Risk-adjusted performance of all trusts fell within acceptable limits in each individual year and aggregated across the three year period.
- 11 The re-organisation of the NHS into Primary Care Organisations in 2006 is reflected in this report. Maps by SHA and PCO illustrate considerable variation in the geographical distribution of the volume of patients receiving paediatric intensive care and the percentage of children invasively ventilated.
- 12 PICANet acknowledge that data on status 30-day post discharge is incomplete for 57% of children discharged alive.
- 13 PICANet remains responsive to the needs of the clinical community and service providers and a number of new features are incorporated into this report. Clinicians and commissioners have contributed chapters on specific topics. These include a clinician's commentary, information on the PCCMDS, the retrievals dataset, health informatics, PICU staffing and a commissioner's perspective. These all add information on the context and environment within which PICANet operates.
- 14 Twelve recommendations arising from this report are outlined in the next section.

## 5 RECOMMENDATIONS

### PICANet recommend

- 1 That high quality clinical audit data on children receiving intensive care in England, Wales and Scotland should continue to be collected to optimise the delivery of care, to facilitate future planning, permit ongoing audit and describe the epidemiology of critically ill children.
- 2 Complete coverage of the UK to incorporate data from the PICU in Northern Ireland to enable the diversity of clinical practice to be characterised at a national level.
- 3 That optimal outcome measures are developed for paediatric intensive care to facilitate the improvement of professional practice and quality of PIC services.
- 4 That links with the clinical community and professional organisations, such as the Paediatric Intensive Care Society Study Group, continue to be strengthened and expanded via collaborative audit and research using the PICANet dataset.
- 5 That links with PIC commissioners are enhanced to facilitate the planning of PIC services.
- 6 The PICANet dataset should be used for future calibration of risk-adjustment algorithms in paediatric intensive care.
- 7 That Trusts provide support for the collection of child status at 30 days following discharge from PIC especially in those trusts with little or no follow-up data.
- 8 That Trusts share their experiences of the collection of NHS numbers to improve this data collection to a level in excess of 95%.
- 9 Continued efforts to capture complete national data on children admitted to adult intensive care units.
- 10 Further investigation of the differences in risk adjusted mortality and the prevalence of paediatric intensive care and invasive ventilation by Strategic Health Authorities and Primary Care Organisations to determine which factors might explain this variation.
- 11 Further exploration of the patterns of admission for individual children, as one of the key functions of PICANet is to investigate patterns of re-admission to PICUs for children across the UK.
- 12 International collaborations should be established to enable the development of large-scale audit comparisons between countries that will inform clinical practice.

## 6 BACKGROUND

PICANet was established in 2002, following a tender in 2000 by the DOH for a national paediatric intensive care database that would allow core data to be collected in a standardised way throughout all PICUs in the country.

Since November 2002, all NHS PICUs within England and Wales outside the Pan Thames region have been collecting data on consecutive admissions to their units. The Pan Thames units began data collection in March 2003, whilst the PICU at the Royal Hospital for Sick Children, Edinburgh began in December 2004. A full list of participating PICUs can be found in [Appendix A](#).

PICANet receives support and advice from a Clinical Advisory Group consisting of doctors and nurses working within the speciality. A Steering Group (SG), comprising professionals from Health Services Research, the Royal Colleges of Paediatrics & Child Health, Nursing and Anaesthetics, and user groups such as Action for Sick Children, monitors PICANet and offers additional support and advice. [Appendices B](#) and [C](#) provide a full list of CAG and SG members. Additional support from the clinical community is provided through the Paediatric Intensive Care Society.

## 7 INTRODUCTION AND AIMS

This is the fourth national report produced by PICANet on data submitted by participating PICUs in the UK. This year, the report has been published in three formats:

- 1) As a .pdf document, downloadable from <http://www.picanet.org.uk/>.
- 2) As a web document with tables and figures available for download in Microsoft Excel format, again, available from <http://www.picanet.org.uk/>.
- 3) A limited number of printed copies.

This year we are pleased to include a number of chapters from independent contributors. The views represented in these chapters are those of the authors and do not necessarily represent the views of PICANet.

We have decided to limit the print run for environmental and cost reasons. The downloadable format means that individuals can select specific sections of the report to print if necessary and the tables and figures can be manipulated and used in presentations and reports. Please ensure that PICANet is acknowledged as the source of this information using the format given on the inside cover.

In collaboration with participating units, PICANet remains committed to achieving the following objectives:

- Identifying best practice.
- Monitoring supply and demand.
- Monitoring and reviewing outcomes of treatment episodes.
- Facilitating strategic health care planning and quantifying resource requirements.
- Studying the epidemiology of critical illness in children.

Since data collection commenced in 2002, one of the main aims of PICANet has been to provide a national database of paediatric intensive care activity of a consistently high quality, in order to help achieve the above objectives. The data collected allows comparisons of activity at a local level with nationwide benchmarks. PICANet therefore provides an important evidence base on paediatric intensive care outcomes, processes and structures, permitting planning for future practice, research and interventions.

PICANet is a resource available to clinicians and service providers, amongst others, and is being used for research, audit and commissioning ([Appendix D](#)). The provision of comprehensive, routinely available information to such parties is extremely important and is a powerful tool for supporting clinical governance. PICANet is also used to provide data to provide baseline information for clinical trials.

## 8 THE PICANet DATASET

### 8.1 Development and description of the current dataset

The PICANet dataset was established in consultation with members of the PICANet CAG, representing the paediatric intensive care community, and the Department of Health. The overriding criteria for inclusion of specific variables were that they provided key information on activity, case mix, demographics and outcome at a national and local level, that they were feasible to collect and that the wider paediatric intensive care community supported their inclusion in the national database.

The current PICANet dataset consists of 94 variables (including five address elements and the option for a second family name). These variables and their definitions are given in the PICANet Data Definitions Manual, obtainable from <http://www.picanet.org.uk/>. The data collection form is included in [Appendix E](#). This dataset will be expanded from summer 2007 when PICANet software will enable the collection of the Paediatric Critical Care Minimum Dataset.

### 8.2 The Paediatric Critical Care Minimum Dataset

The Paediatric Critical Care Minimum Dataset (PCCMDS) has been developed by the Information Centre for health and social care (IC) under the guidance of the Paediatric Critical Care Expert Working Group (PCCEWG) and was [issued](#) as an NHS dataset change notice (DSCN) in January 2007. The PCCMDS has been developed to support the new Paediatric Critical Care Healthcare Resource Groups (HRGs) and Payment by Results (PbR). This dataset has many common elements with the PICANet dataset but collects information on interventions and treatment on a daily basis as opposed to an episode summary. This dataset has been mandated from October 2007.

With the support of the CAG, PICANet has agreed to enable collection of the PCCMDS using its software. The current intervention fields will be populated using the new data items. This will ensure comparability with historical PICANet data and will reduce duplication of data collection effort. In the future, PICANet will also have more detailed information on daily activity which will provide better information for clinical audit and commissioning. The software will also enable PICUs to export the PCCMDS for processing by their trust to enable accurate returns for PbR. The additional burden of data collection is [estimated](#) at 1 minute 45 seconds per patient per day based on the pilots carried out to develop the PCCMDS. PICANet will not be responsible for completing data returns for PbR from the central database. The processes involved in developing the PCCMDS are described in detail in this report by Dr Kevin Morris, a member of the PCCEWG.

### 8.3 Retrievals dataset

PICANet has not collected detailed information on retrievals of critically ill children in the past, concentrating on their experience in PICU. With the support of PICANet, the Clinical Advisory Group and the Paediatric Intensive Care Society, Dr Allan Wardhaugh has developed detailed proposals for a dataset that will capture information on this important sub-population of children during the retrieval process. These proposals are outlined in a separate chapter in this report.

## 8.4 Data collection and validation

PICANet has developed a paper data collection form and bespoke data entry software to enable a consistent national dataset to be assembled. Those units who use their own or commercial data collection software have been provided with an export file specification to enable data to be imported by the PICANet software. Training sessions were organised over two days to familiarise clinical and data entry staff with data definitions, data collection issues and software. Since the original training sessions, *ad hoc* training has been provided by the PICANet team for new staff concerned with data collection and entry.

The PICANet software performs internal logical consistency and range checks as data are entered and provides an on-screen summary of outstanding validation checks on the completion of a record. Units importing data from their own databases are provided with an import log, detailing which records have been imported and any outstanding validation issues. Central validation and data quality issues are dealt with in the section on data quality.

## 8.5 Clinical coding

Clinical diagnoses and procedures are coded using Clinical Terms 3 (The Read Codes) referred to as CT3. CT3 encompasses a huge range of diagnostic, procedural and context-dependent clinical codes designed to reflect all aspects of clinical care in the population in general. The long-term strategy of the NHS is to use SNOMED CT® for clinical coding of diagnostic information (see <http://www.connectingforhealth.nhs.uk/> for further details). PICANet will migrate to SNOMED CT® when the appropriate support architecture is in place but will continue to use CT3 in the meantime. There are plans to develop a SNOMED subset for PICU, an initiative supported by Connecting for Health. This issue is being taken forward by representatives of the Paediatric Intensive Care Society Study Group Health Informatics Group, with the support of PICANet, and is described in this report by Drs Padmanabhan Ramnarayan and Krishnan Thiru.

## 8.6 Confidentiality

PICANet collects patient identifiable information including name, address, date of birth and NHS number. With this information, PICANet can identify multiple admissions for the same individual, making the dataset person and episode-based. Personally identifiable information held by PICANet has been linked with death registration details, obtained from the Office for National Statistics (ONS), to assess long-term mortality in children admitted to paediatric intensive care. National census and other geographical data have been linked with validated postcodes of individual children to enable PICANet to assess the association between social class, population density and other geo-demographic and environmental information and paediatric intensive care admissions.

To comply with the provisions of the Data Protection Act, 1998, PICANet has implemented stringent confidentiality and data protection arrangements. The Patient Information Advisory Group (PIAG) has granted PICANet exemption from gaining signed parental consent under Section 60 of the Health and Social Care Act, 2001. This class support enables PICANet to collect and process patient identifiable information for the purpose of auditing, monitoring and analysing patient treatments, to ensure that adequate and appropriate paediatric intensive care services are available for all children admitted for



paediatric intensive care. Exemption was given under specified conditions in December 2002 and is due for review in June 2007.

Posters providing information about PICANet are displayed in PICUs, and information leaflets for parents / guardians and children are available (see [Appendix F](#) for a copy of the information leaflet).

## **8.7 Data transmission**

The PICANet data entry software includes the facility to transmit data electronically via the NHS intranet if local IT infrastructure can be configured appropriately. The data are first encrypted using public key encryption and then placed on the server. The uploaded data is regularly moved to a secure holding area, decrypted and uploaded onto the central server database.

Where local IT departments have been unable or unwilling to configure their systems and firewalls to allow electronic transfer, the data is encrypted and placed in a local folder and then sent as an email attachment.

## **9 DATASET DEFINITIONS FOR THIS REPORT**

- 1 This report covers the three year period January 2004 - December 2006. During this time, there were 43,140 admissions to participating PICUs.
- 2 There are 25 participating NHS trusts (located in England, Wales and Scotland), 24 of whom collected data for the entire reporting period. The Royal Hospital for Sick Children, Edinburgh did not join PICANet until December 2004.
- 3 Trusts are identified in this report, with agreement from all participating trusts' Chief Executives.
- 4 A key enabling identification of each trust can be found on the inside cover.
- 5 The main focus of this report are admissions aged 0 - 15 years of which there were a total of 42,221 over the three year period. In addition there were 919 admissions aged 16 years and above.
- 6 Unless stated otherwise, the proportions in tables throughout the report are row percentages, except in the total column where they are column percentages.
- 7 'Unknown' includes cases where the unit have specifically recorded 'not known' and also cases where a required value has been left blank.

## **10 DESCRIPTION OF TABLES AND FIGURES**

A brief description of the data contained in the tables and figures is given below, together with hyperlinks to the beginning of each section. In the .pdf version of this report, the hyperlink will bring you to the first page of the section. In the web document, the hyperlink will take you to an Excel spreadsheet that contains links to all the tables and figures in the section. These are all downloadable for use by individuals and organisations but please acknowledge the source of this data as indicated on the inside of the front cover. In some cases, individual figures are not described separately, as they clearly relate to the data in the tables on the same worksheet.

The PICANet dataset is dynamic and updated regularly. This means that overall admission figures have changed for 2004 and 2005 since the publication of the third national report. The data in this report are those supplied to PICANet up to March 2<sup>nd</sup>, 2007, when the dataset was frozen.

## 11 ADMISSION DATA

### 11.1 Admission numbers by age, sex, month and year of admission, NHS trust and diagnostic group

Tables 1 – 9 give numbers of admissions by age, sex, month of admission, NHS trust and diagnostic group. The primary diagnosis for the whole admission has been categorised into 13 diagnostic groups to enable a simple comparison between NHS trusts. The classification is based on CT3 (The Read Codes). Within these mutually exclusive thirteen groups:

- Infection excludes any respiratory or gastrointestinal infection but includes meningitis
- Neurological disorders include neurovascular complications
- Oncology includes neuro-oncology (brain tumours)
- Other includes those diagnoses not covered by the other 12 groups.

Read codes are five characters in length and can be made up of numbers, letters, or periods. The ordering of the individual characters does not indicate the hierarchy (e.g. patent ductus arteriosus (P70..) is a subset of congenital abnormality of ductus arteriosus (Xa6aC)). Table 8 and figure 8 focus on admissions for respiratory conditions by year and month.

### 11.2 Admissions by Strategic Health Authority (SHA) / Health Board (HB)

Tables 10a and 10b give numbers of admissions by SHA / HB, prior to and following the July 2006 NHS reorganisation. These were obtained by linking the validated home address of children admitted to PICU to SHA / HB via the National Statistics Postcode Directory (NSPD) (<http://www.statistics.gov.uk/geography/nspd.asp>). These tables present column percentages. Of the total number of admissions 97.5% had addresses which were validated. The remaining 2.5% included foreign addresses (2.3%) and missing addresses (0.2%). Figures 10a and 10b identify the SHA / HB boundaries pre and post reorganisation together with their names; figure 10c overlays the primary care structure.

### 11.3 Admissions by mortality risk category

Table 11 gives numbers of admissions by mortality risk group by NHS trust. The expected probability of mortality was estimated using the paediatric index of mortality (PIM)<sup>1</sup>, using recalibrated coefficients supplied by UK PICOS<sup>2</sup>. The categorization into <1%, 1-<5%, 5%-<15%, 15-<30% and 30% plus expected probability of mortality reflects those used by the Australian and New Zealand Intensive Care Society (ANZPICS)<sup>3</sup> for comparability.

### 11.4 Admissions by admission type

Tables 12 – 15 present numbers by admission type overall and by trust and year and a breakdown of the source of admission and care area admitted from by trust and year for emergency admissions (see below).

We have used the following definitions for type of admission:

- An admission that is 'planned - following surgery' is one that the unit is aware of before the surgery begins and one that could have been delayed for 24 hours without risk (e.g. spinal surgery).

- An admission that is 'unplanned - following surgery' is one that the unit was not aware of before surgery began and one that could not have been delayed without risk (e.g. bleeding tonsillectomy).
- A 'planned - other' admission is any other planned admission that is not an emergency (e.g. liver biopsy).
- An 'unplanned - other' admission is one that the unit was not expecting and is therefore an emergency admission (e.g. status epilepticus).

NB: Surgery is defined as undergoing all or part of a procedure or anaesthesia for a procedure in an operating theatre or anaesthetic room. Patients admitted from the operating theatre where surgery is not the main reason for admission (e.g. a patient with a head injury who is admitted from theatre after insertion of an ICP monitor) are not included here. In such patients the main reason for admission is head injury and thus the admission type would be 'unplanned - other'.

## 11.5 Admissions by primary diagnostic group

Tables 16 – 22 present a breakdown of admissions by diagnostic group, overall, by trust and year and further by trust and year for each of the admission types listed above.

Tables 23 – 25 present the twenty most common Read Codes returned to PICANet for primary reason for admissions overall (these represent 15,274 (36%) of all admissions) and for unplanned admissions (after surgery and 'other') by sex without any attempt to group them further.

PICANet has not imposed an arbitrary grouping of codes but present the raw data for the top 20 codes. The level of precision in the coding method makes interpretation of these data difficult without some form of aggregation. However, PICANet has allowed the flexibility to code very specifically to enable prospective audit to focus on particular conditions; for example, respiratory syncytial virus (RSV) positive bronchiolitis. Some units have chosen to code diagnoses in more detail to allow them to use this information locally, others have coded a single diagnosis at a general level. For most reporting purposes, the broad diagnostic groups used in this report are sufficient. Further disaggregation is not always possible due to the variation in coding practice between individual units.

## 11.6 References

- 1) Shann F, Pearson G, Slater A, Wilkinson K, Paediatric index of mortality (PIM): a mortality prediction model for children in intensive care. *Intensive Care Med* 1997; 23:201-207.
- 2) Brady AR, Harrison D, Black S, Jones S, Rowan K, Pearson G, Ratcliffe J, Parry GJ, on behalf of the UK PICOS Study Group. Assessment and Optimization of Mortality Prediction Tools for Admissions to Pediatric Intensive Care in the United Kingdom. *Pediatrics* 2006; 117: 733-742.
- 3) Australian and New Zealand Intensive Care Society. Report of the Australian and New Zealand Paediatric Intensive Care Registry 2005. ISBN: 1876980184 [Online] [Accessed 23/02/2007] Available from the World Wide Web at <http://www.anzics.com.au/uploads/2005ANZPICRRReport.pdf>.

## 12 RETRIEVAL DATA

Tables 26 – 28 present retrieval data by team type and age, by diagnostic group for non-specialist team retrievals (see below) and by team type and trust.

Data are collected on whether or not a child was retrieved / transferred into the PICU. We have used the following definitions:

- 'Own team' identifies that your own team collected the child from the referring hospital.
- 'Other specialist team (PICU)' identifies that another PICU retrieval team transferred the child to your unit.
- 'Other specialist team (non PICU)' identifies that another transport team, not a PICU team (e.g. Accident and Emergency Department (A&E), theatre teams or neonatal teams), transferred the child to your unit.
- 'Non-specialist team' identifies that a non-PICU, non-specialist team transported the child to your unit (e.g. ward staff).

In the majority of PICUs, doctors and nurses who work on the unit undertake retrieval of critically ill children. Within London, there are two specific transport teams, the Children's Acute Transfer Service (CATS) and the South Thames retrieval team. CATS is based at Great Ormond Street Hospital (GOSH), and is staffed separately from the intensive care units at GOSH. For PICANet, any child retrieved by CATS into a PICU at GOSH is recorded as 'other specialist team (PICU)'. The South Thames retrieval team is based at Evelina Children's Hospital and is staffed by doctors and nurses from within the PICU. For PICANet, any child retrieved by the South Thames team into the PICU at Evelina Children's Hospital is classed as 'own team'.

The Central Manchester and Manchester Children's University Hospitals NHS Trust has two sister hospitals (Booth Hall and the Royal Manchester Children's Hospital). For local reporting reasons, hospital transfers between the two hospitals are classed as internal admissions (admissions from the 'same hospital') but as the hospitals are 6 miles apart, any transfer requires a 'retrieval' by ambulance and crew.

## 13 INTERVENTION DATA

Tables 29 – 31 present summary data relating to interventions carried out on PICU. Most of the interventions described are available in all PICUs, although a few specialist interventions (such as extra corporeal membrane oxygenation (ECMO) or left ventricular assist device to support cardiac function (LVAD)) are only available in a PICU where invasive cardiac procedures are routinely performed. Note that table 30 contains aggregated data for 2004 – 2006. This, however, does not include Birmingham Children's Hospital as no intervention data was returned for 2005.

Length of ventilation was calculated in whole days. Any ventilation during the period 00:00 to 23:59 was counted as one complete day of ventilation (e.g. a child intubated and ventilated at 23:45 on 7 March, and extubated at 02:30 on 8 March, would count as two days of ventilation). Intubation and extubation times are not recorded in the PICANet dataset.

Figures 31a – 31c map the percentage of children receiving invasive ventilation by SHA pre and post- the July 2006 NHS reorganisation and by primary care organisation (PCO) post October 2006 reorganisation for 2004 and 2006. Data for 2005 are not mapped as, no intervention data were returned by Birmingham Children's hospital in 2005. The proportion of children invasively ventilated has been used as a very rough proxy for level of care.



## 14 BED ACTIVITY AND LENGTH OF STAY

Tables 32 – 33 present data on total bed days delivered by age and sex overall and by age by trust. The total number of bed days delivered is calculated as the sum of children receiving intensive care in a PICU each day. Tables 34 – 35 and their associated figures present summary data by year and month and by trust and year on a 'bed census': the number of children present in a PICU bed at 10 minutes past midnight. Tables 36 – 37 present data we describe as 'bed activity' by month and by trust, where a bed is counted as occupied if a child was present on a unit for any part of a the day. This inevitably results in higher figures than the bed census data as a bed may have more than one child occupying it in any one day. Tables 38 – 39 present summary data on length of stay by trust and age group and trust and diagnostic group. Table 40 groups the number of admissions by length of stay by trust, calculated to the minute in categories ranging from less than 1 hour to over 1 week. Children admitted prior to the report period, but discharged during it, are counted from 00:00 on 1 January 2004 until their discharge (or until 24:00 on 31 December 2006 if not discharged). Children admitted during the report period but discharged in 2007 (or who are still on the PICU) are counted from their admission date until 24:00 on 31 December 2006.

The number of bed days, bed census, bed activity and length of stay data are summarised by median and interquartile range (IQR). Median daily bed census figures and daily bed activity are plotted using a box and whisker graph by month and year, and by NHS trust. This type of graph indicates the median by a line within the coloured box, the ends of which give the IQR. The 'whiskers' indicate values beyond the IQRs, although extreme outside values are not plotted.

## 15 OUTCOME DATA

PICU mortality data are described in terms of unit discharge status by age and sex for England, Wales and Edinburgh combined, and by trust in [tables 41 – 45](#) and also using unadjusted and risk-adjusted standardized mortality ratios (SMRs). [Table 46](#) describes the discharge destination of children discharged alive from PICU. Unadjusted SMRs are calculated by dividing the expected number of deaths, based on the national data by the observed number of deaths in each trust. In addition, risk-adjusted SMRs are calculated by dividing the expected number of deaths predicted by PIM<sup>1</sup> by the observed number of deaths in each trust. We have used the original version of PIM with revised coefficients supplied by UK PICOS<sup>2</sup> that give a better calibration as these coefficients are based on a more recent dataset. We have also produced SMRs using PIM 2<sup>3</sup> for 2006.

Unadjusted and risk-adjusted SMRs are presented by trust and year for 2004, 2005, 2006 and combined years in [tables 47 – 49](#). PICU mortality funnel plots for the same periods are presented in [figures 47a – 50b](#) to provide a visual means of comparing unadjusted and adjusted SMRs between trusts, without imposing the ranking observed in league tables. [Figure 49c](#) presents risk-adjusted mortality using PIM 2.

The SMRs are plotted on the y-axis against the number of admissions to the trust on the x-axis. Higher mortality rates are represented by points plotted above the line of unity, with those appearing outside the upper control limit indicating an unusual excess mortality. Lower mortality rates are represented by points plotted below the line of unity and those falling below the lower control limit indicate unusually low mortality. In order to satisfy the condition, that if the overall distribution of the mortality ratios is random, there exists an approximately 5% chance of a unit falling outside the control limits, then the upper and lower control limits constructed at an individual unit level must represent not 95% confidence intervals, but 99.9% confidence intervals around a mortality ratio of one by number of admissions.<sup>4</sup> This is analogous to increasing the confidence interval (or significance level) when correcting for multiple comparisons in data containing numerous groups. This means that the funnel plots are drawn in such a way that there is an approximately 5% chance of a unit falling outside the control limits if the distribution of SMRs is random.

In [figures 50c and 50d](#), risk-adjusted SMRs by SHA, pre and post the July 2006 NHS organisation, have been produced by allocating children to the SHA in which they were living based on their address at admission. These ratios have then been expressed as a percentage and mapped to illustrate the range of variability in SMRs between SHAs. It should be noted that these ratios have not been subject to any spatial smoothing and confidence intervals are relatively wide in areas of low population. [Tables 51 – 55](#) present 30-day follow-up data by age, sex and trust.

### 15.1 References

- 1) Shann F, Pearson G, Slater A, Wilkinson K, Paediatric index of mortality (PIM): a mortality prediction model for children in intensive care. *Intensive Care Med* 1997; 23:201-207.
- 2) Brady AR, Harrison D, Black S, Jones S, Rowan K, Pearson G, Ratcliffe J, Parry GJ, on behalf of the UK PICOS Study Group. Assessment and Optimization of Mortality Prediction Tools for Admissions to Pediatric Intensive Care in the United Kingdom. *Pediatrics* 2006; 117: 733-742.
- 3) Shann F, Slater A, Pearson G. PIM 2: a revised version of the Paediatric Index of mortality. *Intensive Care Med* 2003; 29:278-285
- 4) Spiegelhalter D. Funnel plots for institutional comparison. *Quality and Safety in Health Care* 2002;11(4):390-391.

## 16 DATA ON INDIVIDUAL CHILDREN

In all other chapters of this report, PICU activity is presented for episodes of care or admissions. This chapter describes activity related to 31,320 individual patients representing the 42,221 admissions (0 - 15 years) during 2004 – 2006.

Firstly, [Table 56](#) summarises admissions by the source of their previous admission (same or other trust or single admission only). [Table 57](#) reports the number of children having repeat admissions by trust and [Table 58](#) the number of children admitted by diagnostic group. [Table 59](#) summarises the number of children admitted by diagnostic group either once to a single trust, more than once to the same trust or more than once to more than 1 trust.

## 17 PREVALENCE FOR ADMISSION

Age and sex specific prevalence for admission to PICUs in England and Wales has been calculated with 95% Poisson confidence intervals using population counts from the 2001 Census<sup>1</sup> ([table 60](#)). Age-sex standardised prevalence for the childhood population (less than 16 years) by SHA and HB (pre and post the October 2006 NHS reorganisation – [tables 61a](#) and [61b](#)). These are mapped in [figures 61a](#) and [61b](#) respectively.

Children were allocated to an SHA / HB using their residential address at admission. Addresses were validated using AFD Postcode Plus address validation software to obtain a correct postcode. Using the National Statistics Postcode Directory (<http://www.statistics.gov.uk/geography/nspd.asp>), postcodes were then linked to SHA / HB.

We have also presented age-sex standardised prevalence by 2006 primary care organisation (PCO) in [figure 61c](#).

Prevalence for Scotland is not presented as PICANet currently only receives data from the Royal Hospital for Sick Children, Edinburgh.

- 1) Office for National Statistics. 2001 Census : Census Area Statistics (England and Wales) [computer file]. ESRC/JISC Census Programme, Census Dissemination Unit, MIMAS (University of Manchester).
- 2) AFD Refiner Q.2/07. AFD Software Ltd, Lough House, Approach Road, Ramsey, ISLE OF MAN, IM8 1RG, UK, 2007.

## **18 CHILDREN RECEIVING CARE IN ADULT INTENSIVE CARE UNITS**

Data on children (under 16 years) treated in adult intensive care units (AICUs), including age in months, sex, date of admission and discharge, outcome and discharge location and admission diagnosis, were provided by the Intensive Care National Audit & Research Centre (ICNARC) and the South West Audit of Critically Ill Children (SWACIC). These data are summarised in [tables 62 – 67](#). Analysis is restricted to 2005. ICNARC receives data from 74% of AICUs in England.

Signed consent was obtained from the unit director of each AICU. One AICU providing data to SWACIC did not give explicit permission for PICANet to receive their data.

## 19 DATA QUALITY

Dr Krish Thiru

PICANet has now embarked on its sixth year of data collection. It does so with the knowledge that it has established one of the highest quality national core datasets in paediatric medicine within the UK.

Considerable effort has been made by both PICU staff and the PICANet team to ensure that the data is of the highest quality. During previous years, the PICANet team visited individual units to review a sample of records to cross check that the data submitted to PICANet corresponded to that data held in the unit's paper records and clinical information systems. Validation visits were suspended due to staff shortages but will resume this year.

This chapter details improvements in data quality during last year and highlights areas needing attention. The results are presented by NHS Trust as well as by unit to acknowledge the importance of unit level data management.

### 19.1 Data quality assurance processes

- 1) At input, internal logical, consistency and range checks are carried out at input by the PICANet software with an on-screen summary of outstanding validation checks on completion of a record. Units importing data from their own databases or commercial software are provided with an import log detailing which records have been imported and outstanding validation issues.
- 2) Data transmitted to the PICANet central server in Leeds are subject to a series of additional validation checks (including address and postcode validation and clinical coding verification). Data validation reports (DVRs) are returned via email ([Appendix G](#)).
- 3) Units are provided with monthly admission reports ([Appendix H](#)) and asked to cross check these with local patient registers (e.g. unit admission book).
- 4) Units are provided with error status reports ([Appendix I](#)) which highlight particular dimensions of data quality that require attention, these include the number of missing values returned.

Full details of the PICANet data quality control and assurance processes are provided in the [PICANet National Report 2003 - 2004](#).

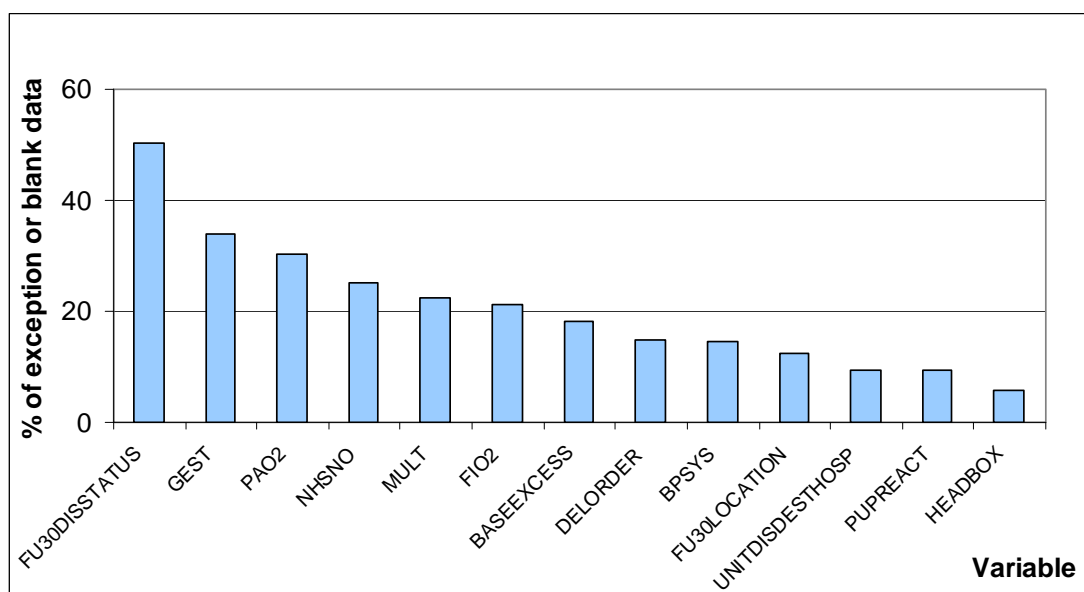
The completeness level for all data items collected by PICANet are given in [Table DQ1](#), showing 94.7% completeness of the data items. [Table DQ2](#) details the completeness of the data by month by year for the last 3 years, while [table DQ3](#) provides a breakdown by individual unit for the combined 3 years. The PICANet dataset contains 4.7% of exception values (i.e. data collected as 'not recorded' or 'not known') and with 0.6% left blank. [Figure DQ1](#) highlights twelve data items found to have the largest number of exception or blank values.

Table DQ1 Data completeness

FIELD	Eligible	Complete				Total		Incomplete				Total	
		Valid n	%	Exceptions n	%			Invalid n	%	Blank n	%		
ADDATE	43140	43140	(100.0)	0	(0.0)	43140	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
ADDRESS1	43140	43119	(100.0)	0	(0.0)	43119	(100.0)	0	(0.0)	21	(0.0)	21	(0.0)
ADNO	43140	43139	(100.0)	0	(0.0)	43139	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
ADTIME	43140	43135	(100.0)	0	(0.0)	43135	(100.0)	0	(0.0)	5	(0.0)	5	(0.0)
ADTYPE	43140	43023	(99.7)	116	(0.3)	43139	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
APDIAG	43140	43140	(100.0)	0	(0.0)	43140	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
BASEXCESS	33070	27101	(82.0)	5969	(18.0)	33070	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
BGFIRSTHR	24206	23192	(95.8)	1010	(4.2)	24202	(100.0)	0	(0.0)	4	(0.0)	4	(0.0)
BPSYS	43140	36854	(85.4)	6191	(14.4)	43045	(99.8)	0	(0.0)	95	(0.2)	95	(0.2)
CAREAREAAD	42516	41118	(96.7)	1396	(3.3)	42514	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
CASENO	43140	43139	(100.0)	0	(0.0)	43139	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
DELORDER	1342	1141	(85.0)	201	(15.0)	1342	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
DISPALCARE	40914	40297	(98.5)	617	(1.5)	40914	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
DOB	43131	43131	(100.0)	0	(0.0)	43131	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
DOBEST	43140	43132	(100.0)	6	(0.0)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
DOD	2676	2668	(99.7)	0	(0.0)	2668	(99.7)	0	(0.0)	8	(0.3)	8	(0.3)
ECMO	43140	41985	(97.3)	1153	(2.7)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
ETHNIC	43140	43138	(100.0)	0	(0.0)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
FAMILYNAME	43140	43131	(100.0)	0	(0.0)	43131	(100.0)	0	(0.0)	9	(0.0)	9	(0.0)
FIO2	31831	25080	(78.8)	5861	(18.4)	30941	(97.2)	0	(0.0)	890	(2.8)	890	(2.8)
FIRSTNAME	43140	43130	(100.0)	0	(0.0)	43130	(100.0)	0	(0.0)	10	(0.0)	10	(0.0)
FU30DISSTATUS	39536	19598	(49.6)	19857	(50.2)	39455	(99.8)	0	(0.0)	81	(0.2)	81	(0.2)
FU30LOCATION	19185	16803	(87.6)	2381	(12.4)	19184	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
FU30LOCHOSP	3232	3125	(96.7)	107	(3.3)	3232	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
GEST	24966	16487	(66.0)	8477	(34.0)	24964	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
HEADBOX	31831	30008	(94.3)	1475	(4.6)	31483	(98.9)	0	(0.0)	348	(1.1)	348	(1.1)
ICPDEVICE	24206	23468	(97.0)	735	(3.0)	24203	(100.0)	0	(0.0)	3	(0.0)	3	(0.0)
INTRACHEOSTOMY	43140	41865	(97.0)	1273	(3.0)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
INTUBATION	31831	30913	(97.1)	580	(1.8)	31493	(98.9)	0	(0.0)	338	(1.1)	338	(1.1)
INTUBDAYS	28	28	(100.0)	0	(0.0)	28	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
INTUBEVER	43140	43140	(100.0)	0	(0.0)	43140	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
INVVENT	43127	41848	(97.0)	1278	(3.0)	43126	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
INVVENTDAY	28706	28532	(99.4)	172	(0.6)	28704	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
LVAD	43140	41981	(97.3)	1157	(2.7)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
MECHVENT	43140	42596	(98.7)	538	(1.2)	43134	(100.0)	0	(0.0)	6	(0.0)	6	(0.0)
MEDHISTEVID	43140	42630	(98.8)	503	(1.2)	43133	(100.0)	0	(0.0)	7	(0.0)	7	(0.0)
MULT	43140	33469	(77.6)	9668	(22.4)	43137	(100.0)	0	(0.0)	3	(0.0)	3	(0.0)
NHSNO	43140	32268	(74.8)	1620	(3.8)	33888	(78.6)	0	(0.0)	9252	(21.4)	9252	(21.4)
NONINVVENT	43140	41719	(96.7)	1419	(3.3)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
NONINVVENTDAY	5287	5267	(99.6)	19	(0.4)	5286	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
PAO2	33070	23077	(69.8)	9991	(30.2)	33068	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
POSTCODE	43140	43103	(99.9)	0	(0.0)	43103	(99.9)	0	(0.0)	37	(0.1)	37	(0.1)
PREVICUAD	43140	42538	(98.6)	602	(1.4)	43140	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
PRIMDIAG	43140	42963	(99.6)	0	(0.0)	42963	(99.6)	37	(0.1)	140	(0.3)	177	(0.4)
PRIMREASON	24206	23596	(97.5)	598	(2.5)	24194	(100.0)	0	(0.0)	12	(0.0)	12	(0.0)
PUPREACT	43140	39136	(90.7)	3999	(9.3)	43135	(100.0)	0	(0.0)	5	(0.0)	5	(0.0)
RENALSUPPORT	24206	23482	(97.0)	721	(3.0)	24203	(100.0)	0	(0.0)	3	(0.0)	3	(0.0)
RETRIEVAL	43140	42954	(99.6)	178	(0.4)	43132	(100.0)	0	(0.0)	8	(0.0)	8	(0.0)
RETRIEVALBY	14796	14362	(97.1)	411	(2.8)	14773	(99.8)	0	(0.0)	23	(0.2)	23	(0.2)
SEX	43140	43090	(99.9)	43	(0.1)	43133	(100.0)	7	(0.0)	0	(0.0)	7	(0.0)
SOURCEAD	43140	42977	(99.6)	163	(0.4)	43140	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
TIMEDTH	2212	2212	(100.0)	0	(0.0)	2212	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
UNITDISDATE	43127	43121	(100.0)	0	(0.0)	43121	(100.0)	0	(0.0)	6	(0.0)	6	(0.0)
UNITDISDEST	40914	40562	(99.1)	351	(0.9)	40913	(100.0)	0	(0.0)	1	(0.0)	1	(0.0)
UNITDISDESTHOSP	39661	35955	(90.7)	3706	(9.3)	39661	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
UNITDISSTATUS	43140	43126	(100.0)	1	(0.0)	43127	(100.0)	0	(0.0)	13	(0.0)	13	(0.0)
UNITDISTIME	43127	43113	(100.0)	0	(0.0)	43113	(100.0)	0	(0.0)	14	(0.0)	14	(0.0)
VASOACTIVE	43140	41815	(96.9)	1323	(3.1)	43138	(100.0)	0	(0.0)	2	(0.0)	2	(0.0)
Total	2031140	1923860	(94.7)	95866	(4.7)	2019726	(99.4)	44	(0.0)	11370	(0.6)	11414	(0.6)



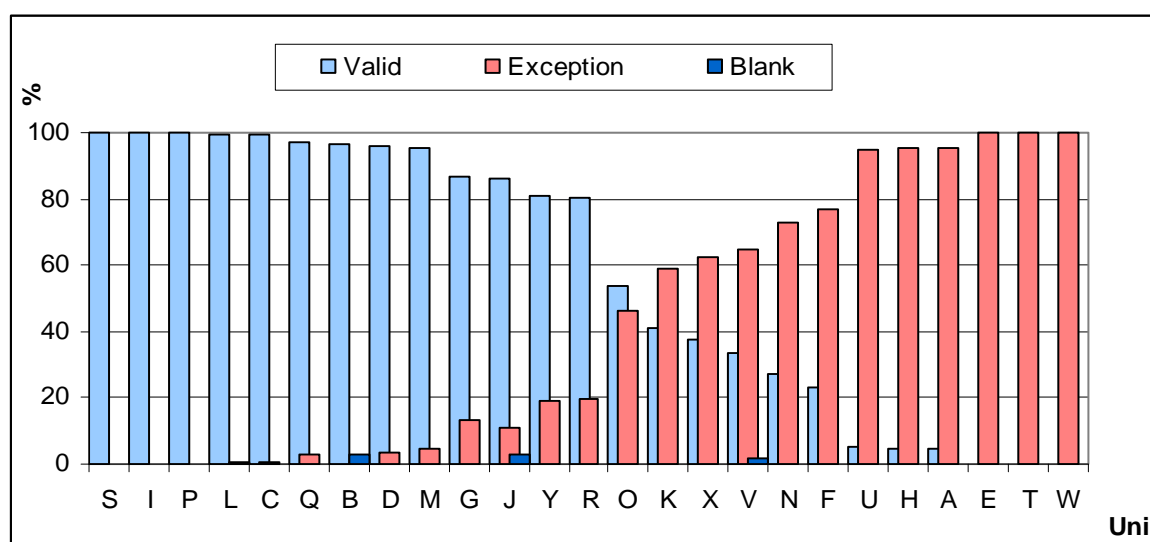
**Figure DQ1 Percentage of exception or blank values in the PICANet dataset**



Note: Full description of variables are provided in the PICANet Data Definitions Manual

Some of these data items are used in the calculation of the Paediatric Index of Mortality (PIM) 2. PICANet is investigating the impact of missing data on this risk adjustment index. Thirty-day follow-up status is a standard patient care outcome measure used across the NHS. Within PICANet, 30 day follow-up data is 99% complete, however 50% of this data is recoded as 'not known'. The distribution of 30 day follow-up data collection across PICANet units is detailed in [figure DQ2](#).

**Figure DQ2 Data completeness for 30-day follow-up information**



The [NHS Number](#) is a unique patient identifier that provides a common link between patient records across the NHS. The number can be used by Trust Patient Administration Systems/Patient Information Systems to easily and reliably link to the PICANet database.

**Table DQ2 Data completeness by year (all variables)**

Year Month		Eligible	Completion											
			Complete				Incomplete				Total			
			Valid n	%	Exceptions n	%	Total n	%	Invalid n	%	Blank n	%	Total n	%
2004	1	58682	55491	(94.6)	2744	(4.7)	58235	(99.2)	4	(0.0)	443	(0.8)	447	(0.8)
	2	55231	52175	(94.5)	2645	(4.8)	54820	(99.3)	1	(0.0)	410	(0.7)	411	(0.7)
	3	58333	54873	(94.1)	2987	(5.1)	57860	(99.2)	1	(0.0)	472	(0.8)	473	(0.8)
	4	52606	49716	(94.5)	2515	(4.8)	52231	(99.3)	4	(0.0)	371	(0.7)	375	(0.7)
	5	51913	48991	(94.4)	2506	(4.8)	51497	(99.2)	2	(0.0)	414	(0.8)	416	(0.8)
	6	52888	50072	(94.7)	2421	(4.6)	52493	(99.3)	0	(0.0)	395	(0.7)	395	(0.7)
	7	49904	47047	(94.3)	2508	(5.0)	49555	(99.3)	1	(0.0)	348	(0.7)	349	(0.7)
	8	49350	46474	(94.2)	2512	(5.1)	48986	(99.3)	0	(0.0)	364	(0.7)	364	(0.7)
	9	50505	47714	(94.5)	2426	(4.8)	50140	(99.3)	1	(0.0)	364	(0.7)	365	(0.7)
	10	51385	48414	(94.2)	2549	(5.0)	50963	(99.2)	0	(0.0)	422	(0.8)	422	(0.8)
	11	55158	52056	(94.4)	2592	(4.7)	54648	(99.1)	4	(0.0)	506	(0.9)	510	(0.9)
	12	56799	53729	(94.6)	2667	(4.7)	56396	(99.3)	0	(0.0)	403	(0.7)	403	(0.7)
2004 Total		642754	606752	(94.4)	31072	(4.8)	637824	(99.2)	18	(0.0)	4912	(0.8)	4930	(0.8)
2005	1	55686	51916	(93.2)	3340	(6.0)	55256	(99.2)	1	(0.0)	429	(0.8)	430	(0.8)
	2	52562	49017	(93.3)	3199	(6.1)	52216	(99.3)	1	(0.0)	345	(0.7)	346	(0.7)
	3	56360	52425	(93.0)	3601	(6.4)	56026	(99.4)	0	(0.0)	334	(0.6)	334	(0.6)
	4	52065	48634	(93.4)	3111	(6.0)	51745	(99.4)	0	(0.0)	320	(0.6)	320	(0.6)
	5	55150	51706	(93.8)	3150	(5.7)	54856	(99.5)	4	(0.0)	290	(0.5)	294	(0.5)
	6	58104	54620	(94.0)	3180	(5.5)	57800	(99.5)	1	(0.0)	303	(0.5)	304	(0.5)
	7	57810	54293	(93.9)	3167	(5.5)	57460	(99.4)	4	(0.0)	346	(0.6)	350	(0.6)
	8	53817	50577	(94.0)	2932	(5.4)	53509	(99.4)	0	(0.0)	308	(0.6)	308	(0.6)
	9	56570	53105	(93.9)	3147	(5.6)	56252	(99.4)	6	(0.0)	312	(0.6)	318	(0.6)
	10	54839	51642	(94.2)	2874	(5.2)	54516	(99.4)	1	(0.0)	322	(0.6)	323	(0.6)
	11	61505	57892	(94.1)	3300	(5.4)	61192	(99.5)	2	(0.0)	311	(0.5)	313	(0.5)
	12	61132	57278	(93.7)	3533	(5.8)	60811	(99.5)	4	(0.0)	317	(0.5)	321	(0.5)
2005 Total		675600	633105	(93.7)	38534	(5.7)	671639	(99.4)	24	(0.0)	3937	(0.6)	3961	(0.6)
2006	1	65153	62395	(95.8)	2576	(4.0)	64971	(99.7)	0	(0.0)	182	(0.3)	182	(0.3)
	2	59114	56608	(95.8)	2336	(4.0)	58944	(99.7)	0	(0.0)	170	(0.3)	170	(0.3)
	3	63110	60567	(96.0)	2375	(3.8)	62942	(99.7)	0	(0.0)	168	(0.3)	168	(0.3)
	4	57422	54962	(95.7)	2280	(4.0)	57242	(99.7)	1	(0.0)	179	(0.3)	180	(0.3)
	5	60152	57785	(96.1)	2188	(3.6)	59973	(99.7)	0	(0.0)	179	(0.3)	179	(0.3)
	6	57887	55633	(96.1)	2049	(3.5)	57682	(99.6)	0	(0.0)	205	(0.4)	205	(0.4)
	7	56573	54386	(96.1)	1974	(3.5)	56360	(99.6)	0	(0.0)	213	(0.4)	213	(0.4)
	8	56070	53821	(96.0)	2051	(3.7)	55872	(99.6)	0	(0.0)	198	(0.4)	198	(0.4)
	9	54838	52655	(96.0)	1958	(3.6)	54613	(99.6)	0	(0.0)	225	(0.4)	225	(0.4)
	10	59765	57450	(96.1)	2126	(3.6)	59576	(99.7)	0	(0.0)	189	(0.3)	189	(0.3)
	11	61777	59424	(96.2)	2109	(3.4)	61533	(99.6)	0	(0.0)	244	(0.4)	244	(0.4)
	12	60925	58317	(95.7)	2238	(3.7)	60555	(99.4)	1	(0.0)	369	(0.6)	370	(0.6)
2006 Total		712786	684003	(96.0)	26260	(3.7)	710263	(99.6)	2	(0.0)	2521	(0.4)	2523	(0.4)
Total		2031140	1923860	(94.7)	95866	(4.7)	2019726	(99.4)	44	(0.0)	11370	(0.6)	11414	(0.6)

The distribution of NHS number recording in PICANet units is detailed in [table DQ4](#) and in [figure DQ3](#) below. 25% of patients within PICANet do not have NHS numbers.

**Table DQ3 Data completeness by PICU**

PICU	Eligible	Complete				Total	Incomplete				Total	
		Valid		Exceptions			Invalid		Blank			
		n	%	n	%	n	n	%	n	%	n	%
A	60813	53744	(88.4)	6495	(10.7)	60239	0	(0.0)	574	(0.9)	574	(0.9)
B	34864	32734	(93.9)	1582	(4.5)	34316	0	(0.0)	548	(1.6)	548	(1.6)
C	41206	40316	(97.8)	877	(2.1)	41193	0	(0.0)	13	(0.0)	13	(0.0)
D	85370	83469	(97.8)	1819	(2.1)	85288	0	(0.0)	82	(0.1)	82	(0.1)
E	234799	225582	(96.1)	8123	(3.5)	233705	0	(0.0)	1094	(0.5)	1094	(0.5)
F	159625	151325	(94.8)	7457	(4.7)	158782	9	(0.0)	834	(0.5)	843	(0.5)
G	6286	6181	(98.3)	102	(1.6)	6283	0	(0.0)	3	(0.0)	3	(0.0)
H	45996	42271	(91.9)	3140	(6.8)	45411	0	(0.0)	585	(1.3)	585	(1.3)
I	126319	123715	(97.9)	2282	(1.8)	125997	0	(0.0)	322	(0.3)	322	(0.3)
J	11825	10931	(92.4)	570	(4.8)	11501	0	(0.0)	324	(2.7)	324	(2.7)
K1	41476	39747	(95.8)	1449	(3.5)	41196	0	(0.0)	280	(0.7)	280	(0.7)
K2	48207	46105	(95.6)	1978	(4.1)	48083	0	(0.0)	124	(0.3)	124	(0.3)
K3	39640	37546	(94.7)	1946	(4.9)	39492	0	(0.0)	148	(0.4)	148	(0.4)
L	39440	38133	(96.7)	966	(2.4)	39099	0	(0.0)	341	(0.9)	341	(0.9)
M	55235	53394	(96.7)	1748	(3.2)	55142	0	(0.0)	93	(0.2)	93	(0.2)
N	43674	41687	(95.5)	1608	(3.7)	43295	0	(0.0)	379	(0.9)	379	(0.9)
O	87796	82105	(93.5)	4893	(5.6)	86998	0	(0.0)	798	(0.9)	798	(0.9)
P	151790	146637	(96.6)	5048	(3.3)	151685	0	(0.0)	105	(0.1)	105	(0.1)
Q1	11668	11130	(95.4)	520	(4.5)	11650	0	(0.0)	18	(0.2)	18	(0.2)
Q2	67013	64263	(95.9)	2469	(3.7)	66732	0	(0.0)	281	(0.4)	281	(0.4)
R	96511	94700	(98.1)	1359	(1.4)	96059	0	(0.0)	452	(0.5)	452	(0.5)
S	25593	24299	(94.9)	1088	(4.3)	25387	0	(0.0)	206	(0.8)	206	(0.8)
T	56227	52094	(92.6)	3506	(6.2)	55600	0	(0.0)	627	(1.1)	627	(1.1)
U	55469	51274	(92.4)	3424	(6.2)	54698	0	(0.0)	771	(1.4)	771	(1.4)
V	139071	122461	(88.1)	15027	(10.8)	137488	35	(0.0)	1548	(1.1)	1583	(1.1)
W	96191	89415	(93.0)	6049	(6.3)	95464	0	(0.0)	727	(0.8)	727	(0.8)
X1	73829	69980	(94.8)	3829	(5.2)	73809	0	(0.0)	20	(0.0)	20	(0.0)
X2	53119	48135	(90.6)	4911	(9.2)	53046	0	(0.0)	73	(0.1)	73	(0.1)
Y	42088	40487	(96.2)	1601	(3.8)	42088	0	(0.0)	0	(0.0)	0	(0.0)
Grand Total	2031140	1923860	(94.7)	95866	(4.7)	2019726	44	(0.0)	11370	(0.6)	11414	(0.6)

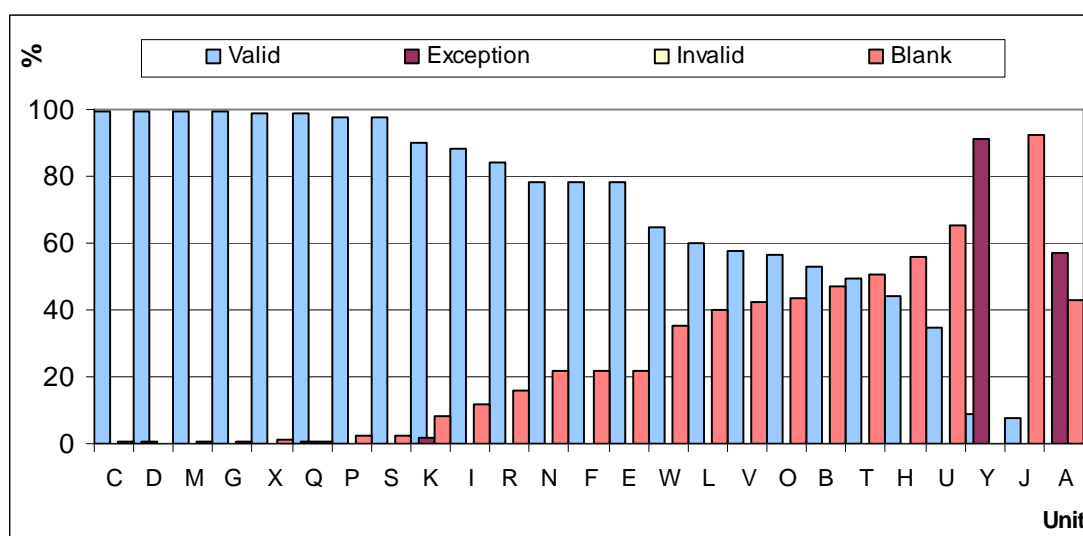
**Table DQ4 Data completeness for NHS number by NHS trust**

NHS trust	Eligible	Valid		Exceptions		Invalid		Blank	
		n	%	n	%	n	%	n	%
A	1328	0	(0.0)	755	(56.9)	0	(0.0)	573	(43.1)
B	763	404	(52.9)	0	(0.0)	0	(0.0)	359	(47.1)
C	851	848	(99.6)	0	(0.0)	0	(0.0)	3	(0.4)
D	1780	1772	(99.6)	8	(0.4)	0	(0.0)	0	(0.0)
E	4993	3900	(78.1)	0	(0.0)	0	(0.0)	1093	(21.9)
F	3411	2667	(78.2)	0	(0.0)	0	(0.0)	744	(21.8)
G	132	131	(99.2)	0	(0.0)	0	(0.0)	1	(0.8)
H	979	431	(44.0)	0	(0.0)	0	(0.0)	548	(56.0)
I	2678	2356	(88.0)	0	(0.0)	0	(0.0)	322	(12.0)
J	253	20	(7.9)	0	(0.0)	0	(0.0)	233	(92.1)
K	2745	2475	(90.2)	45	(1.6)	0	(0.0)	225	(8.2)
L	844	505	(59.8)	0	(0.0)	0	(0.0)	339	(40.2)
M	1159	1153	(99.5)	0	(0.0)	0	(0.0)	6	(0.5)
N	912	714	(78.3)	0	(0.0)	0	(0.0)	198	(21.7)
O	1826	1029	(56.4)	0	(0.0)	0	(0.0)	797	(43.6)
P	3146	3080	(97.9)	0	(0.0)	0	(0.0)	66	(2.1)
Q	1697	1677	(98.8)	7	(0.4)	0	(0.0)	13	(0.8)
R	1994	1683	(84.4)	0	(0.0)	0	(0.0)	311	(15.6)
S	549	537	(97.8)	0	(0.0)	0	(0.0)	12	(2.2)
T	1241	614	(49.5)	0	(0.0)	0	(0.0)	627	(50.5)
U	1175	408	(34.7)	0	(0.0)	0	(0.0)	767	(65.3)
V	2981	1715	(57.5)	0	(0.0)	0	(0.0)	1266	(42.5)
W	2035	1311	(64.4)	0	(0.0)	0	(0.0)	724	(35.6)
X	2787	2762	(99.1)	0	(0.0)	0	(0.0)	25	(0.9)
Y	881	76	(8.6)	805	(91.4)	0	(0.0)	0	(0.0)
Total	43140	32268	(74.8)	1620	(3.8)	0	(0.0)	9252	(21.4)

In the absence of the NHS Number it is difficult to definitively link patients with additional data repositories. PICANet is establishing a linked data set with [Hospital Episode](#)

[Statistics data](#). The NHS number is a crucial item of data which will enable long term follow-up and outcomes study of PICU patients.

**Figure DQ3 Data completeness for NHS number**



Over the coming year, PICANet will be implementing the collection of the Paediatric Critical Care Minimum Data Set. The consequences will be a greater volume of data for units and PICANet but the importance of quality assurance processes will remain. A collaborative approach to data quality, with regular and timely feedback from PICANet to units, will ensure that the PICANet dataset remains of the highest standard.

## 20 A CLINICIAN'S COMMENTARY

Dr Gale Pearson

When PICANet was first conceived in the early 1990's the available information suggested that only 40% of intensive care admissions of children in the United Kingdom were to the 28 paediatric intensive care units. The other 60% were looked after in adult / general units or on ordinary paediatric wards. This data came from surveys by the then British Paediatric Association (now the Royal College of Paediatrics and Child Health). In those days (not so long ago) intensive care was delivered to children in so many different sites that it was estimated that these surveys captured at best only 80% of child ICU 'admissions'. The data suggested that the average PICU had 3.6 staffed beds and had only 236 admissions per year. 22% of PICUs had no consultant in their employ with a special interest in the care of critically ill children. Outcomes were not monitored and not included in the surveys so no risk adjustment model could be applied to the data. A later study that did use risk adjustment (published in 1997)<sup>2</sup> compared a representative sample of the British system (in Trent) with a more centralised system (Victoria, Australia).<sup>3</sup> This study made the strong suggestion that such fragmentation of the intensive care service for children was associated with a prohibitive excess mortality. At the time most doctors wishing to train in paediatric intensive care spent the most significant parts of their training abroad.

By the time PICANet started collecting data, the team had validated the available risk adjustment models against British data and much more of the clinical care was already being provided in designated paediatric intensive care units by specialists in paediatric intensive care. The centralisation of care had largely been achieved by the expansion of 'lead centres' as a result of the recommendations of a national coordinating group. The clinical advisors to this group had also strongly endorsed the formation of PICANet. As a consequence PICANet data postdates the shift in service provision of the late 1990's and PICANet cannot report on any effect that the changes may have had. However I would assert that PICANet has been part of a substantial improvement in paediatric intensive care standards and that it has an enormous potential for future contribution. This is firstly because audit is an essential component of good clinical practice. Units that don't audit their performance are arguably not providing a good quality of care. The PICANet audit is as scrupulous as it can be (within budget) in terms of data collection, validation and analysis. Thanks to PICANet we now work in an era where the public, commissioners, providers and patients can all be reassured that the risk adjusted performance of the PICUs in England and Wales *is* monitored and has remained acceptable (within statistical confidence limits) for the past three years.

More children receive intensive care now, than at the time of the British Paediatric Association surveys. In the years for which data are presented in this report there has also been a small but perceptible continuing increase in the numbers of patients treated in paediatric intensive care units. It is not clear if the threshold for PICU admission across the PICUs is falling, whether there is a continued gravitation of patients to PICUs from general ICUs in referring units or whether intensive care provision is beginning to reach a group of children who always needed it but in the past did not receive it, as was the accusation in 1993. A workload of the order of 14000 admissions per annum in England & Wales is currently distributed between 25 NHS trusts representing 29 PICUs some of which still report very small volumes of activity and others high refusal rates. Nevertheless these figures translate to an average of 563 admissions per trust across the three years (median 443; IQR: 297 – 868). This volume of activity is proving sufficient to provide credible training in the specialty without overseas travel.

PICANet is a clinically conceived initiative, supported by the Department of Health with funding that may soon be channelled through the Health Care Commission. Clinicians (like their public health colleagues, commissioners, government and any patient's advocate) are very interested in bench marking their units and comparing the variety of clinical practice and performance. They need reassurance over the equity of service provision and the opportunity to improve clinical practice through thorough and rigorous research. PICANet provides an unparalleled resource in all these respects and has opportunities to further improve the service that it provides.

## **20.1 Inter unit comparison**

Inter unit comparison has become much easier since PICANet dropped the practice of anonymising units in deference to the Freedom of Information Act. Just scanning through the tables in this report we can see that amongst children, the age distribution of patients within our units is largely comparable between units and between years. Although over-age (16yrs plus) admissions and admissions in the higher mortality risk groups are more common in the larger / higher volume units. Both trends may reflect different attributes of specialist services in those units such as cardiac surgery. Smaller units also appear to experience much greater fluctuation in the numbers of admissions month by month.

One dramatic demonstration of a clinical difference between our units is the great variation in the proportion of patients receiving invasive ventilation, larger / higher volume units having a greater percentage of invasively ventilated patients. This may be related to the selected provision of specialist services but it could also reflect different relationships between supply and demand in intensive care in different regions. The location of high dependency services also has to be taken into account. If one has spare intensive care unit capacity it is not difficult to envision it being used to provide high dependency care (in which case the effect on the performance analysis is to improve the risk-adjusted outcome). PICANet could compensate for this latter effect by comparing risk adjusted outcome data for invasively ventilated patients as a separate group in the future.

PICANet usefully presents two types of standardised mortality, in funnel plot format, against the number of admissions per unit per year. The first is unadjusted by severity of illness, the standardisation being merely against the average mortality in the data. Some units (including the one where I work) appear close to or outside the confidence limits in this respect. In the second plot these figures are adjusted to account for the severity of illness at presentation. Pleasingly risk adjustment corrects for apparent outlying behaviour. Nevertheless where these effects persist year upon year it remains for these units to reassure us with clinical explanations as to how their case-mix ends up with greater proportions of high risk patients and for PICANet to look for other explanations within the data. PICANet has formal procedures for these sort of 'quality assurance' enquiries that have been tried in earnest at least once since it was formed.

## **20.2 Equity of provision**

PICANet only collects information on children who are admitted to the units participating in the audit. This includes all the PICUs in England and Wales and the PICU in Edinburgh. In the future the addition of data from the unit in Glasgow will provide more comprehensive cover of activity in Scotland. However significant numbers of children still receive care in adult / general intensive care units. Some of these contribute outline data to PICANet but despite our best efforts these units do not yet supply risk adjusted data to the audit. There

have also been observations during the PICANet era that large numbers of children have been turned away from the PICU of first referral in some regions (such as the West Midlands where I work). Certainly the data cannot yet reassure us that all those children who require intensive care in fact receive it, at all or in a timely fashion. The presentation of data with geographical denominators rather than inter-unit based comparison is the way forward in this respect, especially the presentation of patient flows. The real opportunity to pin this subject down will come from the analysis of the 'Referral and retrieval dataset' which is now being introduced as an addition to the core data collection.

### **20.3 Research**

PICANet enjoys a close and productive association with the Paediatric Intensive Care Society Study Group. Notable examples being the epidemiological analyses of traumatic brain injury, ethnicity and the analysis of seasonal respiratory admissions in the under ones (which was used to advise the joint committee on vaccination and immunisation on the timing of active immunisation programmes against respiratory syncytial virus). PICANet is a well tapped resource, providing services which include baseline data and denominators, power calculations for clinical trials and the opportunity to act as a vehicle for comprehensive data collection. This latter facility has also been used to allow units the facility to easily collect the paediatric critical care minimum dataset (part of 'payment by results') which will be necessary from October 2007. PICANet also contributes to the academic field of risk adjustment in health care services audit with notable current projects being latent class analysis to evaluate the impact of missing data on apparent performance and the development of techniques which will allow faster feedback to participating units on their performance within clinically useful timeframes. In common with the Australia and New Zealand Paediatric Intensive Care Society these faster feedback approaches will use CUSUM based techniques such as sequential probability ratio testing.

In summary I think PICANet is a tremendous achievement and should act as a great reassurance to patients and their parents in an environment where public faith in the NHS is continually shaken. The audit has enormous clinical support and is a great resource that is just starting to realise its potential. I look forward to a productive relationship with the Health Care Commission.

**Gale Pearson**

**Chair of the Clinical Advisory Group of PICANet**

### **20.4 References**

- 1) Freedom of Information Act 2000. [Online] [Accessed 05/06/2007] Available from the World Wide Web at <http://www.legislation.hms.gov.uk/acts/acts2000/20000036.htm>.
- 2) Shann F, Pearson G, Slater A, Wilkinson K, Paediatric index of mortality (PIM): a mortality prediction model for children in intensive care. *Intensive Care Med* 1997; 23:201-207.
- 3) Pearson G, Shann F, Barry P, Vyas J, Thomas T, Powell C, Field D. Should paediatric intensive care be centralised? Trent versus Victoria. *Lancet* 1997; 349: 1213-1217.



## **21 THE PAEDIATRIC CRITICAL CARE MINIMUM DATASET (PCCMDS), HEALTHCARE RESOURCE GROUPS (HRGS) AND PAYMENT BY RESULTS (PBR)**

**Dr Kevin Morris**

Healthcare Resource Groups (HRGs) have been used for a number of years as a way of classifying diseases and interventions, in relation to the amount of healthcare resources that they consume. HRG Version 3.5 has been in use since October 2003. The latest update (Version 4) is very important in assisting the Department of Health in implementing Payment by Results (PbR). An Expert Working Group (EWG), under the Chairmanship of Dr Nick Griffin, working on Version 4 HRGs for Paediatrics, identified the need to consider how Paediatric and Neonatal Intensive Care could be included. The NHS Information Centre established two further EWGs to take this work forward.

The Paediatric Critical Care EWG was established in 2004, chaired by Dr Nick Griffin, with Ian Hughes as Project Manager. Membership ([Appendix L](#)) included medical and nursing PIC and HDU representatives, commissioners, an NHS Finance director, PICANet, casemix consultants and Professor Stuart Tanner, representing the Department of Health. The EWG was charged with defining a Paediatric Critical Care Minimum Dataset that would in turn define a number of HRGs. In contrast to most HRGs, which are applied to a complete hospital episode, it was acknowledged that a daily HRG would be appropriate for all critical care episodes, whether neonatal, paediatric or adult. The EWG was also asked to include HDU levels of care, as distinct from the adult critical care dataset, which specifically does not include HDU or Level 1 patients.

Early discussions identified the lack of an existing system that was validated and could be easily adopted. A number of candidate approaches were discussed which included:

1. use of a Therapeutic Index Scoring System (TISS) or the recently published 'improved TISS', called the Nursing Activity Score (NAS), which in adult critical care has been shown to be a useful predictor of resource use,
2. a system based on further development and refinement of the existing PICS Levels of Care,
3. a system based on the number of organ system supports used, the system adopted for adult critical care HRGs.

The PICS Levels of Care have proved to be of value in defining PICU patient dependency, but have not been evaluated as a tool for measuring resource use and in their current form are not precise enough to reliably assign a level of care.

As 75-85% of costs associated with critical care are staff costs, it was agreed that it would be useful to collect information relating patient factors to use of staff resources. An observational study was undertaken in 10 PICUs, to evaluate the three models discussed above against the staff resource consumed by each patient. Observers were present for six hours and recorded the PICU staff present at each bedspace every 10 minutes. They also recorded the seniority of each staff member, in order to assign a cost, and included nursing staff, medical staff, technical support staff and physiotherapists. They did this for three days in succession and completed three blocks of three days separated by 3-4 weeks. For the same observational period of three months, shift by shift data was collected on the number and types of intervention, diagnosis, the number of organ supports and the Nursing Activities Score. The NHS Casemix team undertook a detailed statistical analysis of each approach and how well it predicted staff resource use. Alongside the observational study, each PICU provided detailed bottom-up costing for the financial year 2005/2006. The 10

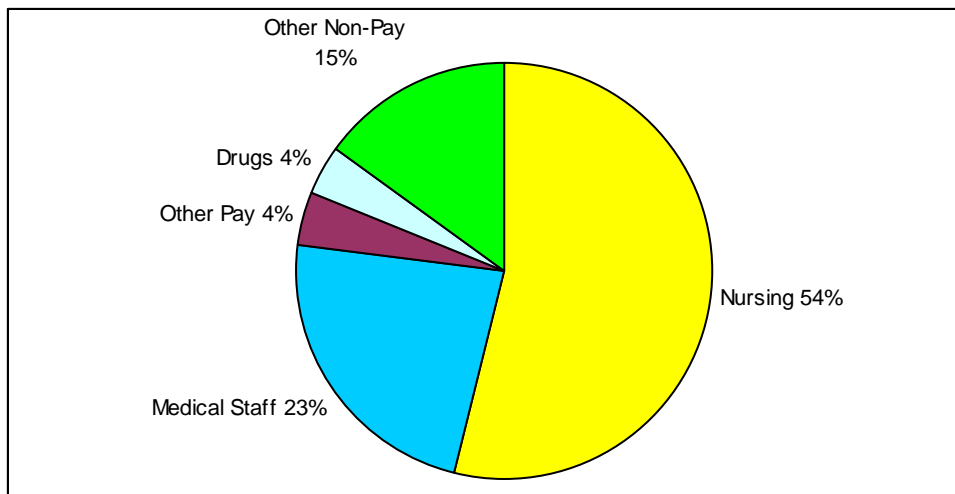


PICUs involved were selected to include a mixture of large, intermediate and smaller units and those with single multidisciplinary units and those with split site working.

### 21.1 What were the findings of the observational study and the costings exercise?

The costings study found that 83% of PICU costs were related to staff costs, with the single largest cost being nursing costs (Figure PCCMDS1).

**Figure PCCMDS 1 Breakdown of costs for each PICU**



**Note: Data shown is mean value for 10 units**

The Nursing Activities Score was found to be a poor predictor of staff resource use, as was the adult HRG model based on the number of organ systems supported.

A decision was taken to build up a system of HRGs based on a further refinement of the 'Levels of Care' approach. Allocation of a particular intervention to an HRG level was informed by the information available from the observational study – an intervention shown to be associated with a high staff resource being placed in a higher HRG category.

Considerable discussion took place regarding HDU levels of care. Whilst there are a number of existing systems that have been developed for HDU, a number of the data items that are included lack objectivity and cannot be measured in all patients. An absolute requirement for any item to be included in the minimum dataset is that it must be objective and measurable. An example would be the need for greater than 60% oxygen. This cannot be reliably quantified in an infant receiving supplemental oxygen via nasal cannulae. It was therefore necessary, in some situations, to modify a data item to make it acceptable for inclusion.

A key attribute of HRGs is that they are setting independent, that is to say, they apply whether the child is in a PICU at the time or in HDU or in a ward area. If a ward area collects the Paediatric Critical Care Minimum Dataset and identifies that an episode of critical care has occurred, then the relevant HRG will apply to that episode and in the future will be reimbursed under PbR.

## 21.2 What system of HRGs was chosen?

A system based on 7 HRGs was proposed:

- HRG1 – High Dependency
- HRG2 – High Dependency Advanced
- HRG3 – Intensive Care Basic
- HRG4 – Intensive Care Basic Enhanced
- HRG5 – Intensive Care Advanced
- HRG6 – Intensive Care Advanced Enhanced
- HRG7 – Intensive Care – ECMO / ECLS

To define these levels, a Paediatric Critical Care Minimum Dataset of 32 items is necessary. To take account of the additional staff costs associated with nursing a patient in an isolation cubicle, this is included in the dataset. A list of medical conditions that define the need for isolation is also needed (based on ICD 10 codes). The HRG level assigned to a patient increases by one level if the patient is recorded as nursed in an isolation cubicle **and** having a relevant ICD 10 diagnosis that justifies isolation.

Further detail on the HRGs with the interventions that map to each level is shown in [Appendix M](#).

Across the 10 PICUs in the study, the breakdown of cases over a three month period of activity data collection is shown in [table P1](#).

**Table P1 Breakdown of cases over three month period, according to HRG level**

HRG level	HRG category	Approximate percentage of patient activity
HRG 7	Intensive Care - ECMO / ECLS	1
HRG 6	Intensive Care, advanced enhanced	5
HRG 5	Intensive care, advanced	10
HRG 4	Intensive care, basic enhanced	20
HRG 3	Intensive care, basic	40
HRGs 1 & 2	HDU	20
-	No HRG category <sup>a</sup>	3

<sup>a</sup> These cases would not attract a tariff under PbR in the future

An analysis was undertaken of the staff resource costs associated with each HRG. These are expressed as a cost ratio with Intensive Care Basic as the reference HRG with a value of 1.00.

HRG1 – High Dependency	0.75
HRG2 – High Dependency Advanced	0.91
HRG3 – Intensive Care Basic	1.00
HRG4 – Intensive Care Basic Enhanced	1.22
HRG5 – Intensive Care Advanced	1.40
HRG6 – Intensive Care Adv Enhanced	2.12
HRG7 – Intensive Care – ECMO / ECLS	3.06

It should be stressed that the HDU level data was obtained predominantly within an ICU setting, which could have impacted on the nurse:patient ratio, with a higher nursing input than that delivered to the same patient in an HDU or ward setting.

### 21.3 How many HRGs will be allocated to a patient?

Each patient will be allocated a single 'parent' or 'core' HRG to cover the episode of hospitalisation. If more than one diagnostic code applies to a patient, the HRG with the highest tariff will apply. For example, a child admitted for cardiac surgery who develops a post-operative pneumonia will be allocated the HRG related to the cardiac surgery.

In addition, a number of aspects of care are 'unbundled' from the parent HRG. These include:

- 1) chemotherapy
- 2) radiotherapy
- 3) interventional radiology
- 4) diagnostic imaging eg MRI
- 5) rehabilitation
- 6) renal dialysis
- 7) critical care (including PICU)
- 8) specialist palliative care
- 9) high cost drugs

The list of all eligible high cost drugs will be updated on a regular basis, but the current list includes many drugs that will be used in PICU ([Appendix N](#)).

If the above patient admitted for cardiac surgery spends four days in PICU, is treated with Sildenafil and requires an MRI scan of the brain, then the number of HRGs will be:

Core HRG  
+  
4 PICU HRGs (depending on level(s) required)  
+  
High cost drug HRG for Sildenafil  
+  
Diagnostic imaging HRG for MRI scan

## **21.4 What about patient transport services?**

Any internal transport of a PICU patient within an institution will not receive a separate HRG and will be covered within the daily HRG.

Currently, retrieval is not included within the HRG classification, but work is ongoing to look at the costs associated with both neonatal and paediatric transport. It is quite likely that transport will form another unbundled category of care to add to the list of nine items shown above.

## **21.5 How will the Paediatric Critical Care Minimum Dataset be collected?**

It will be up to individual units and Trusts to decide on how to collect this data. The quality of the data will be important and if no patient data is collected, it will not be possible to be reimbursed under PbR in the future.

The publication of the Dataset Change Notice (DSCN) by the NHS Information Standards Board mandates the providers of IT development, under the umbrella of Connecting for Health, to provide Trusts with the ability to collect the PCCMDS. However, many Trusts are not yet covered by these developments and will need to seek a local solution.

The PCCMDS will be incorporated into the PICANet software, allowing participating units to collect data by this route, if they choose.

Systems must be developed within a unit to ensure complete and high quality data. If an intervention occurs at any time within a 24 hour period, it should be recorded even if it was only started at 23:50 at night. A patient who is discharged at 08:00 should have data collected, as they are eligible for a critical care HRG for that 24 hour period.

Greater difficulty is likely to be experienced in the collection of accurate data in patients who are cared for in ward areas. Cohorting of sicker ward patients into a limited number of HDU areas should both optimise their care and facilitate PCCMDS data collection.

## **21.6 Should a pre-term neonate looked after in PICU or a ward area have the Neonatal Critical Care Minimum Dataset collected rather than PCCMDS?**

No, the PCCMDS will be collected for all patients in a hospital environment that predominantly looks after children. Equally, if a 25 year old is admitted to PICU, the PCCMDS should be collected.

## **21.7 What are the key milestones over the next few years?**

Collection of the PCCMDS is mandatory from October 2007. The data that is collected will be analysed alongside costings information provided by Trusts as part of the Reference Costs exercise, to inform the setting of tariffs by the Payment by Results team of the Department of Health. It is envisaged that PICU will enter the PbR arena in April 2009 with tariffs from that point. There is considerable anxiety about the destabilising effect that full implementation could have, with the income of some units potentially cut drastically, so a phased implementation is likely to be considered, with part of a unit's income based on a block contract and part based on HRGs and PbR.

## **21.8 Will we be stuck with the current HRGs or can they be modified?**

HRGs can be modified but there is a process that must be gone through. We are told that the HRG Expert Working Groups will continue to function with this remit. A further 'full' version of the HRGs is undertaken every five years or so.

## **21.9 How else can we use the PCCMDS data?**

### PICU Audit

For the first time, all units will be collecting data on patients that is focussed on a day rather than a complete PICU episode. This will provide additional information about the epidemiology of critical care, the frequency with which interventions are used, and allow a more meaningful comparison of workload across different units. This information can also be used to allow improved modelling of staff requirements within a unit.

### Cost information

With the publication of a tariff for each HRG, units will be provided with much more detailed and transparent information about the income that the Trust is receiving for PICU activity and make it easier to breakdown income into certain categories eg private / NHS, in region / out of region. In addition, trials that are examining PICU costs or the cost effectiveness of a particular intervention will be able to use the HRG system and tariffs to calculate PICU costs, which will be a considerably easier methodology.

## **21.10 Further information**

<http://www.ic.nhs.uk/casemix>

[http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_062914](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_062914)

## 22 DEVELOPMENT OF THE RETRIEVALS DATASET

Dr Allan Wardhaugh

PICANet have now developed an extended dataset to allow collection of information regarding the retrieval and inter-hospital transfer of critically ill children. This will include collecting data regarding refused retrievals.

Each child who is referred to a PICU participating in PICANet *in whom it is agreed PICU is appropriate* will have data collected. In the event of a patient being refused admission because of lack of beds or lack of staff, a minimal amount of data will be collected, and the episode recorded as a refused admission. If the child is then referred to another unit, a new episode will be generated. The same child may generate several PICANet entries. The example below demonstrates an outline of the data collection.

The data required for a refused admission is minimal – simple patient identifiers, referring unit, outcome of referral. This should take a minimum of time to collect, as the referring unit are unlikely to be keen to spend too much time giving information over the phone about a patient they have not yet found a bed for.

Information will be collected relating to the transfer process, including the type of personnel involved, interventions undertaken during stabilisation and the transport itself, and critical incidents.

PICANet will be able to describe in detail where, when and by whom PICU retrieval is delivered in the United Kingdom. Individual units will receive information on how often, and for what reason, they have to turn away patients referred to them. This will be useful information for future commissioning of services. It may also provide insight into the ways different retrieval service configurations perform in terms of interventions and critical incidents.

The dataset has been developed by Allan Wardhaugh in consultation with members of the National Paediatric Retrieval Group over a period of several months, and was ratified by the group in the Paediatric Intensive Care Society meeting in November 2006. We are now working centrally to develop user-friendly forms and a database extension to allow this data to be collected, and over the course of the next year should be able to write to all PICUs asking them to participate in the collection of this data.

### 22.1 Example

Gareth Jones is a 2 month old with bronchiolitis admitted to Gloucester Royal Infirmary.

He deteriorates and requires intubation and ventilation. The consultant paediatrician refers him to Birmingham Children's Hospital - they are full. Bristol PICU are contacted – they are full, but are able to retrieve. Cardiff PICU is contacted, and accepts the patient, with the Bristol team retrieving.

On day 2 in Cardiff PICU he deteriorates further and is referred to Great Ormond Street for ECMO. They have a bed, and ask North Thames Childrens' Acute Transfer Service (CATS) to retrieve him.

After his ECMO run, he is referred back to Cardiff, still ventilated, on day 14. He is repatriated by a team from Great Ormond Street.

He is discharged from Cardiff on day 18 to his local hospital, spontaneously ventilating.

## 22.2 Forms completed

Birmingham Children's PICU	1 form	Not admitted – no staffed bed
Bristol Children's PICU	1 form	Not admitted – no staffed bed
	1 form	Referral and Retrieval
Cardiff PICU	1 form	Referral and admission
CATS	1 form	Referral and retrieval
GOSH	1 form	Referral and admission
	1 form	Transfer out*
Cardiff PICU**	1 form	Referral and admission

\*This transfer generates a form because he is still requiring critical care.

\*\*No transport form for final discharge, as he is not requiring critical care.

This patient with a complicated, but not unprecedented journey, has 8 forms completed and entered into the PICANet database. Under the current system, he would have had only 3 forms – one for the original Cardiff admission, one for his GOS admission, and one for his re-admission to Cardiff following ECMO.

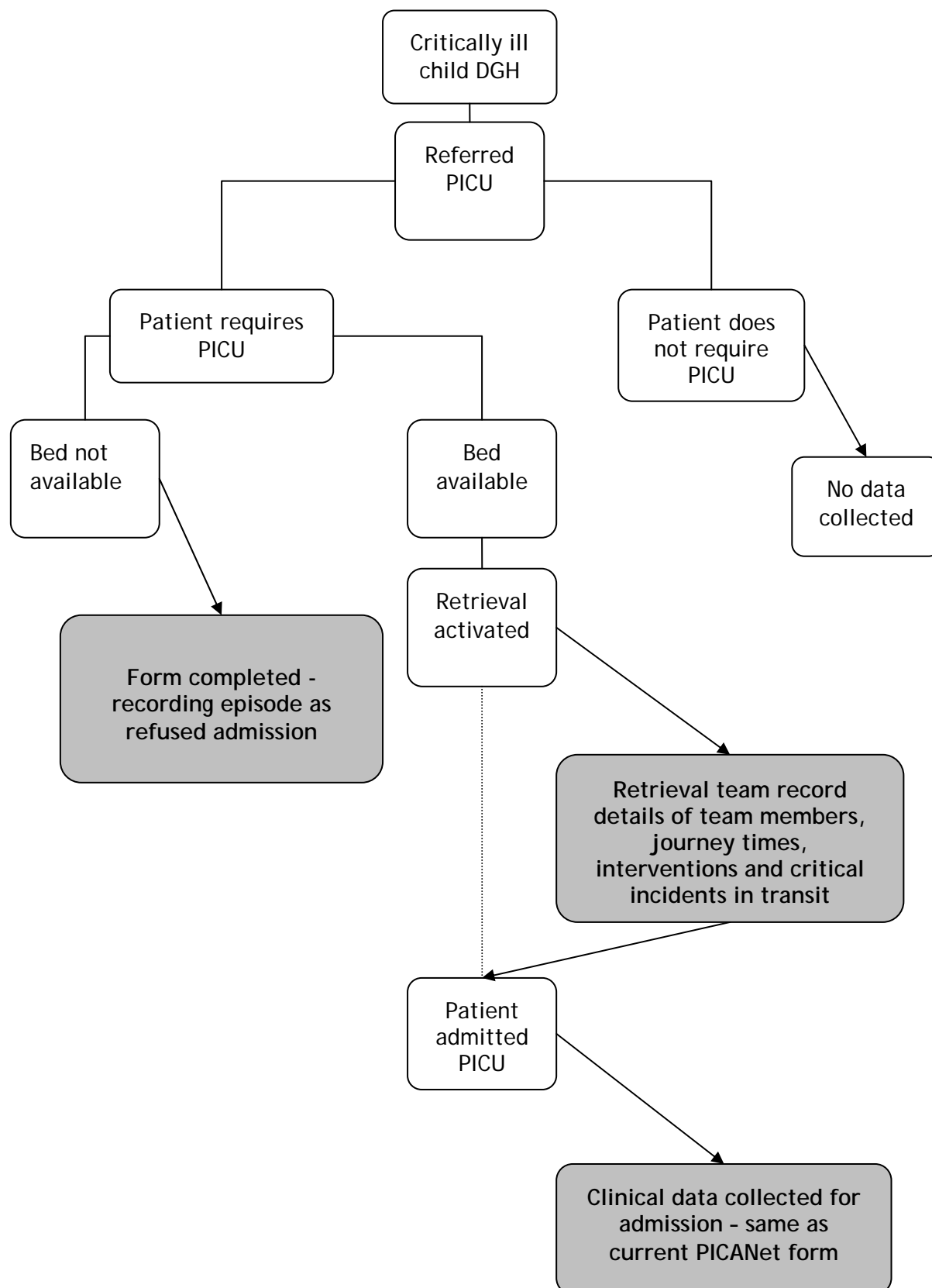
The episodes will appear in the reports issued to each participating service: in Birmingham's report, he appears as a refused admission due to lack of a staffed bed; in Bristol's report, he appears as a refused admission due to a lack of a staffed bed, and as a retrieval; in Cardiff's report, he appears as a referral and admission retrieved by another service on the first occasion, and again as an admission retrieved by another service; at CATS, he appears as a referral and retrieval; at GOS, he appears as a referral and admission, then as a transfer out.

The full dataset has been designed to cover a variety of contingencies reflecting the various service configurations and journey types known to occur, and full discussion of these is beyond the scope of this introduction, but more detailed information will be provided to all PICANet centres closer to the time of introduction.

When the forms are completed and the database extended, the process will be piloted in a few regions, and hopefully then extended nationally after any glitches are sorted out.

The full dataset can be found at <http://www.cardiffpicu.com/pages/nprg.html>

**Figure RET1 Referral, retrieval and PICU admission, the data collection pathway**





## **23 PICU HEALTH INFORMATICS**

**Dr Padmanabham Ramnarayan & Dr Krish Thiru**

*Medical Informatics* is the name given to the application of information technology and data processing techniques in healthcare. Also referred to as *health informatics* and *bioinformatics*, the discipline deals with how we acquire, store, retrieve and use information, data and knowledge. Although primarily concerned with the flow of information, with the advancement of computer sciences, it has become synonymous with the use of computers in health care. Health informatics plays a particularly vital role in information-rich specialities such as PICU.

With the increase in demand for accurate and timely information by clinicians, managers, commissioners and the Department of Health, UK PICU has been extensively computerised over the last decade. Ever increasing pressure for standardised accurate data is being placed upon PICU (e.g. Payment by Results). In order to ensure that developments in PICU health informatics are systematic and coherent, efforts have been made to establish a *National PICS Health Informatics Group* under the auspices of the Paediatric Intensive Care Society Study Group.

### **23.1 National PICS Health Informatics Group: News update**

The goal of shared and collaborative work in informatics across the UK PICU community moved closer to reality with the formation of a Health Informatics Group at the PICS meeting last November. Although the group is still in its infancy, membership is rapidly growing. The Group plans to have its first formal meeting at the 2007 PICS conference at Nottingham where current and planned work will be presented.

### **23.2 PICU Clinical Information Systems Survey**

Coming soon to an Inbox near you!

This survey aims to find out how units are collecting, storing and using information. The results will help PICUs in developing a coherent strategy for the implementation of information systems, within and outside the National Program for IT. A web-based survey has been piloted in pan-Thames units. Now the survey is being rolled out to all UK PICUs. You can respond to the survey using one of three response methods. (1) a web-based questionnaire (2) electronic PDF response (3) Printed PDF response to be posted back. Please choose the easiest method for you.

### **23.3 SNOMED PICU Subset Development Project**

The [National Programme for Information Technology \(NPfIT\)](#) has been hailed as the largest civilian IT project in the world, and it is going to change your life (or ruin it, depending on who you speak to)! The Informatics Group has been actively engaged in raising the profile of PICU with [Connecting for Health](#). Our first piece of collaborative work is the SNOMED subset development project.

### **23.4 What is SNOMED-CT?**

Clinical terminologies such as [Read Codes](#) (used in PICANet to collect data on diagnoses, procedures etc.) evolved out of the need to ensure standardised recording of electronic information and accurate retrieval of stored clinical data for audit and research.

The Systematised Nomenclature of Medicine- Clinical Terms (**SNOMED-CT** or SCT) is an evolving clinical terminology which aims to be the most comprehensive terminology for medicine. SCT which encompasses all current Read codes, is intended to be the *de facto* standard within NPfIT, which means that all coded information in the future will be need to be recorded as SCT terms rather than Read Codes or any other classification system. As a result, SCT will have significant implications on how we collect information for the Paediatric Critical Care Minimum Dataset (Payment by Results), PICANet, and any NHS IT systems developed for PICU.

### **23.5 What is a SNOMED subset?**

SCT contains >400,000 unique concepts, and 1 million synonyms. It will be time-consuming, and almost impossible, for PICU staff to browse and find the right SCT term(s) to record clinical information. A SNOMED subset is a “cut-down” version of SCT relevant for each speciality. A PICU subset will only contain SCT terms relevant for PICU, making it easier to find the right term to represent each piece of clinical information. The informatics group has proposed a study methodology for subset development to ensure that the subset is comprehensive for PICU needs, and overlaps with related fields such as cardiology. For further details on the methodology (presented at the PICS SG recently) and how PICANet data is being used to drive subset development, please visit <http://www.informatics.nhs.uk/>.

### **23.6 Why develop a subset?**

This is a significant project with far-reaching implications for our community. We need an effective and efficient subset of terms so that data collection in the future is easy and accurate. An incomplete or poorly conceived subset will make accurate data collection and retrieval in the future difficult and ineffective. We are actively looking for clinical input into this project and would welcome interested parties.

If you are interested in becoming involved in any of the activities detailed above or are thinking of developing a research and development study in this area of work, please contact Dr P Ramnarayan ([RamnaP@cats.nhs.uk](mailto:RamnaP@cats.nhs.uk)), Krish Thiru ([ThiruK1@gosh.nhs.uk](mailto:ThiruK1@gosh.nhs.uk)), or Stuart Rowe ([stuart.rowe@nhs.net](mailto:stuart.rowe@nhs.net)).

## **24 UK PICU STAFFING STUDY**

**Dr Dawn Coleby & Ms Namita Srivastava**

### **24.1 Background**

The UK PICU Staffing Study aims to look at the patterns of staff working in Paediatric Intensive Care Units, and how this impacts on staff wellbeing and patient outcomes. We are undertaking fieldwork in 12 PICUs across the UK, focusing on extended nursing roles and comparing PICUs where such roles are more or less well-developed.

Objectives include exploring extended nursing roles in PIC, and testing the impact of extended roles in relation to direct patient care time, quality of care and staff wellbeing. Additionally units with higher and lower extended roles are also being compared to explore workforce context, human resources management strategy (HRMS), and staffing costs.

### **24.2 The 3 different phases of the study**

The UK PICU Staffing Study is organised into 3 phases.

Phase 1 was completed in December 2005, and involved a survey of all PICUs. This provided information on the skillmix and the types of tasks undertaken by nurses within each PICU. The information was then used to categorise all units and randomly select 12 to participate in the next phases of the study (6 with well-developed extended nursing roles and 6 with less well-developed extended nursing roles).

Phase 2 involves visiting the 12 participating units, collecting unit profile information and observing nursing staff. Information on direct patient care time is collected by observing nursing staff as they work and by asking the nursing staff to complete a summary shift diary. This requires the nurses to estimate and record the percent of time they spend on certain tasks, during the observed shift. This part of the study also involves staff interviews to explore their experiences and views on staffing issues. HRMS, staffing costs and unit context are determined by staff interviews, unit profile questionnaires, and further data from phase 3.

Phase 3 is the final year- long prospective stage of the project.

This phase requires the shift leaders in each unit to complete a regular workload log. The workload log records twice-daily the number and skill-mix of staff on duty to provide clinical care and the number and illness severity of patients in the unit.

Patient outcomes will be ascertained from PICA Net data and cases of probable ventilator associated pneumonia (VAP) will be collected from clinical notes by research link-nurses. VAP is an important new outcome of the study because it is an infection that is acquired inside the PICUs. This data is collected in each participating unit by a trained research link-nurse or clinical research fellow.

Finally, parent/child interviews and a staff well-being questionnaire are also undertaken during this phase. The user interviews are designed to capture the views of the parents and some children with regards to the care they received in the PICU. The staff well-being questionnaires are designed to capture staff views of their workplace unit and the processes in place for ensuring health and safety of staff and supporting their wellbeing.

## **24.3 Progress phase 2**

### Observation data

Observational data is collected on nurses shadowed by our researcher for 2 hours during a typical 12 hour shift. The researcher records the tasks that the nurse undertakes. 4 or 5 nurses are observed at each unit (mostly band 5 or 6). Any other staff that attend the patient's bedside and that are involved in providing care are also noted. The majority of the observations are undertaken during the day, but one observation per unit is undertaken during a night shift. Because casemix of the patients being cared for by the observed nurses clearly may influence nursing activity, diagnosis of those patients is also recorded. Additionally, all nurses on shift during observations are asked to self-report activity by completing a simple end-of-shift summary diary. Once completed the observational data and summary shift diaries are used to estimate the amount of direct patient care time the nurses undertake in each unit.

### Interviews with staff

In order to explore a broad range of perspectives on staffing issues within PICUs, staff are selected in each unit representing different levels of seniority. The aim is to interview, within each unit, the Clinical Director, Nursing Manager, one staff nurse (band 5/6) and one junior doctor (SHO or Registrar). Some appointments with senior staff are made prior to the site visit, while most junior staff are approached during the site visit, and interviews are conducted as convenient to both parties. There have been relatively few problems so far in obtaining consent for and then conducting staff interviews within units. Staff are generally willing to discuss issues openly, and an interesting set of diverse opinions and experiences are being explored.

### Unit profile

The unit profile questionnaire is given to the nursing managers before the site visit, so that the researcher can take the completed questionnaire back to the study centre after the visit. However, if the unit profile is not completed during the researchers site visit, units can fax the completed form to the study centre in Leicester at a later date.

## **24.4 Progress phase 3**

### Ventilator-associated-pneumonia (VAP) link-nurse recruitment and training

Nursing managers at each unit were asked to identify a suitable member of nursing staff to undertake the VAP data extraction. Once the research link-nurses were identified, two training sessions were arranged to show the link-nurses how to complete the data extraction form. Thus ensuring consistent completion between units. The research link-nurses were asked to start data collection on 1st March 2007. All link-nurses attended one of the training sessions and a training manual was supplied.

### Interviews with parents and children

The study aims for a total of 36 interviews with parents with a subset of 10 parent-child paired interviews. We also aim to obtain a cross-section of children's reasons for admission and length of stay within the sample. Parents are approached during the researcher's site visit – in practice this is on an ad hoc basis depending on parent availability and also stability of the child which can determine suitability of parents for interview.

## 24.5 Outstanding work

Phase 2 is nearly complete. The staff at unit visits have been extremely welcoming and helpful, contributing to successful and informative site visits. Thank you to all the staff who have given us their time. All the information we are collecting in phase 2 provides important information on the nursing roles and how the team works together in each unit.

Phase 3 is now underway in all 12 PICUs and will be ongoing until March 2008. The research link-nurses have begun extracting information to detect probable Ventilator Associated Pneumonia from clinical notes on behalf of the project. Because VAP is an important outcome of the study it is important that this data is collected accurately and consistently between units. The study is therefore indebted to the research link-nurses for collecting these data on our behalf. Progress so far shows that the VAP data extraction is well underway in most units, with forms completed and returned regularly to the study centre.

In addition to the VAP data collection, participating units are also completing workload logs. The workload logs are being returned to the study centre regularly with the VAP forms by the link research nurses. We are pleased that most sites are returning logs that have been completed fully.

The staff wellbeing postal survey will be taking place in summer and autumn of 2007.

### Acknowledgements

#### Investigators

Dr. Janet Tucker  
Dr. Elizabeth Draper  
Dr. Dawn Coleby  
Ms. Namita Srivastava  
Prof. Lorna McKee  
Dr. Diane Skatun  
Dr. Mark Darowski  
Dr. Gareth Parry

The project is funded by NHS R&D Service Delivery and Organisation Programme (Grant number SDO-96-2005) and is being undertaken by researchers from the Universities of Aberdeen, Leicester, Harvard, USA and Leeds Teaching Hospital Trust in collaboration with PICANet.

Contacts: Dr Dawn Coleby ([dc55@le.ac.uk](mailto:dc55@le.ac.uk)) and Ms Namita Srivastava ([ns161@le.ac.uk](mailto:ns161@le.ac.uk)), University of Leicester, 22-28 Princess Road West, Leicester. LE1 6TP. Tel: 0116 2523200.

Project Website: <http://www.abdn.ac.uk/dugaldbairdcentre/projects/PICUStaffing.shtml>.

## **25 SPECIALISED COMMISSIONERS PERSPECTIVE ON PICANet**

**Dr Corinne Camilleri-Ferrante and Ms Roz Jones**

### **25.1 Introduction**

In order to gain an understanding of the use of PICANet to inform commissioning decisions, Specialised Commissioners from the North West and the East Midlands were asked to answer the following questions:

- (a) Is PICANet useful to Commissioners?
- (b) How could PICANet be developed in the future?

In capturing the Commissioners' perspective on PICANet, the two commissioners sought views from Paediatric Intensive Care Commissioners within England to collate this section of the annual report.

### **25.2 The Context of Commissioning Paediatric Intensive Care**

Paediatric Intensive Care (PIC) services are commissioned under Specialised Commissioning arrangements and are defined under the Specialised Services Definition Set, second edition, number 23, 'Specialised Services for Children'. The definition covers all activity relating to:

- Level 2 and 3 PIC units as per Framework for the Future, 1997<sup>1</sup>
- High Dependency Care provided within the tertiary setting
- Children requiring long term respiratory support if cared for in the tertiary centre
- PIC retrieval services for critically ill children
- Paediatric burn services. It is recognised that the National Burn Care Review recommends that paediatric burns cases require access to appropriate paediatric intensive care.

In response to the recommendations of the '*Review of Commissioning Arrangements for Specialised Services*' (the Carter Review) (May 2006)<sup>2</sup> these definitions are currently under review.

Over the last decade, national policy initiatives have been introduced, such as payment by results (PbR), Choice, the establishment of new Foundation Trusts, Independent Sector Treatment Centres and Practice Based Commissioning. In addition access waiting times, particularly the introduction of the 18 week target, are now key performance measures. All of these influence commissioning decision-making processes and priorities.

These initiatives will have a limited effect on the commissioning of PIC services; the majority of paediatric intensive care is unplanned and not influenced greatly by patient or GP choice. The impact will be felt in those areas, such as elective surgery, requiring PIC support where limitations in the numbers of PIC beds available could have an adverse effect on waiting times and other parameters. This can be a particular problem at times of high activity where pressure on PIC beds can be acute.

The Carter Review made a number of recommendations on commissioning arrangements for specialised services. The main recommendations which may have an impact on Paediatric Critical Care services are as follows:

- **Recommendation 14: Access to Patient Activity Data** – Commissioners should have access to patient activity data in the national database for all services which are commissioned collectively.
- **Recommendation 17: Designation of Specialised Services Providers** - The designation of units according to the agreed service specifications and standards which will be worked up by commissioners in partnership with clinicians and users of the service.
- **Recommendation 22: Specialised Services National Definitions Set** - The review of specialised services definitions which may widen or narrow the scope within the children's definition, number 23 which includes paediatric intensive care and high dependency care delivered within the tertiary centre.
- **Recommendation 23: Payment by Results** - Payment of activity through the payment by results mechanism for activity within those designated centres.
- **Recommendation 24: National Clinical Databases** – The National Specialised Services Commissioning Group should consider proposals to establish and maintain national clinical databases for specific specialised services to enable commissioners and providers to monitor clinical outcomes and performance against standards. Annual funding should be sought from the Department of Health as part of the programme to strengthen commissioning, with a supporting contribution from Specialised Commissioning Groups.

The Carter Review states that '*activity at undesignated providers should not be funded by commissioners.*'<sup>2</sup> In preparation for payment by results, standardised data have been identified by way of a minimum data set for paediatric critical care;<sup>3</sup> these have been developed by Information for Health and Social Care to support the operation of new paediatric health resource groups (HRGs) which will form the component parts of the packages of care to payment by results (PbR). This data set must be collected in the Commissioning Data sets from 1<sup>st</sup> October 2007 (with optional collection from 1<sup>st</sup> April 2007) in preparation for paediatric critical care service inclusion within PbR from 2008/09. The rationale for this policy is that critical care is a high cost, low volume service whose case mix and activity levels are not necessarily related directly to normal commissioned activity. There are features of HRG version 4 that include the concept of 'unbundling' high cost elements; this should allow better representation of activity and cost of specialised services in order to ensure recognition of priority areas.

As well as developing HRGs, the data from the Paediatric Critical Care Minimum Data Set (PCCMDS) will inform service delivery. It is, therefore, fundamental that there should be no duplication with PICANet data collections. PICANet are developing the necessary software to collect PCCMDS for PICUs; it should then be possible to export a file for the Trust's use. This will reduce the burden of data collection, but will leave the responsibility for making the return to the individual Trust. Some additional funds may be requested to assist in this.

### 25.3 Commissioners views on the usefulness of PICANet

Overall Commissioners reported PICANet information to be extremely useful. Annually, the data collated provide Paediatric Intensive Care services with a clearer understanding of the size and nature of the service, by way of information based on professional standards and agreed definitions. They provide an insight into changes in case mix by geography and time, together with a national benchmark to compare local service provision. From a local and national perspective the data, when analysed in line with

professional guidance and research, provide a strategic overview to inform service viability and future planning intentions.

As always, data are only as useful as they are timely and accessible. Using the data also helps to ensure that they are accurate. Commissioners would find direct access to PICANet data most useful, without the need for permissions from the clinical leads of the various units. Our need for comparative analysis means that we often wish to compare with units not directly within our sphere of influence, and this is aided by a more open attitude. We applaud the fact that all units were identified in the last report and would urge that we have open access to data with a minimum of red tape.

An example on the use of PICANet data to inform planning decisions is shown below in boxes 1 and 2:

**Box 1 - Paediatric Intensive Care Review within the East Midlands and South Yorkshire Region.**

*The review of PIC undertaken by East Midlands and South Yorkshire was completely underpinned by PICANet data. Commissioners requested, and received, timely and comprehensive data on the three units which were being reviewed. Commissioners were able to identify some errors in the data relating to the number bed days reported. PICANet reviewed this and it was found that two patients had no discharge dates recorded which skewed the data. Comparative analysis of the data from the three units showed interesting differences which have underpinned recommendations and planning assumptions.*

**Box 2 - Paediatric Intensive Care Review within the North West Region**

*Within the North West, a review of PIC within the Royal Manchester Children's Hospital and Royal Liverpool Children's Hospital was undertaken to assess the current utilisation of resources against best practice and to make recommendations regarding future capacity plans. The PICANet service provided a rapid response to requests and was easy to access. Information with regard to case mix and activity throughput was gained from annual report data, but the majority of information within the report was sought via specialist requests separately commissioned:*

- *Bed census in comparison to bed day information to identify patient throughput/efficiency*
- *Patient inflows (Non North West) and outflows (North West) by specialist centre (PICU) to assess specialist referrals, general emergencies or unmet need. In order to identify the names of the PICUs, authorisation was sought from the relevant lead clinicians. Of the PICUs accessed, all but one unit provided approval.*

*The review data collection would have been smoother if the PICANet service held data with regard to services that are interdependent on PIC such as high dependency, long-term ventilation and level 3 burn care. These data were collected manually from the two providers to ensure a better understanding of step up/down care and to identify any blockages within current patient pathways.*

The main comment from Commissioners concerned the restriction in local access to PICANet clinical data. At the moment apart from the annual report, or local permission from lead clinician to see individual unit reports, the process to gain data is as follows:

- (1) Commissioner completes data request form
- (2) Lead Clinician from PICU is asked for authorisation to release data



- (3) If authorised, PICANet prepare data
- (4) If additional analysis is required funding is requested to undertake this work

This raises the question of who should own the data ?

The service is funded by the Department of Health who established a legally binding agreement with PICANet. This outlined that the PICANet data and intellectual property rights are owned by PICANet. The forum for steering the scope of the work that PICANet undertakes is through the National PICANet Steering Group and Clinical Advisory Group which is represented by Lead Clinicians and Commissioners.

From the perspective of Commissioners, there needs to be assurance that aggregate (not patient identifiable) data from all parts of the country will be available in a timely manner. This will ensure that Commissioners are able to make sensible and consistent planning decisions based on population need not on historical accident. PCT level analysis does not require patient identifiers to be included in reports, but those reports can only be produced by someone who has access to patient identifiers. The issue of future access and ownership of patient identifiers needs to be clarified and very clearly understood.

Consistency within data definitions across units is extremely important and is not being achieved at present. Examples of this include definitions of planned care (where [National Confidential Enquiry into Patient Outcome and Death \(NCEPOD\)](#) definitions could be used consistently across the country) and assessing complexity of care within units. This last point is very subjective, with a number of different methods in use (e.g. staff to patient ratios or organ dependency via the augmented care dataset). A decision needs to be taken as a matter of some urgency exactly which tools will be used and their exact definitions. Consistency of use across the country then needs to be audited.

As well as levels of care, Commissioners would like PICANet to include GP practice codes within the data set so that the commissioning PCT can be identified. This information is fundamental in grouping HRG activity in order to apply the payment by results charging mechanism.

Within the current data collection, it is very difficult to identify activity through the whole of the patient pathway. Current data collections do not account for the full journey of the patient. Data are shown for the PIC episode of care, with the result that delays in discharge, or bottlenecks within the step up/down pathway, are difficult to identify. This is important as current information systems do not link the interdependent services, such as High Dependency Care, Long Term Ventilation and level 3 burn care, to ensure appropriate access and maximum utilisation of PIC resources. Furthermore, data links with primary care and local authority child services would inform further intelligence on correlation between PIC admissions and deprivation.

Over the last decade, lead centres have experienced an increase in referrals from local District General Hospitals (DGHs). This is in part due to changes in the anaesthetic guidelines, which resulted in a change in surgical practice where all children under three years old are referred to the specialist centres for surgery. If the PIC is full, this will increase cancellation rates for surgery and thus have an impact on the Trusts' requirement to meet the 18 week target. An example of the impact of this surgical shift within the Pan Thames Consortium area is shown below in box 3:

### **Box 3 – Surgical Shifts within the Pan Thames area**

*As a consequence of the changes in national anaesthetic guidelines affecting the level of experience required to care for children under three years old on clinical governance grounds, a number of DGHs in North Thames decided it was unsafe to continue performing surgery on younger children. This required patients to be transferred to the tertiary centre for surgery. In addition, due to the local centre not being able to provide high dependency care a number of patients were transferred to the lead centre by a transport team for stabilisation overnight and then back to their local DGH. A subsequent analysis of activity flows identified that out of 22 overnight stays, 11 could have remained in their local DGH if sufficient HDU cover was available at this time.*

Data on outcomes are extremely useful in assessing the service delivery and needs of a particular population. Inevitably, however, these data are limited. Mortality data are a blunt instrument, with limited usefulness. Morbidity outcome data would be extremely useful, but collecting them in a meaningful way presents many problems. Some thought to surrogate outcome measures which could be used and which would not be too onerous to collect would be most welcome.

Finally, current data with regard to PIC transport is very limited, only covering the fact that a retrieval/transfer has taken place, from what source and who undertook the transfer. It would be helpful to understand which geographical area and Trust patients have been transferred from, and whether it was a planned specialist referral, emergency referral or other. This would help to inform PICU capacity.

#### **25.4 Commissioners thoughts on how PICANet could be utilised more efficiently and developed in the future**

Commissioners provided the following suggestions on how PICANet could be developed to aid in decision-making and to work in line with National Commissioning guidance:

##### **25.5 Access to data**

Commissioners would like to be able to access data regionally in order to undertake local analysis. This could be achieved where access is approved for one person from each Specialised Commissioning Group; data would be password protected with read only access that could be downloaded. Access to detailed local data would be extremely useful.

##### **25.6 Quarterly Reporting**

Commissioners would find quarterly reports useful. Key performance indicators could be agreed and reported showing the local position in comparison to the national picture. In addition, exception reports showing national variances in trends would be useful.

##### **25.7 Strategic planning from a National perspective**

Commissioners need to make more use of PICANet data to inform national or sub-national level strategic planning. This could lead to the development of a national database of bed state which if supported could provide ongoing information on national bed capacity which would in turn inform local transport provision. Consideration should be

given to a real time bed state system which links to the PICANet data set. This should be considered by the National Specialised Services Commissioning Groups.

## **25.8 Commissioning the patient pathway**

In line with national guidance, Commissioners would like PICANet to incorporate paediatric high dependency care, long term ventilation and level 3 burns. Ideally, this would include data from outside tertiary centres, although the difficulties of data collection are recognised.

The planning process for PICANet to date has often been focussed on dealing with the complexities involved with the collection and storage of the audit data. The new PCCMDS and HRGs will allow the collection of a more complex range of information by specialty to be collected. Now that this stage of the development of the system is well established, this presents an opportunity to focus more on the analysis and future use of the information that is being collected.

## **25.9 Integration of PICANet information with Connecting for Health**

At the moment PICU units provide PICANet information via a database. Information is then exported to a secure server behind the Leeds Teaching Hospitals Trust firewall and accessed via a secure connection by the PICANet team at Leeds University. If data were included within the Connecting for Health IT infrastructure wider information searches could be carried out and there would be less need for individual, different analyses.

## **25.10 Capturing data on PIC Transport**

Commissioners recognise the difficulties associated with capturing data on PIC transport. However, information that allows a better national, or at least regional, picture would be most helpful. Currently, most PICs collect their own data but the system often does not have information on what happens to children who are refused. Collecting the data over wider areas would help to identify pockets of poor provision. This has been recognised within the PICANet work programme where a retrieval data set has been developed by Dr Allan Wardhaugh in consultation with members of the National Paediatric Retrieval Group. This was then ratified at the Paediatric Intensive Care Society in November 2006. This will be piloted in 2007 within a number of agreed sites. Further information can be found within Dr Wardhaugh's chapter in this report

## **25.11 Conclusions**

- Commissioners identify PICANet as very useful.
- The PICANet team are consistently helpful and approachable.
- Information is provided in a timely manner and communication through the annual reports, individual provider reports and yearly conference is a vital part of the planning process which informs commissioning intentions.
- Accessibility and quality of data are key - ownership; consistency in the providers' interpretation of the data definitions; data required to plan the patient pathway; and the need to access information not just focusing on PICU but on the impact from referring units as a result of changes within professional guidance.
- Commissioners do not need patient identifiable data but data that will ensure a sensible consistent approach to planning decisions based on population need not

historical accident. Data fields could usefully be extended to incorporate levels of care (staff to patient ratios as per PICs Standards 2001), PCT practice code, wider data set to capture the whole of the patient pathway, and additional information with regard to PIC retrievals.

- The change in casemix within PICUs, together with national guidance, has resulted in a change in practice. Intelligence therefore needs to be sought not just from the tertiary children's centres critical care activity but also from the referring units. Therefore, in the future, PICANet must be linked with wider national data sources and not viewed in isolation.
- PICANet needs to be closely involved in the design and development of any future audit framework. The Department of Health has acknowledged (via the consultation on the commissioning framework) that further research into outcomes measurement is required. This discussion needs to involve clinicians and commissioners working collaboratively.
- Commissioners need to utilise PICANet data better to inform national and sub-national strategic planning

## **25.12 Recommendations**

- PICANet is a valued resource and should be maintained and expanded.
- Commissioners should be seen as major stakeholders in PICANet and as such continue to be a party to discussions about its future.
- Ready access to data is fundamental to the data being used by commissioners. As such, consideration should be given to the idea of an identified commissioner within each of the Specialised Commissioning Groups to link with PICANet and to have automatic access to the data.
- All national data should be accessible to commissioners. Their greatest use lies in being able to make valid comparisons, not in having local data.
- Data on PCT would be most useful.
- Data on levels of care, including HDU, would ideally cover more than just the tertiary centres, although we recognise that this would be challenging.
- In the light of all the above, commissioners may be prepared to contribute some funding to assist in an increased data set.

## **25.13 References**

- 1) Department of Health, Health Services Directorate, July 1997, Paediatric Intensive Care "Framework for the Future"
- 2) Review of Commissioning Arrangements for Specialised Services, May 2006. An independent review requested by the Department of Health
- 3) DSCN Notice: 01/2007 Version 3.0 [Online] [Accessed 05/06/2007] Available from the World Wide Web at <http://www.connectingforhealth.nhs.uk/dscn/dscn2007>.

## 26 USES AND DISSEMINATION OF PICANet DATA

PICANet was established in collaboration with clinical colleagues from all participating NHS trusts, with a view to providing timely and accurate national and local information on PICU activity for those who deliver the service and those who plan the delivery of care. In common with all datasets the use of the data inevitably improves its quality. No data are ever provided or presented which allows an individual to be identified. In this, we act in accordance with the guidelines provided by ONS.

Information on PICANet is available to clinical care teams and parents through posters that are displayed in units and leaflets that are produced in 'parent packs'. The PICANet website address is given in this material and provides a further source of general information and copies of the national reports. Newsletters on progress are distributed regularly to lead nurses and consultants in each unit.

PICANet is pleased to report an increasing number of requests for data and information ([Appendix D](#)). Some requests have only requested aggregated, anonymised data from the entire dataset. For other requests, for example those that identify individual PICUs, PICANet always ensures that lead clinicians are informed and seeks permission for their data to be used.

Requests have been received from individual clinicians, groups of researchers and NHS commissioners. Some of the reports produced have required complex data processing and analyses and this has incurred additional costs which have been charged accordingly.

Dissemination of information from PICANet has been of prime importance to the team and [Appendix K](#) details specific talks given at various venues, a list of abstracts that have been presented at conferences and papers published by members of the PICANet team on PICANet and related topics. We welcome the opportunity to present data in these forums: please contact one of the team if you would like us to speak at local or national meetings.

## 27 TABLES AND FIGURES

Table 1 Admissions by age and sex, 2004 - 2006

Table 1 Admissions by age and sex, 2004 - 2006										
Age (Years)	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
0	11,899	(59)	8,292	(41)	9	(0)	29	(0)	20,229	(47.9)
1	2,593	(55)	2,138	(45)	3	(0)	7	(0)	4,741	(11.2)
2	1,349	(56)	1,037	(43)	0	(0)	4	(0)	2,390	(5.7)
3	1,083	(57)	830	(43)	1	(0)	2	(0)	1,916	(4.5)
4	846	(56)	655	(44)	0	(0)	1	(0)	1,502	(3.6)
5	703	(54)	590	(46)	0	(0)	2	(0)	1,295	(3.1)
6	611	(56)	481	(44)	1	(0)	1	(0)	1,094	(2.6)
7	542	(57)	402	(43)	0	(0)	1	(0)	945	(2.2)
8	439	(55)	362	(45)	0	(0)	0	(0)	801	(1.9)
9	475	(55)	391	(45)	0	(0)	0	(0)	866	(2.1)
10	510	(55)	412	(45)	0	(0)	0	(0)	922	(2.2)
11	523	(53)	460	(47)	0	(0)	0	(0)	983	(2.3)
12	558	(53)	500	(47)	0	(0)	0	(0)	1,058	(2.5)
13	628	(56)	495	(44)	0	(0)	1	(0)	1,124	(2.7)
14	650	(53)	574	(47)	0	(0)	2	(0)	1,226	(2.9)
15	581	(51)	548	(49)	0	(0)	0	(0)	1,129	(2.7)
Total	23,990	(56.8)	18,167	(43.0)	14	(0.0)	50	(0.1)	42,221	

Figure 1 Admissions by age and sex, 2004 - 2006

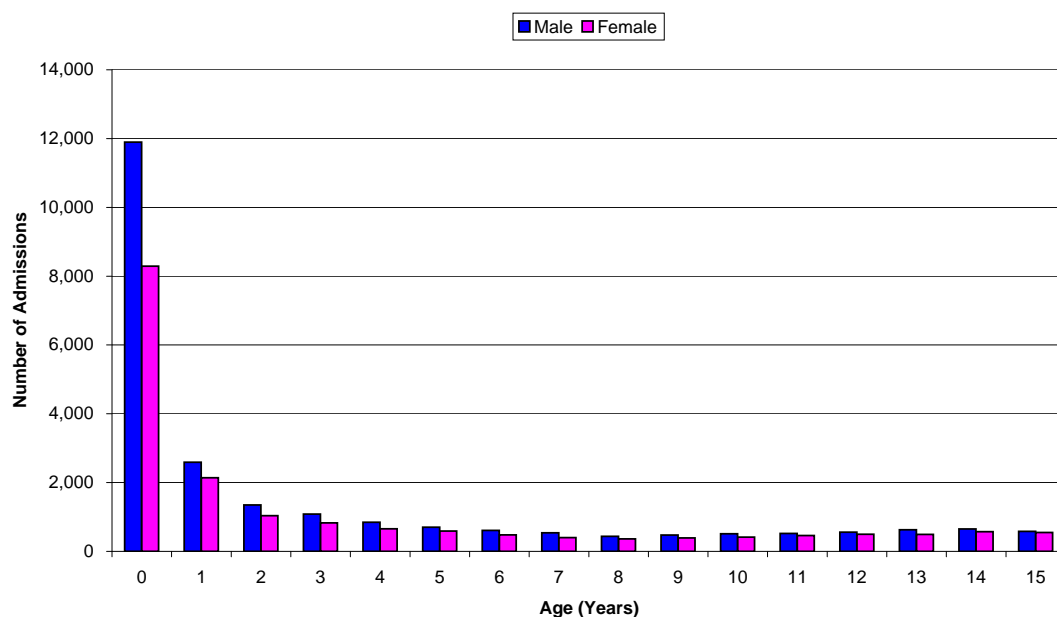


Table 2 Admissions by age (<1) and sex, 2004 - 2006

Age (Months)	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
0	4,226	(59)	2,878	(40)	6	(0)	13	(0)	7,123	(35.2)
1	1,686	(61)	1,070	(39)	0	(0)	1	(0)	2,757	(13.6)
2	1,142	(58)	814	(42)	1	(0)	2	(0)	1,959	(9.7)
3	932	(57)	709	(43)	1	(0)	2	(0)	1,644	(8.1)
4	755	(60)	494	(39)	0	(0)	2	(0)	1,251	(6.2)
5	657	(59)	455	(41)	0	(0)	0	(0)	1,112	(5.5)
6	504	(55)	418	(45)	0	(0)	0	(0)	922	(4.6)
7	473	(58)	335	(41)	0	(0)	1	(0)	809	(4.0)
8	433	(59)	294	(40)	0	(0)	1	(0)	728	(3.6)
9	386	(57)	294	(43)	0	(0)	1	(0)	681	(3.4)
10	361	(56)	284	(44)	1	(0)	3	(0)	649	(3.2)
11	344	(58)	247	(42)	0	(0)	3	(1)	594	(2.9)
Total	11,899	(58.8)	8,292	(41.0)	9	(0.0)	29	(0.1)	20,229	

Figure 2 Admissions by age (<1) and sex, 2004 - 2006

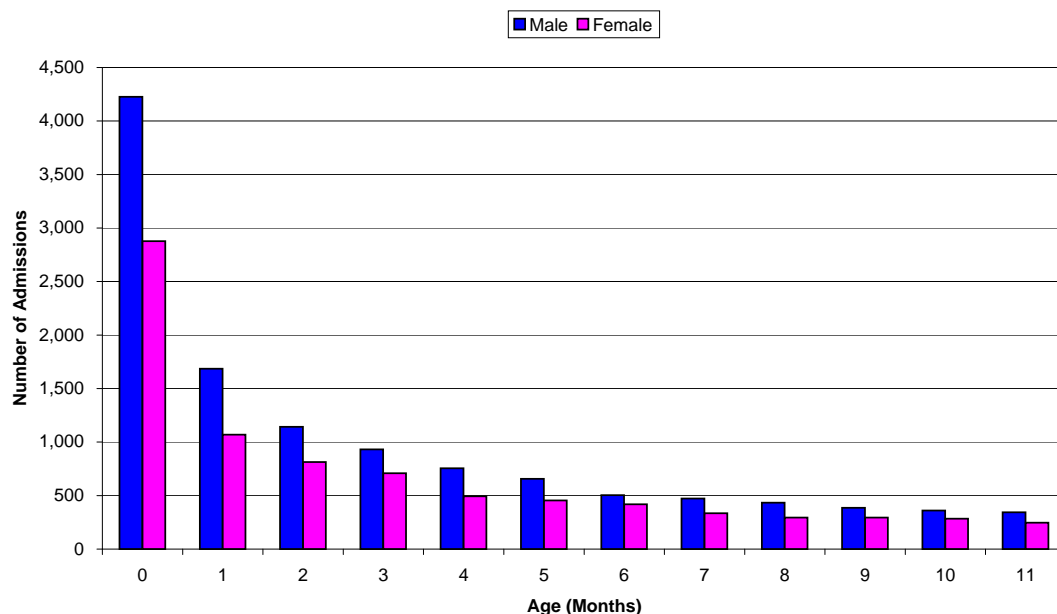


Table 3 Admissions by age by NHS trust, 2004 - 2006

Table 3 Admissions by age by NHS trust, 2004 - 2006											
Year	NHS Trust	Age Group (Years)								Total	
		<1		1-4		5-10		11-15			
		n	%	n	%	n	%	n	%	n	%
2004	A	151	(34)	111	(25)	91	(21)	90	(20)	443	(3.2)
	B	134	(47)	75	(26)	45	(16)	31	(11)	285	(2.1)
	C	110	(42)	55	(21)	42	(16)	57	(22)	264	(1.9)
	D	249	(43)	162	(28)	84	(14)	89	(15)	584	(4.2)
	E	967	(54)	381	(21)	215	(12)	215	(12)	1,778	(12.8)
	F	707	(61)	269	(23)	101	(9)	88	(8)	1,165	(8.4)
	G	13	(30)	12	(27)	9	(20)	10	(23)	44	(0.3)
	H	93	(30)	110	(36)	56	(18)	49	(16)	308	(2.2)
	I	393	(46)	233	(27)	130	(15)	103	(12)	859	(6.2)
	J	36	(44)	22	(27)	13	(16)	11	(13)	82	(0.6)
	K	519	(59)	145	(16)	111	(13)	108	(12)	883	(6.4)
	L	79	(35)	49	(22)	44	(19)	54	(24)	226	(1.6)
	M	110	(29)	107	(29)	75	(20)	81	(22)	373	(2.7)
	N	155	(46)	96	(28)	43	(13)	43	(13)	337	(2.4)
	O	274	(50)	175	(32)	65	(12)	39	(7)	553	(4.0)
	P	536	(55)	239	(24)	101	(10)	106	(11)	982	(7.1)
	Q	247	(45)	133	(24)	82	(15)	85	(16)	547	(4.0)
	R	286	(49)	145	(25)	82	(14)	72	(12)	585	(4.2)
	S	62	(37)	47	(28)	31	(19)	27	(16)	167	(1.2)
	T	124	(34)	125	(34)	52	(14)	65	(18)	366	(2.6)
U	139	(35)	141	(36)	66	(17)	46	(12)	392	(2.8)	
V	494	(50)	242	(25)	129	(13)	118	(12)	983	(7.1)	
W	329	(51)	146	(23)	100	(15)	73	(11)	648	(4.7)	
X	500	(52)	211	(22)	121	(13)	132	(14)	964	(7.0)	
Y	9	(45)	6	(30)	3	(15)	2	(10)	20	(0.1)	
2004 Total		6,716	(48.5)	3,437	(24.8)	1,891	(13.7)	1,794	(13.0)	13,838	
2005	A	138	(33)	99	(24)	111	(26)	72	(17)	420	(3.0)
	B	108	(46)	64	(27)	27	(12)	34	(15)	233	(1.7)
	C	103	(38)	68	(25)	42	(15)	58	(21)	271	(1.9)
	D	219	(38)	155	(27)	98	(17)	108	(19)	580	(4.1)
	E	833	(55)	333	(22)	194	(13)	155	(10)	1,515	(10.8)
	F	655	(58)	273	(24)	107	(10)	88	(8)	1,123	(8.0)
	G	14	(28)	13	(26)	10	(20)	13	(26)	50	(0.4)
	H	111	(33)	109	(32)	55	(16)	62	(18)	337	(2.4)
	I	412	(48)	204	(24)	120	(14)	117	(14)	853	(6.1)
	J	48	(50)	24	(25)	13	(14)	11	(11)	96	(0.7)
	K	480	(54)	196	(22)	104	(12)	104	(12)	884	(6.3)
	L	93	(34)	63	(23)	56	(20)	62	(23)	274	(1.9)
	M	108	(30)	107	(30)	61	(17)	79	(22)	355	(2.5)
	N	134	(45)	75	(25)	39	(13)	47	(16)	295	(2.1)
	O	362	(59)	142	(23)	71	(12)	40	(7)	615	(4.4)
	P	545	(54)	261	(26)	110	(11)	101	(10)	1,017	(7.2)
	Q	241	(41)	151	(26)	97	(17)	92	(16)	581	(4.1)
	R	327	(49)	134	(20)	90	(14)	114	(17)	665	(4.7)
	S	61	(34)	42	(23)	32	(18)	45	(25)	180	(1.3)
	T	105	(25)	157	(38)	89	(22)	62	(15)	413	(2.9)
U	160	(39)	146	(36)	71	(17)	31	(8)	408	(2.9)	
V	488	(54)	196	(22)	129	(14)	95	(10)	908	(6.5)	
W	323	(46)	190	(27)	111	(16)	77	(11)	701	(5.0)	
X	487	(55)	189	(21)	110	(12)	105	(12)	891	(6.3)	
Y	130	(33)	92	(24)	84	(21)	85	(22)	391	(2.8)	
2005 Total		6,685	(47.6)	3,483	(24.8)	2,031	(14.4)	1,857	(13.2)	14,056	
2006	A	166	(37)	103	(23)	94	(21)	86	(19)	449	(3.1)
	B	81	(36)	57	(25)	31	(14)	57	(25)	226	(1.6)
	C	113	(38)	71	(24)	57	(19)	60	(20)	301	(2.1)
	D	220	(39)	163	(29)	87	(15)	101	(18)	571	(4.0)
	E	912	(57)	360	(23)	174	(11)	154	(10)	1,600	(11.2)
	F	585	(54)	285	(26)	96	(9)	120	(11)	1,086	(7.6)
	G	9	(25)	11	(31)	9	(25)	7	(19)	36	(0.3)
	H	100	(32)	117	(37)	52	(17)	46	(15)	315	(2.2)
	I	401	(44)	269	(30)	131	(14)	108	(12)	909	(6.3)
	J	41	(56)	20	(27)	6	(8)	6	(8)	73	(0.5)
	K	542	(60)	168	(19)	83	(9)	114	(13)	907	(6.3)
	L	88	(29)	81	(27)	56	(19)	74	(25)	299	(2.1)
	M	118	(29)	121	(30)	79	(20)	87	(21)	405	(2.8)
	N	127	(46)	80	(29)	41	(15)	27	(10)	275	(1.9)
	O	387	(59)	150	(23)	73	(11)	45	(7)	655	(4.6)
	P	610	(55)	271	(25)	116	(11)	105	(10)	1,102	(7.7)
	Q	206	(41)	133	(26)	89	(18)	75	(15)	503	(3.5)
	R	351	(54)	118	(18)	80	(12)	107	(16)	656	(4.6)
	S	54	(29)	49	(26)	52	(28)	33	(18)	188	(1.3)
	T	140	(32)	149	(34)	96	(22)	57	(13)	442	(3.1)
U	137	(37)	141	(38)	57	(16)	32	(9)	367	(2.6)	
V	557	(53)	239	(23)	137	(13)	113	(11)	1,046	(7.3)	
W	317	(49)	149	(23)	112	(17)	64	(10)	642	(4.5)	
X	438	(50)	222	(25)	116	(13)	101	(12)	877	(6.1)	
Y	128	(32)	102	(26)	77	(19)	90	(23)	397	(2.8)	
2006 Total		6,828	(47.7)	3,629	(25.3)	2,001	(14.0)	1,869	(13.0)	14,327	
Grand Total		20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	



Table 4 Admissions by age (&lt;1) by NHS trust, 2004 - 2006

Table 4 Admissions by age (<1) by NHS trust, 2004 - 2006											
Year	NHS Trust	Age Group (Months)								Total	
		<1		1-2		3-5		6-11			
		n	%	n	%	n	%	n	%	n	%
2004	A	42	(28)	37	(25)	33	(22)	39	(26)	151	(2.2)
	B	38	(28)	39	(29)	28	(21)	29	(22)	134	(2.0)
	C	26	(24)	25	(23)	31	(28)	28	(25)	110	(1.6)
	D	51	(20)	76	(31)	60	(24)	62	(25)	249	(3.7)
	E	420	(43)	192	(20)	176	(18)	179	(19)	967	(14.4)
	F	312	(44)	151	(21)	118	(17)	126	(18)	707	(10.5)
	G	4	(31)	4	(31)	1	(8)	4	(31)	13	(0.2)
	H	21	(23)	25	(27)	15	(16)	32	(34)	93	(1.4)
	I	103	(26)	100	(25)	98	(25)	92	(23)	393	(5.9)
	J	4	(11)	8	(22)	14	(39)	10	(28)	36	(0.5)
	K	227	(44)	136	(26)	90	(17)	66	(13)	519	(7.7)
	L	19	(24)	28	(35)	18	(23)	14	(18)	79	(1.2)
	M	26	(24)	33	(30)	18	(16)	33	(30)	110	(1.6)
	N	51	(33)	37	(24)	41	(26)	26	(17)	155	(2.3)
	O	105	(38)	56	(20)	59	(22)	54	(20)	274	(4.1)
	P	211	(39)	133	(25)	96	(18)	96	(18)	536	(8.0)
	Q	80	(32)	75	(30)	45	(18)	47	(19)	247	(3.7)
	R	121	(42)	52	(18)	50	(17)	63	(22)	286	(4.3)
	S	17	(27)	20	(32)	18	(29)	7	(11)	62	(0.9)
	T	23	(19)	30	(24)	28	(23)	43	(35)	124	(1.8)
U	26	(19)	41	(29)	31	(22)	41	(29)	139	(2.1)	
V	208	(42)	100	(20)	93	(19)	93	(19)	494	(7.4)	
W	88	(27)	78	(24)	75	(23)	88	(27)	329	(4.9)	
X	179	(36)	103	(21)	101	(20)	117	(23)	500	(7.4)	
Y	1	(11)	5	(56)	2	(22)	1	(11)	9	(0.1)	
2004 Total		2,403	(35.8)	1,584	(23.6)	1,339	(19.9)	1,390	(20.7)	6,716	
2005	A	30	(22)	41	(30)	33	(24)	34	(25)	138	(2.1)
	B	22	(20)	33	(31)	30	(28)	23	(21)	108	(1.6)
	C	11	(11)	33	(32)	29	(28)	30	(29)	103	(1.5)
	D	54	(25)	69	(32)	47	(21)	49	(22)	219	(3.3)
	E	334	(40)	174	(21)	159	(19)	166	(20)	833	(12.5)
	F	269	(41)	152	(23)	107	(16)	127	(19)	655	(9.8)
	G	4	(29)	7	(50)	0	(0)	3	(21)	14	(0.2)
	H	22	(20)	21	(19)	28	(25)	40	(36)	111	(1.7)
	I	117	(28)	90	(22)	113	(27)	92	(22)	412	(6.2)
	J	9	(19)	13	(27)	13	(27)	13	(27)	48	(0.7)
	K	188	(39)	124	(26)	74	(15)	94	(20)	480	(7.2)
	L	19	(20)	38	(41)	19	(20)	17	(18)	93	(1.4)
	M	19	(18)	28	(26)	28	(26)	33	(31)	108	(1.6)
	N	36	(27)	33	(25)	36	(27)	29	(22)	134	(2.0)
	O	147	(41)	71	(20)	71	(20)	73	(20)	362	(5.4)
	P	204	(37)	120	(22)	114	(21)	107	(20)	545	(8.2)
	Q	83	(34)	67	(28)	38	(16)	53	(22)	241	(3.6)
	R	138	(42)	72	(22)	60	(18)	57	(17)	327	(4.9)
	S	16	(26)	20	(33)	17	(28)	8	(13)	61	(0.9)
	T	23	(22)	25	(24)	20	(19)	37	(35)	105	(1.6)
U	35	(22)	36	(23)	37	(23)	52	(33)	160	(2.4)	
V	180	(37)	118	(24)	114	(23)	76	(16)	488	(7.3)	
W	110	(34)	72	(22)	66	(20)	75	(23)	323	(4.8)	
X	199	(41)	96	(20)	77	(16)	115	(24)	487	(7.3)	
Y	45	(35)	34	(26)	18	(14)	33	(25)	130	(1.9)	
2005 Total		2,314	(34.6)	1,587	(23.7)	1,348	(20.2)	1,436	(21.5)	6,685	
2006	A	43	(26)	43	(26)	26	(16)	54	(33)	166	(2.4)
	B	17	(21)	28	(35)	19	(23)	17	(21)	81	(1.2)
	C	23	(20)	31	(27)	24	(21)	35	(31)	113	(1.7)
	D	40	(18)	73	(33)	42	(19)	65	(30)	220	(3.2)
	E	389	(43)	193	(21)	155	(17)	175	(19)	912	(13.4)
	F	247	(42)	121	(21)	91	(16)	126	(22)	585	(8.6)
	G	2	(22)	1	(11)	1	(11)	5	(56)	9	(0.1)
	H	20	(20)	20	(20)	22	(22)	38	(38)	100	(1.5)
	I	107	(27)	83	(21)	79	(20)	132	(33)	401	(5.9)
	J	8	(20)	13	(32)	10	(24)	10	(24)	41	(0.6)
	K	234	(43)	125	(23)	110	(20)	73	(13)	542	(7.9)
	L	18	(20)	28	(32)	23	(26)	19	(22)	88	(1.3)
	M	30	(25)	36	(31)	23	(19)	29	(25)	118	(1.7)
	N	30	(24)	26	(20)	36	(28)	35	(28)	127	(1.9)
	O	156	(40)	76	(20)	74	(19)	81	(21)	387	(5.7)
	P	223	(37)	149	(24)	114	(19)	124	(20)	610	(8.9)
	Q	86	(42)	48	(23)	29	(14)	43	(21)	206	(3.0)
	R	144	(41)	66	(19)	87	(25)	54	(15)	351	(5.1)
	S	12	(22)	20	(37)	11	(20)	11	(20)	54	(0.8)
	T	16	(11)	40	(29)	38	(27)	46	(33)	140	(2.1)
U	28	(20)	35	(26)	25	(18)	49	(36)	137	(2.0)	
V	217	(39)	106	(19)	113	(20)	121	(22)	557	(8.2)	
W	98	(31)	65	(21)	69	(22)	85	(27)	317	(4.6)	
X	184	(42)	87	(20)	75	(17)	92	(21)	438	(6.4)	
Y	34	(27)	32	(25)	24	(19)	38	(30)	128	(1.9)	
2006 Total		2,406	(35.2)	1,545	(22.6)	1,320	(19.3)	1,557	(22.8)	6,828	
Grand Total		7,123	(35.2)	4,716	(23.3)	4,007	(19.8)	4,383	(21.7)	20,229	

Table 5 Admissions by age (16+) by NHS trust, 2004 - 2006

Table 5 Admissions by age (16+) by NHS trust, 2004 - 2006											
Year	NHS Trust	Age Group (Years)								Total	
		16		17-20		21-25		26+			
		n	%	n	%	n	%	n	%	n	%
2004	A	6	(100)	0	(0)	0	(0)	0	(0)	6	(2.2)
	B	6	(75)	2	(25)	0	(0)	0	(0)	8	(2.9)
	C	4	(100)	0	(0)	0	(0)	0	(0)	4	(1.4)
	D	10	(71)	4	(29)	0	(0)	0	(0)	14	(5.0)
	E	29	(74)	10	(26)	0	(0)	0	(0)	39	(14.0)
	F	8	(57)	6	(43)	0	(0)	0	(0)	14	(5.0)
	G	1	(100)	0	(0)	0	(0)	0	(0)	1	(0.4)
	H	9	(100)	0	(0)	0	(0)	0	(0)	9	(3.2)
	I	10	(53)	8	(42)	1	(5)	0	(0)	19	(6.8)
	K	11	(61)	6	(33)	1	(6)	0	(0)	18	(6.5)
	L	2	(25)	5	(63)	0	(0)	1	(13)	8	(2.9)
	M	6	(86)	1	(14)	0	(0)	0	(0)	7	(2.5)
	N	2	(67)	1	(33)	0	(0)	0	(0)	3	(1.1)
	P	6	(55)	4	(36)	1	(9)	0	(0)	11	(4.0)
	Q	14	(78)	4	(22)	0	(0)	0	(0)	18	(6.5)
	R	15	(52)	13	(45)	1	(3)	0	(0)	29	(10.4)
	S	3	(43)	3	(43)	1	(14)	0	(0)	7	(2.5)
	T	3	(50)	3	(50)	0	(0)	0	(0)	6	(2.2)
	U	0	(0)	2	(100)	0	(0)	0	(0)	2	(0.7)
	V	5	(38)	8	(62)	0	(0)	0	(0)	13	(4.7)
	W	11	(85)	2	(15)	0	(0)	0	(0)	13	(4.7)
	X	13	(50)	12	(46)	1	(4)	0	(0)	26	(9.4)
	Y	3	(100)	0	(0)	0	(0)	0	(0)	3	(1.1)
2004 Total		177	(63.7)	94	(33.8)	6	(2.2)	1	(0.4)	278	
2005	A	4	(80)	1	(20)	0	(0)	0	(0)	5	(1.7)
	B	1	(33)	2	(67)	0	(0)	0	(0)	3	(1.0)
	C	2	(67)	1	(33)	0	(0)	0	(0)	3	(1.0)
	D	11	(65)	6	(35)	0	(0)	0	(0)	17	(5.9)
	E	23	(74)	7	(23)	0	(0)	1	(3)	31	(10.7)
	F	5	(56)	3	(33)	0	(0)	1	(11)	9	(3.1)
	H	2	(67)	1	(33)	0	(0)	0	(0)	3	(1.0)
	I	12	(67)	6	(33)	0	(0)	0	(0)	18	(6.2)
	J	1	(100)	0	(0)	0	(0)	0	(0)	1	(0.3)
	K	8	(36)	11	(50)	3	(14)	0	(0)	22	(7.6)
	L	14	(78)	3	(17)	1	(6)	0	(0)	18	(6.2)
	M	0	(0)	2	(100)	0	(0)	0	(0)	2	(0.7)
	N	1	(50)	1	(50)	0	(0)	0	(0)	2	(0.7)
	O	2	(67)	1	(33)	0	(0)	0	(0)	3	(1.0)
	P	9	(53)	8	(47)	0	(0)	0	(0)	17	(5.9)
	Q	8	(35)	15	(65)	0	(0)	0	(0)	23	(8.0)
	R	11	(48)	11	(48)	1	(4)	0	(0)	23	(8.0)
	S	3	(60)	2	(40)	0	(0)	0	(0)	5	(1.7)
	T	4	(67)	2	(33)	0	(0)	0	(0)	6	(2.1)
	U	2	(50)	2	(50)	0	(0)	0	(0)	4	(1.4)
	V	9	(69)	4	(31)	0	(0)	0	(0)	13	(4.5)
	W	12	(86)	2	(14)	0	(0)	0	(0)	14	(4.8)
	X	10	(91)	1	(9)	0	(0)	0	(0)	11	(3.8)
Y	17	(47)	19	(53)	0	(0)	0	(0)	36	(12.5)	
2005 Total		171	(59.2)	111	(38.4)	5	(1.7)	2	(0.7)	289	
2006	A	5	(100)	0	(0)	0	(0)	0	(0)	5	(1.4)
	B	4	(50)	4	(50)	0	(0)	0	(0)	8	(2.3)
	C	6	(75)	2	(25)	0	(0)	0	(0)	8	(2.3)
	D	9	(64)	5	(36)	0	(0)	0	(0)	14	(4.0)
	E	18	(60)	12	(40)	0	(0)	0	(0)	30	(8.5)
	F	10	(71)	4	(29)	0	(0)	0	(0)	14	(4.0)
	H	5	(71)	2	(29)	0	(0)	0	(0)	7	(2.0)
	I	13	(65)	6	(30)	1	(5)	0	(0)	20	(5.7)
	J	0	(0)	1	(100)	0	(0)	0	(0)	1	(0.3)
	K	12	(39)	17	(55)	1	(3)	1	(3)	31	(8.8)
	L	16	(84)	2	(11)	0	(0)	1	(5)	19	(5.4)
	M	6	(35)	11	(65)	0	(0)	0	(0)	17	(4.8)
	N	1	(100)	0	(0)	0	(0)	0	(0)	1	(0.3)
	P	10	(59)	7	(41)	0	(0)	0	(0)	17	(4.8)
	Q	11	(46)	12	(50)	1	(4)	0	(0)	24	(6.8)
	R	24	(67)	11	(31)	1	(3)	0	(0)	36	(10.2)
	S	1	(50)	1	(50)	0	(0)	0	(0)	2	(0.6)
	T	6	(75)	2	(25)	0	(0)	0	(0)	8	(2.3)
	U	1	(50)	1	(50)	0	(0)	0	(0)	2	(0.6)
	V	12	(67)	6	(33)	0	(0)	0	(0)	18	(5.1)
	W	11	(65)	6	(35)	0	(0)	0	(0)	17	(4.8)
	X	14	(74)	4	(21)	0	(0)	1	(5)	19	(5.4)
	Y	12	(35)	22	(65)	0	(0)	0	(0)	34	(9.7)
2006 Total		207	(58.8)	138	(39.2)	4	(1.1)	3	(0.9)	352	
Grand Total		555	(60.4)	343	(37.3)	15	(1.6)	6	(0.7)	919	

Table 6 Admissions by month and age, 2004 - 2006

Table 6 Admissions by month and age, 2004 - 2006											
Year	Month	Age Group (Years)								Total	
		<1		1-4		5-10		11-15			
		n	%	n	%	n	%	n	%	n	%
2004	1	704	(56)	273	(22)	143	(11)	148	(12)	1,268	(9.2)
	2	604	(51)	273	(23)	164	(14)	147	(12)	1,188	(8.6)
	3	612	(49)	321	(26)	162	(13)	157	(13)	1,252	(9.0)
	4	562	(50)	291	(26)	130	(11)	152	(13)	1,135	(8.2)
	5	498	(44)	306	(27)	162	(14)	158	(14)	1,124	(8.1)
	6	513	(45)	307	(27)	165	(14)	162	(14)	1,147	(8.3)
	7	491	(46)	262	(25)	165	(16)	145	(14)	1,063	(7.7)
	8	460	(43)	270	(25)	148	(14)	187	(18)	1,065	(7.7)
	9	483	(44)	278	(26)	183	(17)	143	(13)	1,087	(7.9)
	10	522	(47)	271	(25)	174	(16)	137	(12)	1,104	(8.0)
	11	581	(49)	303	(26)	157	(13)	146	(12)	1,187	(8.6)
	12	686	(56)	282	(23)	138	(11)	112	(9)	1,218	(8.8)
2004 Total		6,716	(48.5)	3,437	(24.8)	1,891	(13.7)	1,794	(13.0)	13,838	
2005	1	595	(49)	281	(23)	172	(14)	158	(13)	1,206	(8.6)
	2	533	(47)	324	(28)	146	(13)	139	(12)	1,142	(8.1)
	3	583	(47)	312	(25)	186	(15)	152	(12)	1,233	(8.8)
	4	558	(49)	273	(24)	172	(15)	139	(12)	1,142	(8.1)
	5	519	(46)	269	(24)	189	(17)	151	(13)	1,128	(8.0)
	6	530	(45)	286	(24)	165	(14)	193	(16)	1,174	(8.4)
	7	521	(45)	284	(24)	186	(16)	172	(15)	1,163	(8.3)
	8	489	(45)	278	(26)	165	(15)	156	(14)	1,088	(7.7)
	9	503	(43)	305	(26)	175	(15)	176	(15)	1,159	(8.2)
	10	518	(46)	301	(27)	154	(14)	141	(13)	1,114	(7.9)
	11	613	(49)	304	(24)	185	(15)	156	(12)	1,258	(8.9)
	12	723	(58)	266	(21)	136	(11)	124	(10)	1,249	(8.9)
2005 Total		6,685	(47.6)	3,483	(24.8)	2,031	(14.4)	1,857	(13.2)	14,056	
2006	1	673	(51)	309	(24)	175	(13)	154	(12)	1,311	(9.2)
	2	553	(47)	301	(25)	182	(15)	150	(13)	1,186	(8.3)
	3	583	(46)	328	(26)	182	(14)	171	(14)	1,264	(8.8)
	4	538	(46)	321	(28)	157	(13)	147	(13)	1,163	(8.1)
	5	569	(47)	340	(28)	165	(14)	143	(12)	1,217	(8.5)
	6	551	(48)	291	(25)	166	(14)	151	(13)	1,159	(8.1)
	7	493	(43)	290	(26)	189	(17)	162	(14)	1,134	(7.9)
	8	530	(47)	280	(25)	159	(14)	155	(14)	1,124	(7.8)
	9	538	(49)	256	(23)	166	(15)	147	(13)	1,107	(7.7)
	10	522	(44)	317	(27)	166	(14)	186	(16)	1,191	(8.3)
	11	597	(48)	306	(25)	162	(13)	171	(14)	1,236	(8.6)
	12	681	(55)	290	(23)	132	(11)	132	(11)	1,235	(8.6)
2006 Total		6,828	(47.7)	3,629	(25.3)	2,001	(14.0)	1,869	(13.0)	14,327	
Grand Total		20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	

Figure 6 Admissions by month and age, 2004 - 2006

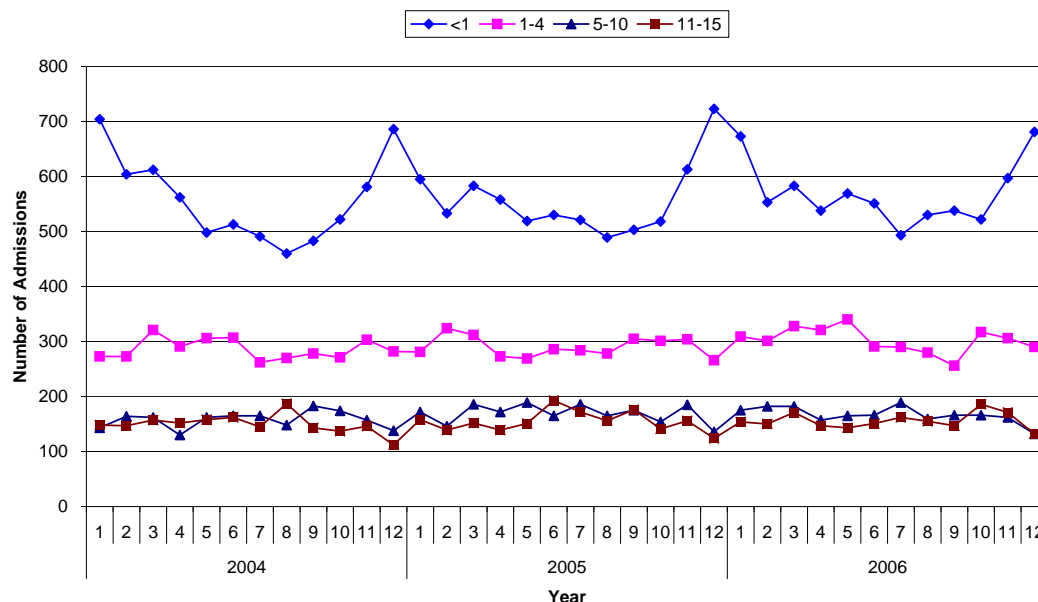


Table 7 Admissions by month and primary diagnostic group, 2004 - 2006

Year	Month	Blood / lymphatic n %	Body wall and cavities n %	Cardiovascular n %	Endocrine / metabolic n %	Gastrointestinal n %	Diagnostic Group Infection n %	Multisystem n %	Musculoskeletal n %	Neurological n %	Oncology n %	Other n %	Respiratory n %	Trauma n %	Unknown n %	Total n %
2004	1	8 (1)	26 (2)	332 (26)	22 (2)	74 (6)	66 (5)	0 (0)	44 (3)	120 (9)	43 (3)	52 (4)	451 (36)	28 (2)	2 (0)	1,268 (9.2)
	2	4 (0)	34 (3)	351 (30)	21 (2)	73 (6)	53 (4)	1 (0)	31 (3)	156 (13)	40 (3)	52 (4)	331 (28)	34 (3)	7 (1)	1,188 (8.6)
	3	6 (0)	35 (3)	377 (30)	26 (2)	75 (6)	72 (6)	2 (0)	47 (4)	145 (12)	37 (3)	50 (4)	335 (27)	39 (3)	6 (0)	1,252 (9.0)
	4	6 (1)	23 (2)	378 (33)	17 (1)	75 (7)	63 (6)	2 (0)	30 (3)	143 (13)	47 (4)	43 (4)	256 (23)	47 (4)	5 (0)	1,135 (8.1)
	5	7 (1)	19 (2)	345 (31)	21 (2)	78 (7)	35 (3)	1 (0)	40 (4)	138 (12)	43 (4)	53 (5)	253 (23)	86 (8)	5 (0)	1,124 (8.1)
	6	11 (1)	26 (2)	393 (34)	14 (1)	77 (7)	41 (4)	6 (1)	45 (4)	128 (11)	44 (4)	52 (5)	251 (22)	59 (5)	0 (0)	1,147 (8.3)
	7	10 (1)	21 (2)	352 (33)	22 (2)	77 (7)	45 (4)	3 (0)	36 (3)	115 (11)	33 (3)	48 (5)	242 (23)	56 (5)	3 (0)	1,063 (7.7)
	8	7 (1)	21 (2)	349 (33)	28 (3)	80 (8)	57 (5)	1 (0)	40 (4)	113 (11)	42 (4)	51 (5)	217 (20)	54 (5)	5 (0)	1,065 (7.7)
	9	8 (1)	28 (3)	334 (31)	19 (2)	92 (8)	41 (4)	1 (0)	36 (3)	119 (11)	52 (5)	57 (5)	250 (23)	44 (4)	6 (1)	1,087 (7.9)
	10	7 (1)	23 (2)	334 (30)	22 (2)	98 (9)	37 (3)	0 (0)	43 (4)	144 (13)	47 (4)	47 (4)	253 (23)	44 (4)	5 (0)	1,104 (8.0)
	11	9 (1)	22 (2)	352 (30)	20 (2)	85 (7)	35 (3)	1 (0)	40 (3)	122 (10)	41 (3)	57 (5)	362 (30)	33 (3)	8 (1)	1,187 (8.6)
	12	5 (0)	17 (1)	289 (24)	25 (2)	74 (6)	66 (5)	0 (0)	20 (2)	113 (9)	41 (3)	34 (3)	511 (42)	21 (2)	2 (0)	1,218 (8.6)
2004 Total		88 (0.6)	295 (2.1)	4,186 (30.3)	257 (1.9)	958 (6.9)	611 (4.4)	18 (0.1)	452 (3.3)	1,556 (11.2)	510 (3.7)	596 (4.3)	3,712 (26.8)	545 (3.9)	54 (0.4)	13,838
2005	1	6 (0)	16 (1)	340 (28)	27 (2)	83 (7)	82 (7)	3 (0)	45 (4)	163 (14)	31 (3)	51 (4)	325 (27)	27 (2)	7 (1)	1,206 (8.6)
	2	12 (1)	20 (2)	308 (27)	31 (3)	80 (7)	71 (6)	4 (0)	36 (3)	143 (13)	39 (3)	52 (5)	297 (26)	36 (3)	13 (1)	1,142 (8.1)
	3	8 (1)	27 (2)	367 (30)	35 (3)	77 (6)	76 (6)	5 (0)	46 (4)	157 (13)	45 (4)	63 (5)	283 (23)	36 (3)	8 (1)	1,233 (8.8)
	4	8 (1)	35 (3)	344 (30)	23 (2)	85 (7)	67 (6)	3 (0)	35 (3)	130 (11)	40 (4)	66 (6)	259 (23)	39 (3)	8 (1)	1,142 (8.1)
	5	15 (1)	29 (3)	337 (30)	19 (2)	65 (6)	58 (5)	7 (1)	47 (4)	145 (13)	47 (4)	47 (4)	232 (21)	69 (6)	11 (1)	1,128 (8.0)
	6	16 (1)	29 (2)	353 (30)	14 (1)	82 (7)	46 (4)	4 (0)	37 (3)	147 (13)	43 (4)	76 (6)	250 (21)	69 (6)	8 (1)	1,174 (8.4)
	7	10 (1)	37 (3)	371 (32)	24 (2)	82 (7)	64 (6)	3 (0)	39 (3)	148 (13)	47 (4)	51 (4)	214 (18)	59 (5)	14 (1)	1,163 (8.3)
	8	9 (1)	27 (2)	374 (34)	21 (2)	92 (8)	36 (3)	3 (0)	37 (3)	129 (12)	39 (4)	54 (5)	198 (18)	64 (6)	5 (0)	1,088 (7.7)
	9	6 (1)	29 (3)	367 (32)	29 (3)	86 (7)	32 (3)	2 (0)	48 (4)	135 (12)	61 (5)	43 (4)	236 (20)	59 (5)	26 (2)	1,159 (8.2)
	10	7 (1)	26 (2)	323 (29)	24 (2)	68 (6)	69 (6)	1 (0)	44 (4)	135 (12)	45 (4)	46 (4)	262 (24)	32 (3)	32 (3)	1,114 (7.9)
	11	11 (1)	22 (2)	362 (29)	30 (2)	58 (5)	57 (5)	4 (0)	50 (4)	137 (11)	53 (4)	28 (2)	379 (30)	42 (3)	25 (2)	1,258 (8.9)
	12	9 (1)	18 (1)	259 (21)	24 (2)	62 (5)	65 (5)	1 (0)	28 (2)	118 (9)	42 (3)	28 (2)	530 (42)	29 (2)	36 (3)	1,249 (8.9)
2005 Total		117 (0.8)	315 (2.2)	4,105 (29.2)	301 (2.1)	920 (6.5)	723 (5.1)	40 (0.3)	492 (3.5)	1,687 (12.0)	532 (3.8)	605 (4.3)	3,465 (24.7)	561 (4.0)	193 (1.4)	14,056
2006	1	13 (1)	26 (2)	367 (28)	34 (3)	78 (6)	80 (6)	2 (0)	50 (4)	153 (12)	52 (4)	54 (4)	370 (28)	31 (2)	1 (0)	1,311 (9.2)
	2	12 (1)	24 (2)	336 (28)	36 (3)	72 (6)	68 (6)	3 (0)	41 (3)	136 (11)	52 (4)	42 (4)	325 (27)	33 (3)	6 (1)	1,186 (8.3)
	3	11 (1)	28 (2)	391 (31)	36 (3)	71 (6)	73 (6)	4 (0)	54 (4)	173 (14)	40 (3)	48 (4)	296 (23)	33 (3)	6 (0)	1,264 (8.8)
	4	10 (1)	20 (2)	371 (32)	26 (2)	86 (7)	75 (6)	6 (1)	33 (3)	129 (11)	45 (4)	47 (4)	270 (23)	42 (4)	3 (0)	1,163 (8.1)
	5	8 (1)	33 (3)	395 (32)	30 (2)	85 (7)	52 (4)	3 (0)	48 (4)	141 (12)	42 (3)	56 (5)	271 (22)	52 (4)	1 (0)	1,217 (8.5)
	6	11 (1)	27 (2)	406 (35)	20 (2)	91 (8)	45 (4)	7 (1)	58 (5)	121 (10)	33 (3)	57 (5)	229 (20)	51 (4)	3 (0)	1,159 (8.1)
	7	8 (1)	28 (2)	370 (33)	35 (3)	93 (8)	49 (4)	2 (0)	37 (3)	109 (10)	64 (6)	59 (5)	219 (19)	55 (5)	6 (1)	1,134 (7.9)
	8	5 (0)	23 (2)	418 (37)	29 (3)	81 (7)	57 (5)	4 (0)	43 (4)	114 (10)	45 (4)	52 (5)	173 (15)	70 (6)	10 (1)	1,124 (7.8)
	9	9 (1)	33 (3)	377 (34)	27 (2)	87 (8)	46 (4)	2 (0)	45 (4)	118 (11)	47 (4)	56 (5)	204 (18)	47 (4)	9 (1)	1,107 (7.7)
	10	11 (1)	24 (2)	373 (31)	27 (2)	83 (7)	55 (5)	4 (0)	66 (6)	119 (10)	48 (4)	58 (5)	267 (22)	52 (4)	4 (0)	1,191 (8.3)
	11	15 (1)	24 (2)	379 (31)	23 (2)	91 (7)	59 (5)	6 (0)	48 (4)	127 (10)	36 (3)	41 (3)	339 (27)	40 (3)	8 (1)	1,236 (8.6)
	12	12 (1)	25 (2)	288 (23)	36 (3)	76 (6)	53 (4)	5 (0)	25 (2)	141 (11)	33 (3)	39 (3)	458 (37)	35 (3)	9 (1)	1,235 (8.6)
2006 Total		125 (0.9)	315 (2.2)	4,471 (31.2)	359 (2.5)	994 (6.9)	712 (5.0)	48 (0.3)	548 (3.8)	1,581 (11.0)	537 (3.7)	609 (4.3)	3,421 (23.9)	541 (3.8)	66 (0.5)	14,327
Grand Total		330 (0.8)	925 (2.2)	12,762 (30.2)	917 (2.2)	2,872 (6.8)	2,046 (4.8)	106 (0.3)	1,492 (3.5)	4,824 (11.4)	1,579 (3.7)	1,810 (4.3)	10,598 (25.1)	1,647 (3.9)	313 (0.7)	42,221

Figure 7 Admissions by month and primary diagnostic group, 2004 - 2006

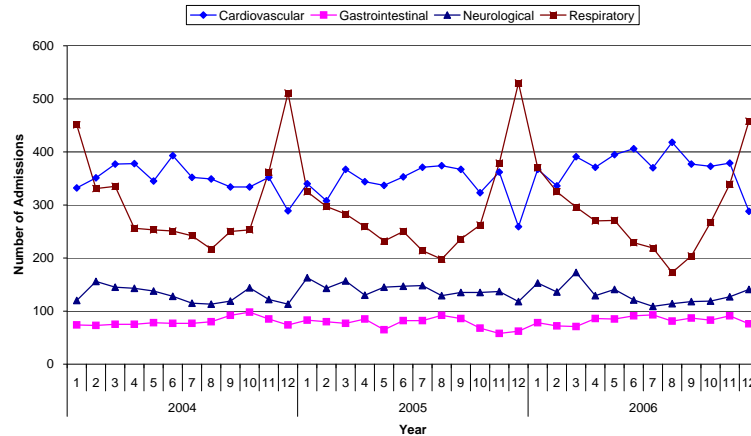


Table 8 Respiratory admissions by month and age, 2004 - 2006

Table 6 Respiratory admissions by month and age, 2004 - 2006											
Year	Month	Age Group (Years)								Total	
		<1		1-4		5-10		11-15			
		n	%	n	%	n	%	n	%	n	%
2004	1	330	(73)	73	(16)	26	(6)	22	(5)	451	(12.1)
	2	215	(65)	61	(18)	33	(10)	22	(7)	331	(8.9)
	3	193	(58)	77	(23)	44	(13)	21	(6)	335	(9.0)
	4	142	(55)	66	(26)	23	(9)	25	(10)	256	(6.9)
	5	125	(49)	81	(32)	26	(10)	21	(8)	253	(6.8)
	6	127	(51)	71	(28)	30	(12)	23	(9)	251	(6.8)
	7	109	(45)	71	(29)	34	(14)	28	(12)	242	(6.5)
	8	119	(55)	47	(22)	21	(10)	30	(14)	217	(5.8)
	9	124	(50)	61	(24)	45	(18)	20	(8)	250	(6.7)
	10	138	(55)	74	(29)	26	(10)	15	(6)	253	(6.8)
	11	209	(58)	95	(26)	39	(11)	19	(5)	362	(9.8)
	12	327	(64)	109	(21)	53	(10)	22	(4)	511	(13.8)
2004 Total		2,158	(58.1)	886	(23.9)	400	(10.8)	268	(7.2)	3,712	
2005	1	185	(57)	68	(21)	42	(13)	30	(9)	325	(9.4)
	2	152	(51)	97	(33)	24	(8)	24	(8)	297	(8.6)
	3	132	(47)	80	(28)	43	(15)	28	(10)	283	(8.2)
	4	139	(54)	64	(25)	36	(14)	20	(8)	259	(7.5)
	5	111	(48)	68	(29)	36	(16)	17	(7)	232	(6.7)
	6	113	(45)	70	(28)	30	(12)	37	(15)	250	(7.2)
	7	96	(45)	63	(29)	28	(13)	27	(13)	214	(6.2)
	8	89	(45)	55	(28)	29	(15)	25	(13)	198	(5.7)
	9	109	(46)	67	(28)	33	(14)	27	(11)	236	(6.8)
	10	137	(52)	67	(26)	37	(14)	21	(8)	262	(7.6)
	11	227	(60)	95	(25)	37	(10)	20	(5)	379	(10.9)
	12	365	(69)	92	(17)	41	(8)	32	(6)	530	(15.3)
2005 Total		1,855	(53.5)	886	(25.6)	416	(12.0)	308	(8.9)	3,465	
2006	1	231	(62)	77	(21)	40	(11)	22	(6)	370	(10.8)
	2	154	(47)	87	(27)	57	(18)	27	(8)	325	(9.5)
	3	151	(51)	77	(26)	46	(16)	22	(7)	296	(8.7)
	4	140	(52)	86	(32)	29	(11)	15	(6)	270	(7.9)
	5	134	(49)	88	(32)	30	(11)	19	(7)	271	(7.9)
	6	128	(56)	60	(26)	27	(12)	14	(6)	229	(6.7)
	7	100	(46)	56	(26)	36	(16)	27	(12)	219	(6.4)
	8	84	(49)	53	(31)	19	(11)	17	(10)	173	(5.1)
	9	90	(44)	55	(27)	34	(17)	25	(12)	204	(6.0)
	10	97	(36)	100	(37)	44	(16)	26	(10)	267	(7.8)
	11	169	(50)	97	(29)	49	(14)	24	(7)	339	(9.9)
	12	294	(64)	109	(24)	29	(6)	26	(6)	458	(13.4)
2006 Total		1,772	(51.8)	945	(27.6)	440	(12.9)	264	(7.7)	3,421	
Grand Total		5,785	(54.6)	2,717	(25.6)	1,256	(11.9)	840	(7.9)	10,598	

Figure 8 Respiratory admissions by month and age, 2004 - 2006

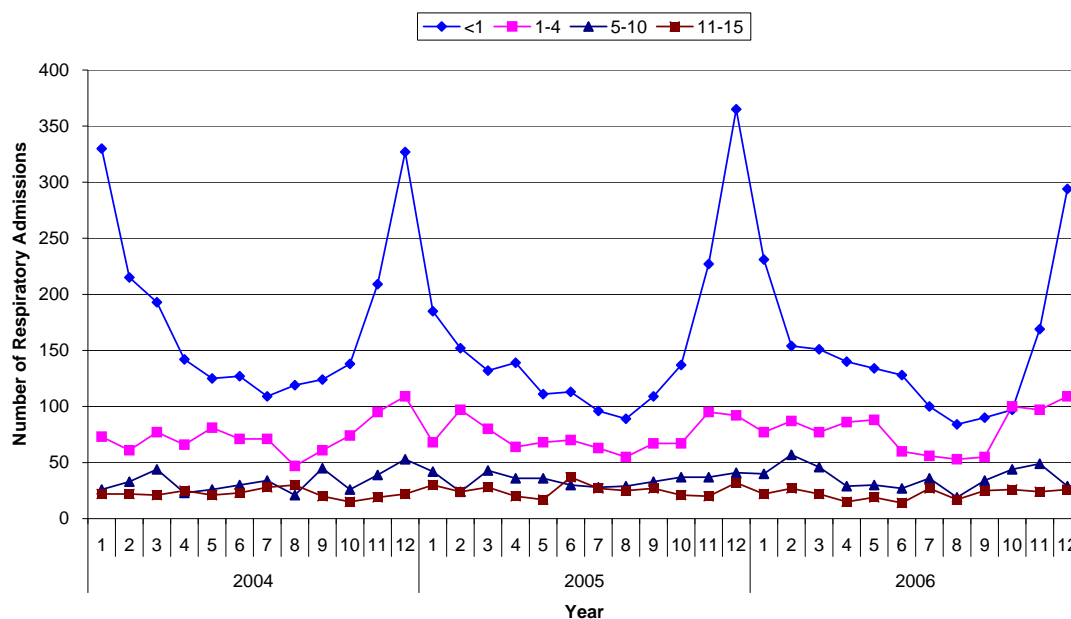


Table 9 Admissions by month by NHS trust, 2004 - 2006

Year	NHS Trust	Month																								Total	
		January	February	March	April	May	June	July	August	September	October	November	December														
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
2004	A	33	(7)	35	(8)	41	(9)	37	(8)	34	(8)	33	(7)	39	(9)	28	(6)	43	(10)	42	(9)	43	(10)	35	(8)	443	(3.2)
	B	23	(8)	35	(12)	34	(12)	20	(7)	12	(4)	16	(6)	17	(6)	23	(8)	24	(8)	24	(8)	30	(11)	27	(9)	285	(2.1)
	C	39	(15)	24	(9)	26	(10)	25	(9)	15	(6)	13	(5)	21	(8)	17	(6)	19	(7)	11	(4)	24	(9)	30	(11)	264	(1.9)
	D	53	(9)	53	(9)	58	(10)	49	(8)	45	(8)	42	(7)	45	(8)	39	(7)	46	(8)	46	(8)	59	(10)	49	(8)	584	(4.2)
	E	130	(7)	142	(8)	165	(9)	146	(8)	149	(8)	159	(9)	151	(8)	158	(9)	153	(9)	134	(8)	143	(8)	148	(8)	1,778	(12.8)
	F	112	(10)	86	(7)	104	(9)	102	(9)	100	(9)	90	(8)	89	(8)	74	(6)	80	(7)	97	(8)	103	(9)	128	(11)	1,165	(8.4)
	G	5	(11)	8	(18)	2	(5)	7	(16)	2	(5)	4	(9)	0	(0)	2	(5)	3	(7)	3	(7)	4	(9)	4	(9)	44	(0.3)
	H	20	(6)	19	(6)	19	(6)	21	(7)	36	(12)	30	(10)	25	(8)	22	(7)	28	(9)	25	(8)	27	(9)	36	(12)	308	(2.2)
	I	99	(12)	76	(9)	68	(8)	83	(10)	76	(9)	77	(9)	57	(7)	61	(7)	66	(8)	69	(8)	57	(7)	70	(8)	859	(6.2)
	J	10	(12)	4	(5)	12	(15)	8	(10)	4	(5)	9	(11)	5	(6)	5	(6)	9	(11)	7	(9)	6	(7)	3	(4)	82	(0.6)
	K	77	(9)	71	(8)	75	(8)	84	(10)	82	(9)	67	(8)	66	(7)	67	(8)	85	(10)	66	(7)	67	(8)	76	(9)	883	(6.4)
	L	29	(13)	20	(9)	21	(9)	16	(7)	23	(10)	17	(8)	12	(5)	12	(5)	17	(8)	19	(8)	19	(8)	21	(9)	226	(1.6)
	M	30	(8)	24	(6)	42	(11)	26	(7)	25	(7)	34	(9)	26	(7)	41	(11)	37	(10)	25	(7)	35	(9)	28	(8)	373	(2.7)
	N	28	(8)	33	(10)	31	(9)	28	(8)	27	(8)	33	(10)	27	(8)	33	(10)	15	(4)	32	(9)	24	(7)	26	(8)	337	(2.4)
	O	48	(9)	50	(9)	53	(10)	36	(7)	44	(8)	51	(9)	53	(10)	47	(8)	41	(7)	48	(9)	51	(9)	31	(6)	553	(4.0)
	P	88	(9)	87	(9)	103	(10)	78	(8)	74	(9)	84	(9)	76	(8)	72	(7)	84	(9)	70	(7)	77	(8)	89	(9)	982	(7.1)
	Q	47	(9)	62	(11)	48	(9)	45	(8)	41	(7)	45	(8)	44	(8)	36	(7)	35	(6)	51	(9)	41	(7)	52	(10)	547	(4.0)
	R	43	(7)	46	(8)	50	(9)	47	(8)	44	(8)	53	(9)	37	(6)	50	(9)	47	(8)	70	(12)	55	(9)	43	(7)	585	(4.2)
	S	18	(11)	6	(4)	17	(10)	10	(6)	13	(8)	12	(7)	17	(10)	18	(11)	9	(5)	17	(10)	15	(9)	15	(9)	167	(1.2)
	T	29	(8)	18	(5)	27	(7)	26	(7)	42	(11)	29	(8)	34	(9)	28	(8)	29	(8)	31	(8)	38	(10)	35	(10)	366	(2.6)
	U	41	(10)	39	(10)	39	(10)	27	(7)	32	(8)	23	(6)	29	(7)	23	(6)	27	(7)	34	(9)	43	(11)	35	(9)	392	(2.8)
	V	108	(11)	92	(9)	85	(9)	87	(9)	71	(7)	69	(7)	68	(7)	76	(8)	80	(8)	73	(7)	90	(9)	84	(9)	983	(7.1)
	W	69	(11)	70	(11)	49	(8)	50	(8)	53	(8)	53	(8)	45	(7)	44	(7)	52	(8)	49	(8)	56	(9)	58	(9)	648	(4.7)
	X	89	(9)	88	(9)	83	(9)	77	(8)	80	(8)	104	(11)	80	(8)	89	(9)	58	(6)	61	(6)	80	(8)	75	(8)	964	(7.0)
	Y	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	20	(100)	20	(0.1)
2004 Total		1,268	(9.2)	1,188	(8.6)	1,252	(9.0)	1,135	(8.2)	1,124	(8.1)	1,147	(8.3)	1,063	(7.7)	1,065	(7.7)	1,087	(7.9)	1,104	(8.0)	1,187	(8.6)	1,218	(8.8)	13,838	
2005	A	33	(8)	39	(9)	45	(11)	31	(7)	40	(10)	34	(8)	37	(9)	31	(7)	30	(7)	31	(7)	37	(9)	32	(8)	420	(3.0)
	B	32	(14)	20	(9)	13	(6)	22	(9)	23	(10)	11	(5)	16	(7)	8	(3)	20	(9)	23	(10)	24	(10)	21	(9)	233	(1.7)
	C	24	(9)	31	(11)	22	(8)	24	(9)	20	(7)	24	(9)	25	(9)	16	(6)	19	(7)	19	(7)	22	(8)	25	(9)	271	(1.9)
	D	63	(11)	37	(6)	62	(11)	50	(9)	43	(7)	33	(6)	53	(9)	43	(7)	54	(9)	45	(8)	47	(8)	50	(9)	580	(4.1)
	E	148	(10)	97	(6)	130	(9)	129	(9)	128	(8)	126	(8)	142	(9)	130	(9)	115	(8)	116	(8)	117	(8)	137	(9)	1,515	(10.8)
	F	95	(8)	92	(8)	103	(9)	88	(8)	72	(6)	96	(9)	103	(9)	87	(8)	85	(8)	75	(7)	110	(10)	117	(10)	1,123	(8.0)
	G	5	(10)	1	(2)	9	(18)	2	(4)	4	(8)	5	(10)	4	(8)	6	(12)	2	(4)	3	(6)	4	(8)	5	(10)	50	(0.4)
	H	22	(7)	31	(9)	26	(8)	29	(9)	26	(8)	37	(11)	36	(11)	23	(7)	27	(8)	20	(6)	30	(9)	30	(9)	337	(2.4)
	I	77	(9)	78	(9)	67	(8)	71	(8)	67	(8)	66	(8)	72	(8)	51	(6)	66	(8)	76	(9)	75	(9)	87	(10)	853	(6.1)
	J	18	(19)	5	(5)	9	(9)	4	(4)	13	(14)	9	(9)	11	(11)	7	(7)	5	(5)	4	(4)	6	(6)	5	(5)	96	(0.7)
	K	65	(7)	71	(8)	79	(9)	65	(7)	60	(7)	83	(9)	76	(9)	73	(8)	78	(9)	63	(7)	82	(9)	89	(10)	884	(6.3)
	L	23	(8)	22	(8)	23	(8)	15	(5)	23	(8)	19	(7)	21	(8)	23	(8)	21	(8)	20	(7)	30	(11)	34	(12)	274	(1.9)
	M	28	(8)	36	(10)	26	(7)	26	(7)	26	(7)	36	(10)	28	(8)	25	(7)	34	(10)	36	(10)	31	(9)	23	(6)	355	(2.5)
	N	17	(6)	29	(10)	25	(8)	19	(6)	28	(9)	30	(10)	16	(5)	24	(8)	30	(10)	26	(9)	30	(10)	21	(7)	295	(2.1)
	O	56	(9)	43	(7)	38	(6)	46	(7)	37	(6)	56	(9)	65	(11)	60	(10)	50	(8)	61	(10)	56	(9)	47	(8)	615	(4.4)
	P	90	(9)	86	(8)	77	(8)	86	(8)	95	(9)	101	(10)	77	(8)	73	(7)	76	(7)	89	(9)	95	(9)	72	(7)	1,017	(7.2)
	Q	48	(8)	54	(9)	42	(7)	55	(9)	40	(7)	45	(8)	44	(8)	41	(7)	45	(8)	43	(7)	68	(12)	56	(10)	581	(4.1)
	R	48	(7)	58	(9)	44	(7)	57	(9)	54	(8)	54	(8)	52	(8)	58	(9)	68	(10)	60	(9)	60	(9)	52	(8)	665	(4.7)
	S	17	(9)	12	(7)	18	(10)	18	(10)	14	(8)	9	(5)	7	(4)	12	(7)	19	(11)	11	(6)	19	(11)	24	(13)	180	(1.3)
	T	33	(8)	36	(9)	55	(13)	30	(7)	29	(7)	30	(7)	30	(7)	34	(8)	34	(8)	33	(8)	33	(8)	36	(9)	413	(2.9)
	U	34	(8)	34	(8)	34	(8)	34	(8)	30	(7)	27	(7)	30	(7)	21	(5)	29	(7)	39	(10)	50	(12)	46	(11)	408	(2.9)
	V	71	(8)	72	(8)	90	(10)	74	(8)	81	(9)	77	(8)	72	(8)	66	(7)	83	(9)	63	(7)	77	(8)	82	(9)	896	(6.5)
	W	54	(8)	64	(9)	58	(8)	55	(8)	60	(9)	69	(10)	58	(8)	56	(8)	56	(8)	60	(9)	58	(8)	53	(8)	701	(5.0)
	X	73	(8)	65	(7)	101	(11)	81	(9)	86	(10)	66	(7)	61	(7)	77	(9)	76	(9)	67	(8)	69	(8)	69	(8)	891	(6.3)
	Y	32	(8)	29	(7)	37	(9)	31	(8)	29	(7)	31	(8)	27	(7)	43	(11)	37	(9)	31	(8)	28	(7)	36	(9)	391	(2.8)
2005 Total		1,206	(8.6)	1,142	(8.1)	1,233	(8.8)	1,142	(8.1)	1,128	(8.0)	1,174	(8.4)	1,163	(8.3)	1,088	(7.7)	1,159	(8.2)	1,114	(7.9)	1,258	(8.9)	1,249	(8.9)	14,056	
2006	A	30	(7)	47	(10)	35	(8)	27	(6)	38	(8)	39	(9)	37	(8)	35	(8)	35	(8)	46	(10)	32	(7)	48	(11)	449	(3.1)
	B	15	(7)	26	(12)	23	(10)	13	(6)	19	(8)	17	(8)	15	(7)	22	(10)	21	(9)	12	(5)	26	(12)	17	(8)	226	(1.6)
	C	35	(12)	29	(10)	29	(10)	16	(5)	25	(8)	20	(7)	20	(7)	22	(7)	21	(7)	27	(9)	28	(9)	29	(10)	301	(2.1)
	D	68	(12)	59	(10)	47	(8)	46	(8)	49	(9)	36	(6)	48	(8)	39	(7)	47	(8)	43	(8)	49	(9)	40	(7)	571	(4.0)
	E	134	(8)	110	(7)	146	(9)	133	(8)	136	(9)	139	(9)	151	(9)	139	(9)	141	(9)	124	(8)	130	(8)	117	(7)	1,600	(11.2)
	F	100	(9)	104	(10)	89	(8)	91	(8)	87	(8)	84	(8)	81	(7)	78	(7)	86	(8)	85	(8)	88	(8)	113	(10)	1,086	(7.6)
	G	4	(11)	7	(19)	4	(11)	4	(11)	2	(6)	3	(8)	2	(6)	2	(6)	3	(8)	0	(0)	2	(6)	3	(8)	36	(0.3)
	H	29	(9)	17	(5)	17	(5)	25	(8)	28	(9)	28	(9)	3													

Table 10a Admissions by 2004 SHA / HB and year, 2004 - 2006

Country	SHA	2004		Year 2005		2006		Total	
		n	%	n	%	n	%	n	%
Channel Islands	Guernsey (and Sark)	6	(0.0)	10	(0.1)	5	(0.0)	21	(0.0)
	Jersey	11	(0.1)	24	(0.2)	15	(0.1)	50	(0.1)
Channel Islands Total		17	(0.1)	34	(0.2)	20	(0.1)	71	(0.2)
England	Northumberland, Tyne & Wear	454	(3.3)	460	(3.3)	443	(3.1)	1,357	(3.2)
	County Durham and Tees Valley	475	(3.4)	466	(3.3)	521	(3.6)	1,462	(3.5)
	North and East Yorkshire and Northern Lincolnshire	321	(2.3)	291	(2.1)	293	(2.0)	905	(2.1)
	South Yorkshire	462	(3.3)	543	(3.9)	508	(3.5)	1,513	(3.6)
	West Yorkshire	610	(4.4)	629	(4.5)	628	(4.4)	1,867	(4.4)
	Cumbria and Lancashire	385	(2.8)	405	(2.9)	408	(2.8)	1,198	(2.8)
	Greater Manchester	554	(4.0)	628	(4.5)	648	(4.5)	1,830	(4.3)
	Cheshire & Merseyside	623	(4.5)	554	(3.9)	576	(4.0)	1,753	(4.2)
	Trent	808	(5.8)	710	(5.1)	730	(5.1)	2,248	(5.3)
	Shropshire and Staffordshire	323	(2.3)	343	(2.4)	372	(2.6)	1,038	(2.5)
	Birmingham and the Black Country	522	(3.8)	523	(3.7)	661	(4.6)	1,706	(4.0)
	West Midlands South	253	(1.8)	254	(1.8)	308	(2.1)	815	(1.9)
	Leicestershire, Northamptonshire and Rutland	630	(4.6)	563	(4.0)	533	(3.7)	1,726	(4.1)
	Norfolk, Suffolk and Cambridgeshire	508	(3.7)	450	(3.2)	449	(3.1)	1,407	(3.3)
	Essex	332	(2.4)	285	(2.0)	306	(2.1)	923	(2.2)
	Bedfordshire and Hertfordshire	397	(2.9)	416	(3.0)	400	(2.8)	1,213	(2.9)
	Thames Valley	408	(2.9)	407	(2.9)	346	(2.4)	1,161	(2.7)
	North East London	541	(3.9)	491	(3.5)	525	(3.7)	1,557	(3.7)
	North Central London	355	(2.6)	339	(2.4)	336	(2.3)	1,030	(2.4)
	North West London	488	(3.5)	546	(3.9)	491	(3.4)	1,525	(3.6)
	South West London	453	(3.3)	428	(3.0)	413	(2.9)	1,294	(3.1)
	South East London	523	(3.8)	506	(3.6)	513	(3.6)	1,542	(3.7)
	Kent and Medway	385	(2.8)	388	(2.8)	358	(2.5)	1,131	(2.7)
	Surrey and Sussex	795	(5.7)	742	(5.3)	770	(5.4)	2,307	(5.5)
	Hampshire and Isle of Wight	423	(3.1)	447	(3.2)	429	(3.0)	1,299	(3.1)
	Avon, Gloucestershire and Wiltshire	474	(3.4)	445	(3.2)	427	(3.0)	1,346	(3.2)
	Dorset and Somerset	215	(1.6)	206	(1.5)	214	(1.5)	635	(1.5)
	South West Peninsula	161	(1.2)	208	(1.5)	183	(1.3)	552	(1.3)
England Total		12,878	(93.1)	12,673	(90.2)	12,789	(89.3)	38,340	(90.8)
Isle of Man		10	(0.1)	22	(0.2)	14	(0.1)	46	(0.1)
Isle of Man Total		10	(0.1)	22	(0.2)	14	(0.1)	46	(0.1)
Northern Ireland	Eastern Health Board	9	(0.1)	7	(0.0)	5	(0.0)	21	(0.0)
	Northern Health Board	3	(0.0)	3	(0.0)	3	(0.0)	9	(0.0)
	Southern Health Board	10	(0.1)	4	(0.0)	12	(0.1)	26	(0.1)
	Western Health Board	8	(0.1)	6	(0.0)	10	(0.1)	24	(0.1)
Northern Ireland Total		30	(0.2)	20	(0.1)	30	(0.2)	80	(0.2)
Scotland	Argyll and Clyde	6	(0.0)	9	(0.1)	9	(0.1)	24	(0.1)
	Ayrshire & Arran	10	(0.1)	6	(0.0)	14	(0.1)	30	(0.1)
	Borders	5	(0.0)	20	(0.1)	14	(0.1)	39	(0.1)
	Dumfries and Galloway	5	(0.0)	11	(0.1)	11	(0.1)	27	(0.1)
	Fife	3	(0.0)	59	(0.4)	66	(0.5)	128	(0.3)
	Forth Valley	0	(0.0)	23	(0.2)	24	(0.2)	47	(0.1)
	Grampian	7	(0.1)	38	(0.3)	30	(0.2)	75	(0.2)
	Greater Glasgow	8	(0.1)	30	(0.2)	23	(0.2)	61	(0.1)
	Highland	0	(0.0)	15	(0.1)	17	(0.1)	32	(0.1)
	Lanarkshire	1	(0.0)	18	(0.1)	19	(0.1)	38	(0.1)
	Lothian	19	(0.1)	161	(1.1)	149	(1.0)	329	(0.8)
	Orkney	0	(0.0)	3	(0.0)	5	(0.0)	8	(0.0)
	Shetland	0	(0.0)	2	(0.0)	3	(0.0)	5	(0.0)
	Tayside	5	(0.0)	51	(0.4)	38	(0.3)	94	(0.2)
	Western Isles	0	(0.0)	2	(0.0)	1	(0.0)	3	(0.0)
Scotland Total		69	(0.5)	448	(3.2)	423	(3.0)	940	(2.2)
Wales		548	(4.0)	566	(4.0)	585	(4.1)	1,699	(4.0)
Wales Total		548	(4.0)	566	(4.0)	585	(4.1)	1,699	(4.0)
Non-UK / Missing Unknown		286	(2.1)	293	(2.1)	466	(3.3)	1,045	(2.5)
Non-UK / Missing Total		286	(2.1)	293	(2.1)	466	(3.3)	1,045	(2.5)
Grand Total		13,838		14,056		14,327		42,221	

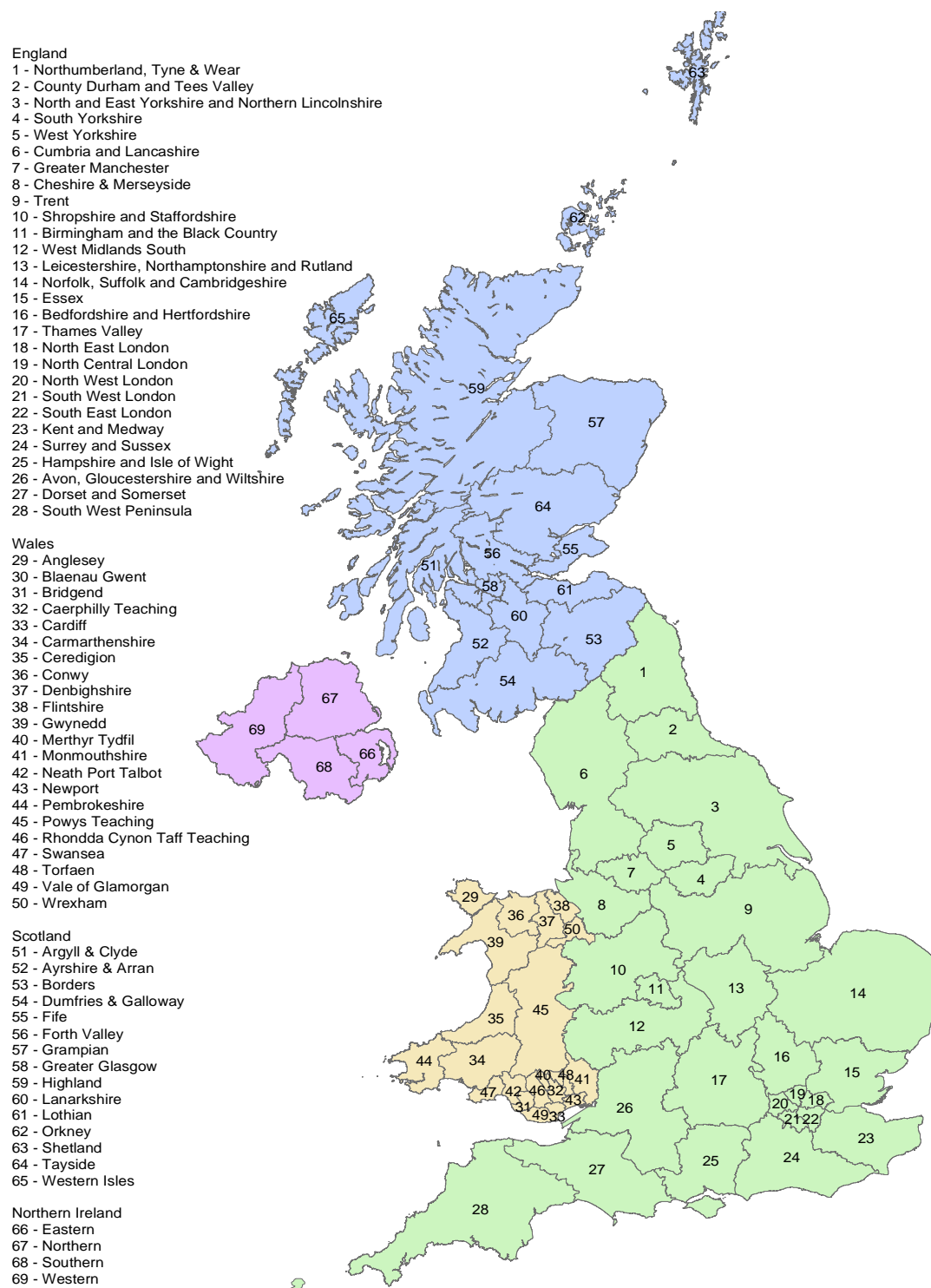
Note: The number classified as 'Unknown' is larger in this table than Table 10b due to 180 of the postcodes being introduced between the versions of the NSPD used to produce each table. This would be due to new builds or recodes.

Table 10b Admissions by 2006 SHA / HB and year, 2004 - 2006

Country	SHA	2004		Year 2005		2006		Total	
		n	%	n	%	n	%	n	%
Channel Islands	Guernsey (and Sark)	6	(0.0)	10	(0.1)	5	(0.0)	21	(0.0)
	Jersey	11	(0.1)	24	(0.2)	15	(0.1)	50	(0.1)
Channel Islands Total		17	(0.1)	34	(0.2)	20	(0.1)	71	(0.2)
England	North East	929	(6.7)	926	(6.6)	975	(6.8)	2,830	(6.7)
	North West	1,562	(11.3)	1,591	(11.3)	1,639	(11.4)	4,792	(11.3)
	Yorkshire and the Humber	1,393	(10.1)	1,463	(10.4)	1,441	(10.1)	4,297	(10.2)
	East Midlands	1,446	(10.4)	1,278	(9.1)	1,280	(8.9)	4,004	(9.5)
	West Midlands	1,098	(7.9)	1,120	(8.0)	1,349	(9.4)	3,567	(8.4)
	East of England	1,238	(8.9)	1,155	(8.2)	1,188	(8.3)	3,581	(8.5)
	London	2,363	(17.1)	2,312	(16.4)	2,300	(16.1)	6,975	(16.5)
	South East Coast	1,182	(8.5)	1,134	(8.1)	1,131	(7.9)	3,447	(8.2)
	South Central	832	(6.0)	855	(6.1)	786	(5.5)	2,473	(5.9)
	South West	850	(6.1)	859	(6.1)	828	(5.8)	2,537	(6.0)
England Total		12,893	(93.2)	12,693	(90.3)	12,917	(90.2)	38,503	(91.2)
Isle of Man	Isle of Man	10	(0.1)	22	(0.2)	14	(0.1)	46	(0.1)
Isle of Man Total		10	(0.1)	22	(0.2)	14	(0.1)	46	(0.1)
Northern Ireland	Eastern Health Board	9	(0.1)	7	(0.0)	5	(0.0)	21	(0.0)
	Northern Health Board	3	(0.0)	3	(0.0)	3	(0.0)	9	(0.0)
	Southern Health Board	10	(0.1)	4	(0.0)	12	(0.1)	26	(0.1)
	Western Health Board	8	(0.1)	6	(0.0)	10	(0.1)	24	(0.1)
Northern Ireland Total		30	(0.2)	20	(0.1)	30	(0.2)	80	(0.2)
Scotland	Argyll and Clyde	6	(0.0)	9	(0.1)	10	(0.1)	25	(0.1)
	Ayrshire & Arran	10	(0.1)	6	(0.0)	14	(0.1)	30	(0.1)
	Borders	5	(0.0)	20	(0.1)	16	(0.1)	41	(0.1)
	Dumfries and Galloway	5	(0.0)	11	(0.1)	11	(0.1)	27	(0.1)
	Fife	3	(0.0)	60	(0.4)	67	(0.5)	130	(0.3)
	Forth Valley	0	(0.0)	24	(0.2)	25	(0.2)	49	(0.1)
	Grampian	7	(0.1)	40	(0.3)	31	(0.2)	78	(0.2)
	Greater Glasgow	8	(0.1)	30	(0.2)	24	(0.2)	62	(0.1)
	Highland	0	(0.0)	15	(0.1)	17	(0.1)	32	(0.1)
	Lanarkshire	1	(0.0)	18	(0.1)	19	(0.1)	38	(0.1)
	Lothian	19	(0.1)	161	(1.1)	149	(1.0)	329	(0.8)
	Orkney	0	(0.0)	3	(0.0)	5	(0.0)	8	(0.0)
	Shetland	0	(0.0)	2	(0.0)	3	(0.0)	5	(0.0)
	Tayside	5	(0.0)	51	(0.4)	39	(0.3)	95	(0.2)
	Western Isles	0	(0.0)	2	(0.0)	1	(0.0)	3	(0.0)
Scotland Total		69	(0.5)	452	(3.2)	431	(3.0)	952	(2.3)
Wales	Welsh Health Authorities	548	(4.0)	566	(4.0)	590	(4.1)	1,704	(4.0)
Wales Total		548	(4.0)	566	(4.0)	590	(4.1)	1,704	(4.0)
Non-UK / Missing	Unknown	271	(2.0)	269	(1.9)	325	(2.3)	865	(2.0)
Non-UK / Missing Total		271	(2.0)	269	(1.9)	325	(2.3)	865	(2.0)
Grand Total		13,838		14,056		14,327		42,221	

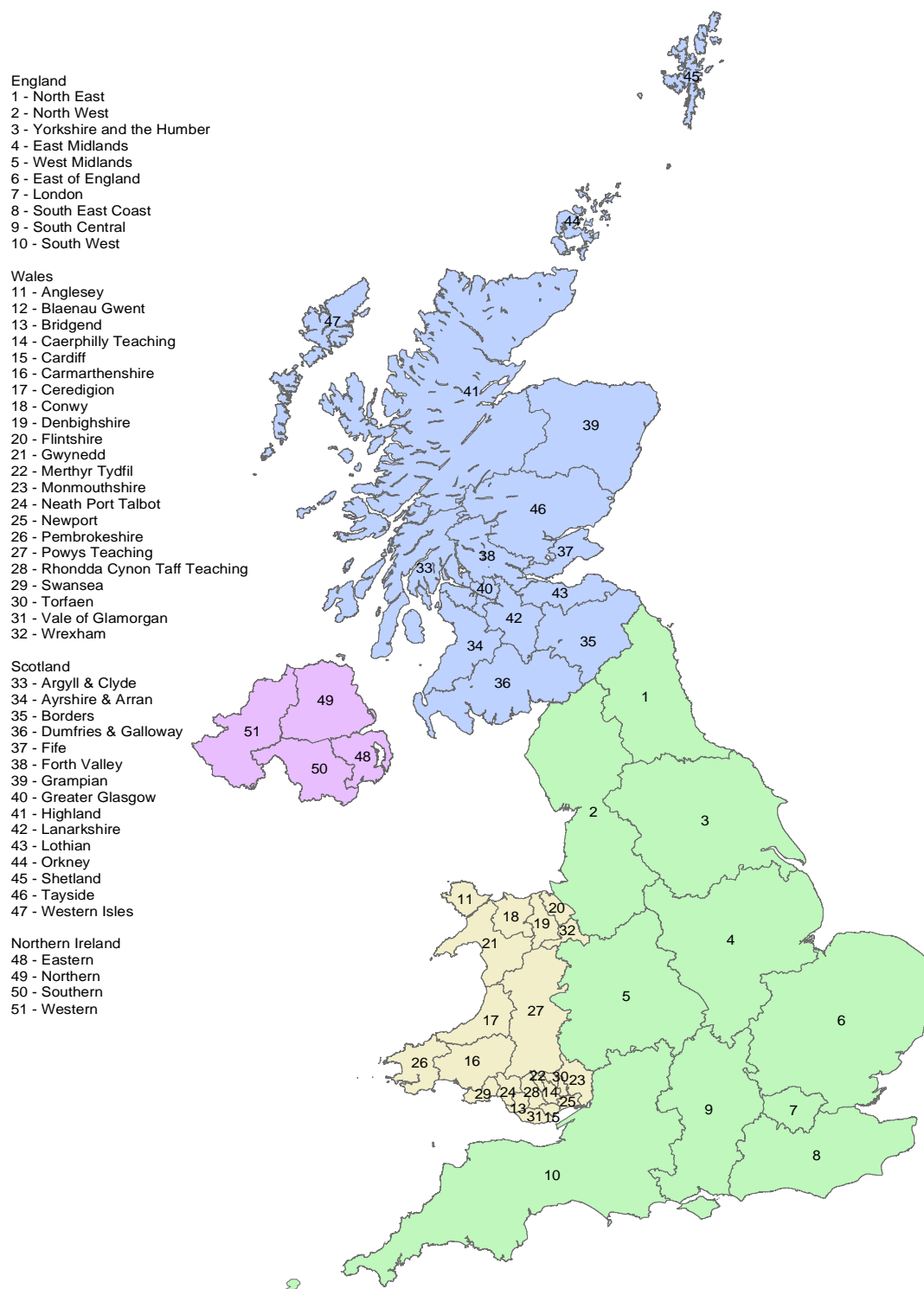


**Figure 10a Map showing 2004 SHA / HB boundaries**



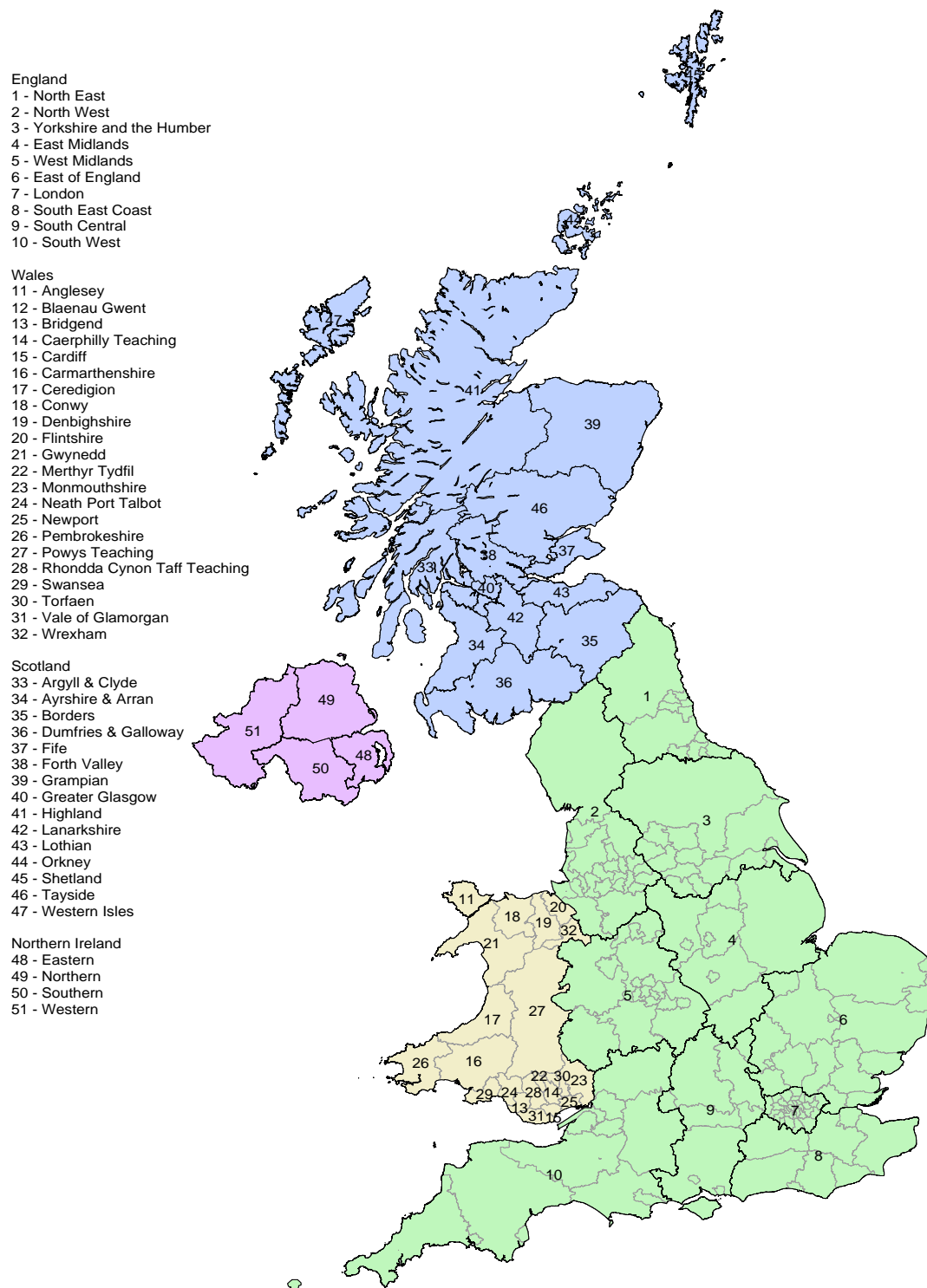
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**Figure 10b Map showing 2006 SHA / HB boundaries**



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**Figure 10c Map showing 2006 SHA / HB / PCO boundaries**



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England is split into 10 Strategic Health Authorities and 152 Primary Care Organisations, which comprise 148 Primary Care Trusts and 4 Care Trusts.

See [Appendix O](#) for details of the PCO and SHA structure in England.

Wales comprises a single health authority split into 22 Local Health Boards which are responsible for primary care.

Scotland is split into 15 Health Boards which are responsible for primary care.

The number of Health Boards in Scotland was recently reduced to 14 with Argyll & Clyde

being absorbed by Highland and the re-named Greater Glasgow & Clyde. The data in this report relating to Scotland has been presented by the old structure as the NSPD had not been updated at the time of production.

Northern Ireland is split into 4 Local Health and Social Care Groups which are responsible for primary care.

Table 11 Admissions by mortality risk group by NHS trust, 2004 - 2006

Table 11 Admissions by mortality risk group by NHS trust, 2004 - 2006													
Year	NHS Trust	PIM Group										Total	
		<1%		1 - <5%		5 - <15%		15 - <30%		30%+			
		n	%	n	%	n	%	n	%	n	%	n	%
2004	A	112	(25)	270	(61)	54	(12)	4	(1)	3	(1)	443	(3.2)
	B	67	(24)	169	(59)	44	(15)	4	(1)	1	(0)	285	(2.1)
	C	25	(9)	105	(40)	99	(38)	26	(10)	9	(3)	264	(1.9)
	D	50	(9)	239	(41)	242	(41)	40	(7)	13	(2)	584	(4.2)
	E	260	(15)	845	(48)	495	(28)	127	(7)	51	(3)	1,778	(12.8)
	F	64	(5)	591	(51)	415	(36)	65	(6)	30	(3)	1,165	(8.4)
	G	1	(2)	13	(30)	23	(52)	6	(14)	1	(2)	44	(0.3)
	H	52	(17)	157	(51)	77	(25)	11	(4)	11	(4)	308	(2.2)
	I	174	(20)	439	(51)	196	(23)	34	(4)	16	(2)	859	(6.2)
	J	22	(27)	46	(56)	10	(12)	3	(4)	1	(1)	82	(0.6)
	K	187	(21)	467	(53)	181	(20)	28	(3)	20	(2)	883	(6.4)
	L	49	(22)	95	(42)	68	(30)	8	(4)	6	(3)	226	(1.6)
	M	73	(20)	177	(47)	99	(27)	15	(4)	9	(2)	373	(2.7)
	N	47	(14)	180	(53)	86	(26)	14	(4)	10	(3)	337	(2.4)
	O	82	(15)	396	(72)	57	(10)	12	(2)	6	(1)	553	(4.0)
	P	138	(14)	548	(56)	259	(26)	27	(3)	10	(1)	982	(7.1)
	Q	124	(23)	281	(51)	118	(22)	18	(3)	6	(1)	547	(4.0)
	R	64	(11)	303	(52)	175	(30)	40	(7)	3	(1)	585	(4.2)
	S	28	(17)	104	(62)	31	(19)	3	(2)	1	(1)	167	(1.2)
	T	109	(30)	178	(49)	59	(16)	16	(4)	4	(1)	366	(2.6)
U	23	(6)	175	(45)	153	(39)	31	(8)	10	(3)	392	(2.8)	
V	34	(3)	503	(51)	312	(32)	75	(8)	59	(6)	983	(7.1)	
W	43	(7)	361	(56)	205	(32)	30	(5)	9	(1)	648	(4.7)	
X	363	(38)	423	(44)	152	(16)	20	(2)	6	(1)	964	(7.0)	
Y	1	(5)	8	(40)	10	(50)	0	(0)	1	(5)	20	(0.1)	
2004 Total		2,192	(15.8)	7,073	(51.1)	3,620	(26.2)	657	(4.7)	296	(2.1)	13,838	
2005	A	112	(27)	217	(52)	79	(19)	8	(2)	4	(1)	420	(3.0)
	B	73	(31)	125	(54)	27	(12)	6	(3)	2	(1)	233	(1.7)
	C	30	(11)	128	(47)	85	(31)	18	(7)	10	(4)	271	(1.9)
	D	65	(11)	258	(44)	206	(36)	32	(6)	19	(3)	580	(4.1)
	E	155	(10)	759	(50)	446	(29)	112	(7)	43	(3)	1,515	(10.8)
	F	46	(4)	580	(52)	393	(35)	79	(7)	25	(2)	1,123	(8.0)
	G	1	(2)	13	(26)	24	(48)	3	(6)	9	(18)	50	(0.4)
	H	81	(24)	167	(50)	72	(21)	9	(3)	8	(2)	337	(2.4)
	I	147	(17)	457	(54)	192	(23)	41	(5)	16	(2)	853	(6.1)
	J	28	(29)	57	(59)	11	(11)	0	(0)	0	(0)	96	(0.7)
	K	180	(20)	427	(48)	214	(24)	46	(5)	17	(2)	884	(6.3)
	L	54	(20)	126	(46)	83	(30)	9	(3)	2	(1)	274	(1.9)
	M	67	(19)	162	(46)	102	(29)	16	(5)	8	(2)	355	(2.5)
	N	24	(8)	165	(56)	86	(29)	14	(5)	6	(2)	295	(2.1)
	O	74	(12)	450	(73)	71	(12)	17	(3)	3	(0)	615	(4.4)
	P	130	(13)	568	(56)	264	(26)	41	(4)	14	(1)	1,017	(7.2)
	Q	136	(23)	320	(55)	114	(20)	7	(1)	4	(1)	581	(4.1)
	R	96	(14)	368	(55)	170	(26)	21	(3)	10	(2)	665	(4.7)
	S	37	(21)	95	(53)	44	(24)	3	(2)	1	(1)	180	(1.3)
	T	143	(35)	182	(44)	70	(17)	14	(3)	4	(1)	413	(2.9)
U	12	(3)	144	(35)	208	(51)	34	(8)	10	(2)	408	(2.9)	
V	33	(4)	451	(50)	293	(32)	78	(9)	53	(6)	908	(6.5)	
W	42	(6)	418	(60)	191	(27)	38	(5)	12	(2)	701	(5.0)	
X	298	(33)	421	(47)	133	(15)	29	(3)	10	(1)	891	(6.3)	
Y	89	(23)	182	(47)	102	(26)	12	(3)	6	(2)	391	(2.8)	
2005 Total		2,153	(15.3)	7,240	(51.5)	3,680	(26.2)	687	(4.9)	296	(2.1)	14,056	
2006	A	101	(22)	234	(52)	99	(22)	13	(3)	2	(0)	449	(3.1)
	B	63	(28)	132	(58)	28	(12)	2	(1)	1	(0)	226	(1.6)
	C	42	(14)	127	(42)	107	(36)	16	(5)	9	(3)	301	(2.1)
	D	69	(12)	238	(42)	196	(34)	48	(8)	20	(4)	571	(4.0)
	E	122	(8)	818	(51)	518	(32)	93	(6)	49	(3)	1,600	(11.2)
	F	59	(5)	598	(55)	340	(31)	68	(6)	21	(2)	1,086	(7.6)
	G	0	(0)	8	(22)	21	(58)	2	(6)	5	(14)	36	(0.3)
	H	62	(20)	179	(57)	57	(18)	6	(2)	11	(3)	315	(2.2)
	I	196	(22)	476	(52)	196	(22)	29	(3)	12	(1)	909	(6.3)
	J	21	(29)	36	(49)	14	(19)	1	(1)	1	(1)	73	(0.5)
	K	191	(21)	459	(51)	196	(22)	43	(5)	18	(2)	907	(6.3)
	L	63	(21)	135	(45)	88	(29)	10	(3)	3	(1)	299	(2.1)
	M	84	(21)	189	(47)	110	(27)	13	(3)	9	(2)	405	(2.8)
	N	22	(8)	152	(55)	76	(28)	13	(5)	12	(4)	275	(1.9)
	O	56	(9)	508	(78)	73	(11)	13	(2)	5	(1)	655	(4.6)
	P	153	(14)	622	(56)	256	(23)	50	(5)	21	(2)	1,102	(7.7)
	Q	128	(25)	276	(55)	82	(16)	7	(1)	10	(2)	503	(3.5)
	R	111	(17)	361	(55)	129	(20)	33	(5)	22	(3)	656	(4.6)
	S	31	(16)	96	(51)	56	(30)	5	(3)	0	(0)	188	(1.3)
	T	127	(29)	204	(46)	93	(21)	13	(3)	5	(1)	442	(3.1)
U	12	(3)	115	(31)	180	(49)	46	(13)	14	(4)	367	(2.6)	
V	28	(3)	538	(51)	285	(27)	92	(9)	103	(10)	1,046	(7.3)	
W	31	(5)	341	(53)	205	(32)	41	(6)	24	(4)	642	(4.5)	
X	314	(36)	396	(45)	119	(14)	37	(4)	11	(1)	877	(6.1)	
Y	90	(23)	193	(49)	97	(24)	6	(2)	11	(3)	397	(2.8)	
2006 Total		2,176	(15.2)	7,431	(51.9)	3,621	(25.3)	700	(4.9)	399	(2.8)	14,327	
Grand Total		6,521	(15.4)	21,744	(51.5)	10,921	(25.9)	2,044	(4.8)	991	(2.3)	42,221	

Table 12 Admissions by admission type and age, 2004 - 2006

Admission Type	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Planned - following surgery	6,067	(44)	3,719	(27)	2,065	(15)	2,030	(15)	13,881	(32.9)
Unplanned - following surgery	1,030	(45)	562	(24)	368	(16)	347	(15)	2,307	(5.5)
Planned - other	1,869	(57)	623	(19)	422	(13)	354	(11)	3,268	(7.7)
Unplanned - other	11,210	(49)	5,618	(25)	3,047	(13)	2,775	(12)	22,650	(53.6)
Unknown	53	(46)	27	(23)	21	(18)	14	(12)	115	(0.3)
Total	20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	

Figure 12 Admissions by admission type, 2004 - 2006

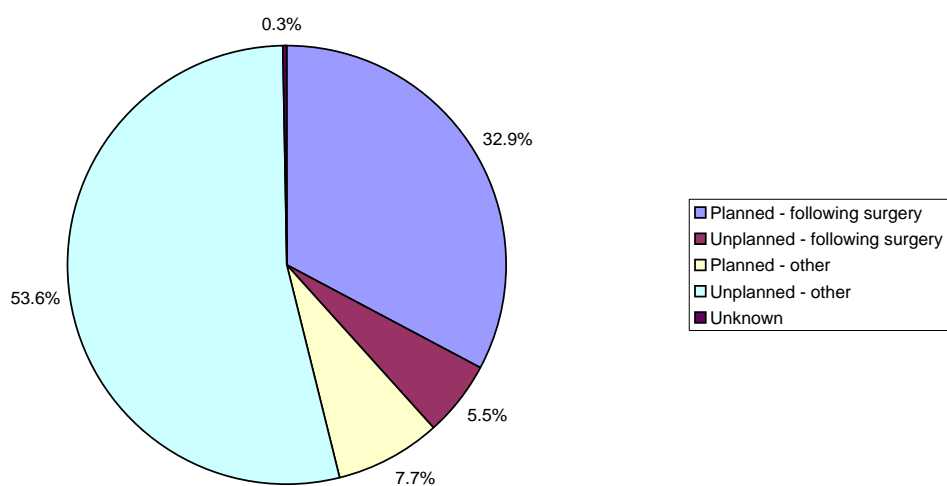


Table 13 Admissions by admission type by NHS trust, 2004 - 2006

Table 13 Admissions by admission type by NHS trust, 2004 - 2006													
Year	NHS Trust	Admission Type										Total	
		Planned - following surgery		Unplanned - following surgery		Planned - other		Unplanned - other		Unknown			
		n	%	n	%	n	%	n	%	n	%	n	%
2004	A	130	(29)	57	(13)	7	(2)	247	(56)	2	(0)	443	(3.2)
	B	81	(28)	36	(13)	22	(8)	146	(51)	0	(0)	285	(2.1)
	C	71	(27)	18	(7)	6	(2)	169	(64)	0	(0)	264	(1.9)
	D	66	(11)	67	(11)	36	(6)	415	(71)	0	(0)	584	(4.2)
	E	530	(30)	63	(4)	240	(13)	945	(53)	0	(0)	1,778	(12.8)
	F	392	(34)	98	(8)	25	(2)	650	(56)	0	(0)	1,165	(8.4)
	G	1	(2)	1	(2)	1	(2)	41	(93)	0	(0)	44	(0.3)
	H	73	(24)	23	(7)	55	(18)	155	(50)	2	(1)	308	(2.2)
	I	379	(44)	20	(2)	51	(6)	409	(48)	0	(0)	859	(6.2)
	J	29	(35)	6	(7)	2	(2)	45	(55)	0	(0)	82	(0.6)
	K	302	(34)	77	(9)	107	(12)	397	(45)	0	(0)	883	(6.4)
	L	36	(16)	8	(4)	25	(11)	157	(69)	0	(0)	226	(1.6)
	M	104	(28)	36	(10)	19	(5)	214	(57)	0	(0)	373	(2.7)
	N	131	(39)	29	(9)	6	(2)	171	(51)	0	(0)	337	(2.4)
	O	363	(66)	6	(1)	62	(11)	114	(21)	8	(1)	553	(4.0)
	P	402	(41)	23	(2)	84	(9)	473	(48)	0	(0)	982	(7.1)
	Q	148	(27)	36	(7)	11	(2)	349	(64)	3	(1)	547	(4.0)
	R	198	(34)	31	(5)	53	(9)	302	(52)	1	(0)	585	(4.2)
	S	26	(16)	12	(7)	14	(8)	115	(69)	0	(0)	167	(1.2)
	T	126	(34)	30	(8)	12	(3)	198	(54)	0	(0)	366	(2.6)
	U	29	(7)	8	(2)	6	(2)	348	(89)	1	(0)	392	(2.8)
	V	371	(38)	71	(7)	3	(0)	538	(55)	0	(0)	983	(7.1)
	W	218	(34)	11	(2)	23	(4)	385	(59)	11	(2)	648	(4.7)
	X	256	(27)	6	(1)	233	(24)	465	(48)	4	(0)	964	(7.0)
	Y	1	(5)	0	(0)	0	(0)	19	(95)	0	(0)	20	(0.1)
2004 Total		4,463	(32.3)	773	(5.6)	1,103	(8.0)	7,467	(54.0)	32	(0.2)	13,838	
2005	A	129	(31)	35	(8)	11	(3)	245	(58)	0	(0)	420	(3.0)
	B	74	(32)	19	(8)	13	(6)	127	(55)	0	(0)	233	(1.7)
	C	76	(28)	12	(4)	8	(3)	175	(65)	0	(0)	271	(1.9)
	D	89	(15)	75	(13)	46	(8)	370	(64)	0	(0)	580	(4.1)
	E	472	(31)	56	(4)	138	(9)	849	(56)	0	(0)	1,515	(10.8)
	F	366	(33)	79	(7)	23	(2)	655	(58)	0	(0)	1,123	(8.0)
	G	1	(2)	3	(6)	0	(0)	46	(92)	0	(0)	50	(0.4)
	H	100	(30)	23	(7)	63	(19)	148	(44)	3	(1)	337	(2.4)
	I	367	(43)	32	(4)	72	(8)	382	(45)	0	(0)	853	(6.1)
	J	32	(33)	7	(7)	9	(9)	48	(50)	0	(0)	96	(0.7)
	K	299	(34)	93	(11)	91	(10)	400	(45)	1	(0)	884	(6.3)
	L	35	(13)	8	(3)	25	(9)	206	(75)	0	(0)	274	(1.9)
	M	96	(27)	31	(9)	21	(6)	207	(58)	0	(0)	355	(2.5)
	N	130	(44)	19	(6)	5	(2)	141	(48)	0	(0)	295	(2.1)
	O	381	(62)	5	(1)	83	(13)	135	(22)	11	(2)	615	(4.4)
	P	471	(46)	23	(2)	32	(3)	490	(48)	1	(0)	1,017	(7.2)
	Q	143	(25)	35	(6)	16	(3)	383	(66)	4	(1)	581	(4.1)
	R	246	(37)	21	(3)	60	(9)	338	(51)	0	(0)	665	(4.7)
	S	29	(16)	9	(5)	17	(9)	125	(69)	0	(0)	180	(1.3)
	T	165	(40)	21	(5)	14	(3)	213	(52)	0	(0)	413	(2.9)
	U	14	(3)	7	(2)	5	(1)	380	(93)	2	(0)	408	(2.9)
	V	327	(36)	55	(6)	47	(5)	479	(53)	0	(0)	908	(6.5)
	W	230	(33)	26	(4)	18	(3)	406	(58)	21	(3)	701	(5.0)
	X	203	(23)	2	(0)	185	(21)	492	(55)	9	(1)	891	(6.3)
	Y	143	(37)	40	(10)	13	(3)	195	(50)	0	(0)	391	(2.8)
2005 Total		4,618	(32.9)	736	(5.2)	1,015	(7.2)	7,635	(54.3)	52	(0.4)	14,056	
2006	A	132	(29)	44	(10)	13	(3)	260	(58)	0	(0)	449	(3.1)
	B	64	(28)	40	(18)	11	(5)	110	(49)	1	(0)	226	(1.6)
	C	80	(27)	10	(3)	21	(7)	190	(63)	0	(0)	301	(2.1)
	D	105	(18)	69	(12)	40	(7)	357	(63)	0	(0)	571	(4.0)
	E	478	(30)	99	(6)	94	(6)	929	(58)	0	(0)	1,600	(11.2)
	F	392	(36)	58	(5)	25	(2)	611	(56)	0	(0)	1,086	(7.6)
	G	1	(3)	7	(19)	0	(0)	28	(78)	0	(0)	36	(0.3)
	H	100	(32)	16	(5)	72	(23)	124	(39)	3	(1)	315	(2.2)
	I	379	(42)	50	(6)	96	(11)	384	(42)	0	(0)	909	(6.3)
	J	19	(26)	16	(22)	2	(3)	36	(49)	0	(0)	73	(0.5)
	K	320	(35)	88	(10)	117	(13)	381	(42)	1	(0)	907	(6.3)
	L	41	(14)	22	(7)	30	(10)	206	(69)	0	(0)	299	(2.1)
	M	124	(31)	43	(11)	20	(5)	217	(54)	1	(0)	405	(2.8)
	N	128	(47)	20	(7)	5	(2)	121	(44)	1	(0)	275	(1.9)
	O	423	(65)	3	(0)	114	(17)	115	(18)	0	(0)	655	(4.6)
	P	491	(45)	20	(2)	39	(4)	552	(50)	0	(0)	1,102	(7.7)
	Q	124	(25)	14	(3)	23	(5)	339	(67)	3	(1)	503	(3.5)
	R	253	(39)	22	(3)	112	(17)	269	(41)	0	(0)	656	(4.6)
	S	29	(15)	9	(5)	15	(8)	135	(72)	0	(0)	188	(1.3)
	T	152	(34)	17	(4)	10	(2)	263	(60)	0	(0)	442	(3.1)
	U	22	(6)	8	(2)	4	(1)	333	(91)	0	(0)	367	(2.6)
	V	336	(32)	70	(7)	51	(5)	589	(56)	0	(0)	1,046	(7.3)
	W	238	(37)	17	(3)	8	(1)	362	(56)	17	(3)	642	(4.5)
	X	218	(25)	3	(0)	209	(24)	443	(51)	4	(0)	877	(6.1)
	Y	151	(38)	33	(8)	19	(5)	194	(49)	0	(0)	397	(2.8)
2006 Total		4,800	(33.5)	798	(5.6)	1,150	(8.0)	7,548	(52.7)	31	(0.2)	14,327	
Grand Total		13,881	(32.9)	2,307	(5.5)	3,268	(7.7)	22,650	(53.6)	115	(0.3)	42,221	

Table 14 Admissions by source of admission (admission type 'unplanned - other') by NHS trust, 2004 - 2006

Year	NHS Trust	Admission Source										Total	
		Same hospital		Other hospital		Clinic		Home		Unknown			
		n	%	n	%	n	%	n	%	n	%	n	%
2004	A	135	(55)	110	(45)	0	(0)	2	(1)	0	(0)	247	(3.3)
	B	119	(82)	20	(14)	0	(0)	7	(5)	0	(0)	146	(2.0)
	C	59	(35)	110	(65)	0	(0)	0	(0)	0	(0)	169	(2.3)
	D	134	(32)	281	(68)	0	(0)	0	(0)	0	(0)	415	(5.6)
	E	222	(23)	706	(75)	1	(0)	16	(2)	0	(0)	945	(12.7)
	F	84	(13)	566	(87)	0	(0)	0	(0)	0	(0)	650	(8.7)
	G	40	(98)	1	(2)	0	(0)	0	(0)	0	(0)	41	(0.5)
	H	75	(48)	79	(51)	0	(0)	1	(1)	0	(0)	155	(2.1)
	I	207	(51)	202	(49)	0	(0)	0	(0)	0	(0)	409	(5.5)
	J	42	(93)	3	(7)	0	(0)	0	(0)	0	(0)	45	(0.6)
	K	178	(45)	218	(55)	0	(0)	1	(0)	0	(0)	397	(5.3)
	L	50	(32)	101	(64)	0	(0)	6	(4)	0	(0)	157	(2.1)
	M	140	(65)	69	(32)	0	(0)	5	(2)	0	(0)	214	(2.9)
	N	89	(52)	82	(48)	0	(0)	0	(0)	0	(0)	171	(2.3)
	O	40	(35)	72	(63)	1	(1)	1	(1)	0	(0)	114	(1.5)
	P	241	(51)	232	(49)	0	(0)	0	(0)	0	(0)	473	(6.3)
	Q	172	(49)	169	(48)	0	(0)	8	(2)	0	(0)	349	(4.7)
	R	110	(36)	192	(64)	0	(0)	0	(0)	0	(0)	302	(4.0)
	S	92	(80)	21	(18)	0	(0)	2	(2)	0	(0)	115	(1.5)
	T	84	(42)	109	(55)	0	(0)	5	(3)	0	(0)	198	(2.7)
	U	68	(20)	280	(80)	0	(0)	0	(0)	0	(0)	348	(4.7)
	V	264	(49)	265	(49)	0	(0)	3	(1)	6	(1)	538	(7.2)
	W	179	(46)	198	(51)	0	(0)	8	(2)	0	(0)	385	(5.2)
	X	243	(52)	214	(46)	2	(0)	4	(1)	2	(0)	465	(6.2)
	Y	6	(32)	13	(68)	0	(0)	0	(0)	0	(0)	19	(0.3)
2004 Total		3,073	(41.2)	4,313	(57.8)	4	(0.1)	69	(0.9)	8	(0.1)	7,467	
2005	A	119	(49)	126	(51)	0	(0)	0	(0)	0	(0)	245	(3.2)
	B	115	(91)	8	(6)	0	(0)	4	(3)	0	(0)	127	(1.7)
	C	70	(40)	105	(60)	0	(0)	0	(0)	0	(0)	175	(2.3)
	D	115	(31)	255	(69)	0	(0)	0	(0)	0	(0)	370	(4.8)
	E	208	(24)	634	(75)	0	(0)	7	(1)	0	(0)	849	(11.1)
	F	105	(16)	550	(84)	0	(0)	0	(0)	0	(0)	655	(8.6)
	G	41	(89)	5	(11)	0	(0)	0	(0)	0	(0)	46	(0.6)
	H	75	(51)	73	(49)	0	(0)	0	(0)	0	(0)	148	(1.9)
	I	187	(49)	193	(51)	0	(0)	2	(1)	0	(0)	382	(5.0)
	J	48	(100)	0	(0)	0	(0)	0	(0)	0	(0)	48	(0.6)
	K	169	(42)	230	(58)	0	(0)	1	(0)	0	(0)	400	(5.2)
	L	68	(33)	130	(63)	0	(0)	8	(4)	0	(0)	206	(2.7)
	M	113	(55)	94	(45)	0	(0)	0	(0)	0	(0)	207	(2.7)
	N	73	(52)	68	(48)	0	(0)	0	(0)	0	(0)	141	(1.8)
	O	64	(47)	65	(48)	1	(1)	3	(2)	2	(1)	135	(1.8)
	P	242	(49)	246	(50)	0	(0)	2	(0)	0	(0)	490	(6.4)
	Q	198	(52)	175	(46)	0	(0)	10	(3)	0	(0)	383	(5.0)
	R	92	(27)	246	(73)	0	(0)	0	(0)	0	(0)	338	(4.4)
	S	105	(84)	19	(15)	0	(0)	1	(1)	0	(0)	125	(1.6)
	T	98	(46)	113	(53)	0	(0)	2	(1)	0	(0)	213	(2.8)
	U	74	(19)	303	(80)	0	(0)	0	(0)	3	(1)	380	(5.0)
	V	280	(58)	196	(41)	0	(0)	0	(0)	3	(1)	479	(6.3)
	W	192	(47)	206	(51)	0	(0)	8	(2)	0	(0)	406	(5.3)
	X	250	(51)	232	(47)	1	(0)	1	(0)	8	(2)	492	(6.4)
	Y	59	(30)	133	(68)	0	(0)	3	(2)	0	(0)	195	(2.6)
2005 Total		3,160	(41.4)	4,405	(57.7)	2	(0.0)	52	(0.7)	16	(0.2)	7,635	
2006	A	131	(50)	129	(50)	0	(0)	0	(0)	0	(0)	260	(3.4)
	B	100	(91)	8	(7)	0	(0)	2	(2)	0	(0)	110	(1.5)
	C	92	(48)	98	(52)	0	(0)	0	(0)	0	(0)	190	(2.5)
	D	111	(31)	246	(69)	0	(0)	0	(0)	0	(0)	357	(4.7)
	E	241	(26)	677	(73)	0	(0)	11	(1)	0	(0)	929	(12.3)
	F	149	(24)	462	(76)	0	(0)	0	(0)	0	(0)	611	(8.1)
	G	26	(93)	2	(7)	0	(0)	0	(0)	0	(0)	28	(0.4)
	H	77	(62)	47	(38)	0	(0)	0	(0)	0	(0)	124	(1.6)
	I	215	(56)	167	(43)	1	(0)	1	(0)	0	(0)	384	(5.1)
	J	34	(94)	2	(6)	0	(0)	0	(0)	0	(0)	36	(0.5)
	K	166	(44)	214	(56)	0	(0)	1	(0)	0	(0)	381	(5.0)
	L	60	(29)	141	(68)	0	(0)	5	(2)	0	(0)	206	(2.7)
	M	100	(46)	117	(54)	0	(0)	0	(0)	0	(0)	217	(2.9)
	N	57	(47)	64	(53)	0	(0)	0	(0)	0	(0)	121	(1.6)
	O	50	(43)	63	(55)	1	(1)	1	(1)	0	(0)	115	(1.5)
	P	268	(49)	283	(51)	0	(0)	1	(0)	0	(0)	552	(7.3)
	Q	197	(58)	140	(41)	0	(0)	2	(1)	0	(0)	339	(4.5)
	R	90	(33)	179	(67)	0	(0)	0	(0)	0	(0)	269	(3.6)
	S	100	(74)	26	(19)	0	(0)	9	(7)	0	(0)	135	(1.8)
	T	130	(49)	131	(50)	0	(0)	2	(1)	0	(0)	263	(3.5)
	U	63	(19)	270	(81)	0	(0)	0	(0)	0	(0)	333	(4.4)
	V	377	(64)	144	(24)	0	(0)	1	(0)	67	(11)	589	(7.8)
	W	111	(31)	248	(69)	0	(0)	3	(1)	0	(0)	362	(4.8)
	X	193	(44)	240	(54)	0	(0)	2	(0)	8	(2)	443	(5.9)
	Y	62	(32)	132	(68)	0	(0)	0	(0)	0	(0)	194	(2.6)
2006 Total		3,200	(42.4)	4,230	(56.0)	2	(0.0)	41	(0.5)	75	(1.0)	7,548	
Grand Total		9,433	(41.6)	12,948	(57.2)	8	(0.0)	162	(0.7)	99	(0.4)	22,650	





Table 16 Admissions by primary diagnostic group and age, 2004 - 2006

Diagnostic Group	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Blood / lymphatic	111	(34)	87	(26)	72	(22)	60	(18)	330	(0.8)
Body wall and cavities	831	(90)	63	(7)	14	(2)	17	(2)	925	(2.2)
Cardiovascular	7,847	(61)	2,674	(21)	1,270	(10)	971	(8)	12,762	(30.2)
Endocrine / metabolic	324	(35)	252	(27)	159	(17)	182	(20)	917	(2.2)
Gastrointestinal	1,790	(62)	538	(19)	281	(10)	263	(9)	2,872	(6.8)
Infection	799	(39)	709	(35)	310	(15)	228	(11)	2,046	(4.8)
Multisystem	72	(68)	18	(17)	11	(10)	5	(5)	106	(0.3)
Musculoskeletal	124	(8)	242	(16)	315	(21)	811	(54)	1,492	(3.5)
Neurological	1,384	(29)	1,702	(35)	976	(20)	762	(16)	4,824	(11.4)
Oncology	221	(14)	545	(35)	445	(28)	368	(23)	1,579	(3.7)
Respiratory	5,785	(55)	2,717	(26)	1,256	(12)	840	(8)	10,598	(25.1)
Trauma	111	(7)	442	(27)	481	(29)	613	(37)	1,647	(3.9)
Other	678	(37)	473	(26)	287	(16)	372	(21)	1,810	(4.3)
Unknown	152	(49)	87	(28)	46	(15)	28	(9)	313	(0.7)
Total	20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	

Figure 16 Admissions by primary diagnostic group, 2004 - 2006

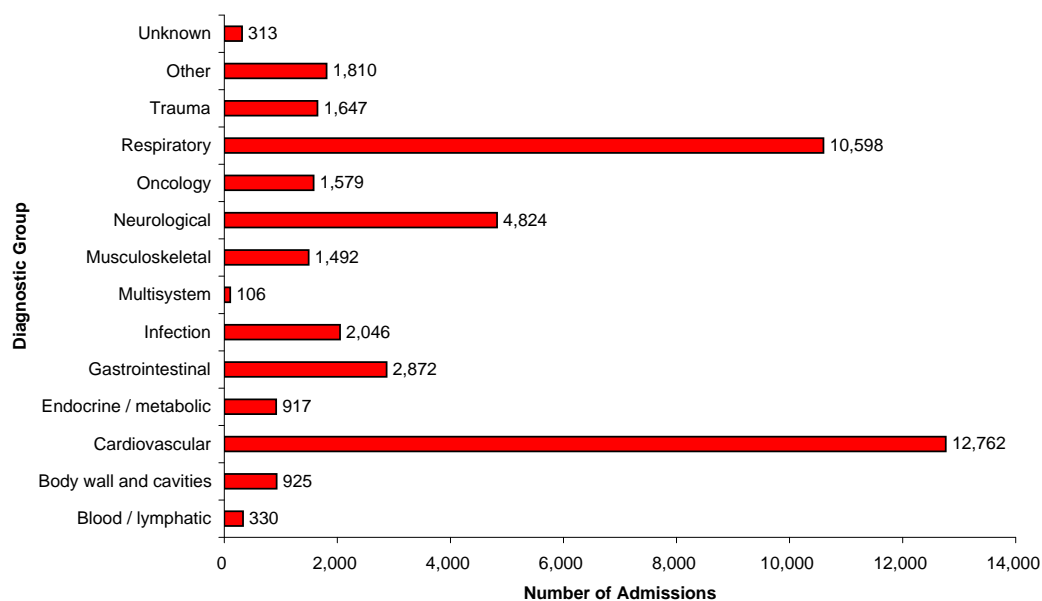
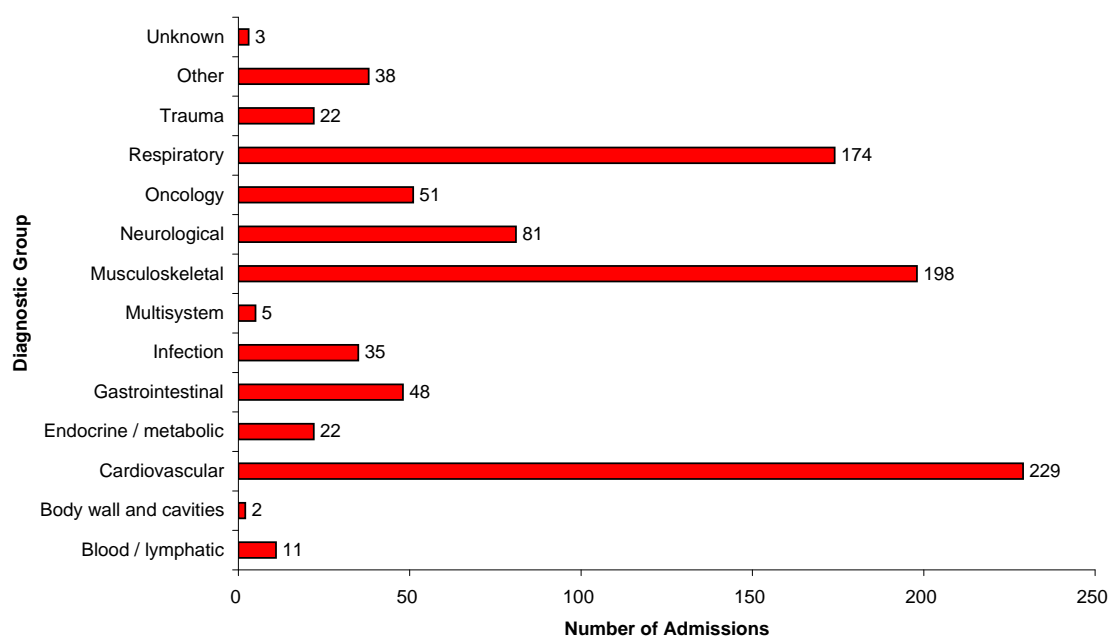


Table 17 Admissions by primary diagnostic group and age (16+), 2004 - 2006

Table 17 Admissions by primary diagnostic group and age (16+), 2004 - 2006											
Diagnostic Group	Age Group (Years)								Total		
	16		17-20		21-25		26+				
	n	%	n	%	n	%	n	%	n	%	
	7	(64)	4	(36)	0	(0)	0	(0)	11	(1.2)	
Blood / lymphatic	1	(50)	1	(50)	0	(0)	0	(0)	2	(0.2)	
Body wall and cavities	134	(59)	86	(38)	7	(3)	2	(1)	229	(24.9)	
Cardiovascular	18	(82)	4	(18)	0	(0)	0	(0)	22	(2.4)	
Endocrine / metabolic	29	(60)	19	(40)	0	(0)	0	(0)	48	(5.2)	
Gastrointestinal	21	(60)	14	(40)	0	(0)	0	(0)	35	(3.8)	
Infection	2	(40)	3	(60)	0	(0)	0	(0)	5	(0.5)	
Multisystem	124	(63)	73	(37)	1	(1)	0	(0)	198	(21.5)	
Musculoskeletal	53	(65)	24	(30)	4	(5)	0	(0)	81	(8.8)	
Neurological	35	(69)	16	(31)	0	(0)	0	(0)	51	(5.5)	
Oncology	96	(55)	74	(43)	2	(1)	2	(1)	174	(18.9)	
Respiratory	14	(64)	7	(32)	0	(0)	1	(5)	22	(2.4)	
Trauma	19	(50)	17	(45)	1	(3)	1	(3)	38	(4.1)	
Other	2	(67)	1	(33)	0	(0)	0	(0)	3	(0.3)	
Unknown	555	(60.4)	343	(37.3)	15	(1.6)	6	(0.7)	919		
Total											

Figure 17 Admissions by primary diagnostic group (16+), 2004 - 2006





Year	NHS Trust	Blood / lymphatic		Body wall and cavities		Cardiovascular		Endocrine / metabolic		Gastrointestinal		Diagnostic Group		Multisystem		Musculoskeletal		Neurological		Oncology		Respiratory		Trauma		Other		Unknown		Total			
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
2004	A	2	(2)	4	(3)	4	(3)	4	(3)	18	(14)	1	(1)	2	(2)	13	(10)	23	(18)	37	(28)	9	(7)	0	(0)	11	(8)	2	(2)	130	(2.8)		
	B	1	(1)	13	(16)	0	(0)	0	(0)	38	(47)	0	(0)	0	(0)	2	(2)	5	(6)	0	(0)	12	(15)	1	(1)	9	(11)	0	(0)	81	(1.9)		
	C	0	(0)	3	(4)	1	(1)	0	(0)	8	(11)	1	(1)	0	(0)	35	(48)	1	(1)	4	(6)	13	(20)	3	(4)	2	(3)	0	(0)	71	(1.6)		
	D	0	(0)	4	(6)	2	(3)	1	(1)	4	(2)	1	(1)	2	(2)	8	(12)	8	(12)	13	(20)	1	(1)	2	(3)	5	(8)	0	(0)	66	(1.5)		
	E	0	(0)	2	(0)	338	(64)	2	(0)	35	(7)	4	(1)	0	(0)	3	(12)	7	(7)	2	(20)	4	(6)	12	(1)	0	(0)	14	(3)	0	(0)	530	(11.9)
	F	0	(0)	1	(0)	308	(79)	0	(0)	6	(2)	0	(0)	0	(0)	29	(7)	0	(0)	0	(0)	35	(9)	0	(0)	13	(3)	0	(0)	392	(8.8)		
	G	0	(0)	0	(0)	0	(0)	0	(0)	1	(100)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	1	(0.0)
	H	0	(0)	1	(1)	4	(5)	1	(1)	25	(34)	1	(1)	0	(0)	1	(1)	5	(7)	8	(11)	6	(8)	1	(1)	20	(27)	0	(0)	73	(1.6)		
	I	1	(0)	2	(1)	225	(59)	3	(1)	30	(8)	5	(1)	0	(0)	19	(5)	9	(2)	36	(9)	22	(6)	5	(1)	21	(6)	1	(0)	379	(8.5)		
	J	0	(0)	3	(10)	0	(0)	0	(0)	13	(45)	1	(3)	0	(0)	0	(0)	6	(21)	0	(0)	4	(14)	0	(0)	2	(7)	0	(0)	29	(0.6)		
	K	1	(0)	14	(5)	152	(50)	0	(0)	26	(9)	7	(2)	1	(0)	13	(4)	21	(7)	33	(11)	20	(7)	3	(1)	11	(4)	0	(0)	302	(6.8)		
	L	0	(0)	0	(0)	4	(11)	0	(0)	1	(3)	0	(0)	0	(0)	15	(42)	2	(6)	1	(3)	9	(25)	0	(0)	4	(11)	0	(0)	36	(0.8)		
	M	0	(0)	3	(3)	0	(0)	0	(0)	18	(77)	1	(1)	0	(0)	38	(37)	7	(7)	19	(18)	14	(13)	1	(1)	3	(3)	0	(0)	140	(2.3)		
	N	0	(0)	3	(2)	68	(52)	0	(0)	10	(8)	0	(0)	0	(0)	24	(18)	1	(1)	16	(12)	8	(6)	0	(0)	1	(1)	0	(0)	131	(2.9)		
	O	0	(0)	2	(1)	337	(93)	0	(0)	3	(1)	2	(1)	0	(0)	2	(1)	0	(0)	16	(8)	12	(3)	0	(0)	3	(1)	1	(0)	363	(8.1)		
	P	1	(0)	13	(3)	232	(58)	1	(0)	27	(7)	2	(0)	0	(0)	54	(13)	5	(1)	26	(6)	32	(8)	2	(0)	7	(2)	0	(0)	402	(9.0)		
	Q	1	(1)	8	(5)	2	(1)	0	(0)	28	(19)	1	(1)	0	(0)	29	(20)	14	(9)	27	(18)	34	(23)	0	(0)	4	(3)	0	(0)	148	(3.3)		
	R	0	(0)	3	(2)	128	(65)	1	(1)	10	(5)	3	(2)	0	(0)	20	(10)	11	(6)	11	(6)	9	(5)	0	(0)	2	(1)	0	(0)	198	(4.4)		
	S	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	15	(58)	4	(15)	0	(0)</												







Table 23 Most commonly returned Read Codes for primary reason for admission, 2004 - 2006

Primary Diagnosis	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
Ventricular septal defect (P54..)	655	(52)	606	(48)	0	(0)	3	(0)	1,264	(8.3)
Tetralogy of Fallot (P52..)	549	(57)	403	(42)	0	(0)	9	(1)	961	(6.3)
Discordant ventriculoarterial connection (P51..)	589	(66)	296	(33)	0	(0)	1	(0)	886	(5.8)
Respiratory failure (XM09V)	490	(57)	373	(43)	0	(0)	0	(0)	863	(5.7)
Status epilepticus (X007B)	467	(56)	363	(44)	0	(0)	2	(0)	832	(5.4)
Acute bronchiolitis due to respiratory syncytial virus (H0615)	455	(58)	329	(42)	0	(0)	0	(0)	784	(5.1)
Sepsis (X70VZ)	374	(53)	330	(47)	0	(0)	1	(0)	705	(4.6)
Patent ductus arteriosus (P70..)	324	(48)	352	(52)	1	(0)	1	(0)	678	(4.4)
Hypoplastic left heart syndrome (P67..)	441	(65)	235	(35)	0	(0)	1	(0)	677	(4.4)
Atrial septal defect (X77vY)	261	(42)	360	(58)	0	(0)	1	(0)	622	(4.1)
Atrioventricular septal defect & common atriovent junction (X77wc)	308	(50)	304	(49)	0	(0)	3	(0)	615	(4.0)
Injury of head region (XA003)	395	(65)	211	(35)	0	(0)	0	(0)	606	(4.0)
Pneumonia (X100E)	309	(51)	293	(49)	1	(0)	0	(0)	603	(3.9)
Aortic coarctation (P71..)	382	(65)	203	(35)	0	(0)	1	(0)	586	(3.8)
Respiratory distress (XM07z)	356	(62)	216	(38)	0	(0)	0	(0)	572	(3.7)
Meningococcal septicaemia (A362.)	305	(55)	250	(45)	0	(0)	0	(0)	555	(3.6)
Acute bronchiolitis (H061.)	331	(60)	220	(40)	0	(0)	0	(0)	551	(3.6)
Bronchiolitis (XSDOK)	300	(58)	220	(42)	0	(0)	0	(0)	520	(3.4)
Acquired scoliosis (X70D3)	154	(41)	222	(59)	0	(0)	1	(0)	377	(2.5)
Congenital heart disease (X77tW)	188	(53)	166	(47)	0	(0)	0	(0)	354	(2.3)
Neonatal necrotising enterocolitis (Q464.)	199	(57)	148	(42)	0	(0)	2	(1)	349	(2.3)
Acute lower respiratory tract infection (XE0Xt)	181	(54)	155	(46)	0	(0)	0	(0)	336	(2.2)
Respiratory obstruction (XM05Q)	205	(62)	128	(38)	0	(0)	0	(0)	333	(2.2)
Head injury NOS (XA004)	219	(67)	107	(33)	0	(0)	0	(0)	326	(2.1)
Seizure (XaEHZ)	167	(52)	152	(48)	0	(0)	0	(0)	319	(2.1)
Total	8,604	(56.3)	6,642	(43.5)	2	(0.0)	26	(0.2)	15,274	



Table 24 Most commonly returned Read Codes for primary reason for 'unplanned - following surgery' admissions, 2004 - 2006

Primary Diagnosis	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
Respiratory obstruction (XM05Q)	34	(67)	17	(33)	0	(0)	0	(0)	51	(7.6)
Patent ductus arteriosus (P70..)	24	(48)	26	(52)	0	(0)	0	(0)	50	(7.4)
Empyema (XaE01)	26	(57)	20	(43)	0	(0)	0	(0)	46	(6.8)
Intussusception (J500.)	17	(45)	21	(55)	0	(0)	0	(0)	38	(5.6)
Sepsis (X70VZ)	21	(58)	15	(42)	0	(0)	0	(0)	36	(5.3)
Hypoplastic left heart syndrome (P67..)	26	(76)	8	(24)	0	(0)	0	(0)	34	(5.0)
Neonatal necrotising enterocolitis (Q464.)	16	(52)	14	(45)	0	(0)	1	(3)	31	(4.6)
Respiratory failure (XM09V)	22	(71)	9	(29)	0	(0)	0	(0)	31	(4.6)
Ventricular septal defect (P54..)	17	(57)	13	(43)	0	(0)	0	(0)	30	(4.4)
Respiratory distress (XM07z)	16	(55)	13	(45)	0	(0)	0	(0)	29	(4.3)
Stridor (XM082)	14	(56)	11	(44)	0	(0)	0	(0)	25	(3.7)
Discordant ventriculoarterial connection (P51..)	20	(83)	4	(17)	0	(0)	0	(0)	24	(3.6)
Hydrocephalus (X00EG)	13	(54)	11	(46)	0	(0)	0	(0)	24	(3.6)
Gastro-oesophageal reflux disease (X3003)	9	(39)	14	(61)	0	(0)	0	(0)	23	(3.4)
Injury of head region (XA003)	13	(59)	9	(41)	0	(0)	0	(0)	22	(3.3)
Intracranial tumour (X78ZI)	10	(50)	10	(50)	0	(0)	0	(0)	20	(3.0)
Obstruction of intestine (X305B)	11	(55)	9	(45)	0	(0)	0	(0)	20	(3.0)
Bleeding from tonsillar bed (X76bB)	10	(50)	10	(50)	0	(0)	0	(0)	20	(3.0)
Peritonitis (J55..)	12	(63)	7	(37)	0	(0)	0	(0)	19	(2.8)
Cardiac arrest (XE0V5)	11	(61)	7	(39)	0	(0)	0	(0)	18	(2.7)
Congenital heart disease (X77tW)	9	(50)	9	(50)	0	(0)	0	(0)	18	(2.7)
Head injury NOS (XA004)	14	(82)	3	(18)	0	(0)	0	(0)	17	(2.5)
Malrotation of intestine (X305T)	10	(59)	7	(41)	0	(0)	0	(0)	17	(2.5)
Apnoea (X76Gw)	12	(75)	4	(25)	0	(0)	0	(0)	16	(2.4)
Appendicitis (Xa9C4)	9	(56)	7	(44)	0	(0)	0	(0)	16	(2.4)
Total	396	(58.7)	278	(41.2)	0	(0.0)	1	(0.1)	675	

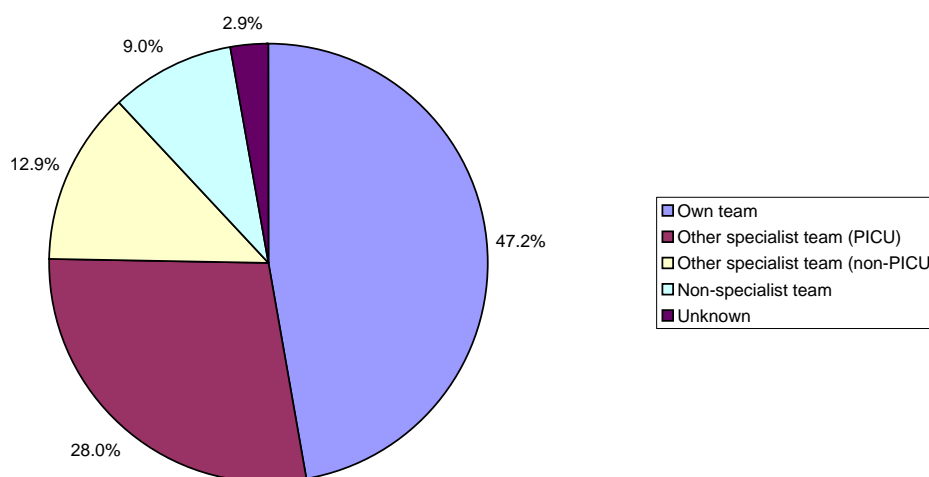
Table 25 Most commonly returned Read Codes for primary reason for 'unplanned - other' admission, 2004 - 2006

Primary Diagnosis	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%		
Status epilepticus (X007B)	450	(56)	354	(44)	0	(0)	2	(0)	806	(8.2)
Respiratory failure (XM09V)	445	(57)	338	(43)	0	(0)	0	(0)	783	(7.9)
Acute bronchiolitis due to respiratory syncytial virus (H0615)	435	(58)	315	(42)	0	(0)	0	(0)	750	(7.6)
Sepsis (X70VZ)	340	(54)	289	(46)	0	(0)	1	(0)	630	(6.4)
Pneumonia (X100E)	292	(52)	270	(48)	0	(0)	0	(0)	562	(5.7)
Injury of head region (XA003)	368	(66)	193	(34)	0	(0)	0	(0)	561	(5.7)
Meningococcal septicaemia (A362.)	299	(56)	237	(44)	0	(0)	0	(0)	536	(5.4)
Acute bronchiolitis (H061.)	322	(61)	210	(39)	0	(0)	0	(0)	532	(5.4)
Respiratory distress (XM07z)	324	(63)	188	(37)	0	(0)	0	(0)	512	(5.2)
Bronchiolitis (XSDOK)	295	(58)	215	(42)	0	(0)	0	(0)	510	(5.2)
Acute lower respiratory tract infection (XE0Xt)	163	(53)	144	(47)	0	(0)	0	(0)	307	(3.1)
Seizure (XaEHZ)	155	(51)	146	(49)	0	(0)	0	(0)	301	(3.0)
Head injury NOS (XA004)	186	(66)	97	(34)	0	(0)	0	(0)	283	(2.9)
Febrile convulsion (XM03l)	163	(58)	116	(42)	0	(0)	0	(0)	279	(2.8)
Asthma (H33..)	156	(56)	122	(44)	0	(0)	0	(0)	278	(2.8)
Acute laryngotracheobronchitis (Xa0IW)	179	(67)	87	(33)	0	(0)	0	(0)	266	(2.7)
Discordant ventriculoarterial connection (P51..)	186	(70)	79	(30)	0	(0)	0	(0)	265	(2.7)
Status asthmaticus (X102D)	161	(62)	100	(38)	0	(0)	0	(0)	261	(2.6)
Neonatal necrotising enterocolitis (Q464.)	139	(58)	100	(42)	0	(0)	0	(0)	239	(2.4)
Hypoplastic left heart syndrome (P67..)	142	(64)	79	(36)	0	(0)	0	(0)	221	(2.2)
Aspiration pneumonitis (H47..)	118	(56)	94	(44)	0	(0)	0	(0)	212	(2.1)
Diabetic ketoacidosis (C101.)	88	(42)	121	(58)	1	(0)	0	(0)	210	(2.1)
Acute respiratory failure (H590.)	120	(61)	77	(39)	0	(0)	0	(0)	197	(2.0)
Epileptic seizures - clonic (F2512)	102	(52)	93	(48)	0	(0)	0	(0)	195	(2.0)
Respiratory arrest (XM09W)	121	(65)	65	(35)	0	(0)	0	(0)	186	(1.9)
Total	5,749	(58.2)	4,129	(41.8)	1	(0.0)	3	(0.0)	9,882	

Table 26 Retrievals by team type and age, 2004 - 2006

Retrieval Team	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Own team	3,452	(50)	1,884	(27)	928	(13)	698	(10)	6,962	(47.2)
Other specialist team (PICU)	2,284	(55)	989	(24)	467	(11)	384	(9)	4,124	(28.0)
Other specialist team (non-PICU)	1,340	(70)	190	(10)	157	(8)	215	(11)	1,902	(12.9)
Non-specialist team	746	(56)	209	(16)	153	(12)	220	(17)	1,328	(9.0)
Unknown	235	(56)	107	(25)	45	(11)	36	(9)	423	(2.9)
Total	8,057	(54.7)	3,379	(22.9)	1,750	(11.9)	1,553	(10.5)	14,739	

Figure 26 Retrievals by team type, 2004 - 2006



**Table 27 'Non-specialist team' retrievals by diagnostic group and age, 2004 - 2006**

Diagnostic Group	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Blood / lymphatic	5	(45)	3	(27)	1	(9)	2	(18)	11	(0.8)
Body wall and cavities	37	(90)	1	(2)	0	(0)	3	(7)	41	(3.1)
Cardiovascular	235	(79)	24	(8)	13	(4)	26	(9)	298	(22.4)
Endocrine / metabolic	11	(42)	3	(12)	7	(27)	5	(19)	26	(2.0)
Gastrointestinal	134	(82)	11	(7)	10	(6)	8	(5)	163	(12.3)
Infection	10	(34)	8	(28)	6	(21)	5	(17)	29	(2.2)
Multisystem	5	(83)	1	(17)	0	(0)	0	(0)	6	(0.5)
Musculoskeletal	5	(63)	1	(13)	1	(13)	1	(13)	8	(0.6)
Neurological	51	(34)	33	(22)	33	(22)	35	(23)	152	(11.4)
Oncology	6	(19)	13	(41)	6	(19)	7	(22)	32	(2.4)
Respiratory	187	(63)	59	(20)	24	(8)	27	(9)	297	(22.4)
Trauma	7	(4)	44	(24)	48	(26)	87	(47)	186	(14.0)
Other	51	(67)	8	(11)	3	(4)	14	(18)	76	(5.7)
Unknown	2	(67)	0	(0)	1	(33)	0	(0)	3	(0.2)
Total	746	(56.2)	209	(15.7)	153	(11.5)	220	(16.6)	1,328	

Table 28 Retrievals by retrieval type by NHS trust, 2004 - 2006

Table 28 Retrievals by retrieval type by NHS trust, 2004 - 2006													
Year	NHS Trust	Retrieval Team										Total	
		Own team n %	Other specialist team (PICU) n %	Other specialist team (non-PICU) n %	Non-specialist team n %	Unknown n %							
2004	A	24 (21)	26 (23)	62 (55)	0 (0)	1 (1)	113 (2.4)						
	B	1 (5)	12 (57)	7 (33)	1 (5)	0 (0)	21 (0.4)						
	C	98 (86)	9 (8)	2 (2)	5 (4)	0 (0)	114 (2.4)						
	D	247 (72)	22 (6)	55 (16)	21 (6)	0 (0)	345 (7.2)						
	E	7 (1)	570 (70)	5 (1)	228 (28)	3 (0)	813 (17.0)						
	F	451 (70)	66 (10)	72 (11)	27 (4)	24 (4)	640 (13.3)						
	H	8 (7)	91 (75)	11 (9)	7 (6)	4 (3)	121 (2.5)						
	I	168 (75)	11 (5)	36 (16)	9 (4)	0 (0)	224 (4.7)						
	J	1 (10)	9 (90)	0 (0)	0 (0)	0 (0)	10 (0.2)						
	K	98 (37)	33 (13)	103 (39)	28 (11)	0 (0)	262 (5.5)						
	L	94 (94)	2 (2)	4 (4)	0 (0)	0 (0)	100 (2.1)						
	M	43 (48)	28 (31)	8 (9)	10 (11)	0 (0)	89 (1.9)						
	N	65 (66)	5 (5)	12 (12)	16 (16)	0 (0)	98 (2.0)						
	O	1 (1)	17 (21)	2 (2)	0 (0)	61 (75)	81 (1.7)						
	P	174 (67)	20 (8)	43 (16)	23 (9)	1 (0)	261 (5.4)						
	Q	109 (64)	12 (7)	27 (16)	19 (11)	3 (2)	170 (3.5)						
	R	172 (78)	2 (1)	31 (14)	15 (7)	0 (0)	220 (4.6)						
	S	2 (8)	4 (17)	16 (67)	2 (8)	0 (0)	24 (0.5)						
	T	0 (0)	98 (82)	1 (1)	18 (15)	2 (2)	119 (2.5)						
	U	95 (33)	161 (57)	6 (2)	2 (1)	20 (7)	284 (5.9)						
	V	132 (53)	19 (8)	71 (29)	26 (10)	0 (0)	248 (5.2)						
	W	172 (100)	0 (0)	0 (0)	0 (0)	0 (0)	172 (3.6)						
	X	178 (70)	62 (25)	5 (2)	3 (1)	5 (2)	253 (5.3)						
	Y	12 (92)	0 (0)	1 (8)	0 (0)	0 (0)	13 (0.3)						
2004 Total		2,352 (49.1)	1,279 (26.7)	580 (12.1)	460 (9.6)	124 (2.6)	4,795						
2005	A	29 (22)	55 (43)	45 (35)	0 (0)	0 (0)	129 (2.6)						
	B	1 (10)	1 (10)	4 (40)	4 (40)	0 (0)	10 (0.2)						
	C	104 (89)	7 (6)	2 (2)	4 (3)	0 (0)	117 (2.3)						
	D	227 (70)	28 (9)	55 (17)	13 (4)	3 (1)	326 (6.5)						
	E	0 (0)	573 (80)	2 (0)	141 (20)	1 (0)	717 (14.2)						
	F	433 (71)	100 (16)	58 (10)	16 (3)	0 (0)	607 (12.0)						
	G	0 (0)	0 (0)	0 (0)	1 (50)	1 (50)	2 (0.0)						
	H	8 (6)	89 (64)	31 (22)	9 (6)	3 (2)	140 (2.8)						
	I	150 (67)	15 (7)	48 (21)	11 (5)	0 (0)	224 (4.4)						
	J	3 (38)	2 (25)	0 (0)	2 (25)	1 (13)	8 (0.2)						
	K	109 (35)	44 (14)	117 (37)	39 (12)	4 (1)	313 (6.2)						
	L	115 (88)	6 (5)	9 (7)	1 (1)	0 (0)	131 (2.6)						
	M	80 (71)	16 (14)	11 (10)	5 (4)	0 (0)	112 (2.2)						
	N	51 (59)	7 (8)	5 (6)	23 (27)	0 (0)	86 (1.7)						
	O	4 (4)	42 (45)	5 (5)	1 (1)	42 (45)	94 (1.9)						
	P	160 (58)	9 (3)	65 (23)	43 (16)	0 (0)	277 (5.5)						
	Q	126 (67)	14 (7)	27 (14)	21 (11)	1 (1)	189 (3.8)						
	R	200 (71)	11 (4)	51 (18)	19 (7)	0 (0)	281 (5.6)						
	S	0 (0)	9 (36)	14 (56)	2 (8)	0 (0)	25 (0.5)						
	T	0 (0)	90 (76)	2 (2)	25 (21)	1 (1)	118 (2.3)						
	U	0 (0)	147 (47)	7 (2)	0 (0)	156 (50)	310 (6.2)						
	V	88 (41)	76 (36)	19 (9)	25 (12)	5 (2)	213 (4.2)						
	W	185 (91)	2 (1)	1 (0)	9 (4)	6 (3)	203 (4.0)						
	X	149 (56)	75 (28)	16 (6)	10 (4)	14 (5)	264 (5.2)						
Y	114 (80)	14 (10)	11 (8)	4 (3)	0 (0)	143 (2.8)							
2005 Total		2,336 (46.4)	1,432 (28.4)	605 (12.0)	428 (8.5)	238 (4.7)	5,039						
2006	A	50 (38)	42 (32)	17 (13)	23 (17)	0 (0)	132 (2.7)						
	B	2 (20)	3 (30)	3 (30)	1 (10)	1 (10)	10 (0.2)						
	C	90 (80)	12 (11)	4 (4)	7 (6)	0 (0)	113 (2.3)						
	D	169 (56)	34 (11)	68 (23)	27 (9)	2 (1)	300 (6.1)						
	E	6 (1)	594 (80)	4 (1)	139 (19)	0 (0)	743 (15.1)						
	F	388 (80)	65 (13)	10 (2)	20 (4)	0 (0)	483 (9.8)						
	G	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)	1 (0.0)						
	H	14 (12)	86 (74)	8 (7)	7 (6)	2 (2)	117 (2.4)						
	I	130 (64)	15 (7)	51 (25)	6 (3)	0 (0)	202 (4.1)						
	J	0 (0)	0 (0)	2 (100)	0 (0)	0 (0)	2 (0.0)						
	K	102 (32)	44 (14)	125 (39)	47 (15)	4 (1)	322 (6.6)						
	L	114 (77)	7 (5)	22 (15)	5 (3)	0 (0)	148 (3.0)						
	M	109 (81)	10 (7)	12 (9)	4 (3)	0 (0)	135 (2.8)						
	N	48 (64)	9 (12)	8 (11)	10 (13)	0 (0)	75 (1.5)						
	O	2 (1)	15 (10)	125 (87)	0 (0)	1 (1)	143 (2.9)						
	P	211 (66)	19 (6)	38 (12)	52 (16)	0 (0)	320 (6.5)						
	Q	98 (62)	4 (3)	44 (28)	12 (8)	0 (0)	158 (3.2)						
	R	146 (63)	9 (4)	50 (22)	25 (11)	2 (1)	232 (4.7)						
	S	0 (0)	7 (23)	14 (45)	10 (32)	0 (0)	31 (0.6)						
	T	0 (0)	118 (91)	1 (1)	11 (8)	0 (0)	130 (2.7)						
	U	3 (1)	236 (88)	19 (7)	1 (0)	9 (3)	268 (5.5)						
	V	115 (63)	33 (18)	22 (12)	12 (7)	0 (0)	182 (3.7)						
	W	220 (91)	2 (1)	1 (0)	12 (5)	7 (3)	242 (4.9)						
	X	137 (51)	39 (15)	52 (19)	7 (3)	33 (12)	268 (5.5)						
Y	120 (81)	10 (7)	17 (11)	1 (1)	0 (0)	148 (3.0)							
2006 Total		2,274 (46.4)	1,413 (28.8)	717 (14.6)	440 (9.0)	61 (1.2)	4,905						
Grand Total		6,962 (47.2)	4,124 (28.0)	1,902 (12.9)	1,328 (9.0)	423 (2.9)	14,739						

Table 29 Interventions received by NHS trust, 2004 - 2006

Year	NHS Trust	Invasive Ventilation		Non-Invasive Ventilation		Tracheostomy		ECMO		IV Vasoactive Drugs		LVAD		ICP Device		Renal Support		Admissions	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
2004	A	202	(46)	73	(16)	2	(0)	0	(0)	62	(14)	0	(0)	47	(11)	0	(0)	443	(3.2)
	B	58	(20)	32	(11)	3	(1)	0	(0)	16	(6)	0	(0)	0	(0)	0	(0)	285	(2.1)
	C	233	(88)	15	(6)	15	(6)	0	(0)	40	(15)	0	(0)	7	(3)	4	(2)	264	(1.9)
	D	448	(77)	44	(8)	14	(2)	0	(0)	106	(18)	0	(0)	28	(5)	14	(2)	584	(4.2)
	E	1,402	(79)	351	(20)	65	(4)	52	(3)	812	(46)	1	(0)	41	(2)	60	(3)	1,778	(12.8)
	F	927	(80)	128	(11)	14	(1)	1	(0)	360	(31)	0	(0)	2	(0)	26	(2)	1,165	(8.4)
	G	40	(91)	5	(11)	0	(0)	0	(0)	26	(59)	0	(0)	4	(9)	0	(0)	44	(0.3)
	H	221	(72)	18	(6)	4	(1)	1	(0)	52	(17)	1	(0)	20	(6)	17	(6)	308	(2.2)
	I	583	(68)	52	(6)	30	(3)	2	(0)	318	(37)	0	(0)	26	(3)	60	(7)	859	(6.2)
	J	12	(15)	3	(4)	0	(0)	1	(1)	2	(2)	0	(0)	0	(0)	2	(2)	82	(0.6)
	K	541	(61)	63	(7)	35	(4)	24	(3)	284	(32)	1	(0)	29	(3)	37	(4)	883	(6.4)
	L	140	(62)	62	(27)	12	(5)	0	(0)	39	(17)	0	(0)	2	(1)	0	(0)	226	(1.6)
	M	204	(55)	46	(12)	23	(6)	0	(0)	46	(12)	0	(0)	22	(6)	6	(2)	373	(2.7)
	N	240	(71)	66	(20)	6	(2)	0	(0)	73	(22)	0	(0)	12	(4)	6	(2)	337	(2.4)
	O	388	(70)	74	(13)	9	(2)	5	(1)	315	(57)	0	(0)	1	(0)	4	(1)	553	(4.0)
	P	820	(84)	14	(1)	2	(0)	2	(0)	277	(28)	4	(0)	2	(0)	11	(1)	982	(7.1)
	Q	227	(41)	109	(20)	9	(2)	0	(0)	83	(15)	0	(0)	20	(4)	13	(2)	547	(4.0)
	R	479	(82)	68	(12)	8	(1)	2	(0)	197	(34)	0	(0)	17	(3)	10	(2)	585	(4.2)
	S	59	(35)	36	(22)	2	(1)	0	(0)	16	(10)	0	(0)	7	(4)	1	(1)	167	(1.2)
	T	119	(33)	58	(16)	5	(1)	0	(0)	35	(10)	0	(0)	9	(2)	1	(0)	366	(2.6)
	U	261	(67)	109	(28)	12	(3)	0	(0)	107	(27)	0	(0)	0	(0)	6	(2)	392	(2.8)
	V	936	(95)	166	(17)	35	(4)	4	(0)	550	(56)	4	(0)	47	(5)	39	(4)	983	(7.1)
	W	519	(80)	71	(11)	12	(2)	2	(0)	314	(48)	0	(0)	13	(2)	42	(6)	648	(4.7)
	X	500	(52)	123	(13)	27	(3)	44	(5)	235	(24)	0	(0)	0	(0)	18	(2)	964	(7.0)
	Y	14	(70)	3	(15)	1	(5)	0	(0)	1	(5)	0	(0)	0	(0)	0	(0)	20	(0.1)
2004 Total		9,573	(69.2)	1,789	(12.9)	345	(2.5)	140	(1.0)	4,366	(31.6)	11	(0.1)	356	(2.6)	377	(2.7)	13,838	
2005	A	171	(41)	40	(10)	8	(2)	0	(0)	55	(13)	0	(0)	21	(5)	0	(0)	420	(3.0)
	B	29	(12)	18	(8)	10	(4)	0	(0)	8	(3)	0	(0)	0	(0)	0	(0)	233	(1.7)
	C	207	(76)	26	(10)	8	(3)	0	(0)	31	(11)	0	(0)	7	(3)	5	(2)	271	(1.9)
	D	438	(76)	61	(11)	13	(2)	0	(0)	137	(24)	0	(0)	45	(8)	18	(3)	580	(4.1)
	E	1,308	(86)	174	(11)	43	(3)	44	(3)	746	(49)	2	(0)	59	(4)	63	(4)	1,515	(10.8)
	F	911	(81)	119	(11)	12	(1)	0	(0)	333	(30)	0	(0)	0	(0)	33	(3)	1,123	(8.0)
	G	41	(82)	5	(10)	1	(2)	0	(0)	32	(64)	0	(0)	6	(12)	0	(0)	50	(0.4)
	H	242	(72)	22	(7)	5	(1)	1	(0)	52	(15)	0	(0)	23	(7)	19	(6)	337	(2.4)
	I	599	(70)	66	(8)	30	(4)	2	(0)	325	(38)	1	(0)	22	(3)	58	(7)	853	(6.1)
	J	29	(30)	10	(10)	0	(0)	0	(0)	2	(2)	0	(0)	1	(1)	1	(1)	96	(0.7)
	K	533	(60)	81	(9)	31	(4)	18	(2)	270	(31)	1	(0)	16	(2)	49	(6)	884	(6.3)
	L	163	(59)	66	(24)	17	(6)	0	(0)	60	(22)	0	(0)	3	(1)	2	(1)	274	(1.9)
	M	212	(60)	50	(14)	19	(5)	0	(0)	59	(17)	0	(0)	18	(5)	10	(3)	355	(2.5)
	N	245	(83)	44	(15)	13	(4)	0	(0)	102	(35)	0	(0)	16	(5)	9	(3)	295	(2.1)
	O	429	(70)	124	(20)	9	(1)	3	(0)	366	(60)	0	(0)	0	(0)	1	(0)	615	(4.4)
	P	866	(85)	49	(5)	13	(1)	5	(0)	342	(34)	0	(0)	16	(2)	21	(2)	1,017	(7.2)
	Q	246	(42)	91	(16)	18	(3)	0	(0)	81	(14)	0	(0)	13	(2)	9	(2)	581	(4.1)
	R	519	(78)	85	(13)	6	(1)	0	(0)	218	(33)	1	(0)	15	(2)	16	(2)	665	(4.7)
	S	71	(39)	16	(9)	2	(1)	0	(0)	12	(7)	0	(0)	2	(1)	2	(1)	180	(1.3)
	T	139	(34)	92	(22)	2	(0)	0	(0)	28	(7)	0	(0)	4	(1)	4	(1)	413	(2.9)
	U	285	(70)	93	(23)	11	(3)	0	(0)	111	(27)	0	(0)	2	(0)	6	(1)	408	(2.9)
	V	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	908	(6.5)
	W	519	(74)	127	(18)	14	(2)	1	(0)	313	(45)	0	(0)	13	(2)	48	(7)	701	(5.0)
	X	454	(51)	60	(7)	10	(1)	47	(5)	218	(24)	0	(0)	0	(0)	32	(4)	891	(6.3)
	Y	199	(51)	17	(4)	7	(2)	0	(0)	26	(7)	0	(0)	6	(2)	1	(0)	391	(2.8)
2005 Total		8,855	(63.0)	1,536	(10.9)	302	(2.1)	121	(0.9)	3,927	(27.9)	5	(0.0)	308	(2.2)	407	(2.9)	14,056	
2006	A	179	(40)	33	(7)	10	(2)	0	(0)	50	(11)	0	(0)	21	(5)	2	(0)	449	(3.1)
	B	14	(6)	34	(15)	3	(1)	0	(0)	1	(0)	0	(0)	1	(0)	0	(0)	226	(1.6)
	C	230	(76)	34	(11)	4	(1)	0	(0)	29	(10)	0	(0)	6	(2)	6	(2)	301	(2.1)
	D	444	(78)	84	(15)	24	(4)	0	(0)	158	(28)	0	(0)	41	(7)	16	(3)	571	(4.0)
	E	1,401	(88)	148	(9)	43	(3)	57	(4)	771	(48)	2	(0)	57	(4)	80	(5)	1,600	(11.2)
	F	858	(79)	108	(10)	13	(1)	1	(0)	352	(32)	0	(0)	0	(0)	42	(4)	1,086	(7.6)
	G	34	(94)	4	(11)	0	(0)	0	(0)	26	(72)	0	(0)	3	(8)	0	(0)	36	(0.3)
	H	228	(72)	29	(9)	6	(2)	0	(0)	59	(19)	0	(0)	10	(3)	23	(7)	315	(2.2)
	I	586	(64)	73	(8)	24	(3)	5	(1)	345	(38)	1	(0)	17	(2)	82	(9)	909	(6.3)
	J	25	(34)	7	(10)	0	(0)	0	(0)	5	(7)	0	(0)	0	(0)	0	(0)	73	(0.5)
	K	555	(61)	67	(7)	57	(6)	15	(2)	297	(33)	10	(1)	16	(2)	44	(5)	907	(6.3)
	L	171	(57)	71	(24)	14	(5)	0	(0)	72	(24)	0	(0)	3	(1)	6	(2)	299	(2.1)
	M	237	(59)	44	(11)	8	(2)	0	(0)	46	(11)	0	(0)	12	(3)	15	(4)	405	(2.8)
	N	231	(84)	48	(17)	6	(2)	0	(0)	116	(42)	0	(0)	14	(5)	11	(4)	275	(1.9)
	O	474	(72)	145	(22)	2	(0)	3	(0)	380	(58)	1	(0)	0	(0)	4	(1)	655	(4.6)
	P	867	(79)	58	(5)	24	(2)	4	(0)	368	(33)	1	(0)	16	(1)	21	(2)	1,102	(7.7)
	Q	214	(43)	67	(13)	12	(2)	0	(0)	83	(17)	0	(0)	13	(3)	14	(3)	503	(3.5)
	R	519	(79)	80	(12)	21	(3)	2	(0)	205	(31)	0	(0)	19	(3)	21	(3)	656	(4.6)
	S	76	(40)	30	(16)	5	(3)	0	(0)	15	(8)	0	(0)	6	(3)	0	(0)	188	(1.3)
	T	179	(40)	120	(27)	0	(0)	0	(0)	33	(7)	0	(0)	9	(2)	2	(0)	442	(3.1)
	U	223	(61)	80	(22)	8	(2)	0	(0)	97	(26)	0	(0)	1	(0)	6	(2)	367	(2.6)
	V	874	(84)	220	(21)	10	(1)	1	(0)	482	(46)	0	(0)	39	(4)	67	(6)	1,046	(7.3)
	W	523	(81)	165	(26)	18	(3)	1	(0)	372	(58)	0	(0)	42	(7)	46	(7)	642	(4.5)
	X	430	(49)	49	(6)	24	(3)	42	(5)	214	(24)	0	(0)	0	(0)	33	(4)	877	(6.1)
	Y	220	(55)	32	(8)	9	(2)	0	(0)	30	(8)	0	(0)	7	(2)	0	(0)	397	(2.8)
2006 Total		9,792	(68.3)	1,830	(12.8)	345	(2.4)	131	(0.9)	4,606	(32.1)	15	(0.1)	353	(2.5)	541	(3.8)	14,327	
Grand Total		28,220	(66.8)	5,155	(12.2)	992	(2.3)	392	(0.9)	12,899	(30.6)	31	(0.1)	1,017	(2.4)	1,325	(3.1)	42,221	

**Table 30 Admissions by ventilation status and age, 2004 - 2006**

Ventilation Status	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Invasive only	12,263	(50)	6,336	(26)	3,182	(13)	2,916	(12)	24,697	(58.5)
Non-invasive only	831	(51)	331	(20)	239	(15)	231	(14)	1,632	(3.9)
Both	2,361	(67)	550	(16)	334	(9)	278	(8)	3,523	(8.3)
Neither	4,105	(37)	3,043	(27)	1,990	(18)	1,954	(18)	11,092	(26.3)
Unknown	669	(52)	289	(23)	178	(14)	141	(11)	1,277	(3.0)
Total	20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	

Table 31 Admissions by ventilation status by NHS trust, 2004 - 2006

Table 31 Admissions by ventilation status by NHS trust, 2004 - 2006													
Year	NHS Trust	Ventilation Status										Total	
		Invasive only		Non-invasive only		Both		Neither		Unknown			
		n	%	n	%	n	%	n	%	n	%	n	%
2004	A	159	(36)	30	(7)	43	(10)	211	(48)	0	(0)	443	(3.2)
	B	51	(18)	25	(9)	7	(2)	202	(71)	0	(0)	285	(2.1)
	C	220	(83)	2	(1)	13	(5)	29	(11)	0	(0)	264	(1.9)
	D	421	(72)	17	(3)	27	(5)	116	(20)	3	(1)	584	(4.2)
	E	1,145	(64)	94	(5)	257	(14)	282	(16)	0	(0)	1,778	(12.8)
	F	837	(72)	38	(3)	90	(8)	200	(17)	0	(0)	1,165	(8.4)
	G	36	(82)	1	(2)	4	(9)	3	(7)	0	(0)	44	(0.3)
	H	210	(68)	7	(2)	11	(4)	68	(22)	12	(4)	308	(2.2)
	I	545	(63)	14	(2)	38	(4)	239	(28)	23	(3)	859	(6.2)
	J	12	(15)	3	(4)	0	(0)	67	(82)	0	(0)	82	(0.6)
	K	501	(57)	23	(3)	40	(5)	315	(36)	4	(0)	883	(6.4)
	L	116	(51)	38	(17)	24	(11)	48	(21)	0	(0)	226	(1.6)
	M	175	(47)	17	(5)	29	(8)	151	(40)	1	(0)	373	(2.7)
	N	197	(58)	23	(7)	43	(13)	74	(22)	0	(0)	337	(2.4)
	O	337	(61)	23	(4)	51	(9)	142	(26)	0	(0)	553	(4.0)
	P	812	(83)	6	(1)	8	(1)	151	(15)	5	(1)	982	(7.1)
	Q	174	(32)	56	(10)	53	(10)	263	(48)	1	(0)	547	(4.0)
	R	422	(72)	11	(2)	57	(10)	95	(16)	0	(0)	585	(4.2)
	S	43	(26)	20	(12)	16	(10)	88	(53)	0	(0)	167	(1.2)
	T	91	(25)	30	(8)	28	(8)	217	(59)	0	(0)	366	(2.6)
	U	187	(48)	35	(9)	74	(19)	96	(24)	0	(0)	392	(2.8)
	V	772	(79)	2	(0)	164	(17)	37	(4)	8	(1)	983	(7.1)
	W	463	(71)	15	(2)	56	(9)	113	(17)	1	(0)	648	(4.7)
	X	405	(42)	28	(3)	95	(10)	428	(44)	8	(1)	964	(7.0)
	Y	13	(65)	2	(10)	1	(5)	4	(20)	0	(0)	20	(0.1)
2004 Total		8,344	(60.3)	560	(4.0)	1,229	(8.9)	3,639	(26.3)	66	(0.5)	13,838	
2005	A	150	(36)	19	(5)	21	(5)	230	(55)	0	(0)	420	(3.0)
	B	25	(11)	14	(6)	4	(2)	189	(81)	1	(0)	233	(1.7)
	C	191	(70)	10	(4)	16	(6)	38	(14)	16	(6)	271	(1.9)
	D	400	(69)	23	(4)	38	(7)	115	(20)	4	(1)	580	(4.1)
	E	1,175	(78)	41	(3)	133	(9)	166	(11)	0	(0)	1,515	(10.8)
	F	822	(73)	30	(3)	89	(8)	182	(16)	0	(0)	1,123	(8.0)
	G	38	(76)	2	(4)	3	(6)	7	(14)	0	(0)	50	(0.4)
	H	229	(68)	9	(3)	13	(4)	71	(21)	15	(4)	337	(2.4)
	I	559	(66)	26	(3)	40	(5)	218	(26)	10	(1)	853	(6.1)
	J	27	(28)	8	(8)	2	(2)	58	(60)	1	(1)	96	(0.7)
	K	475	(54)	23	(3)	58	(7)	324	(37)	4	(0)	884	(6.3)
	L	129	(47)	32	(12)	34	(12)	79	(29)	0	(0)	274	(1.9)
	M	178	(50)	16	(5)	34	(10)	126	(35)	1	(0)	355	(2.5)
	N	208	(71)	7	(2)	37	(13)	43	(15)	0	(0)	295	(2.1)
	O	333	(54)	28	(5)	96	(16)	158	(26)	0	(0)	615	(4.4)
	P	830	(82)	13	(1)	36	(4)	133	(13)	5	(0)	1,017	(7.2)
	Q	196	(34)	41	(7)	50	(9)	294	(51)	0	(0)	581	(4.1)
	R	444	(67)	10	(2)	75	(11)	136	(20)	0	(0)	665	(4.7)
	S	61	(34)	6	(3)	10	(6)	103	(57)	0	(0)	180	(1.3)
	T	105	(25)	58	(14)	34	(8)	216	(52)	0	(0)	413	(2.9)
	U	219	(54)	27	(7)	66	(16)	96	(24)	0	(0)	408	(2.9)
	V	0	(0)	0	(0)	0	(0)	0	(0)	908	(100)	908	(6.5)
	W	424	(60)	32	(5)	95	(14)	150	(21)	0	(0)	701	(5.0)
	X	409	(46)	15	(2)	45	(5)	344	(39)	78	(9)	891	(6.3)
	Y	186	(48)	4	(1)	13	(3)	188	(48)	0	(0)	391	(2.8)
2005 Total		7,813	(55.6)	494	(3.5)	1,042	(7.4)	3,664	(26.1)	1,043	(7.4)	14,056	
2006	A	163	(36)	17	(4)	16	(4)	252	(56)	1	(0)	449	(3.1)
	B	8	(4)	28	(12)	6	(3)	183	(81)	1	(0)	226	(1.6)
	C	209	(69)	13	(4)	21	(7)	51	(17)	7	(2)	301	(2.1)
	D	385	(67)	25	(4)	59	(10)	99	(17)	3	(1)	571	(4.0)
	E	1,287	(80)	34	(2)	114	(7)	165	(10)	0	(0)	1,600	(11.2)
	F	772	(71)	22	(2)	86	(8)	206	(19)	0	(0)	1,086	(7.6)
	G	30	(83)	0	(0)	4	(11)	2	(6)	0	(0)	36	(0.3)
	H	206	(65)	7	(2)	22	(7)	70	(22)	10	(3)	315	(2.2)
	I	537	(59)	24	(3)	49	(5)	278	(31)	21	(2)	909	(6.3)
	J	22	(30)	4	(5)	3	(4)	44	(60)	0	(0)	73	(0.5)
	K	508	(56)	20	(2)	47	(5)	331	(36)	1	(0)	907	(6.3)
	L	135	(45)	35	(12)	36	(12)	93	(31)	0	(0)	299	(2.1)
	M	211	(52)	18	(4)	26	(6)	149	(37)	1	(0)	405	(2.8)
	N	190	(69)	7	(3)	41	(15)	36	(13)	1	(0)	275	(1.9)
	O	364	(56)	35	(5)	110	(17)	146	(22)	0	(0)	655	(4.6)
	P	834	(76)	25	(2)	33	(3)	208	(19)	2	(0)	1,102	(7.7)
	Q	180	(36)	33	(7)	34	(7)	255	(51)	1	(0)	503	(3.5)
	R	462	(70)	23	(4)	57	(9)	114	(17)	0	(0)	656	(4.6)
	S	65	(35)	19	(10)	11	(6)	93	(49)	0	(0)	188	(1.3)
	T	126	(29)	67	(15)	53	(12)	196	(44)	0	(0)	442	(3.1)
	U	162	(44)	19	(5)	61	(17)	125	(34)	0	(0)	367	(2.6)
	V	713	(68)	59	(6)	161	(15)	113	(11)	0	(0)	1,046	(7.3)
	W	382	(60)	24	(4)	141	(22)	95	(15)	0	(0)	642	(4.5)
	X	394	(45)	13	(1)	36	(4)	315	(36)	119	(14)	877	(6.1)
	Y	195	(49)	7	(2)	25	(6)	170	(43)	0	(0)	397	(2.8)
2006 Total		8,540	(59.6)	578	(4.0)	1,252	(8.7)	3,789	(26.4)	168	(1.2)	14,327	
Grand Total		24,697	(58.5)	1,632	(3.9)	3,523	(8.3)	11,092	(26.3)	1,277	(3.0)	42,221	

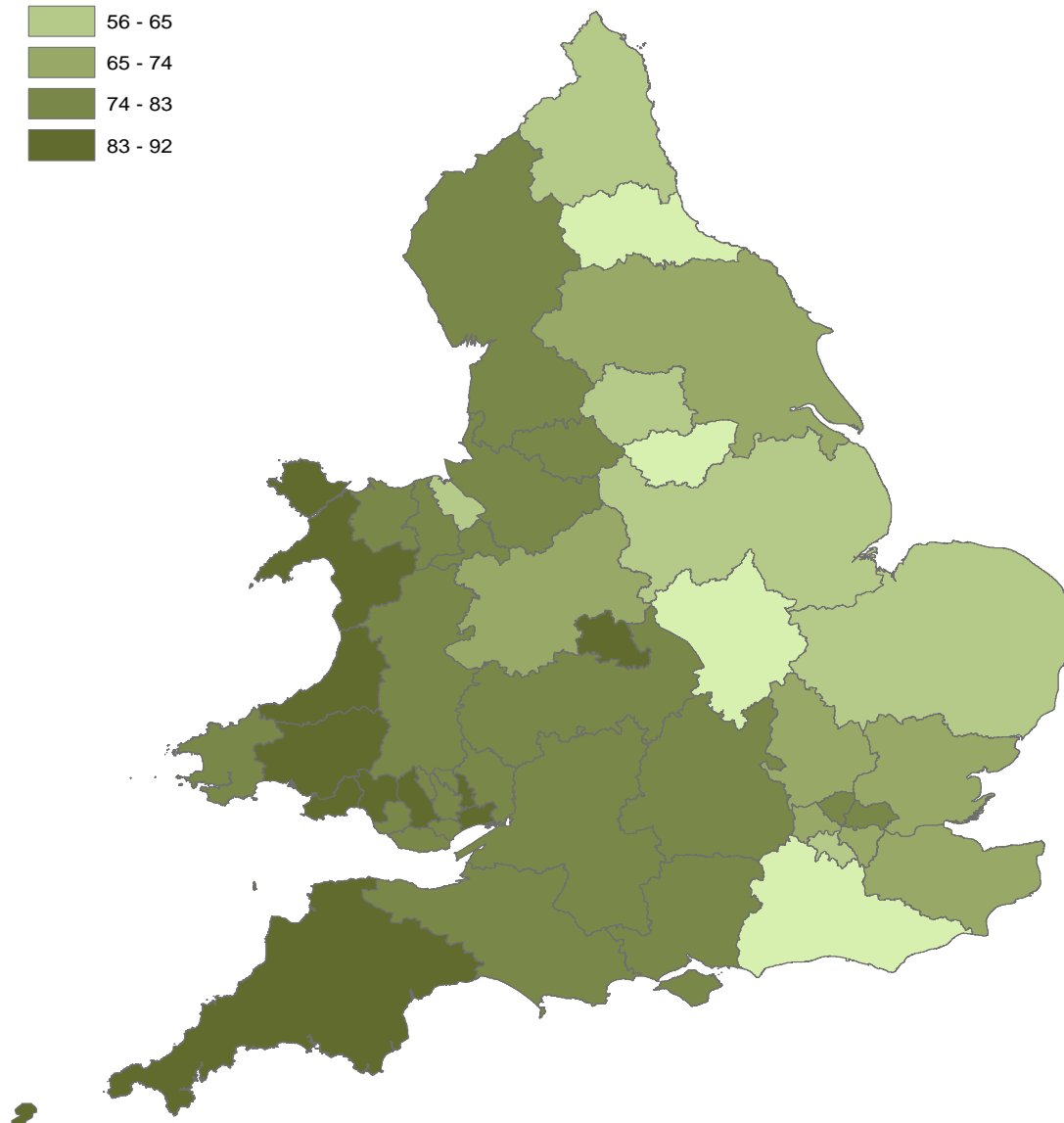
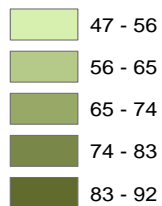
Note: Birmingham Children's Hospital did not supply intervention data for 2005



**Figure 31a Percentage of children receiving invasive ventilation  
by 2004 SHA in England and Wales, 2004 and 2006**

## Legend

Percentage of children receiving invasive ventilation



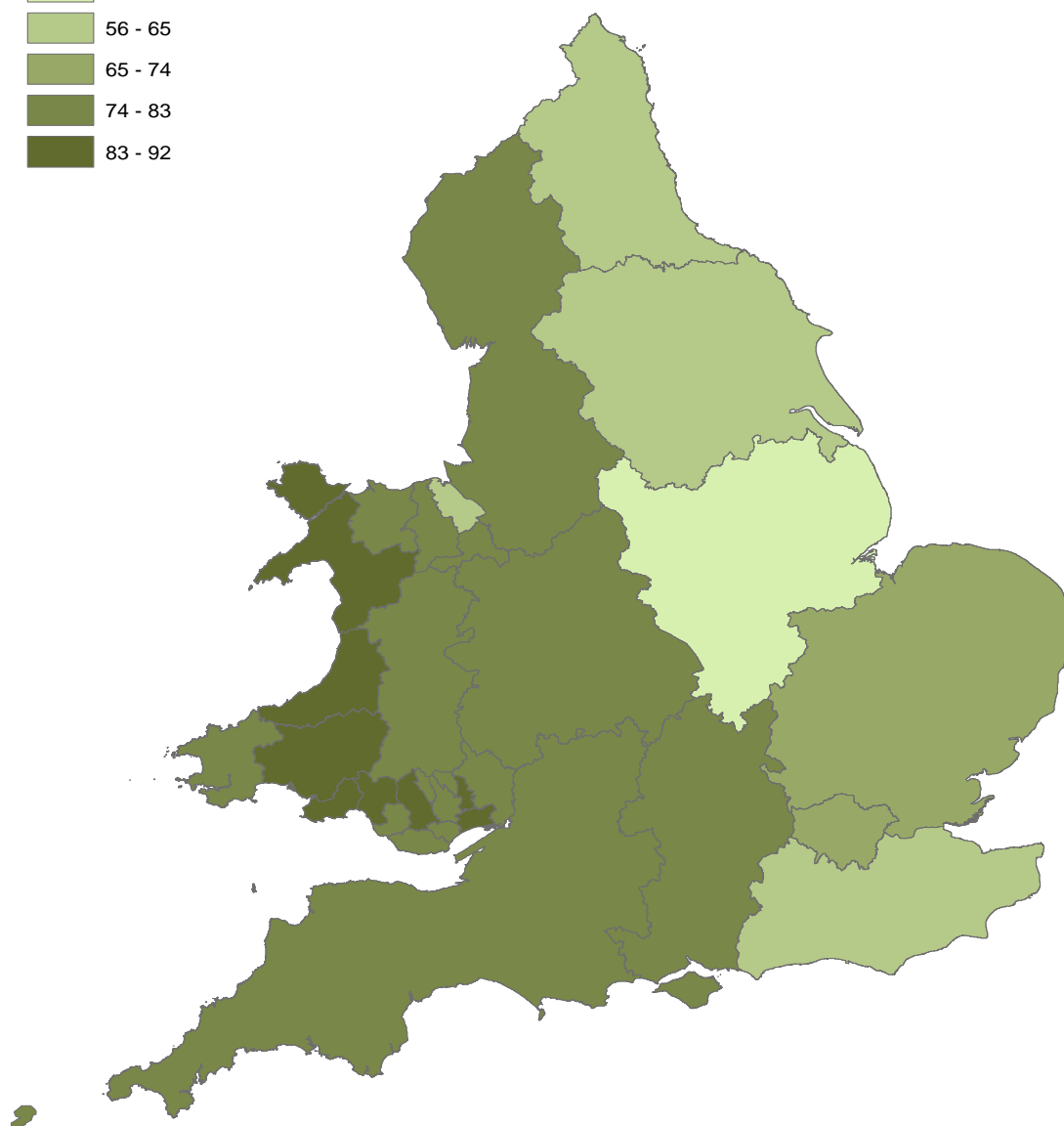
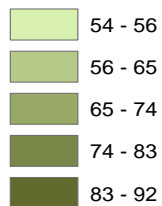
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Note: Birmingham Children's Hospital did not supply intervention data for 2005, so data for 2004 and 2006 only are presented.

**Figure 31b Percentage of children receiving invasive ventilation  
by 2006 SHA in England and Wales, 2004 and 2006**

## Legend

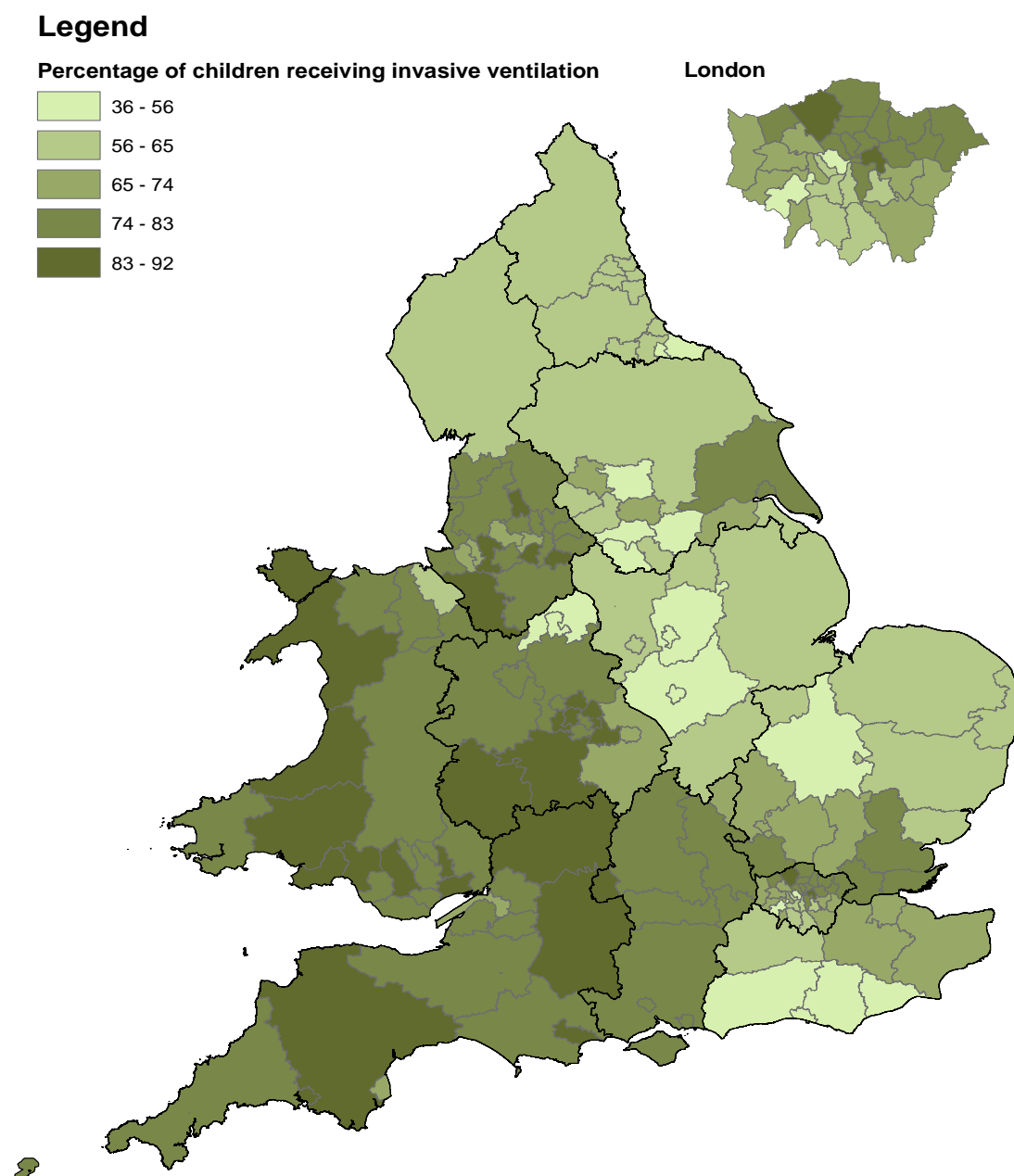
Percentage of children receiving invasive ventilation



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Note: Birmingham Children's Hospital did not supply intervention data for 2005, so data for 2004 and 2006 only are presented.

**Figure 31c Percentage of children receiving invasive ventilation  
by 2006 PCO in England and Wales, 2004 and 2006**



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Note: Birmingham Children's Hospital did not supply intervention data for 2005, so data for 2004 and 2006 only are presented.

Table 32 Bed days by age and sex, 2004 - 2006

Age (Years)	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
0	79,948	(58)	56,949	(42)	48	(0)	186	(0)	137,131	(56.4)
1	13,457	(53)	11,804	(47)	5	(0)	26	(0)	25,292	(10.4)
2	5,984	(47)	6,821	(53)	0	(0)	14	(0)	12,819	(5.3)
3	5,257	(57)	3,850	(42)	35	(0)	5	(0)	9,147	(3.8)
4	3,188	(52)	2,921	(48)	0	(0)	4	(0)	6,113	(2.5)
5	3,210	(57)	2,457	(43)	0	(0)	12	(0)	5,679	(2.3)
6	2,624	(55)	2,128	(45)	1	(0)	3	(0)	4,756	(2.0)
7	2,212	(44)	2,798	(56)	0	(0)	2	(0)	5,012	(2.1)
8	2,145	(58)	1,562	(42)	0	(0)	0	(0)	3,707	(1.5)
9	2,112	(54)	1,825	(46)	0	(0)	0	(0)	3,937	(1.6)
10	2,237	(56)	1,745	(44)	0	(0)	0	(0)	3,982	(1.6)
11	2,309	(55)	1,896	(45)	0	(0)	0	(0)	4,205	(1.7)
12	2,894	(58)	2,102	(42)	0	(0)	0	(0)	4,996	(2.1)
13	3,252	(60)	2,177	(40)	0	(0)	4	(0)	5,433	(2.2)
14	3,274	(55)	2,667	(45)	0	(0)	5	(0)	5,946	(2.4)
15	2,609	(54)	2,233	(46)	0	(0)	0	(0)	4,842	(2.0)
Total	136,712	(56.3)	105,935	(43.6)	89	(0.0)	261	(0.1)	242,997	

Figure 32 Bed days by age and sex, 2004 - 2006

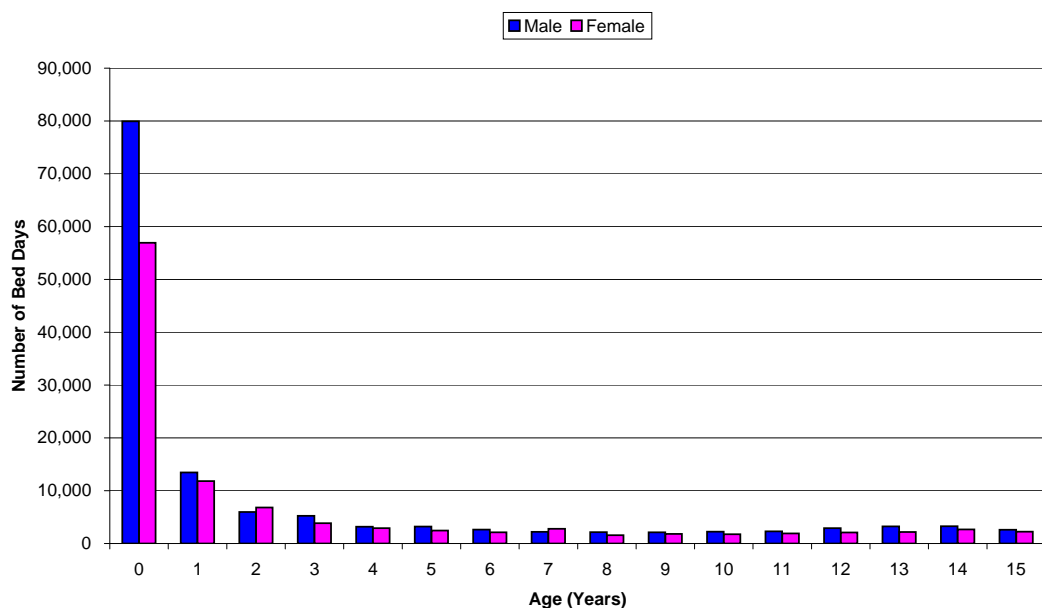


Table 33 Bed days by age by NHS trust, 2004 - 2006

		Age Group (Years)									
Year	NHS Trust	<1		1-4		5-10		11-15		Total	
		n	%	n	%	n	%	n	%	n	%
2004	A	743	(36)	557	(27)	452	(22)	327	(16)	2,079	(2.6)
	B	233	(43)	154	(29)	80	(15)	72	(13)	539	(0.7)
	C	784	(54)	307	(21)	166	(11)	201	(14)	1,458	(1.8)
	D	2,153	(57)	781	(21)	356	(9)	507	(13)	3,797	(4.7)
	E	7,887	(61)	2,504	(20)	965	(8)	1,479	(12)	12,835	(16.0)
	F	3,401	(67)	945	(19)	433	(9)	303	(6)	5,082	(6.3)
	G	43	(25)	53	(31)	44	(26)	32	(19)	172	(0.2)
	H	474	(29)	601	(37)	338	(21)	221	(14)	1,634	(2.0)
	I	2,817	(57)	1,080	(22)	552	(11)	478	(10)	4,927	(6.1)
	J	99	(53)	47	(25)	24	(13)	18	(10)	188	(0.2)
	K	3,720	(69)	624	(11)	594	(11)	489	(9)	5,427	(6.7)
	L	574	(43)	444	(33)	145	(11)	164	(12)	1,327	(1.7)
	M	678	(41)	403	(25)	284	(17)	272	(17)	1,637	(2.0)
	N	1,080	(57)	472	(25)	104	(5)	253	(13)	1,909	(2.4)
	O	2,201	(62)	844	(24)	338	(9)	177	(5)	3,560	(4.4)
	P	4,039	(63)	1,469	(23)	396	(6)	483	(8)	6,387	(7.9)
	Q	1,937	(56)	896	(26)	286	(8)	344	(10)	3,463	(4.3)
	R	1,777	(54)	619	(19)	285	(9)	583	(18)	3,264	(4.1)
	S	287	(27)	155	(15)	90	(9)	513	(49)	1,045	(1.3)
	T	648	(38)	539	(31)	200	(12)	327	(19)	1,714	(2.1)
	U	1,509	(50)	849	(28)	442	(15)	209	(7)	3,009	(3.7)
	V	3,420	(57)	1,370	(23)	668	(11)	577	(10)	6,035	(7.5)
	W	3,106	(67)	680	(15)	536	(12)	293	(6)	4,615	(5.7)
	X	2,637	(62)	698	(16)	393	(9)	522	(12)	4,250	(5.3)
	Y	33	(52)	15	(23)	7	(11)	9	(14)	64	(0.1)
2004 Total		46,280	(57.6)	17,106	(21.3)	8,178	(10.2)	8,853	(11.0)	80,417	
2005	A	731	(38)	379	(20)	611	(32)	207	(11)	1,928	(2.4)
	B	219	(38)	144	(25)	52	(9)	163	(28)	578	(0.7)
	C	690	(48)	368	(26)	178	(12)	200	(14)	1,436	(1.8)
	D	1,696	(45)	875	(23)	574	(15)	600	(16)	3,745	(4.6)
	E	6,419	(60)	2,251	(21)	1,239	(12)	821	(8)	10,730	(13.2)
	F	3,385	(63)	1,208	(23)	453	(8)	295	(6)	5,341	(6.6)
	G	61	(30)	69	(34)	28	(14)	44	(22)	202	(0.2)
	H	781	(45)	462	(26)	192	(11)	317	(18)	1,752	(2.2)
	I	2,550	(54)	1,204	(26)	474	(10)	489	(10)	4,717	(5.8)
	J	101	(52)	50	(26)	23	(12)	22	(11)	196	(0.2)
	K	3,760	(68)	994	(18)	390	(7)	407	(7)	5,551	(6.8)
	L	735	(51)	271	(19)	196	(14)	229	(16)	1,431	(1.8)
	M	803	(36)	749	(34)	325	(15)	328	(15)	2,205	(2.7)
	N	845	(52)	373	(23)	174	(11)	219	(14)	1,611	(2.0)
	O	3,184	(75)	634	(15)	249	(6)	168	(4)	4,235	(5.2)
	P	4,031	(63)	1,457	(23)	418	(7)	483	(8)	6,389	(7.9)
	Q	1,842	(47)	1,046	(27)	623	(16)	436	(11)	3,947	(4.9)
	R	1,730	(54)	511	(16)	458	(14)	483	(15)	3,182	(3.9)
	S	466	(45)	170	(16)	88	(8)	319	(31)	1,043	(1.3)
	T	441	(26)	602	(35)	354	(21)	299	(18)	1,696	(2.1)
	U	1,260	(48)	853	(32)	390	(15)	131	(5)	2,634	(3.2)
	V	3,500	(56)	1,616	(26)	550	(9)	573	(9)	6,239	(7.7)
	W	2,081	(49)	993	(24)	848	(20)	303	(7)	4,225	(5.2)
	X	2,782	(69)	584	(14)	387	(10)	290	(7)	4,043	(5.0)
	Y	993	(47)	424	(20)	356	(17)	318	(15)	2,091	(2.6)
2005 Total		45,086	(55.6)	18,287	(22.5)	9,630	(11.9)	8,144	(10.0)	81,147	
2006	A	732	(35)	436	(21)	647	(31)	289	(14)	2,104	(2.6)
	B	211	(38)	97	(17)	69	(12)	182	(33)	559	(0.7)
	C	545	(38)	350	(25)	268	(19)	262	(18)	1,425	(1.7)
	D	2,195	(52)	975	(23)	524	(12)	548	(13)	4,242	(5.2)
	E	6,963	(66)	1,820	(17)	954	(9)	871	(8)	10,608	(13.0)
	F	3,102	(61)	1,137	(22)	343	(7)	512	(10)	5,094	(6.3)
	G	37	(31)	32	(27)	26	(22)	24	(20)	119	(0.1)
	H	750	(44)	572	(34)	207	(12)	167	(10)	1,696	(2.1)
	I	2,589	(53)	1,435	(29)	458	(9)	393	(8)	4,875	(6.0)
	J	101	(65)	35	(22)	9	(6)	11	(7)	156	(0.2)
	K	3,489	(66)	850	(16)	429	(8)	481	(9)	5,249	(6.4)
	L	709	(39)	397	(22)	385	(21)	337	(18)	1,828	(2.2)
	M	534	(34)	491	(32)	245	(16)	285	(18)	1,555	(1.9)
	N	987	(57)	465	(27)	147	(8)	133	(8)	1,732	(2.1)
	O	2,737	(69)	799	(20)	302	(8)	142	(4)	3,980	(4.9)
	P	3,904	(63)	1,323	(21)	560	(9)	424	(7)	6,211	(7.6)
	Q	2,341	(58)	703	(17)	564	(14)	433	(11)	4,041	(5.0)
	R	1,961	(63)	462	(15)	264	(8)	437	(14)	3,124	(3.8)
	S	307	(33)	171	(19)	330	(36)	115	(12)	923	(1.1)
	T	696	(35)	569	(28)	400	(20)	352	(17)	2,017	(2.5)
	U	1,096	(47)	696	(30)	354	(15)	175	(8)	2,321	(2.9)
	V	3,816	(57)	1,781	(26)	477	(7)	647	(10)	6,721	(8.3)
	W	2,346	(54)	1,005	(23)	571	(13)	450	(10)	4,372	(5.4)
	X	2,644	(64)	803	(19)	378	(9)	308	(7)	4,133	(5.1)
	Y	973	(41)	574	(24)	354	(15)	447	(19)	2,348	(2.9)
2006 Total		45,765	(56.2)	17,978	(22.1)	9,265	(11.4)	8,425	(10.3)	81,433	
Grand Total		137,131	(56.4)	53,371	(22.0)	27,073	(11.1)	25,422	(10.5)	242,997	

Table 34 Bed census by month, 2004 - 2006

Year	Month	Number in PICU	
		Median	IQR
2004	1	200	194-212
	2	189	183-202
	3	183	176-192
	4	195	186-201
	5	184	174-189
	6	187	179-197
	7	169	165-178
	8	163	150-170
	9	158	142-168
	10	178	172-184
	11	190	179-198
	12	209	204-217
2005	1	190	185-198
	2	190	181-198
	3	184	179-191
	4	186	178-194
	5	185	179-193
	6	185	181-192
	7	176	169-182
	8	174	168-189
	9	166	157-175
	10	180	171-189
	11	196	185-206
	12	216	208-221
2006	1	200	193-208
	2	207	196-210
	3	202	194-206
	4	183	172-190
	5	185	177-195
	6	175	172-183
	7	176	169-184
	8	174	165-178
	9	171	164-178
	10	174	167-183
	11	194	183-206
	12	205	202-213

Figure 34 Bed census by month, 2004 - 2006

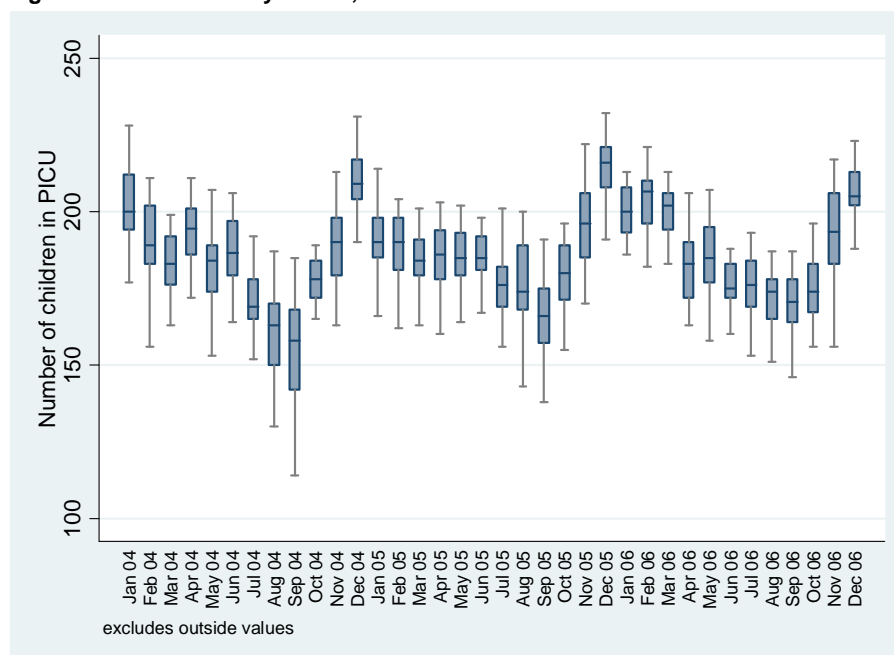


Table 35 Bed census by NHS trust, 2004 - 2006

Year	NHS Trust	Number in PICU	
		Median	IQR
2004	A	5	3-6
	B	1	0-1
	C	3	2-4
	D	9	7-11
	E	31	29-34
	F	11	9-13
	G	0	0-1
	H	4	3-5
	I	11	10-13
	J	0	0-1
	K	13	11-14
	L	3	2-4
	M	4	2-5
	N	4	3-5
	O	8	7-10
	P	15	13-17
	Q	8	7-10
	R	8	6-9
	S	2	2-3
	T	4	3-5
	U	7	5-8
	V	13	12-14
	W	12	10-13
	X	9	7-10
	Y	0	0-0
2005	A	4	3-5
	B	1	0-1
	C	3	2-5
	D	9	7-10
	E	26	24-28
	F	12	10-14
	G	0	0-1
	H	4	3-5
	I	11	9-12
	J	0	0-0
	K	13	12-15
	L	3	2-4
	M	5	4-6
	N	4	3-5
	O	10	9-11
	P	15	13-17
	Q	9	8-11
	R	7	6-9
	S	3	2-3
	T	4	3-5
	U	6	4-7
	V	14	12-15
	W	10	9-12
	X	8	7-10
	Y	5	3-6
2006	A	5	4-5
	B	1	0-1
	C	3	2-4
	D	11	9-12
	E	25	23-27
	F	11	9-13
	G	0	0-0
	H	4	3-5
	I	11	9-13
	J	0	0-0
	K	12	11-14
	L	4	3-5
	M	4	3-5
	N	4	3-5
	O	9	8-11
	P	15	12-17
	Q	10	9-11
	R	7	6-8
	S	2	1-3
	T	5	3-6
	U	5	4-7
	V	15	14-16
	W	11	8-13
	X	9	8-10
	Y	6	4-7

Figure 35a Bed census by NHS trust, 2004

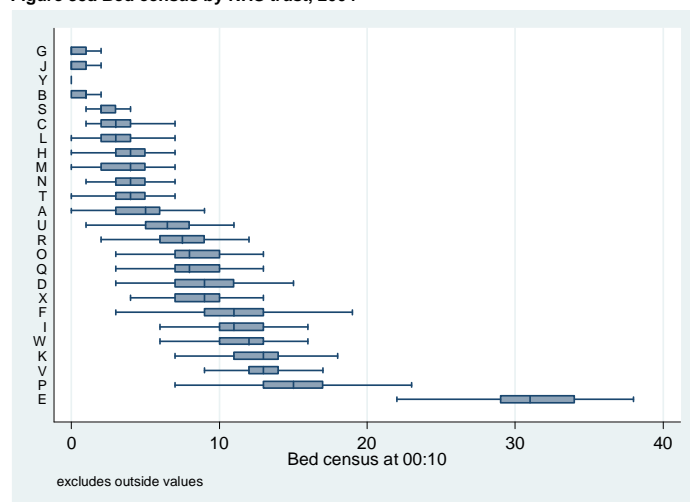


Figure 35b Bed census by NHS trust, 2005

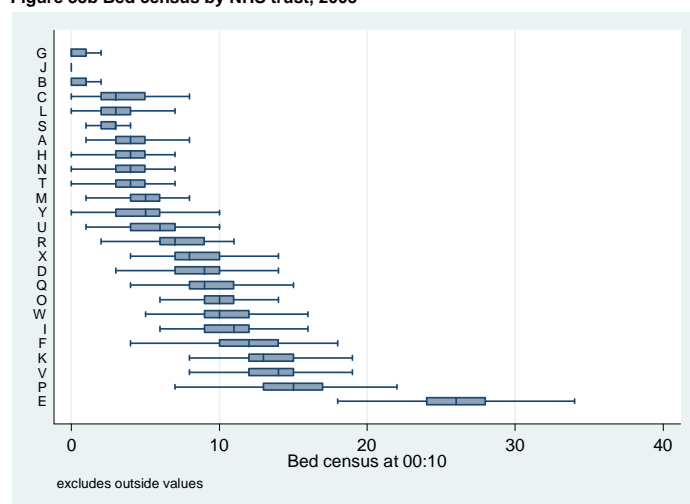
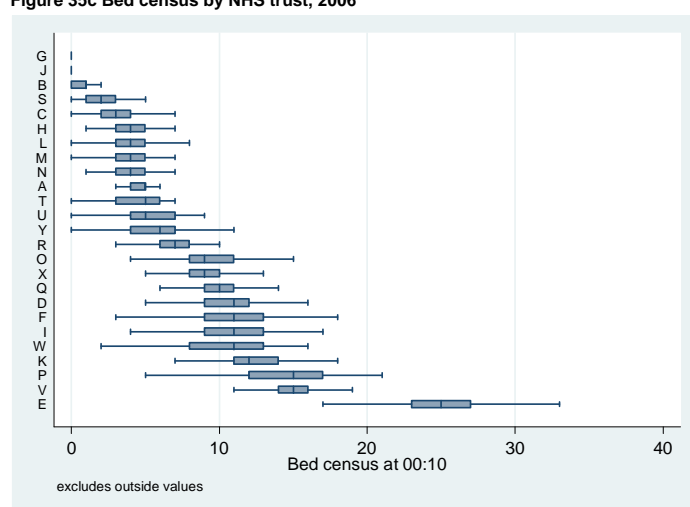


Figure 35c Bed census by NHS trust, 2006



**Table 36 Bed activity by month, 2004 - 2006**

Year	Month	Bed Activity (Days)	
		Median	IQR
2004	1	238	228-252
	2	224	215-238
	3	218	205-227
	4	227	216-238
	5	212	201-222
	6	223	205-235
	7	200	189-208
	8	194	173-202
	9	189	172-204
	10	211	197-214
	11	225	213-234
	12	242	233-253
2005	1	223	215-233
	2	231	216.5-240
	3	219	206-230
	4	220	207-229
	5	215	203-227
	6	222	211-227
	7	208	196-220
	8	206	191-224
	9	200	186-213
	10	213	195-222
	11	233	221-248
	12	251	238-260
2006	1	240	226-247
	2	249	231-257
	3	234	224-249
	4	217	204-231
	5	218	204-232
	6	208	198-215
	7	207	189-217
	8	206	188-212
	9	203	192-211
	10	210	200-224
	11	227	218-243
	12	240	226-251

**Figure 36 Bed activity by month, 2004 - 2006**

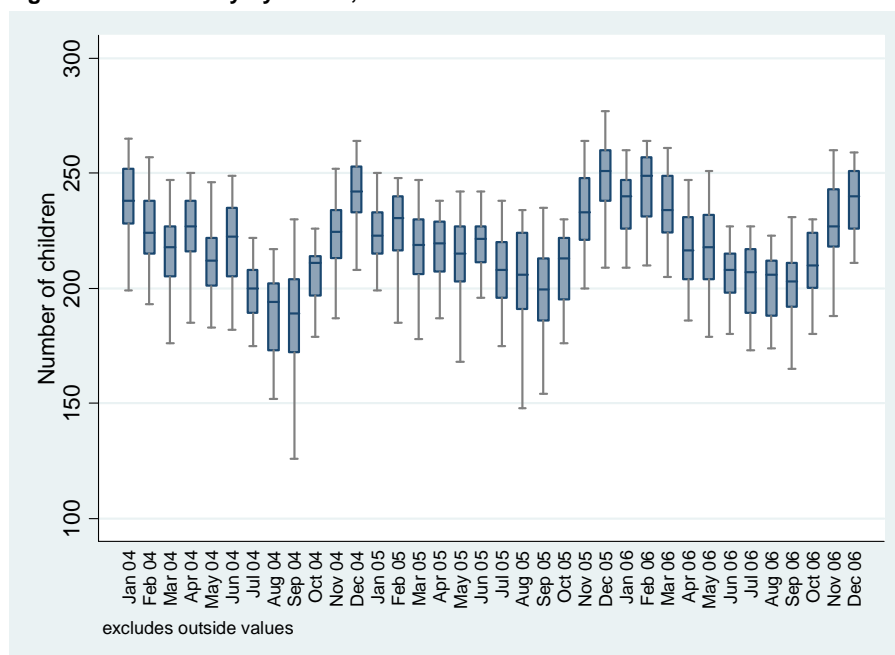




Table 37 Bed activity by NHS trust, 2004 - 2006

Year	NHS Trust	Bed Activity (Days)	
		Median	IQR
2004	A	6	5-7
	B	1	1-2
	C	4	3-5
	D	10	9-13
	E	34	31-36
	F	14	11-16
	G	0	0-1
	H	4	3-6
	I	13	12-15
	J	0	0-1
	K	15	13-16
	L	4	3-5
	M	5	3-6
	N	5	4-6
	O	8	6-9
	P	18	15-20
	Q	10	8-11
	R	9	7-10
	S	3	2-4
	T	5	4-6
	U	8	5-9
	V	15	14-17
	W	13	12-15
	X	11	9-13
	Y	0	0-0
2005	A	5	4-6
	B	2	1-2
	C	4	2-6
	D	10	9-12
	E	29	26-31
	F	15	12-17
	G	0	0-1
	H	4	3-6
	I	13	11-15
	J	0	0-1
	K	15	14-17
	L	4	3-5
	M	6	5-7
	N	4	4-5
	O	10	8-12
	P	17	15-20
	Q	11	10-12
	R	9	7-10
	S	3	2-4
	T	5	4-6
	U	7	6-8
	V	16	14-17
	W	12	10-14
	X	11	9-12
	Y	6	5-8
2006	A	6	5-7
	B	1	0-2
	C	4	3-5
	D	12	10-14
	E	28	25-30
	F	14	11-16
	G	0	0-1
	H	4	3-5
	I	13	11-16
	J	0	0-1
	K	14	13-17
	L	5	4-6
	M	5	4-6
	N	5	4-6
	O	9	7-11
	P	18	15-20
	Q	11	10-13
	R	9	8-10
	S	3	2-3
	T	6	5-7
	U	6	5-8
	V	17	16-19
	W	12	10-15
	X	11	10-13
	Y	7	5-9

Figure 37a Bed activity by NHS trust, 2004

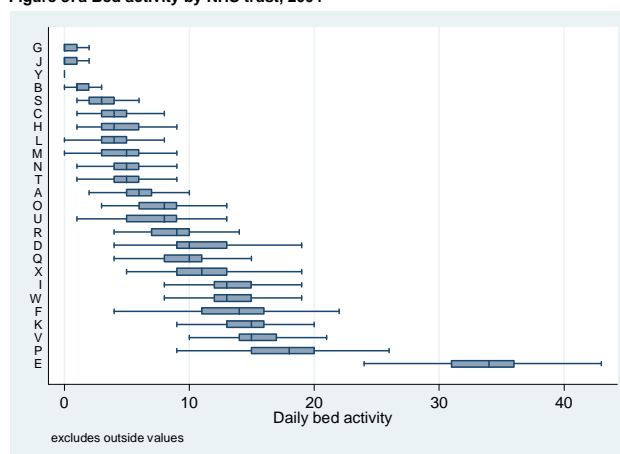


Figure 37b Bed activity by NHS trust, 2005

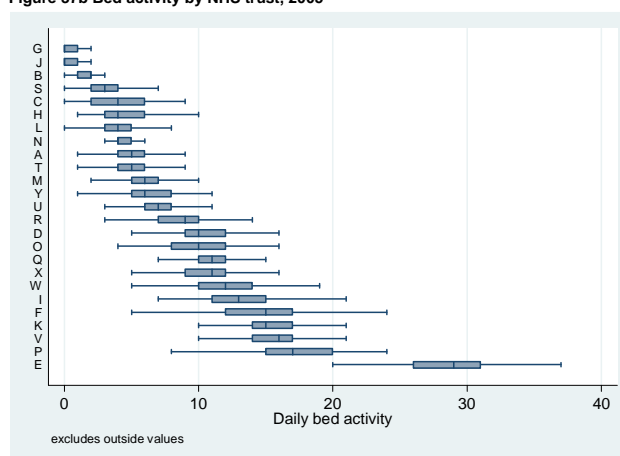


Figure 37c Bed activity by NHS trust, 2006

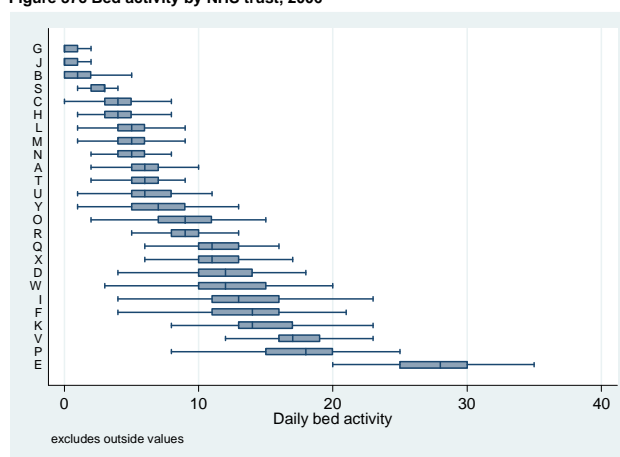


Table 38 Length of stay by age and NHS trust, 2004 - 2006

Year	NHS Trust	Age Group (Years)							
		<1		1-4		5-10		11-15	
		Median	IQR	Median	IQR	Median	IQR	Median	IQR
2004	A	3	2-6	3	2-5	2	2-5	2	2-3
	B	1	1-2	2	1-3	2	1-2	2	1-2
	C	3.5	2-6	4	2-7	2.5	2-5	2	2-3
	D	4	2-7	3	2-6	2	2-5.5	3	2-5
	E	5	3-9	3	2-5	2	2-5	2	2-6
	F	4	2-6	2	2-4	3	2-5	2	2-3
	G	1	1-6	2	2-6.5	3	3-7	3	2-4
	H	3	2-6	2.5	2-5	3	2-5	3	2-5
	I	4	2-7	2	2-4	2	2-4	2	2-4
	J	2	2-3	2	2-2	2	1-2	1	1-2
	K	4	2-8	2	2-5	3	2-4	2	2-5
	L	3	2-6	2	2-5	2	2-3.5	2	2-3
	M	4	2-6	2	2-4	2	2-5	2	2-4
	N	3	2-6	3	2-5	2	2-3	3	2-7
	O	5	2-8	3	2-5	2	2-3	2	2-5
	P	5	2-8	2	2-7	2	2-4	2	2-4
	Q	4	2-7	3	2-7	2	2-4	2	2-4
	R	3	2-5	2	2-4	2	2-4	2	2-6.5
	S	3	2-6	2	1-3	2	2-3	2	2-4
	T	2.5	2-4	2	2-5	2	2-4	3	2-5
	U	5	3-9	3	2-8	2.5	2-5	3	2-5
	V	4	2-8	2	2-4	2	2-6	2.5	2-5
	W	4	3-8	3	2-5	2.5	2-5	3	2-4
	X	3	1-6	2	1-3	1	1-2	2	1-3
	Y	4	3-5	3.5	2-5	2	1-4	4.5	2-7
2005	A	3	2-5	2	2-4	2	2-4	2	2-3
	B	2	1-3	2	1-2.5	2	1-2	2	1-3
	C	4	2-7	3	2-8	2	2-5	2	2-4
	D	4	2-7	4	2-7	3	2-5	3	2-7
	E	5	3-8	3	2-6	3	2-5	3	2-7
	F	4	2-6	3	2-4	3	2-4	2	2-3.5
	G	3.5	2-6	6	2-8	2.5	2-4	2	2-3
	H	3	2-5	2	2-4	2	2-4	3	2-6
	I	3	2-6	2	2-5	2	2-3	2	2-4
	J	2	1-2	2	1-2.5	2	1-2	2	1-3
	K	3	2-8	2	2-5	2	2-3	2	2-3
	L	4	3-8	2	2-5	2	1-4.5	2	2-3
	M	3	2-7	2	2-6	3	2-4	2	2-4
	N	4	2-7	2	2-4	2	2-4	2	2-7
	O	4	2-8	3	2-4	2	2-3	2	2-3.5
	P	4	2-7	2	2-5	2	2-3	2	2-5
	Q	4	2-7	2	2-5	2	2-5	2	2-3.5
	R	3	2-5	2	2-4	3	2-6	2	2-3
	S	3	2-8	2	1-4	2	2-3.5	2	2-3
	T	2	2-5	2	2-3	2	2-4	2	2-4
	U	4	2-8	3	2-6	3	2-4	2	2-4
	V	4	2-8	2	2-4	2	2-4	3	2-4
	W	4	3-7	3	2-5	3	2-6	2	2-3
	X	3	1-7	2	1-3	2	1-3	2	1-2
	Y	4	3-7	3	2-6	3	2-5.5	3	2-4
2006	A	3	2-6	2	2-3	2	2-5	2.5	2-4
	B	2	1-3	2	1-2	2	1-2	2	1-3
	C	4	2-7	2	2-5	2	2-5	2	2-3
	D	5	2-9	3	2-7	3	2-8	3	2-6
	E	5	3-8	3	2-6	3	2-7	3	2-6
	F	4	3-6	3	2-4	2	2-4	2	2-3
	G	4	1-6	3	1-4	3	2-3	3	2-5
	H	3	2-9	2	2-6	2	2-4	2	2-4
	I	4	2-6	2	2-4	2	2-3	2	2-3
	J	2	1-3	2	1-2	1	1-2	2	2-2
	K	4	2-7	3	2-5	2	2-3	2	2-3
	L	3.5	2-6.5	3	2-6	2	2-3.5	2	2-3
	M	3	2-5	2	2-4	2	2-3	2	2-4
	N	4	2-7	3	2-5.5	2	2-3	2	2-4
	O	4	2-7	3	2-6	2	2-3	2	2-3
	P	3	2-6	2	2-4	2	2-3	2	2-4
	Q	4	2-7	2	2-5	3	2-5	2	2-5
	R	2	2-5	2	2-5	2	2-3	2	2-4
	S	4	2-6	2	2-3	2	1-3	2	2-4
	T	3	2-6	2	2-4	3	2-4	3	2-6
	U	5	3-7	3	2-6	3	2-5	3	2-6
	V	4	2-7	2	2-5	2	2-3	2	2-5
	W	4	3-8	3	2-6	3	2-6	4	2-7
	X	3	1-7	2	1-3	1	1-2	2	1-3
	Y	4	2-6.5	3	2-5	3	2-5	2	2-4

Table 39 Length of stay by primary diagnostic group and NHS trust, 2004 - 2006

NHS Trust	Blood / lymphatic		Body wall and cavities		Cardiovascular		Endocrine / metabolic		Gastrointestinal		Infection		Diagnostic Group Multisystem		Musculoskeletal		Neurological		Oncology		Respiratory		Trauma		Other		Unknown	
	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR	Median	IQR
A	2	1-5	2	1-4	3	2-4.5	2	2-4	2	2-3	4	2-6	3	2-8	2	2-3	2	2-4	2	2-4	4	2-7	3	2-5	2	2-4	2	1-5
B	2	1.5-2.5	1	1-1	1	1-2	2	1.5-2	2	1-3	2	1-2	2	2-2	2	1-2	2	1-3	1	1-3	2	1-3	1	1-2	2	1-2	1	1-3
C	3	2-7	2	2-5	3	2-6	3	2-7	3	2-4	4	3-7	4	2-20	2	2-2	2	2-4	2	2-3	4	2-8	2	2-5	2	2-3	0	0-0
D	4	2-11.5	2	1-4	3	2-7	5	2-8	3	2-5	4	2-8	4	2-6	2	2-4	2	2-5	2	2-4	5	3-9	3	2-7	2	2-4	0	0-0
E	4	2-9	6	3-11	4	2-7	4	2-8	4	2-10	4	2-7	4	1-7	2	2-2.5	3	2-5	3	2-6	5	3-9	3	2-6	3	2-6	0	0-0
F	3	2.5-5.5	2	1-5	3	2-5	2	2-3	2	2-5	3	2-6	5	4-12	2	2-2	2	2-3	2	2-2	4	3-7	2.5	2-4	2	2-3	2.5	2-4
G	0	0-0	0	0-0	1.5	1-5	1.5	1-2	1	1-2	2	1-7	0	0-0	0	0-0	4	2-7	1	1-2	3	1.5-5	2.5	2-4.5	2.5	2-3.5	0	0-0
H	2	1-5	2	1-3	3.5	2-6	3	2-5	3	2-5	4	2-7	0	0-0	2	2-3	3	2-5	3	2-4	4	2-8	2	2-5	2	2-3	6	6-6
I	2.5	1-5.5	3	2-4	3	2-5	2	1-4	3	2-4	4	2-7	25	2-44	2	2-2	2	2-3	2	2-3	4	2-7	2	2-4	3	2-5	3	2-3
J	2	1-2	2	1-3	1	1-1	2	1-3	2	2-3	2	1-3	0	0-0	0	0-0	1	1-2	1.5	1-2	2	1-3	2	1-3	2	1-2	3	2-4
K	5	2-17	5	2-12	3	2-7	2	2-6	3	2-6	3	2-5	5	2-9	2	2-3	2	2-3	2	2-3	4	2-8	2	2-4	2	2-4	1	1-1
L	4	2.5-4	2	2-3	3	2-5	3.5	2-6.5	2	1-2	4	2-5.5	0	0-0	2	2-3	2	2-4	2.5	2-3	3	2-7	2.5	2-3	2	2-3	1	1-1
M	5.5	4-8	2	2-4	3	2-6	2	2-3	2	2-3.5	4	2-5	10	2-18	2	2-3	2	2-4	2	2-3	3	2-6	3	2-7	2	2-4	0	0-0
N	1.5	1-2	6	2-13	3	2-5	4	3-10	3	2-7	3.5	2-6.5	2	1.5-2.5	2	2-2	2	2-4	2	2-3	5	2-8	3	2-6	2	2-4	3	3-3
O	0	0-0	4	2.5-10	3	2-6	3	2-4	3	2-15	2	1-9	0	0-0	2	2-9	6.5	2-9	2	2-3	3	2-7	2	2-2	2	1-3	7	3-13
P	5	2-9	4	2-8	3	2-5	4	2-7	3	2-5	4	2-7	2.5	1.5-3.5	2	2-2	2	2-4	2	2-4	5	3-9	2	2-5	2	2-5	4	4-51
Q	2	1.5-6.5	6	4-9	3	2-9	2	2-5	3	2-5	4	2-6	0	0-0	2	2-3	3	2-5	2	2-3	3	2-7	3	2-7	2	2-4	2	1.5-2
R	1	1-4	2	1-3	2	2-4	2	1.5-4	2	2-3	3	2-5	4	1-4	2	2-2	2	2-5	2	1-3	4	2-7	3	2-9	2	1-3.5	0	0-0
S	2	2-2	0	0-0	2	1-3	2	2-3	2	1-3	3	2-5	0	0-0	2	2-3	2	2-3	0	0-0	3	2-7	3	2-7	2	1-3	0	0-0
T	2	2-3	2	2-2	2	2-3	3.5	2.5-5	2	2-3	3	2-6	2	2-2.5	3	2-4	2	2-3	2	2-3	3	2-7	2.5	2-5	2	2-2.5	13	13-13
U	2	2-5	3	3-8	3	2-6	3	2-6	3	2-6	6	4-10	0	0-0	0	0-0	2	2-3	1	1-1	4	2-9	2	2-2	2	1-4	5	3-9
V	3	2-6	4	2-6	3	2-6	3	2-6.5	3	2-7	3	2-7	3	2-3	2	2-2	2	2-5	3	2-5	4	2-8	3	2-8	2	2-5	2	2-4
W	5	2-8	4	2-6	3	2-5	3	2-4	3	2-8	4	2-7	0	0-0	2	2-5	3	2-7	3	2-4	5	3-8	5	2-9	3	2-4	3	2-3
X	2	1-3	6	2-10	2	1-3	2	1.5-3.5	3	2-4	2	1-5	3.5	2-12	2	1-3	2	2-4	3	2-4	5	2-8	2	1-2	2	2-3	1.5	1-6
Y	0	0-0	5	3-8	4	2-8	2	1-3.5	4	2-6	4	2-7	3	2-3	2	2-3	3	2-4	3	2-4	4	2-7	3	2-5.5	3	2-6	0	0-0

Table 40 Admissions by length of stay by NHS trust, 2004 - 2006

Table 40 Admissions by length of stay by NHS trust, 2004 - 2006																
Year	NHS Trust	LOS Group												Total		
		<1h n %	1h to <4h n %	4h to <12h n %	12h to <24h n %	1d to <3d n %	3d to <7d n %	7d+ n %	Unknown n %							
2004	A	1 (0)	18 (4)	48 (11)	81 (18)	156 (35)	76 (17)	63 (14)	0 (0)	443 (3.2)						
	B	5 (2)	59 (21)	66 (23)	69 (24)	71 (25)	13 (5)	2 (1)	0 (0)	285 (2.1)						
	C	0 (0)	3 (1)	14 (5)	58 (22)	88 (33)	65 (25)	36 (14)	0 (0)	264 (1.9)						
	D	0 (0)	15 (3)	43 (7)	123 (21)	155 (27)	135 (23)	113 (19)	0 (0)	584 (4.2)						
	E	0 (0)	42 (2)	117 (7)	263 (15)	532 (30)	425 (24)	399 (22)	0 (0)	1,778 (12.8)						
	F	0 (0)	27 (2)	81 (7)	165 (14)	470 (40)	310 (27)	112 (10)	0 (0)	1,165 (8.4)						
	G	0 (0)	2 (5)	11 (25)	5 (11)	13 (30)	10 (23)	3 (7)	0 (0)	44 (0.3)						
	H	0 (0)	13 (4)	31 (10)	52 (17)	103 (33)	60 (19)	49 (16)	0 (0)	308 (2.2)						
	I	1 (0)	21 (2)	42 (5)	205 (24)	274 (32)	177 (21)	131 (15)	8 (1)	859 (6.2)						
	J	0 (0)	4 (5)	19 (23)	22 (27)	32 (39)	3 (4)	2 (2)	0 (0)	82 (0.6)						
	K	0 (0)	41 (5)	84 (10)	158 (18)	244 (28)	192 (22)	164 (19)	0 (0)	883 (6.4)						
	L	0 (0)	9 (4)	16 (7)	55 (24)	74 (33)	42 (19)	30 (13)	0 (0)	226 (1.6)						
	M	0 (0)	6 (2)	27 (7)	100 (27)	114 (31)	84 (23)	42 (11)	0 (0)	373 (2.7)						
	N	1 (0)	10 (3)	29 (9)	65 (19)	113 (34)	69 (20)	50 (15)	0 (0)	337 (2.4)						
	O	5 (1)	13 (2)	30 (5)	72 (13)	198 (36)	128 (23)	107 (19)	0 (0)	553 (4.0)						
	P	2 (0)	19 (2)	59 (6)	168 (17)	303 (31)	228 (23)	203 (21)	0 (0)	982 (7.1)						
	Q	0 (0)	3 (1)	43 (8)	135 (25)	152 (28)	124 (23)	90 (16)	0 (0)	547 (4.0)						
	R	1 (0)	29 (5)	50 (9)	148 (25)	176 (30)	109 (19)	72 (12)	0 (0)	585 (4.2)						
	S	0 (0)	4 (2)	21 (13)	40 (24)	54 (32)	30 (18)	18 (11)	0 (0)	167 (1.2)						
	T	0 (0)	12 (3)	28 (8)	74 (20)	146 (40)	55 (15)	51 (14)	0 (0)	366 (2.6)						
	U	0 (0)	8 (2)	23 (6)	60 (15)	113 (29)	95 (24)	93 (24)	0 (0)	392 (2.8)						
	V	0 (0)	13 (1)	55 (6)	228 (23)	322 (33)	174 (18)	187 (19)	4 (0)	983 (7.1)						
	W	2 (0)	13 (2)	25 (4)	97 (15)	244 (38)	141 (22)	126 (19)	0 (0)	648 (4.7)						
	X	98 (10)	151 (16)	81 (8)	141 (15)	218 (23)	137 (14)	115 (12)	23 (2)	964 (7.0)						
	Y	0 (0)	0 (0)	2 (10)	3 (15)	6 (30)	7 (35)	2 (10)	0 (0)	20 (0.1)						
2004 Total		116 (0.8)	535 (3.9)	1,045 (7.6)	2,587 (18.7)	4,371 (31.6)	2,889 (20.9)	2,260 (16.3)	35 (0.3)	13,838						
2005	A	2 (0)	13 (3)	47 (11)	96 (23)	150 (36)	72 (17)	40 (10)	0 (0)	420 (3.0)						
	B	1 (0)	20 (9)	70 (30)	50 (21)	72 (31)	15 (6)	5 (2)	0 (0)	233 (1.7)						
	C	0 (0)	2 (1)	17 (6)	76 (28)	75 (28)	55 (20)	46 (17)	0 (0)	271 (1.9)						
	D	0 (0)	7 (1)	41 (7)	92 (16)	174 (30)	142 (24)	124 (21)	0 (0)	580 (4.1)						
	E	0 (0)	24 (2)	69 (5)	190 (13)	484 (32)	417 (28)	331 (22)	0 (0)	1,515 (10.8)						
	F	1 (0)	22 (2)	70 (6)	182 (16)	437 (39)	291 (26)	120 (11)	0 (0)	1,123 (8.0)						
	G	0 (0)	3 (6)	5 (10)	12 (24)	12 (24)	10 (20)	8 (16)	0 (0)	50 (0.4)						
	H	0 (0)	13 (4)	39 (12)	73 (22)	110 (33)	52 (15)	50 (15)	0 (0)	337 (2.4)						
	I	3 (0)	18 (2)	62 (7)	183 (21)	307 (36)	174 (20)	106 (12)	0 (0)	853 (6.1)						
	J	1 (1)	6 (6)	30 (31)	27 (28)	25 (26)	7 (7)	0 (0)	0 (0)	96 (0.7)						
	K	1 (0)	31 (4)	79 (9)	201 (23)	262 (30)	147 (17)	162 (18)	1 (0)	884 (6.3)						
	L	0 (0)	11 (4)	26 (9)	56 (20)	88 (32)	49 (18)	44 (16)	0 (0)	274 (1.9)						
	M	1 (0)	2 (1)	37 (10)	89 (25)	109 (31)	62 (17)	55 (15)	0 (0)	355 (2.5)						
	N	3 (1)	5 (2)	14 (5)	58 (20)	99 (34)	70 (24)	46 (16)	0 (0)	295 (2.1)						
	O	1 (0)	17 (3)	35 (6)	94 (15)	230 (37)	128 (21)	110 (18)	0 (0)	615 (4.4)						
	P	1 (0)	24 (2)	92 (9)	235 (23)	282 (28)	205 (20)	178 (18)	0 (0)	1,017 (7.2)						
	Q	0 (0)	10 (2)	42 (7)	162 (28)	141 (24)	122 (21)	103 (18)	1 (0)	581 (4.1)						
	R	1 (0)	47 (7)	78 (12)	152 (23)	188 (28)	113 (17)	86 (13)	0 (0)	665 (4.7)						
	S	0 (0)	12 (7)	14 (8)	51 (28)	51 (28)	24 (13)	28 (16)	0 (0)	180 (1.3)						
	T	0 (0)	15 (4)	35 (8)	100 (24)	162 (39)	63 (15)	38 (9)	0 (0)	413 (2.9)						
	U	1 (0)	5 (1)	34 (8)	65 (16)	131 (32)	101 (25)	71 (17)	0 (0)	408 (2.9)						
	V	4 (0)	13 (1)	46 (5)	189 (21)	293 (32)	185 (20)	178 (20)	0 (0)	908 (6.5)						
	W	1 (0)	11 (2)	41 (6)	87 (12)	267 (38)	178 (25)	116 (17)	0 (0)	701 (5.0)						
	X	82 (9)	124 (14)	94 (11)	109 (12)	211 (24)	137 (15)	117 (13)	17 (2)	891 (6.3)						
	Y	3 (1)	11 (3)	15 (4)	92 (24)	123 (31)	92 (24)	55 (14)	0 (0)	391 (2.8)						
2005 Total		107 (0.8)	466 (3.3)	1,132 (8.1)	2,721 (19.4)	4,483 (31.9)	2,911 (20.7)	2,217 (15.8)	19 (0.1)	14,056						
2006	A	1 (0)	21 (5)	50 (11)	101 (22)	141 (31)	85 (19)	49 (11)	1 (0)	449 (3.1)						
	B	0 (0)	25 (11)	63 (28)	47 (21)	68 (30)	13 (6)	9 (4)	1 (0)	226 (1.6)						
	C	0 (0)	3 (1)	24 (8)	78 (26)	96 (32)	62 (21)	38 (13)	0 (0)	301 (2.1)						
	D	0 (0)	10 (2)	42 (7)	95 (17)	144 (25)	137 (24)	143 (25)	0 (0)	571 (4.0)						
	E	3 (0)	29 (2)	87 (5)	207 (13)	507 (32)	393 (25)	373 (23)	1 (0)	1,600 (11.2)						
	F	1 (0)	17 (2)	51 (5)	170 (16)	435 (40)	290 (27)	122 (11)	0 (0)	1,086 (7.6)						
	G	0 (0)	2 (6)	3 (8)	8 (22)	11 (31)	10 (28)	2 (6)	0 (0)	36 (0.3)						
	H	0 (0)	17 (5)	39 (12)	69 (22)	86 (27)	48 (15)	56 (18)	0 (0)	315 (2.2)						
	I	1 (0)	19 (2)	77 (8)	227 (25)	295 (32)	167 (18)	119 (13)	4 (0)	909 (6.3)						
	J	0 (0)	6 (8)	16 (22)	26 (36)	21 (29)	2 (3)	1 (1)	1 (1)	73 (0.5)						
	K	3 (0)	33 (4)	86 (9)	185 (20)	252 (28)	195 (21)	148 (16)	5 (1)	907 (6.3)						
	L	0 (0)	11 (4)	21 (7)	64 (21)	108 (36)	59 (20)	36 (12)	0 (0)	299 (2.1)						
	M	0 (0)	12 (3)	33 (8)	100 (25)	147 (36)	76 (19)	36 (9)	1 (0)	405 (2.8)						
	N	0 (0)	1 (0)	17 (6)	52 (19)	99 (36)	49 (18)	56 (20)	1 (0)	275 (1.9)						
	O	1 (0)	16 (2)	30 (5)	113 (17)	235 (36)	145 (22)	115 (18)	0 (0)	655 (4.6)						
	P	1 (0)	26 (2)	101 (9)	255 (23)	349 (32)	209 (19)	161 (15)	0 (0)	1,102 (7.7)						
	Q	0 (0)	10 (2)	34 (7)	105 (21)	164 (33)	105 (21)	83 (17)	2 (0)	503 (3.5)						
	R	1 (0)	45 (7)	67 (10)	172 (26)	186 (28)	114 (17)	71 (11)	0 (0)	656 (4.6)						
	S	0 (0)	10 (5)	21 (11)	44 (23)	57 (30)	38 (20)	17 (9)	1 (1)	188 (1.3)						
	T	1 (0)	14 (3)	27 (6)	103 (23)	152 (34)	88 (20)	57 (13)	0 (0)	442 (3.1)						
	U	0 (0)	3 (1)	26 (7)	64 (17)	111 (30)	95 (26)	68 (19)	0 (0)	367 (2.6)						
	V	0 (0)	10 (1)	67 (6)	216 (21)	327 (31)	246 (24)	176 (17)	4 (0)	1,046 (7.3)						
	W	2 (0)	7 (1)	26 (4)	70 (11)	242 (38)	154 (24)	138 (21)	3 (0)	642 (4.5)						
	X	108 (12)	110 (13)	76 (9)	110 (13)	211 (24)	131 (15)	130 (15)	1 (0)	877 (6.1)						
	Y	0 (0)	4 (1)	28 (7)	104 (26)	119 (30)	83 (21)	59 (15)	0 (0)	397 (2.8)						
2006 Total		123 (0.9)	461 (3.2)	1,112 (7.8)	2,785 (19.4)	4,563 (31.8)	2,994 (20.9)	2,263 (15.8)	26 (0.2)	14,327						
Grand Total		346 (0.8)	1,462 (3.5)	3,289 (7.8)	8,093 (19.2)	13,417 (31.8)	8,794 (20.8)	6,740 (16.0)	80 (0.2)	42,221						

**Table 41 Admissions by unit discharge status and age, 2004 - 2006**

Unit discharge Status	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Alive	19,084	(48)	10,105	(25)	5,648	(14)	5,217	(13)	40,054	(94.9)
Dead	1,140	(53)	442	(20)	274	(13)	301	(14)	2,157	(5.1)
Unknown	5	(50)	2	(20)	1	(10)	2	(20)	10	-
Total	20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	

**Table 42 Admissions by unit discharge status and age (<1), 2004 - 2006**

Unit discharge Status	Age Group (Months)								Total	
	<1		1-2		3-5		6-11			
	n	%	n	%	n	%	n	%	n	%
Alive	6,608	(35)	4,488	(24)	3,813	(20)	4,175	(22)	19,084	(94.3)
Dead	514	(45)	226	(20)	193	(17)	207	(18)	1,140	(5.6)
Unknown	1	(20)	2	(40)	1	(20)	1	(20)	5	-
Total	7,123	(35.2)	4,716	(23.3)	4,007	(19.8)	4,383	(21.7)	20,229	

**Table 43 Admissions by unit discharge status and sex, 2004 - 2006**

Unit discharge Status	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
Alive	22,810	(57)	17,187	(43)	11	(0)	46	(0)	40,054	(94.9)
Dead	1,175	(54)	975	(45)	3	(0)	4	(0)	2,157	(5.1)
Unknown	5	(50)	5	(50)	0	(0)	0	(0)	10	-
Total	23,990	(56.8)	18,167	(43.0)	14	(0.0)	50	(0.1)	42,221	

**Table 44 Admissions by unit discharge status and sex (age <1), 2004 - 2006**

Unit discharge Status	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
Alive	11,279	(59)	7,774	(41)	6	(0)	25	(0)	19,084	(94.3)
Dead	616	(54)	517	(45)	3	(0)	4	(0)	1,140	(5.6)
Unknown	4	(80)	1	(20)	0	(0)	0	(0)	5	-
Total	11,899	(58.8)	8,292	(41.0)	9	(0.0)	29	(0.1)	20,229	



Table 45 Admissions by unit discharge status by NHS trust, 2004 - 2006

Table 45 Admissions by unit discharge status by NHS trust, 2004 - 2006									
Year	NHS Trust	Unit Discharge Status						Total	
		Alive		Dead		Unknown			
		n	%	n	%	n	%	n	%
2004	A	424	(96)	19	(4)	0	(0)	443	(3.2)
	B	283	(99)	2	(1)	0	(0)	285	(2.1)
	C	249	(94)	15	(6)	0	(0)	264	(1.9)
	D	547	(94)	37	(6)	0	(0)	584	(4.2)
	E	1,653	(93)	125	(7)	0	(0)	1,778	(12.8)
	F	1,110	(95)	55	(5)	0	(0)	1,165	(8.4)
	G	40	(91)	4	(9)	0	(0)	44	(0.3)
	H	283	(92)	25	(8)	0	(0)	308	(2.2)
	I	808	(94)	51	(6)	0	(0)	859	(6.2)
	J	82	(100)	0	(0)	0	(0)	82	(0.6)
	K	839	(95)	44	(5)	0	(0)	883	(6.4)
	L	216	(96)	10	(4)	0	(0)	226	(1.6)
	M	352	(94)	21	(6)	0	(0)	373	(2.7)
	N	325	(96)	12	(4)	0	(0)	337	(2.4)
	O	534	(97)	19	(3)	0	(0)	553	(4.0)
	P	931	(95)	51	(5)	0	(0)	982	(7.1)
	Q	532	(97)	15	(3)	0	(0)	547	(4.0)
	R	568	(97)	17	(3)	0	(0)	585	(4.2)
	S	164	(98)	3	(2)	0	(0)	167	(1.2)
	T	355	(97)	11	(3)	0	(0)	366	(2.6)
U	372	(95)	20	(5)	0	(0)	392	(2.8)	
V	902	(92)	78	(8)	3	(0)	983	(7.1)	
W	616	(95)	32	(5)	0	(0)	648	(4.7)	
X	928	(96)	36	(4)	0	(0)	964	(7.0)	
Y	18	(90)	2	(10)	0	(0)	20	(0.1)	
2004 Total		13,131	(94.9)	704	(5.1)	3	(0.0)	13,838	
2005	A	411	(98)	9	(2)	0	(0)	420	(3.0)
	B	232	(100)	1	(0)	0	(0)	233	(1.7)
	C	255	(94)	16	(6)	0	(0)	271	(1.9)
	D	541	(93)	39	(7)	0	(0)	580	(4.1)
	E	1,409	(93)	106	(7)	0	(0)	1,515	(10.8)
	F	1,071	(95)	52	(5)	0	(0)	1,123	(8.0)
	G	41	(82)	9	(18)	0	(0)	50	(0.4)
	H	316	(94)	21	(6)	0	(0)	337	(2.4)
	I	806	(94)	47	(6)	0	(0)	853	(6.1)
	J	95	(99)	1	(1)	0	(0)	96	(0.7)
	K	847	(96)	37	(4)	0	(0)	884	(6.3)
	L	263	(96)	11	(4)	0	(0)	274	(1.9)
	M	346	(97)	9	(3)	0	(0)	355	(2.5)
	N	280	(95)	15	(5)	0	(0)	295	(2.1)
	O	600	(98)	15	(2)	0	(0)	615	(4.4)
	P	949	(93)	68	(7)	0	(0)	1,017	(7.2)
	Q	566	(97)	15	(3)	0	(0)	581	(4.1)
	R	645	(97)	20	(3)	0	(0)	665	(4.7)
	S	176	(98)	4	(2)	0	(0)	180	(1.3)
	T	398	(96)	15	(4)	0	(0)	413	(2.9)
U	385	(94)	23	(6)	0	(0)	408	(2.9)	
V	826	(91)	82	(9)	0	(0)	908	(6.5)	
W	671	(96)	30	(4)	0	(0)	701	(5.0)	
X	856	(96)	35	(4)	0	(0)	891	(6.3)	
Y	381	(97)	10	(3)	0	(0)	391	(2.8)	
2005 Total		13,366	(95.1)	690	(4.9)	0	(0.0)	14,056	
2006	A	441	(98)	7	(2)	1	(0)	449	(3.1)
	B	223	(99)	2	(1)	1	(0)	226	(1.6)
	C	287	(95)	14	(5)	0	(0)	301	(2.1)
	D	530	(93)	41	(7)	0	(0)	571	(4.0)
	E	1,481	(93)	119	(7)	0	(0)	1,600	(11.2)
	F	1,038	(96)	48	(4)	0	(0)	1,086	(7.6)
	G	31	(86)	5	(14)	0	(0)	36	(0.3)
	H	284	(90)	31	(10)	0	(0)	315	(2.2)
	I	854	(94)	55	(6)	0	(0)	909	(6.3)
	J	71	(97)	2	(3)	0	(0)	73	(0.5)
	K	873	(96)	34	(4)	0	(0)	907	(6.3)
	L	283	(95)	16	(5)	0	(0)	299	(2.1)
	M	385	(95)	19	(5)	1	(0)	405	(2.8)
	N	258	(94)	17	(6)	0	(0)	275	(1.9)
	O	637	(97)	18	(3)	0	(0)	655	(4.6)
	P	1,056	(96)	46	(4)	0	(0)	1,102	(7.7)
	Q	481	(96)	21	(4)	1	(0)	503	(3.5)
	R	627	(96)	29	(4)	0	(0)	656	(4.6)
	S	182	(97)	5	(3)	1	(1)	188	(1.3)
	T	427	(97)	15	(3)	0	(0)	442	(3.1)
U	339	(92)	28	(8)	0	(0)	367	(2.6)	
V	956	(91)	89	(9)	1	(0)	1,046	(7.3)	
W	599	(93)	43	(7)	0	(0)	642	(4.5)	
X	839	(96)	37	(4)	1	(0)	877	(6.1)	
Y	375	(94)	22	(6)	0	(0)	397	(2.8)	
2006 Total		13,557	(94.6)	763	(5.3)	7	(0.0)	14,327	
Grand Total		40,054	(94.9)	2,157	(5.1)	10	(0.0)	42,221	

**Table 46 Admissions by unit discharge destination and age, 2004 - 2006**

Discharge Destination	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Normal residence	202	(21)	336	(35)	267	(27)	167	(17)	972	(2.4)
Hospice	14	(29)	16	(33)	11	(22)	8	(16)	49	(0.1)
Same hospital	15,100	(46)	8,242	(25)	4,709	(14)	4,505	(14)	32,556	(81.3)
Other hospital	3,603	(59)	1,407	(23)	621	(10)	494	(8)	6,125	(15.3)
Unknown	170	(47)	106	(29)	41	(11)	45	(12)	362	(0.9)
Total	19,089	(47.6)	10,107	(25.2)	5,649	(14.1)	5,219	(13.0)	40,064	

Table 47 Standardised mortality ratios by trust, 2004

NHS Trust	Number of Admissions	Standardised Mortality Ratio					
		Unadjusted (95% CI)			Adjusted (95% CI)		
		SMR	Lower	Upper	SMR	Lower	Upper
A	449	<b>0.83</b>	0.51	1.29	<b>1.34</b>	0.82	2.08
B	293	<b>0.13</b>	0.02	0.48	<b>0.21</b>	0.03	0.76
C	268	<b>1.10</b>	0.62	1.78	<b>0.66</b>	0.38	1.07
D	598	<b>1.28</b>	0.92	1.73	<b>0.88</b>	0.63	1.19
E	1,817	<b>1.39</b>	1.16	1.64	<b>1.09</b>	0.91	1.28
F	1,179	<b>0.94</b>	0.71	1.21	<b>0.69</b>	0.53	0.89
G	45	<b>1.75</b>	0.49	4.18	<b>0.89</b>	0.25	2.12
H	317	<b>1.61</b>	1.07	2.32	<b>1.33</b>	0.88	1.91
I	878	<b>1.14</b>	0.86	1.49	<b>1.16</b>	0.87	1.51
J	82	<b>0.00</b>	0.00	0.87	<b>0.00</b>	0.00	1.23
K	901	<b>0.98</b>	0.72	1.30	<b>0.94</b>	0.69	1.25
L	234	<b>0.93</b>	0.47	1.63	<b>0.79</b>	0.40	1.38
M	380	<b>1.09</b>	0.68	1.64	<b>1.02</b>	0.64	1.53
N	340	<b>0.69</b>	0.36	1.20	<b>0.60</b>	0.31	1.03
O	553	<b>0.68</b>	0.41	1.05	<b>0.98</b>	0.59	1.52
P	993	<b>1.03</b>	0.77	1.34	<b>1.09</b>	0.82	1.42
Q	565	<b>0.56</b>	0.32	0.90	<b>0.63</b>	0.36	1.02
R	614	<b>0.55</b>	0.32	0.87	<b>0.52</b>	0.30	0.82
S	174	<b>0.34</b>	0.07	0.98	<b>0.49</b>	0.10	1.42
T	372	<b>0.58</b>	0.29	1.03	<b>0.70</b>	0.35	1.23
U	394	<b>1.00</b>	0.62	1.52	<b>0.72</b>	0.44	1.09
V	996	<b>1.56</b>	1.25	1.93	<b>0.93</b>	0.74	1.15
W	661	<b>0.95</b>	0.66	1.33	<b>0.83</b>	0.57	1.17
X	990	<b>0.74</b>	0.52	1.01	<b>1.14</b>	0.81	1.56
Y	23	<b>1.71</b>	0.21	5.52	<b>1.32</b>	0.16	4.27

Figure 47a PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004: unadjusted

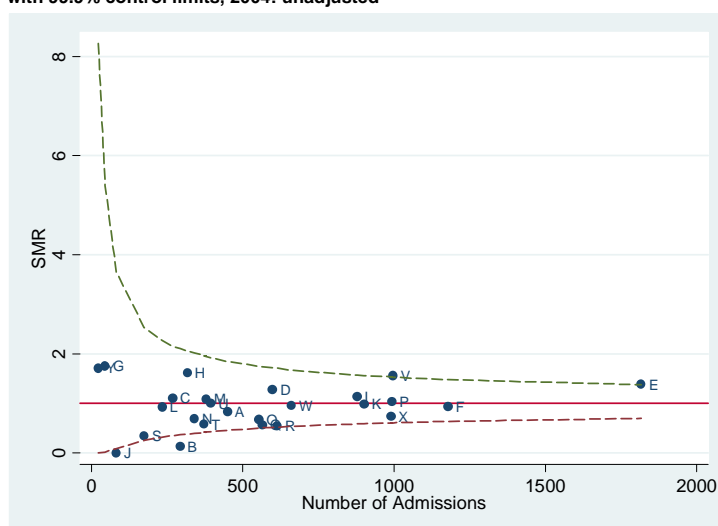


Figure 47b PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004: risk adjusted (PIM)

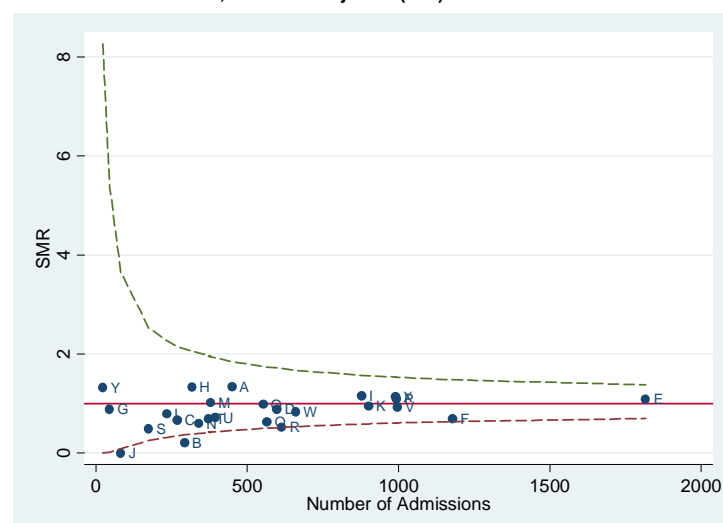


Table 48 Standardised mortality ratios by trust, 2005

NHS Trust	Number of Admissions	Standardised Mortality Ratio					
		Unadjusted (95% CI)			Adjusted (95% CI)		
		SMR	Lower	Upper	SMR	Lower	Upper
A	425	<b>0.48</b>	0.23	0.87	<b>0.61</b>	0.29	1.10
B	236	<b>0.09</b>	0.00	0.47	<b>0.14</b>	0.00	0.76
C	274	<b>1.18</b>	0.68	1.88	<b>0.76</b>	0.44	1.21
D	597	<b>1.35</b>	0.98	1.82	<b>0.92</b>	0.66	1.23
E	1,546	<b>1.44</b>	1.19	1.72	<b>1.03</b>	0.86	1.24
F	1,132	<b>0.93</b>	0.70	1.21	<b>0.67</b>	0.51	0.88
G	50	<b>3.64</b>	1.73	6.35	<b>0.98</b>	0.46	1.70
H	340	<b>1.31</b>	0.83	1.95	<b>1.24</b>	0.79	1.85
I	871	<b>1.11</b>	0.83	1.46	<b>1.02</b>	0.76	1.34
J	97	<b>0.21</b>	0.01	1.13	<b>0.40</b>	0.01	2.17
K	906	<b>0.85</b>	0.60	1.15	<b>0.76</b>	0.54	1.03
L	292	<b>0.76</b>	0.38	1.34	<b>0.80</b>	0.40	1.40
M	357	<b>0.51</b>	0.23	0.96	<b>0.45</b>	0.21	0.85
N	297	<b>1.02</b>	0.58	1.66	<b>0.83</b>	0.47	1.35
O	618	<b>0.49</b>	0.28	0.80	<b>0.68</b>	0.38	1.11
P	1,034	<b>1.41</b>	1.11	1.76	<b>1.34</b>	1.06	1.67
Q	604	<b>0.54</b>	0.31	0.86	<b>0.70</b>	0.40	1.13
R	688	<b>0.68</b>	0.43	1.00	<b>0.70</b>	0.45	1.04
S	185	<b>0.44</b>	0.12	1.10	<b>0.54</b>	0.15	1.35
T	419	<b>0.72</b>	0.41	1.18	<b>0.93</b>	0.53	1.52
U	412	<b>1.13</b>	0.72	1.67	<b>0.70</b>	0.45	1.04
V	921	<b>1.82</b>	1.46	2.23	<b>1.03</b>	0.83	1.26
W	715	<b>0.90</b>	0.62	1.26	<b>0.74</b>	0.51	1.04
X	902	<b>0.78</b>	0.55	1.08	<b>1.03</b>	0.72	1.42
Y	427	<b>0.47</b>	0.23	0.86	<b>0.47</b>	0.22	0.85

Figure 48a PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2005: unadjusted

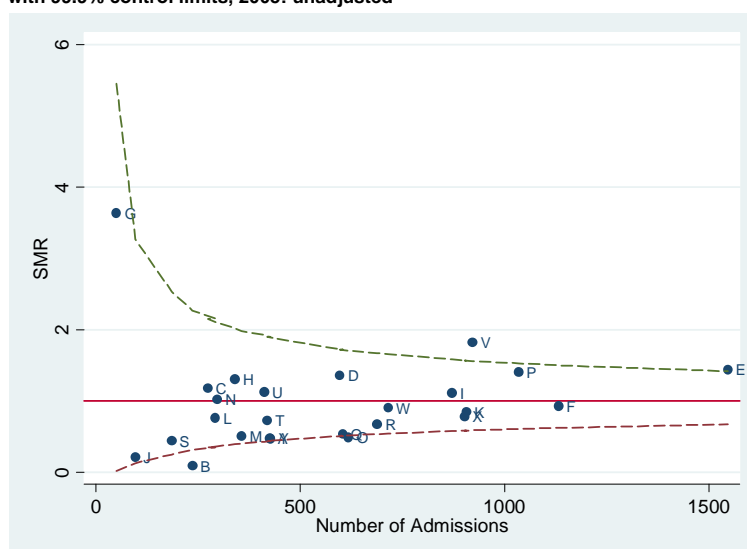


Figure 48b PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2005: risk adjusted (PIM)

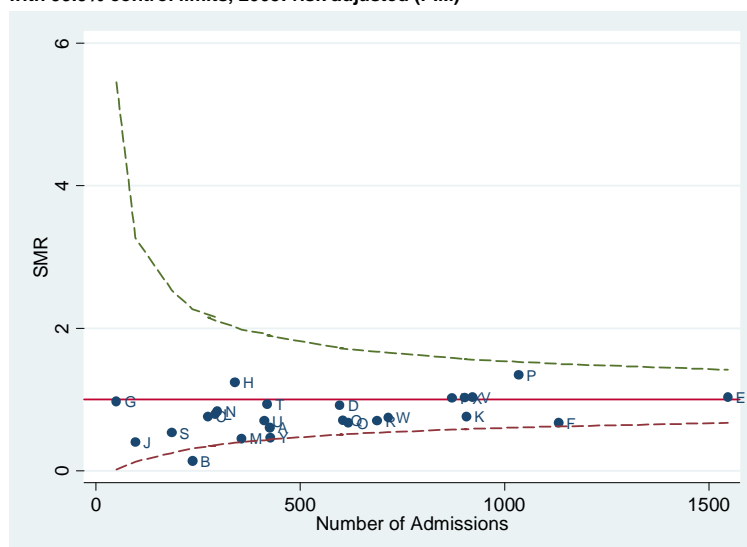


Table 49 Standardised mortality ratios by trust, 2006

NHS Trust	Number of Admissions	Standardised Mortality Ratio								
		Unadjusted (95% CI)			PIM Adjusted (95% CI)			PIM2 Adjusted (95% CI)		
		SMR	Lower	Upper	SMR	Lower	Upper	SMR	Lower	Upper
A	454	0.29	0.12	0.59	0.39	0.16	0.80	0.58	0.23	1.19
B	234	0.16	0.02	0.57	0.32	0.04	1.13	0.45	0.05	1.60
C	309	0.85	0.47	1.40	0.69	0.38	1.14	0.74	0.41	1.22
D	585	1.34	0.98	1.79	0.93	0.68	1.25	0.99	0.72	1.32
E	1,630	1.39	1.16	1.65	1.08	0.90	1.28	0.99	0.82	1.17
F	1,100	0.82	0.61	1.08	0.68	0.50	0.90	0.60	0.44	0.79
G	36	2.60	0.87	5.52	0.80	0.27	1.70	0.70	0.24	1.49
H	322	1.86	1.29	2.57	1.85	1.29	2.56	1.20	0.84	1.66
I	929	1.15	0.88	1.47	1.36	1.04	1.75	1.29	0.98	1.66
J	74	0.51	0.06	1.76	0.70	0.08	2.42	0.96	0.12	3.35
K	938	0.72	0.51	0.99	0.74	0.52	1.02	0.84	0.59	1.15
L	318	0.94	0.54	1.51	1.05	0.61	1.68	1.19	0.69	1.91
M	422	0.84	0.51	1.30	0.81	0.49	1.25	1.01	0.61	1.56
N	276	1.22	0.73	1.89	0.96	0.58	1.49	1.01	0.60	1.56
O	655	0.51	0.31	0.81	0.76	0.45	1.19	0.67	0.40	1.05
P	1,119	0.77	0.57	1.02	0.77	0.57	1.02	0.82	0.60	1.08
Q	527	0.75	0.46	1.13	0.90	0.56	1.36	1.10	0.68	1.66
R	692	0.84	0.57	1.18	0.74	0.51	1.05	0.71	0.49	1.00
S	190	0.69	0.28	1.39	0.84	0.34	1.69	1.24	0.50	2.50
T	450	0.67	0.38	1.07	0.84	0.49	1.36	1.24	0.71	1.99
U	369	1.42	0.96	2.02	0.81	0.55	1.16	0.88	0.59	1.26
V	1,064	1.64	1.33	1.98	0.81	0.66	0.98	0.80	0.65	0.97
W	659	1.25	0.92	1.66	0.94	0.69	1.25	0.81	0.60	1.08
X	896	0.79	0.57	1.08	1.15	0.82	1.56	1.13	0.80	1.53
Y	431	1.00	0.64	1.48	1.07	0.68	1.58	1.26	0.81	1.87

Figure 49a PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2006: unadjusted

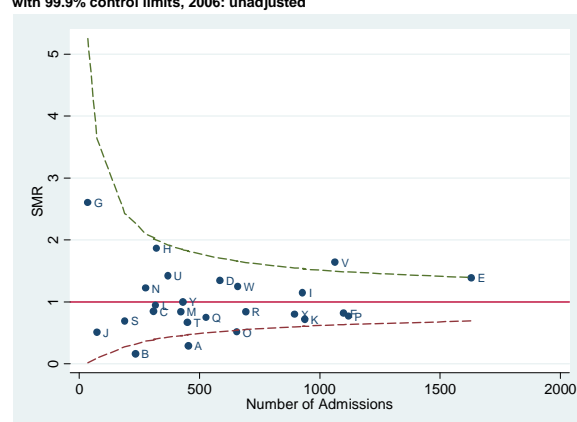


Figure 49b PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2006: risk adjusted (PIM)

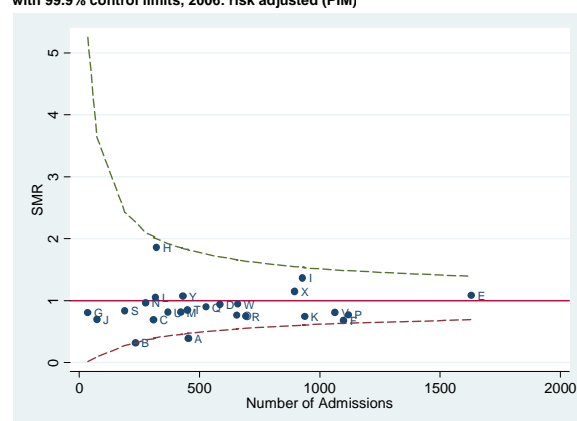


Figure 49c PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2006: risk adjusted (PIM2)

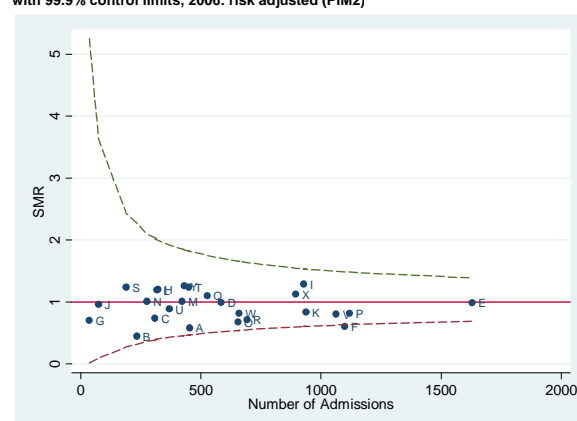


Table 50 Standardised mortality ratios combined by trust, 2004 - 2006

NHS Trust	Number of Admissions	Standardised Mortality Ratio					
		Unadjusted (95% CI)			Adjusted (95% CI)		
		SMR	Lower	Upper	SMR	Lower	Upper
A	1,328	<b>0.53</b>	0.37	0.73	<b>0.74</b>	0.52	1.02
B	763	<b>0.13</b>	0.04	0.30	<b>0.22</b>	0.07	0.50
C	851	<b>1.03</b>	0.76	1.37	<b>0.70</b>	0.52	0.93
D	1,780	<b>1.33</b>	1.11	1.57	<b>0.91</b>	0.76	1.08
E	4,993	<b>1.40</b>	1.27	1.55	<b>1.07</b>	0.96	1.18
F	3,411	<b>0.89</b>	0.76	1.04	<b>0.68</b>	0.58	0.80
G	131	<b>2.68</b>	1.63	4.07	<b>0.90</b>	0.55	1.37
H	979	<b>1.59</b>	1.27	1.96	<b>1.47</b>	1.17	1.81
I	2,678	<b>1.14</b>	0.97	1.32	<b>1.17</b>	1.00	1.37
J	253	<b>0.23</b>	0.05	0.67	<b>0.36</b>	0.07	1.04
K	2,745	<b>0.85</b>	0.70	1.01	<b>0.81</b>	0.68	0.97
L	844	<b>0.88</b>	0.63	1.20	<b>0.88</b>	0.63	1.20
M	1,159	<b>0.82</b>	0.61	1.08	<b>0.77</b>	0.57	1.01
N	913	<b>0.96</b>	0.71	1.28	<b>0.79</b>	0.58	1.05
O	1,826	<b>0.56</b>	0.42	0.73	<b>0.80</b>	0.60	1.04
P	3,146	<b>1.05</b>	0.91	1.22	<b>1.06</b>	0.91	1.22
Q	1,696	<b>0.61</b>	0.46	0.79	<b>0.74</b>	0.56	0.97
R	1,994	<b>0.69</b>	0.54	0.87	<b>0.66</b>	0.52	0.83
S	549	<b>0.50</b>	0.27	0.83	<b>0.64</b>	0.35	1.06
T	1,241	<b>0.66</b>	0.48	0.89	<b>0.83</b>	0.60	1.11
U	1,175	<b>1.18</b>	0.93	1.48	<b>0.75</b>	0.59	0.94
V	2,981	<b>1.67</b>	1.48	1.88	<b>0.91</b>	0.81	1.02
W	2,035	<b>1.04</b>	0.85	1.24	<b>0.84</b>	0.69	1.01
X	2,788	<b>0.77</b>	0.63	0.92	<b>1.10</b>	0.91	1.32
Y	881	<b>0.78</b>	0.54	1.07	<b>0.79</b>	0.55	1.09

Figure 50a PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004 - 2006 combined: unadjusted

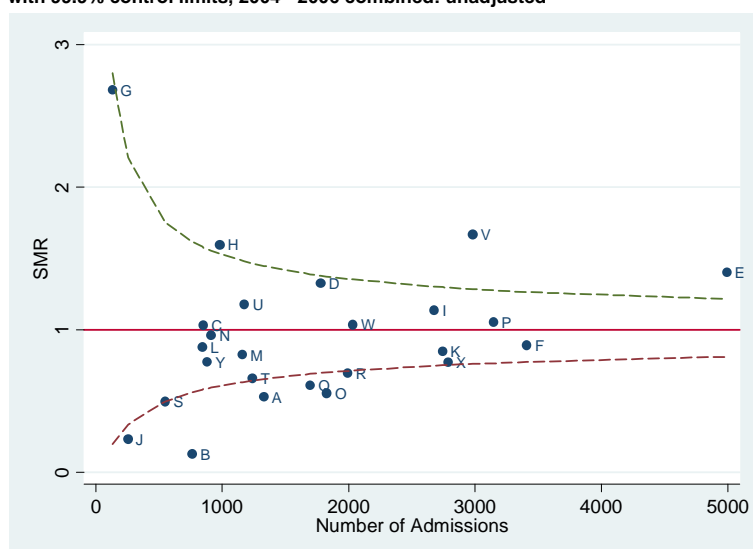


Figure 50b PICU Standardised mortality ratios by NHS trust with 99.9% control limits, 2004 - 2006 combined: risk adjusted (PIM)

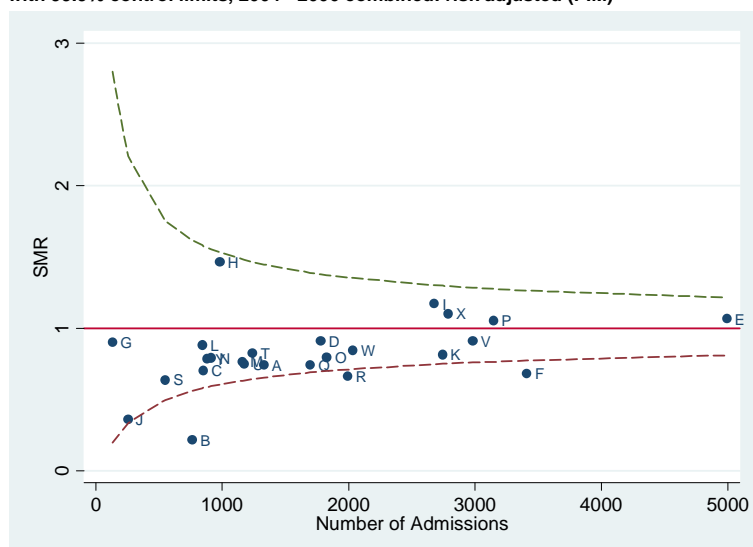
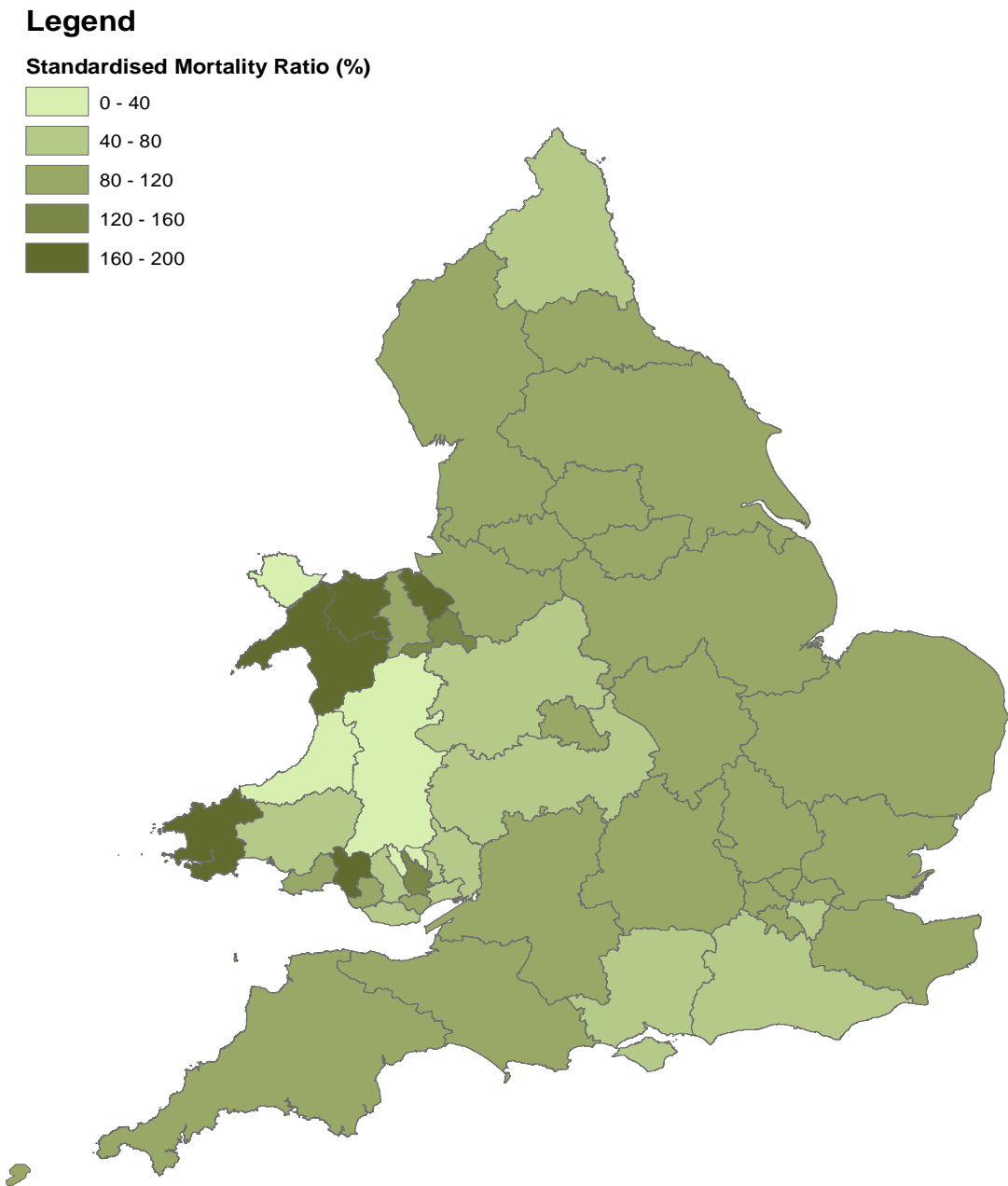
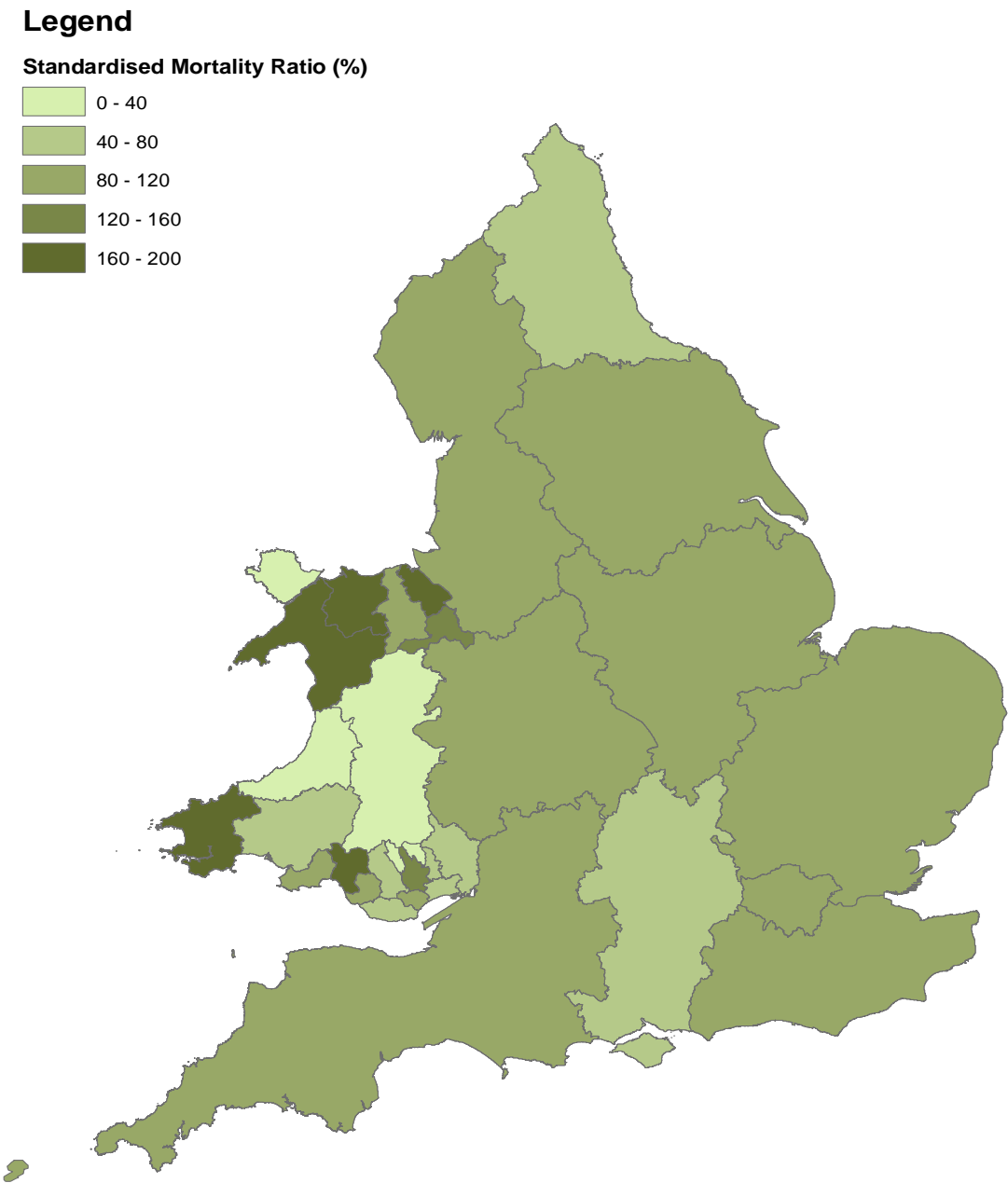


Figure 50c Risk adjusted mortality (PIM) by 2004 SHA in England and Wales, 2004 - 2006



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Figure 50d Risk adjusted mortality (PIM) by 2006 SHA in England and Wales, 2004 - 2006



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**Table 51 Admissions by follow-up status and age, 2004 - 2006**

Follow-Up Status	Age Group (Years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Alive	8,631	(46)	4,702	(25)	2,666	(14)	2,697	(14)	18,696	(44.3)
Dead	407	(59)	152	(22)	62	(9)	68	(10)	689	(1.6)
Unknown	11,191	(49)	5,695	(25)	3,195	(14)	2,755	(12)	22,836	(54.1)
Total	20,229	(47.9)	10,549	(25.0)	5,923	(14.0)	5,520	(13.1)	42,221	

**Table 52 Admissions by follow-up status and age (<1), 2004 - 2006**

Follow-Up Status	Age Group (Months)								Total	
	<1		1-2		3-5		6-11			
	n	%	n	%	n	%	n	%	n	%
Alive	2,865	(33)	2,126	(25)	1,761	(20)	1,879	(22)	8,631	(42.7)
Dead	162	(40)	94	(23)	73	(18)	78	(19)	407	(2.0)
Unknown	4,096	(37)	2,496	(22)	2,173	(19)	2,426	(22)	11,191	(55.3)
Total	7,123	(35.2)	4,716	(23.3)	4,007	(19.8)	4,383	(21.7)	20,229	

**Table 53 Admissions by follow-up status and sex, 2004 - 2006**

Follow-Up Status	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
Alive	10,669	(57)	8,000	(43)	4	(0)	23	(0)	18,696	(44.3)
Dead	372	(54)	316	(46)	1	(0)	0	(0)	689	(1.6)
Unknown	12,949	(57)	9,851	(43)	9	(0)	27	(0)	22,836	(54.1)
Total	23,990	(56.8)	18,167	(43.0)	14	(0.0)	50	(0.1)	42,221	

**Table 54 Admissions by follow-up status and sex (age<1), 2004 - 2006**

Follow-Up Status	Sex								Total	
	Male		Female		Ambiguous		Unknown			
	n	%	n	%	n	%	n	%	n	%
Alive	5,117	(59)	3,498	(41)	3	(0)	13	(0)	8,631	(42.7)
Dead	213	(52)	194	(48)	0	(0)	0	(0)	407	(2.0)
Unknown	6,569	(59)	4,600	(41)	6	(0)	16	(0)	11,191	(55.3)
Total	11,899	(58.8)	8,292	(41.0)	9	(0.0)	29	(0.1)	20,229	

Table 55 Admissions by follow-up status by NHS trust, 2004 - 2006

Table 35 Admissions by follow-up status by NHS trust, 2004 - 2006									
Year	NHS Trust	Follow-Up Status						Total	
		Alive		Dead		Unknown			
		n	%	n	%	n	%	n	%
2004	A	19	(4)	0	(0)	424	(96)	443	(3.2)
	B	253	(89)	7	(2)	25	(9)	285	(2.1)
	C	242	(92)	5	(2)	17	(6)	264	(1.9)
	D	483	(83)	18	(3)	83	(14)	584	(4.2)
	E	0	(0)	0	(0)	1,778	(100)	1,778	(12.8)
	F	0	(0)	63	(5)	1,102	(95)	1,165	(8.4)
	G	38	(86)	2	(5)	4	(9)	44	(0.3)
	H	18	(6)	0	(0)	290	(94)	308	(2.2)
	I	789	(92)	19	(2)	51	(6)	859	(6.2)
	J	75	(91)	1	(1)	6	(7)	82	(0.6)
	K	242	(27)	8	(1)	633	(72)	883	(6.4)
	L	176	(78)	6	(3)	44	(19)	226	(1.6)
	M	314	(84)	10	(3)	49	(13)	373	(2.7)
	N	8	(2)	2	(1)	327	(97)	337	(2.4)
	O	482	(87)	0	(0)	71	(13)	553	(4.0)
	P	916	(93)	7	(1)	59	(6)	982	(7.1)
	Q	445	(81)	22	(4)	80	(15)	547	(4.0)
	R	445	(76)	7	(1)	133	(23)	585	(4.2)
	S	146	(87)	6	(4)	15	(9)	167	(1.2)
	T	0	(0)	0	(0)	366	(100)	366	(2.6)
	U	0	(0)	0	(0)	392	(100)	392	(2.8)
	V	887	(90)	95	(10)	1	(0)	983	(7.1)
	W	0	(0)	0	(0)	648	(100)	648	(4.7)
	X	468	(49)	12	(1)	484	(50)	964	(7.0)
	Y	17	(85)	0	(0)	3	(15)	20	(0.1)
2004 Total		6,463	(46.7)	290	(2.1)	7,085	(51.2)	13,838	
2005	A	32	(8)	1	(0)	387	(92)	420	(3.0)
	B	202	(87)	3	(1)	28	(12)	233	(1.7)
	C	246	(91)	6	(2)	19	(7)	271	(1.9)
	D	513	(88)	16	(3)	51	(9)	580	(4.1)
	E	0	(0)	0	(0)	1,515	(100)	1,515	(10.8)
	F	8	(1)	73	(7)	1,042	(93)	1,123	(8.0)
	G	33	(66)	0	(0)	17	(34)	50	(0.4)
	H	19	(6)	0	(0)	318	(94)	337	(2.4)
	I	780	(91)	26	(3)	47	(6)	853	(6.1)
	J	72	(75)	4	(4)	20	(21)	96	(0.7)
	K	367	(42)	21	(2)	496	(56)	884	(6.3)
	L	224	(82)	4	(1)	46	(17)	274	(1.9)
	M	324	(91)	3	(1)	28	(8)	355	(2.5)
	N	21	(7)	2	(1)	272	(92)	295	(2.1)
	O	479	(78)	2	(0)	134	(22)	615	(4.4)
	P	917	(90)	18	(2)	82	(8)	1,017	(7.2)
	Q	531	(91)	14	(2)	36	(6)	581	(4.1)
	R	512	(77)	12	(2)	141	(21)	665	(4.7)
	S	153	(85)	2	(1)	25	(14)	180	(1.3)
	T	0	(0)	0	(0)	413	(100)	413	(2.9)
	U	0	(0)	0	(0)	408	(100)	408	(2.9)
	V	0	(0)	0	(0)	908	(100)	908	(6.5)
	W	0	(0)	0	(0)	701	(100)	701	(5.0)
	X	76	(9)	9	(1)	806	(90)	891	(6.3)
	Y	232	(59)	1	(0)	158	(40)	391	(2.8)
2005 Total		5,741	(40.8)	217	(1.5)	8,098	(57.6)	14,056	
2006	A	4	(1)	1	(0)	444	(99)	449	(3.1)
	B	176	(78)	2	(1)	48	(21)	226	(1.6)
	C	278	(92)	6	(2)	17	(6)	301	(2.1)
	D	494	(87)	14	(2)	63	(11)	571	(4.0)
	E	0	(0)	0	(0)	1,600	(100)	1,600	(11.2)
	F	678	(62)	71	(7)	337	(31)	1,086	(7.6)
	G	23	(64)	1	(3)	12	(33)	36	(0.3)
	H	5	(2)	1	(0)	309	(98)	315	(2.2)
	I	832	(92)	21	(2)	56	(6)	909	(6.3)
	J	53	(73)	2	(3)	18	(25)	73	(0.5)
	K	238	(26)	15	(2)	654	(72)	907	(6.3)
	L	236	(79)	1	(0)	62	(21)	299	(2.1)
	M	355	(88)	3	(1)	47	(12)	405	(2.8)
	N	201	(73)	2	(1)	72	(26)	275	(1.9)
	O	0	(0)	0	(0)	655	(100)	655	(4.6)
	P	1,033	(94)	11	(1)	58	(5)	1,102	(7.7)
	Q	453	(90)	8	(2)	42	(8)	503	(3.5)
	R	476	(73)	2	(0)	178	(27)	656	(4.6)
	S	151	(80)	3	(2)	34	(18)	188	(1.3)
	T	0	(0)	0	(0)	442	(100)	442	(3.1)
	U	46	(13)	4	(1)	317	(86)	367	(2.6)
	V	0	(0)	0	(0)	1,046	(100)	1,046	(7.3)
	W	0	(0)	0	(0)	642	(100)	642	(4.5)
	X	394	(45)	11	(1)	472	(54)	877	(6.1)
	Y	366	(92)	3	(1)	28	(7)	397	(2.8)
2006 Total		6,492	(45.3)	182	(1.3)	7,653	(53.4)	14,327	
Grand Total		18,696	(44.3)	689	(1.6)	22,836	(54.1)	42,221	

**Table 56 Re-Admissions by NHS trust and source of previous admission, 2004 - 2006**

NHS Trust	Source of Previous Admission						Total	
	Same NHS Trust		Other NHS Trust		No Previous Admission			
	n	%	n	%	n	%	n	%
A	227	(17)	27	(2)	1,058	(81)	1,312	(3.1)
B	187	(25)	27	(4)	530	(71)	744	(1.8)
C	114	(14)	26	(3)	696	(83)	836	(2.0)
D	334	(19)	55	(3)	1,346	(78)	1,735	(4.1)
E	1,104	(23)	298	(6)	3,491	(71)	4,893	(11.6)
F	909	(27)	199	(6)	2,266	(67)	3,374	(8.0)
G	5	(4)	3	(2)	122	(94)	130	(0.3)
H	206	(21)	68	(7)	686	(71)	960	(2.3)
I	589	(22)	86	(3)	1,946	(74)	2,621	(6.2)
J	21	(8)	24	(10)	206	(82)	251	(0.6)
K	758	(28)	75	(3)	1,841	(69)	2,674	(6.3)
L	126	(16)	33	(4)	640	(80)	799	(1.9)
M	169	(15)	72	(6)	892	(79)	1,133	(2.7)
N	154	(17)	27	(3)	726	(80)	907	(2.1)
O	453	(25)	62	(3)	1,308	(72)	1,823	(4.3)
P	634	(20)	76	(2)	2,391	(77)	3,101	(7.3)
Q	343	(21)	63	(4)	1,225	(75)	1,631	(3.9)
R	444	(23)	32	(2)	1,430	(75)	1,906	(4.5)
S	124	(23)	31	(6)	380	(71)	535	(1.3)
T	275	(23)	73	(6)	873	(71)	1,221	(2.9)
U	111	(10)	82	(7)	974	(83)	1,167	(2.8)
V	625	(21)	118	(4)	2,194	(75)	2,937	(7.0)
W	398	(20)	44	(2)	1,549	(78)	1,991	(4.7)
X	774	(28)	90	(3)	1,868	(68)	2,732	(6.5)
Y	127	(16)	1	(0)	680	(84)	808	(1.9)
Total	9,211	(21.8)	1,692	(4.0)	31,318	(74.2)	42,221	

Table 57 Number of admissions of individual children by their NHS trust of first admission, 2004 - 2006

NHS Trust	Number of Admissions																Total	
	1		2		3		4		5		6		7		8+			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
A	882	(83)	111	(10)	47	(4)	7	(1)	7	(1)	2	(0)	0	(0)	2	(0)	1,058	(3.4)
B	385	(73)	87	(16)	25	(5)	14	(3)	7	(1)	3	(1)	1	(0)	8	(2)	530	(1.7)
C	608	(87)	54	(8)	25	(4)	4	(1)	4	(1)	0	(0)	0	(0)	1	(0)	696	(2.2)
D	1,110	(82)	147	(11)	42	(3)	24	(2)	12	(1)	3	(0)	3	(0)	5	(0)	1,346	(4.3)
E	2,733	(78)	486	(14)	157	(4)	66	(2)	23	(1)	12	(0)	5	(0)	9	(0)	3,491	(11.1)
F	1,646	(73)	392	(17)	140	(6)	49	(2)	15	(1)	7	(0)	5	(0)	12	(1)	2,266	(7.2)
G	97	(80)	19	(16)	5	(4)	1	(1)	0	(0)	0	(0)	0	(0)	0	(0)	122	(0.4)
H	552	(80)	72	(10)	39	(6)	11	(2)	5	(1)	1	(0)	4	(1)	2	(0)	686	(2.2)
I	1,557	(80)	251	(13)	88	(5)	24	(1)	11	(1)	7	(0)	3	(0)	5	(0)	1,946	(6.2)
J	148	(72)	35	(17)	13	(6)	3	(1)	4	(2)	0	(0)	1	(0)	2	(1)	206	(0.7)
K	1,386	(75)	287	(16)	87	(5)	41	(2)	21	(1)	9	(0)	5	(0)	6	(0)	1,842	(5.9)
L	543	(85)	64	(10)	16	(3)	11	(2)	0	(0)	1	(0)	1	(0)	4	(1)	640	(2.0)
M	746	(84)	101	(11)	17	(2)	16	(2)	6	(1)	1	(0)	2	(0)	3	(0)	892	(2.8)
N	602	(83)	83	(11)	26	(4)	6	(1)	3	(0)	2	(0)	1	(0)	3	(0)	726	(2.3)
O	971	(74)	228	(17)	63	(5)	26	(2)	11	(1)	4	(0)	0	(0)	4	(0)	1,307	(4.2)
P	1,971	(82)	274	(11)	82	(3)	30	(1)	18	(1)	10	(0)	3	(0)	3	(0)	2,391	(7.6)
Q	985	(80)	160	(13)	41	(3)	15	(1)	8	(1)	6	(0)	4	(0)	6	(0)	1,225	(3.9)
R	1,147	(80)	177	(12)	51	(4)	31	(2)	9	(1)	6	(0)	6	(0)	3	(0)	1,430	(4.6)
S	306	(81)	45	(12)	13	(3)	7	(2)	4	(1)	1	(0)	1	(0)	3	(1)	380	(1.2)
T	722	(83)	103	(12)	27	(3)	8	(1)	4	(0)	2	(0)	1	(0)	6	(1)	873	(2.8)
U	831	(85)	102	(10)	25	(3)	8	(1)	4	(0)	0	(0)	0	(0)	4	(0)	974	(3.1)
V	1,783	(81)	278	(13)	73	(3)	33	(2)	15	(1)	6	(0)	1	(0)	6	(0)	2,195	(7.0)
W	1,283	(83)	161	(10)	54	(3)	23	(1)	12	(1)	7	(0)	3	(0)	6	(0)	1,549	(4.9)
X	1,377	(74)	292	(16)	105	(6)	48	(3)	20	(1)	9	(0)	10	(1)	7	(0)	1,868	(6.0)
Y	590	(87)	68	(10)	13	(2)	6	(1)	2	(0)	0	(0)	1	(0)	1	(0)	681	(2.2)
Total	24,961	(79.7)	4,077	(13.0)	1,274	(4.1)	512	(1.6)	225	(0.7)	99	(0.3)	61	(0.2)	111	(0.4)	31,320	

Table 58 Number of individual children by NHS trust and diagnostic group of first admission, 2004 - 2006

NHS Trust	Blood / lymphatic		Body wall and cavities		Cardiovascular		Endocrine / metabolic		Gastrointestinal		Diagnostic Group Infection		Multisystem		Musculoskeletal		Neurological		Oncology		Respiratory		Trauma		Other		Missing		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
A	14	(1)	22	(2)	28	(3)	32	(3)	105	(10)	57	(5)	12	(1)	48	(5)	205	(19)	149	(14)	220	(21)	80	(8)	85	(8)	1	(0)	1,058	(3.4)
B	4	(1)	32	(6)	16	(3)	19	(4)	100	(19)	38	(7)	0	(0)	7	(1)	64	(12)	7	(1)	166	(31)	22	(4)	50	(9)	5	(1)	530	(1.7)
C	6	(1)	12	(2)	19	(3)	16	(2)	29	(4)	77	(11)	3	(0)	98	(14)	101	(15)	29	(4)	202	(29)	62	(9)	42	(6)	0	(0)	696	(2.2)
D	21	(2)	13	(1)	67	(5)	37	(3)	70	(5)	117	(9)	3	(0)	61	(5)	229	(17)	74	(5)	450	(33)	140	(10)	64	(5)	0	(0)	1,346	(4.3)
E	24	(1)	92	(3)	1,371	(39)	94	(3)	234	(7)	113	(3)	6	(0)	83	(2)	334	(10)	95	(3)	747	(21)	165	(5)	133	(4)	0	(0)	3,491	(11.1)
F	5	(0)	19	(1)	972	(43)	49	(2)	25	(1)	125	(6)	1	(0)	90	(4)	251	(11)	5	(0)	565	(25)	48	(2)	93	(4)	18	(1)	2,266	(7.2)
G	0	(0)	0	(0)	5	(4)	2	(2)	5	(4)	21	(17)	0	(0)	0	(0)	50	(41)	3	(2)	16	(13)	12	(10)	8	(7)	0	(0)	122	(0.4)
H	14	(2)	14	(2)	16	(2)	26	(4)	137	(20)	23	(3)	0	(0)	4	(1)	129	(19)	22	(3)	92	(13)	86	(13)	122	(18)	1	(0)	686	(2.2)
I	18	(1)	10	(1)	738	(38)	48	(2)	100	(5)	91	(5)	3	(0)	59	(3)	167	(9)	99	(5)	381	(20)	106	(5)	117	(6)	9	(0)	1,946	(6.2)
J	6	(3)	15	(7)	6	(3)	6	(3)	54	(26)	6	(3)	0	(0)	0	(0)	31	(15)	4	(2)	57	(28)	3	(1)	17	(8)	1	(0)	206	(0.7)
K	13	(1)	121	(7)	548	(30)	28	(2)	213	(12)	104	(6)	4	(0)	39	(2)	185	(10)	111	(6)	299	(16)	83	(5)	93	(5)	1	(0)	1,842	(5.9)
L	3	(0)	7	(1)	22	(3)	26	(4)	16	(3)	33	(5)	0	(0)	64	(10)	136	(21)	2	(0)	280	(44)	15	(2)	35	(5)	1	(0)	640	(2.0)
M	5	(1)	12	(1)	22	(2)	38	(4)	64	(7)	77	(9)	2	(0)	92	(10)	130	(15)	70	(8)	278	(31)	60	(7)	42	(5)	0	(0)	892	(2.8)
N	2	(0)	23	(3)	262	(36)	13	(2)	23	(3)	21	(3)	3	(0)	47	(6)	93	(13)	30	(4)	151	(21)	43	(6)	14	(2)	1	(0)	726	(2.3)
O	0	(0)	2	(0)	1,144	(88)	1	(0)	9	(1)	8	(1)	0	(0)	11	(1)	2	(0)	10	(1)	91	(7)	1	(0)	8	(1)	20	(2)	1,307	(4.2)
P	8	(0)	106	(4)	999	(42)	20	(1)	97	(4)	113	(5)	5	(0)	119	(5)	231	(10)	80	(3)	425	(18)	126	(5)	61	(3)	1	(0)	2,391	(7.6)
Q	12	(1)	57	(5)	25	(2)	35	(3)	137	(11)	86	(7)	0	(0)	92	(8)	180	(15)	70	(6)	403	(33)	75	(6)	49	(4)	4	(0)	1,225	(3.9)
R	7	(0)	23	(2)	483	(34)	18	(1)	148	(10)	58	(4)	4	(0)	97	(7)	180	(13)	42	(3)	257	(18)	61	(4)	52	(4)	0	(0)	1,430	(4.6)
S	1	(0)	0	(0)	9	(2)	26	(7)	3	(1)	17	(4)	0	(0)	32	(8)	59	(16)	0	(0)	172	(45)	37	(10)	24	(6)	0	(0)	380	(1.2)
T	19	(2)	11	(1)	15	(2)	18	(2)	113	(13)	44	(5)	1	(0)	13	(1)	120	(14)	147	(17)	281	(32)	54	(6)	36	(4)	1	(0)	873	(2.8)
U	26	(3)	3	(0)	39	(4)	40	(4)	23	(2)	114	(12)	0	(0)	0	(0)	237	(24)	2	(0)	419	(43)	9	(1)	37	(4)	25	(3)	974	(3.1)
V	15	(1)	54	(2)	890	(41)	70	(3)	209	(10)	58	(3)	4	(0)	32	(1)	170	(8)	21	(1)	343	(16)	170	(8)	48	(2)	111	(5)	2,195	(7.0)
W	10	(1)	12	(1)	700	(45)	33	(2)	44	(3)	84	(5)	0	(0)	14	(1)	220	(14)	46	(3)	322	(21)	15	(1)	46	(3)	3	(0)	1,549	(4.9)
X	16	(1)	38	(2)	833	(45)	24	(1)	118	(6)	95	(5)	4	(0)	15	(1)	154	(8)	44	(2)	395	(21)	68	(4)	58	(3)	6	(0)	1,868	(6.0)
Y	0	(0)	18	(3)	24	(4)	10	(1)	42	(6)	51	(7)	3	(0)	131	(19)	113	(17)	32	(5)	171	(25)	48	(7)	38	(6)	0	(0)	681	(2.2)
Total	249	(0.8)	716	(2.3)	9,253	(29.5)	729	(2.3)	2,118	(6.8)	1,631	(5.2)	58	(0.2)	1,248	(4.0)	3,771	(12.0)	1,194	(3.8)	7,183	(22.9)	1,589	(5.1)	1,372	(4.4)	209	(0.7)	31,320	



**Table 59 Individual child admissions by diagnostic group and readmission status, 2004 - 2006**

Diagnostic Group	Number of Admissions						Total	
	Single		Multiple (1 trust)		Multiple (2+ trusts)			
	n	%	n	%	n	%	n	%
<b>Blood / lymphatic</b>	200	(80)	39	(16)	10	(4)	<b>249</b>	<b>(0.8)</b>
<b>Body wall and cavities</b>	562	(78)	127	(18)	27	(4)	<b>716</b>	<b>(2.3)</b>
<b>Cardiovascular</b>	6,861	(74)	2,060	(22)	332	(4)	<b>9,253</b>	<b>(29.5)</b>
<b>Endocrine / metabolic</b>	622	(85)	73	(10)	34	(5)	<b>729</b>	<b>(2.3)</b>
<b>Gastrointestinal</b>	1,617	(76)	416	(20)	85	(4)	<b>2,118</b>	<b>(6.8)</b>
<b>Infection</b>	1,427	(87)	148	(9)	56	(3)	<b>1,631</b>	<b>(5.2)</b>
<b>Missing</b>	161	(77)	38	(18)	10	(5)	<b>209</b>	<b>(0.7)</b>
<b>Multisystem</b>	41	(71)	16	(28)	1	(2)	<b>58</b>	<b>(0.2)</b>
<b>Musculoskeletal</b>	1,070	(86)	161	(13)	17	(1)	<b>1,248</b>	<b>(4.0)</b>
<b>Neurological</b>	3,186	(84)	449	(12)	136	(4)	<b>3,771</b>	<b>(12.0)</b>
<b>Oncology</b>	914	(77)	254	(21)	26	(2)	<b>1,194</b>	<b>(3.8)</b>
<b>Other</b>	1,137	(83)	190	(14)	45	(3)	<b>1,372</b>	<b>(4.4)</b>
<b>Respiratory</b>	5,647	(79)	1,087	(15)	449	(6)	<b>7,183</b>	<b>(22.9)</b>
<b>Trauma</b>	1,516	(95)	47	(3)	26	(2)	<b>1,589</b>	<b>(5.1)</b>
<b>Total</b>	<b>24,961</b>	<b>(79.7)</b>	<b>5,105</b>	<b>(16.3)</b>	<b>1,254</b>	<b>(4.0)</b>	<b>31,320</b>	

**Table 60 Age specific prevalence (per 100,000 per year) for admission to paediatric intensive care in England and Wales, 2004 - 2006**

Sex	Age Group (Years)	Population (2001 Census)	Prevalence Rates								
			2004 (95% CI)			2005 (95% CI)			2006 (95% CI)		
			Rate	Lower	Upper	Rate	Lower	Upper	Rate	Lower	Upper
Male	<1	300,385	1,290	1,250	1,331	1,258	1,219	1,298	1,233	1,194	1,273
	1-4	1,287,498	160	154	167	158	151	165	164	157	171
	5-10	2,061,047	39	37	42	38	35	41	40	37	42
	11-15	1,741,056	55	52	59	53	50	57	52	49	56
Female	<1	288,676	910	876	945	888	854	922	938	903	973
	1-4	1,228,576	134	128	141	136	129	142	135	128	141
	5-10	1,962,167	32	29	34	33	31	36	33	31	36
	11-15	1,655,909	48	45	52	48	45	52	49	46	52
Total		10,525,314	128	125	130	126	124	128	128	126	130

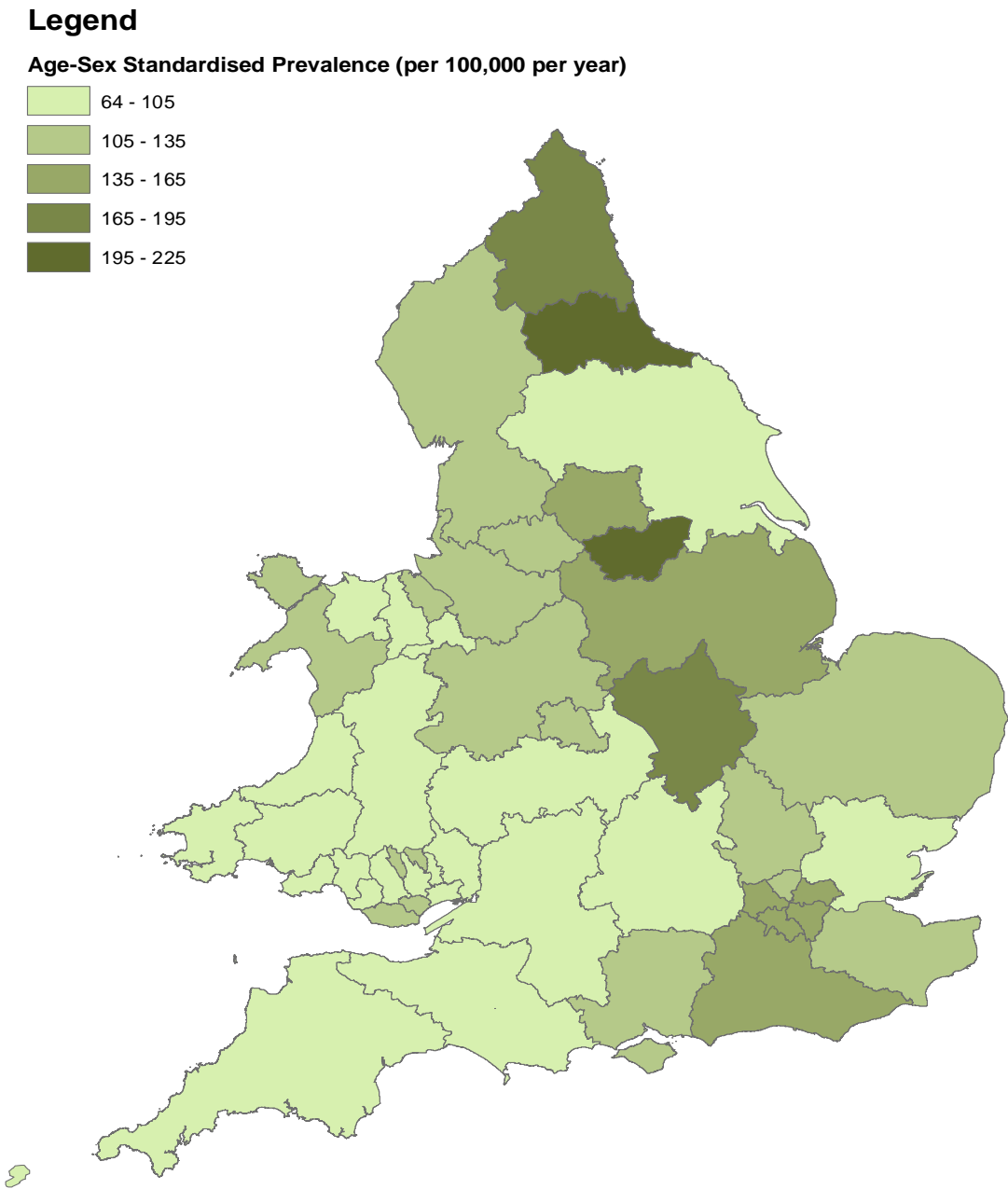
Table 61a Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2004 SHA in England and Wales, 2004 - 2006

Country	SHA / HB	Population (2001 Census)	Prevalence											
			2004 (95% CI)			2005 (95% CI)			2006 (95% CI)			2004 - 2006 (95% CI)		
			Rate	Lower	Upper	Rate	Lower	Upper	Rate	Lower	Upper	Rate	Lower	Upper
England	Northumberland, Tyne & Wear	267,062	176	160	192	179	163	195	172	156	188	176	166	185
	County Durham and Tees Valley	230,897	219	200	239	214	195	234	240	220	261	225	213	236
	North and East Yorkshire and Northern Lincolnshire	319,133	106	94	118	96	85	107	96	85	107	99	93	106
	South Yorkshire	255,956	184	167	200	216	198	234	202	185	220	201	191	211
	West Yorkshire	442,102	139	128	150	144	133	155	143	132	154	142	135	148
	Cumbria and Lancashire	385,645	102	92	113	108	98	119	109	99	120	107	101	113
	Greater Manchester	527,530	106	98	115	121	111	130	124	115	134	117	112	123
	Cheshire & Merseyside	479,363	136	126	147	121	111	131	126	116	136	128	122	134
	Trent	522,819	161	150	172	142	131	152	145	135	156	149	143	155
	Shropshire and Staffordshire	297,099	112	100	124	119	106	131	129	116	142	120	112	127
	Birmingham and the Black Country	500,572	104	95	113	104	96	113	132	122	142	113	108	119
	West Midlands South	302,966	86	76	97	87	76	97	105	93	117	93	86	99
	Leicestershire, Northamptonshire and Rutland	322,182	195	180	210	175	160	189	165	151	179	178	170	187
	Norfolk, Suffolk and Cambridgeshire	419,111	123	112	134	109	99	119	109	99	119	114	108	120
	Essex	325,771	102	91	113	87	77	97	94	84	105	94	88	100
	Bedfordshire and Hertfordshire	338,631	113	102	124	118	107	129	114	103	126	115	109	122
	Thames Valley	432,767	91	82	100	91	82	100	77	69	85	86	81	91
	North East London	338,340	148	136	161	135	123	146	144	132	156	142	135	149
	North Central London	231,673	137	123	152	130	116	144	129	115	143	132	124	140
	North West London	325,721	135	123	147	146	134	159	135	123	147	139	132	146
	South West London	249,993	163	148	178	153	139	168	148	133	162	154	146	163
	South East London	305,159	156	142	169	151	137	164	154	141	167	153	146	161
	Kent and Medway	333,181	120	108	132	121	109	133	112	100	124	118	111	125
	Surrey and Sussex	487,915	162	151	173	151	140	162	157	146	168	157	150	163
	Hampshire and Isle of Wight	355,131	120	109	131	127	115	139	122	110	133	123	116	130
	Avon, Gloucestershire and Wiltshire	429,147	108	98	118	102	92	111	98	88	107	102	97	108
	Dorset and Somerset	220,268	105	91	119	100	87	114	104	91	118	103	95	111
	South West Peninsula	292,673	59	50	68	76	65	86	67	57	76	67	61	73
Wales	Anglesey	13,110	141	76	206	113	54	172	126	65	188	127	91	163
	Blaenau Gwent	14,819	70	27	114	162	93	231	114	56	171	116	82	149
	Bridgend	26,370	92	55	129	49	22	75	107	67	146	83	63	103
	Caerphilly Teaching	36,521	122	86	158	94	62	125	79	51	108	98	80	117
	Cardiff	62,962	133	105	161	111	85	137	151	121	181	132	116	148
	Cardiff and Vale	33,543	67	39	95	80	49	111	92	59	124	80	62	97
	Ceredigion	12,584	97	42	152	57	15	99	51	13	89	68	42	95
	Conwy	20,271	123	74	173	52	20	84	112	65	159	96	71	121
	Denbighshire	18,304	109	60	158	102	55	150	93	48	139	102	74	129
	Flintshire	30,437	80	48	113	121	82	160	117	78	155	106	85	127
	Gwynedd	22,582	95	56	134	112	70	154	122	78	166	110	86	134
	Merthyr Tydfil	12,071	57	12	102	149	76	222	153	81	225	120	82	157
	Monmouthshire	16,750	52	16	87	53	16	89	90	43	137	65	41	88
	Neath Port Talbot	26,390	73	40	106	80	45	115	105	65	145	86	65	107
	Newport	30,852	118	79	156	112	75	150	82	50	114	104	83	125
	Pembrokeshire	23,334	53	23	82	88	49	126	79	42	115	73	53	93
	Powys Teaching	24,495	63	30	95	83	45	120	59	28	90	68	49	88
	Rhondda Cynon Taff Teaching	48,366	99	71	128	131	98	163	71	47	95	101	84	117
	Swansea	42,458	102	72	132	85	57	113	80	53	107	89	72	105
	Torfaen	19,451	81	38	124	97	52	142	128	74	181	102	75	129
	Vale of Glamorgan	25,489	81	46	117	115	72	157	152	104	201	116	92	141
	Wrexham	25,308	93	56	130	107	68	147	93	56	130	98	76	120
Total		10,525,314	127	125	130	126	123	128	127	125	129	127	125	129

Table 61b Age-sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2006 SHA in England and Wales, 2004 - 2006

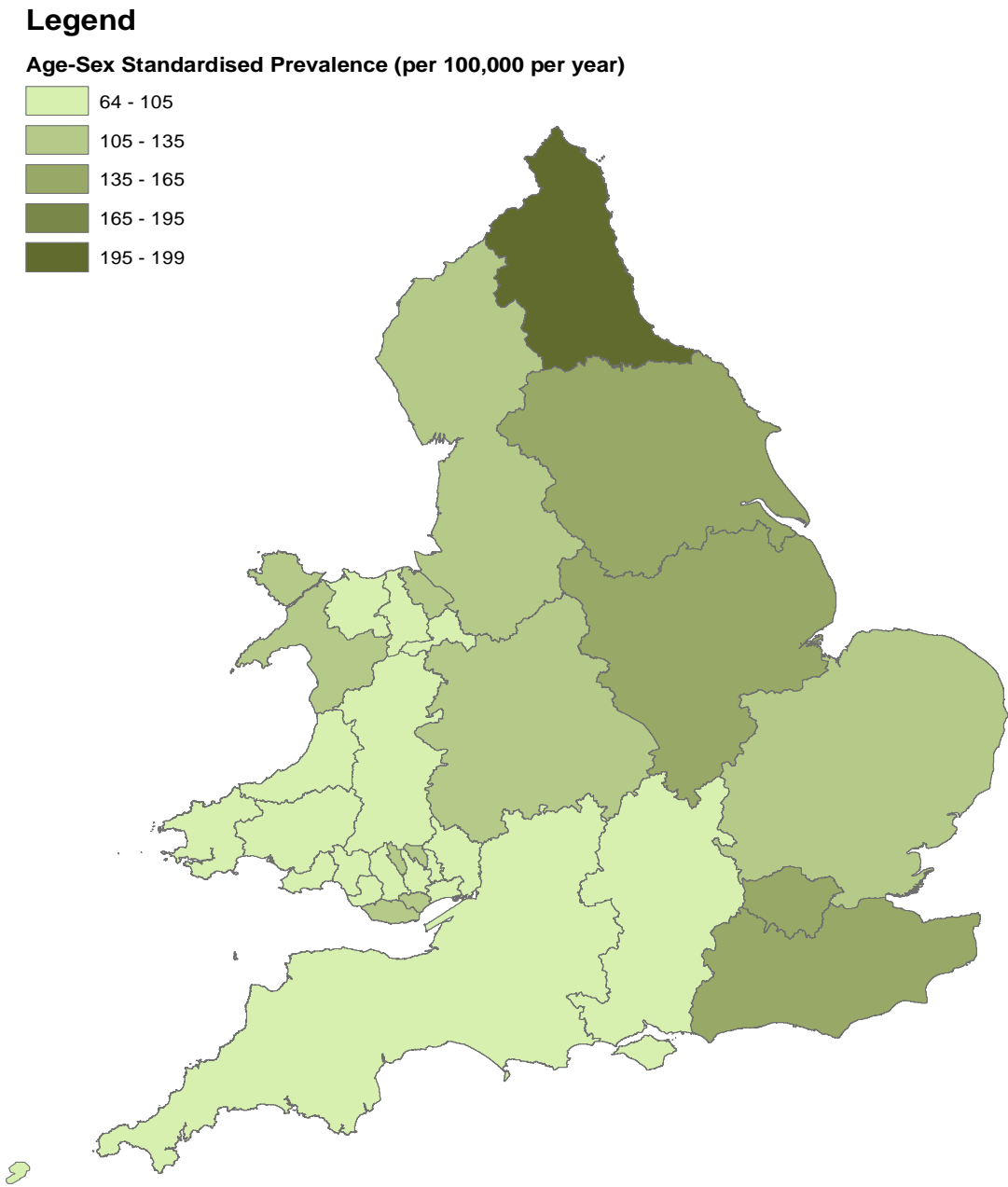
Country	SHA / HB	Population (2001 Census)	Prevalence											
			2004 (95% CI)			2005 (95% CI)			2006 (95% CI)			2004 - 2006 (95% CI)		
			Rate	Lower	Upper	Rate	Lower	Upper	Rate	Lower	Upper	Rate	Lower	Upper
England	North East	497,979	196	183	209	195	183	208	206	193	219	199	192	206
	North West	1,392,515	115	110	121	118	112	123	121	115	127	118	115	121
	Yorkshire and the Humber	1,017,150	140	133	148	147	140	155	145	137	152	144	140	148
	East Midlands	844,980	175	166	184	155	147	164	155	147	164	162	157	167
	West Midlands	1,100,748	101	95	107	103	97	109	125	118	131	110	106	113
	East of England	1,083,270	114	108	120	106	100	112	109	103	116	110	106	113
	London	1,451,005	148	142	153	143	137	149	143	138	149	145	141	148
	South East Coast	821,193	146	137	154	140	131	148	139	131	147	141	137	146
	South Central	787,804	104	97	111	107	100	114	98	91	105	103	99	107
	South West	942,183	92	86	98	93	87	100	90	84	96	92	88	95
Wales	Anglesey	13,110	141	76	206	113	54	172	126	65	188	127	91	163
	Blaenau Gwent	14,819	70	27	114	162	93	231	114	56	171	116	82	149
	Bridgend	26,370	92	55	129	49	22	75	107	67	146	83	63	103
	Caerphilly Teaching	36,521	122	86	158	94	62	125	79	51	108	98	80	117
	Cardiff	62,982	133	105	161	111	85	137	151	121	181	132	116	148
	Carmarthenshire	33,543	67	39	95	80	49	111	92	59	124	80	62	97
	Ceredigion	12,584	97	42	152	57	15	99	51	13	89	68	42	95
	Conwy	20,271	123	74	173	52	20	84	112	65	159	96	71	121
	Denbighshire	18,304	109	60	158	102	55	150	93	48	139	102	74	129
	Flintshire	30,437	80	48	113	121	82	160	117	78	155	106	85	127
	Gwynedd	22,582	95	56	134	112	70	154	122	78	166	110	86	134
	Merthyr Tydfil	12,071	57	12	102	149	76	222	153	81	225	120	82	157
	Monmouthshire	16,750	52	16	87	53	16	89	90	43	137	65	41	88
	Neath Port Talbot	26,390	73	40	106	80	45	115	105	65	145	86	65	107
	Newport	30,852	118	79	156	112	75	150	82	50	114	104	83	125
	Pembrokeshire	23,334	53	23	82	88	49	126	79	42	115	73	53	93
	Powys Teaching	24,495	63	30	95	83	45	120	59	28	90	68	49	88
	Rhondda Cynon Taff Teaching	48,366	99	71	128	131	98	163	71	47	95	101	84	117
	Swansea	42,458	102	72	132	85	57	113	80	53	107	89	72	105
	Torfaen	19,451	81	38	124	97	52	142	128	74	181	102	75	129
	Vale of Glamorgan	25,489	81	46	117	115	72	157	152	104	201	116	92	141
	Wrexham	25,308	93	56	130	107	68	147	93	56	130	98	76	120
Total		10,525,314	128	125	130	126	124	128	128	126	130	127	125	129

Figure 61a Age-Sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2004 SHA in England and Wales, 2004 - 2006



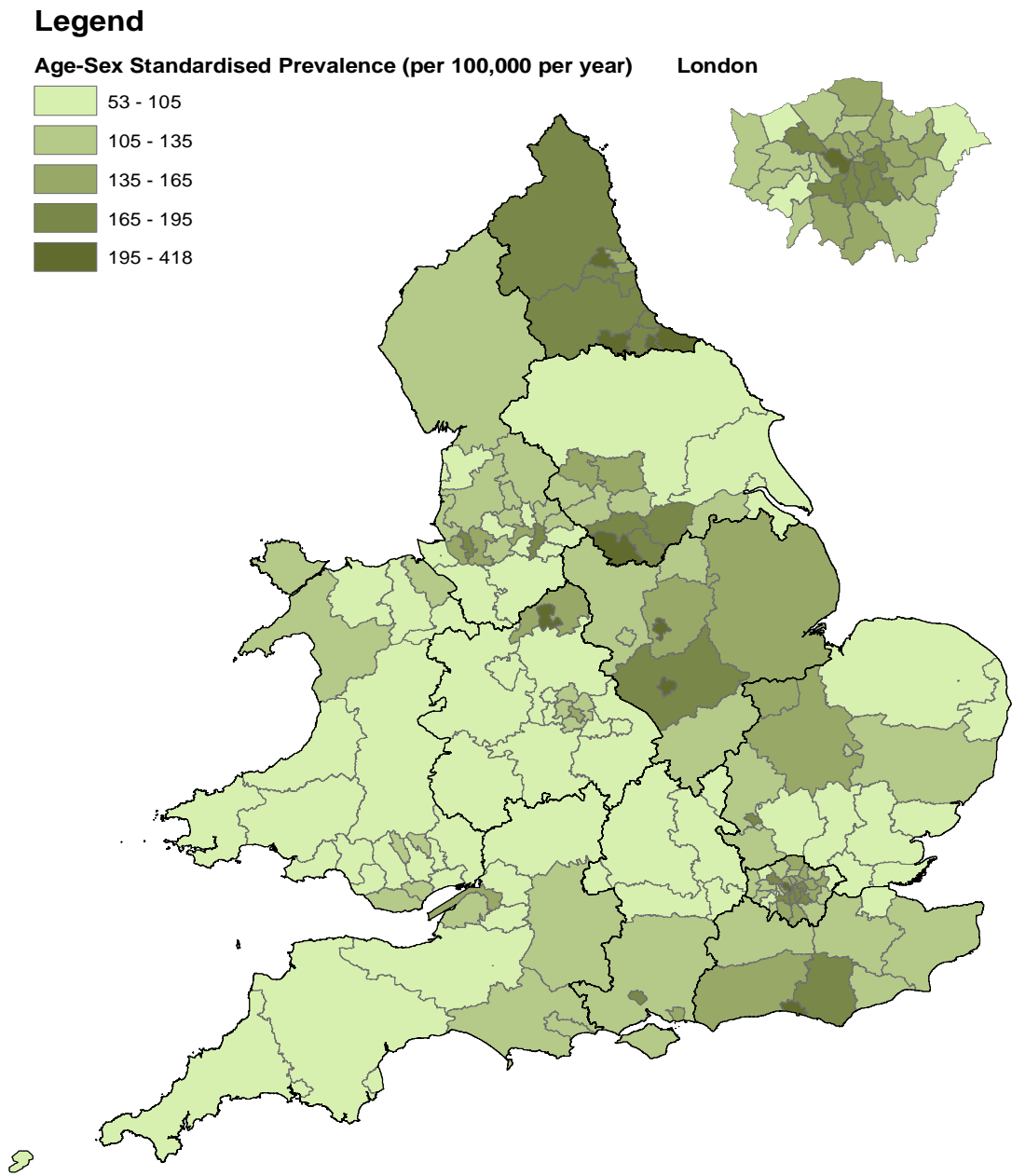
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Figure 61b Age-Sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2006 SHA in England and Wales, 2004 - 2006



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Figure 61c Age-Sex standardised prevalence (per 100,000 per year) for admissions to paediatric intensive care by 2006 PCO in England and Wales, 2004 - 2006



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**Table 62 Admission of children to AICUs by age and sex, England, 2005**

Sex	Age Group (years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Male	74	(19)	103	(27)	66	(17)	138	(36)	381	(55.9)
Female	57	(19)	79	(26)	58	(19)	107	(36)	301	(44.1)
Total	131	(19.2)	182	(26.7)	124	(18.9)	245	(18.9)	682	

Source: Intensive Care National Audit Research Centre and the South West Audit of Critically Ill Children



**Table 63 Admission of children to AICUs by age and month of admission, England, 2005**

		Age Group (years)								Total	
		<1		1-4		5-10		11-15			
		n	%	n	%	n	%	n	%		
2005	January	8	(13)	16	(25)	16	(25)	24	(38)	64	(9.4)
	February	6	(23)	14	(23)	7	(23)	23	(23)	50	(7.3)
	March	9	(21)	11	(26)	7	(16)	16	(37)	43	(6.3)
	April	6	(16)	9	(24)	3	(8)	19	(51)	37	(5.4)
	May	15	(22)	20	(29)	10	(15)	23	(34)	68	(10.0)
	June	11	(19)	10	(17)	13	(22)	24	(41)	58	(8.5)
	July	7	(16)	17	(39)	7	(16)	13	(30)	44	(6.5)
	August	10	(19)	13	(24)	12	(22)	19	(35)	54	(7.9)
	September	10	(15)	17	(25)	13	(19)	27	(40)	67	(9.8)
	October	9	(17)	19	(35)	15	(28)	11	(20)	54	(7.9)
	November	10	(16)	17	(27)	12	(19)	25	(39)	64	(9.4)
	December	30	(38)	19	(24)	9	(11)	21	(27)	79	(11.6)
Total		131	(19.2)	182	(26.7)	124	(18.2)	245	(35.9)	682	

Source: Intensive Care National Audit Research Centre and the South West Audit of Critically Ill Children

**Table 64 Admission of children to AICUs by age and diagnostic group, England, 2005**

Diagnostic group	Age group (years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Blood/lymphatic	0	(0)	0	(0)	0	(0)	2	(100)	2	(0.3)
Body wall and cavities	0	(23)	0	(23)	0	(23)	1	(23)	1	(0.1)
Cardiovascular	14	(56)	1	(4)	3	(12)	7	(28)	25	(3.7)
Endocrine/metabolic	7	(21)	6	(18)	5	(15)	16	(47)	34	(5.0)
Gastrointestinal	4	(13)	3	(10)	4	(13)	20	(65)	31	(4.5)
Infection	9	(39)	6	(26)	2	(9)	6	(26)	23	(3.4)
Musculoskeletal	2	(9)	0	(0)	4	(17)	17	(74)	23	(3.4)
Neurological	35	(14)	89	(36)	53	(22)	69	(28)	246	(36.1)
Oncology	4	(27)	3	(20)	2	(13)	6	(40)	15	(2.2)
Respiratory	47	(27)	53	(30)	44	(25)	33	(19)	177	(26.0)
Other	6	(11)	12	(21)	2	(4)	36	(64)	56	(8.2)
Trauma	3	(6)	9	(18)	5	(10)	32	(65)	49	(7.2)
Total	131	(19.2)	182	(26.7)	124	(18.2)	245	(35.9)	682	

Source: Intensive Care National Audit Research Centre and the South West Audit of Critically Ill Children

**Table 65 Mortality of children admitted to AICUs by age and diagnostic group, England, 2005**

Diagnostic group	Age group (years)								Total	
	<1		1-4		5-10		11-15			
	n	%	n	%	n	%	n	%	n	%
Cardiac	0	(0)	0	(0)	1	(100)	0	(0)	1	(5.0)
Endocrine/Metabolic	1	(23)	0	(23)	0	(23)	0	(23)	1	(5.0)
Gastrointestinal	1	(100)	0	(0)	0	(0)	0	(0)	1	(5.0)
Neurological	4	(36)	1	(9)	0	(0)	6	(55)	11	(55.0)
Respiratory	2	(40)	0	(0)	1	(20)	2	(40)	5	(25.0)
Trauma	0	(0)	0	(0)	0	(0)	1	(100)	1	(5.0)
Total	8	(40.0)	1	(5.0)	2	(10.0)	9	(45.0)	20	

Source: Intensive Care National Audit Research Centre and the South West Audit of Critically Ill Children

**Table 66 Discharge destination for children admitted to AICUs, England, 2005**

Discharge destination	Total	
	n	%
<b>Discharged to PICU</b>	271	(39.7)
<b>Discharged elsewhere</b>	391	(57.3)
<b>Died</b>	20	(2.9)
<b>Total</b>	<b>682</b>	

Source: Intensive Care National Audit Research Centre and the South West Audit of Critically Ill Children

**Table 67 Length of stay for surviving children admitted to AICUs, England, 2005**

	Age group (years)			
	<1	1-4	5-10	11-15
<b>Median length of stay</b>	1	1	1	2
<b>Range (days)</b>	1-4	1-5	1-6	1-25

Source: Intensive Care National Audit Research Centre and the South West Audit of Critically Ill Children

## APPENDIX A PARTICIPATING NHS TRUSTS AND HOSPITAL CHARACTERISTICS

NHS Trust	Participating Hospital	Unit / Ward	Number of ITU beds	Number of HDU beds	Type of unit
Birmingham Children's Hospital NHS Trust	Birmingham Children's Hospital	PICU	19	0	General & Cardiac
Brighton & Sussex University Hospitals NHS Trust	Royal Alexandra Hospital for Sick Children	Lydia Ward	1 <sup>a</sup>	1	General
Cambridge University Hospitals NHS Foundation Trust	Addenbrooke's Hospital	PICU	6	2	General
Cardiff & Vale NHS Trust	University Hospital of Wales	PICU	7	0	General
Central Manchester & Manchester Children's University Hospitals NHS Trust	Royal Manchester Children's Hospital	PICU	15	0	General
Great Ormond Street Hospital for Children NHS Trust	Great Ormond Street Hospital for Children	CCCU	14-16 <sup>b</sup>	0	Cardiac,
	Great Ormond Street Hospital for Children	PICU & NICU	21	0	General & Neonatal Unit
Guy's & St. Thomas' NHS Foundation Trust	Evelina Children's Hospital	PICU	15	0	General & Cardiac
Hull & East Yorkshire Hospitals NHS Trust	Hull Royal Infirmary	PICU beds on AITU	0	4	Adult ICU providing General PICU
King's College Hospital NHS Trust	King's College Hospital	PICU	6	0	General & Hepatic & Neurosurgical
Leeds Teaching Hospitals NHS Trust	Leeds General Infirmary	Wards 2 & 4	16 <sup>c</sup>	0	General & Cardiac
	St. James's University Hospital	PICU	16 <sup>c</sup>	0	General
Newcastle Upon Tyne Hospitals NHS Foundation Trust	Newcastle General Hospital	PICU	10 <sup>d</sup>	6 <sup>d</sup>	General
	Royal Victoria Infirmary	Ward 3	10 <sup>d</sup>	6 <sup>d</sup>	Surgical ICU
	Freeman Hospital	PICU Freeman	7 <sup>e</sup>	0	Cardiothoracic surgery & ECMO
NHS Lothian – University Hospitals Division	Royal Hospital for Sick Children, Edinburgh	PICU	6 <sup>f</sup>	6 <sup>f</sup>	General
Oxford Radcliffe Hospitals NHS Trust	The John Radcliffe Hospital	PICU	7	2	General & Cardiac
Nottingham University Hospitals NHS Trust	Queen's Medical Centre	PICU	6	4	General (plus regional neurosurgical, spinal and cleft lip & palate services)
Royal Brompton & Harefield NHS Trust	Royal Brompton Hospital	PICU	10	4	Cardiac & Respiratory

NHS Trust	Participating Hospital	Unit / Ward	Number of ITU beds	Number of HDU beds	Type of unit
Royal Liverpool Children's NHS Trust	Royal Liverpool Children's Hospital	PICU	21	0	General & Cardiac
Sheffield Children's NHS Foundation Trust	Sheffield Children's Hospital	PICU	9	2	General
	Sheffield Children's Hospital	Neonatal Surgical Unit	2	0	Neonatal Surgical Unit
Southampton University Hospitals NHS Trust	Southampton General Hospital	PICU	9 <sup>g</sup>	0	General & Cardiac
South Tees Hospitals NHS Trust	James Cook University Hospital	PICU	4	0	General
St. George's Healthcare NHS Trust	St. George's Hospital	PICU	5	0	General
St. Mary's NHS Trust	St. Mary's Hospital	PICU	8	2	General
The Lewisham Hospital NHS Trust	University Hospital, Lewisham	PICU	1	2 <sup>h</sup>	General & Surgery
United Bristol Healthcare NHS Trust	Bristol Royal Hospital for Children	PICU	13	0	General & Cardiac
University Hospitals of Leicester NHS Trust	Leicester Royal Infirmary	CICU	6	2	General
	Glenfield Hospital	PICU	5	0	Cardiac
University Hospital of North Staffordshire NHS Trust	University Hospital of North Staffordshire	PICU	6	1	General

- Notes:
- a Upon moving to the new Children's hospital in June 2007, the unit will run at 1 ITU bed, 2 medical HDU beds and 2 surgical HDU beds initially
  - b The actual figure depends on the number of ECMO patients and HDU patients.
  - c Nurses / beds used flexibly across the sites
  - d Total bed numbers split between two hospital sites
  - e May become 8 beds, 2007
  - f ITU / HDU beds used flexibly (e.g. 6 ITU + 6 HDU, 9 ITU + 3 HDU, 11 ITU +1 HDU)
  - g 3 additional beds may be opening shortly
  - h Flexed by a further 2 beds to support winter pressures

## APPENDIX B CLINICAL ADVISORY GROUP MEMBERSHIP

Name	Position	NHS Trust / Hospital	Period served
Dr Paul Baines	Consultant in Paediatric Intensive Care	Royal Liverpool Children's NHS Trust Alder Hey Hospital	2002 - present
Ms Corenna Bowers	Sister	Cardiff & Vale NHS Trust University Hospital of Wales	2002 - 2004
Dr Peter Davis	Consultant in Paediatric Intensive Care	United Bristol Healthcare NHS Trust Bristol Royal Hospital for Children	2006 - present
Dr Andrew Durward	Consultant in Paediatric Intensive Care	Guy's & St Thomas' NHS Foundation Trust Evelina Children's Hospital	2002 - present
Ms Georgina Gymer	Research Nurse	Nottingham University Hospitals NHS Trust Queen's Medical Centre	2005 - 2006
Dr James Fraser	Consultant in Paediatric Intensive Care	United Bristol Healthcare NHS Trust Bristol Royal Hospital for Children	2002 – 2006
Dr Hilary Klonin	Consultant in Paediatric Intensive Care	Hull & East Yorkshire Hospitals NHS Trust Hull Royal Infirmary	2002 - present
Ms Christine Mackerness	Sister	Newcastle Upon Tyne Hospitals NHS Foundation Trust Newcastle General Hospital	2002 - present
Ms Tina McClelland	Audit Sister	Royal Liverpool Children's NHS Trust Alder Hey Hospital	2006 - present
Dr Jillian McFadzean	Consultant in Paediatric Intensive Care	NHS Lothian – University Hospitals Division Edinburgh Royal Hospital for Sick Children	2005 - present
Ms Victoria McLaughlin	Audit Nurse	Central Manchester & Manchester Children's University Hospitals NHS Trust Royal Manchester Children's Hospital	2002 - present
Dr Roddy O'Donnell	Consultant in Paediatric Intensive Care	Cambridge University Hospitals NHS Foundation Trust Addenbrooke's Hospital	2002 - present
Ms Geralyn Oldham	Information Support Manager	Great Ormond Street Hospital for Children NHS Trust Great Ormond Street Hospital for Sick Children	2002 - present
Dr Gale Pearson ( <b>Chair</b> )	Consultant in Paediatric Intensive Care	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital	2002 - present
Dr Damian Pryor	Consultant in Paediatric Intensive Care	Cardiff & Vale NHS Trust University Hospital of Wales	2002 - 2004
Dr Allan Wardhaugh	Consultant in Paediatric Intensive Care	Cardiff & Vale NHS Trust University Hospital of Wales	2004 - present
Ms Debbie White	Sister	Cambridge University Hospitals NHS Foundation Trust Addenbrooke's Hospital	2002 - present



## APPENDIX C STEERING GROUP MEMBERSHIP

Name	Position	Organisation	Representation	Period Served
Mrs Pamela Barnes	Chair of Action for Sick Children	Action for Sick Children	Lay Member	2002 - present
Professor Nick Black (Chair)	Head of Health Services Research Unit	London School of Hygiene and Tropical Medicine	Health Services Research / Public Health	2002 - present
Mr William Booth	Clinical Nurse Manager	United Bristol Healthcare NHS Trust Bristol Royal Hospital for Children PICU	Royal College of Nursing	2002 - present
Ms Bev Botting	Child Health and Pregnancy Statistics	Office for National Statistics	Office for National Statistics (data protection)	2002 - 2003
Dr Jean Chapple	Consultant in Perinatal Epidemiology / Public Health	Westminster Primary Care Trust	PICNET founder	2002 - 2006
Dr Bill Chaudhry	Consultant Paediatrician	Newcastle Upon Tyne Hospitals NHS Trust Newcastle General Hospital PICU	Clinical IT	2002 - 2003
Dr Mark Darowski	Consultant Paediatric Anaesthetist	Leeds Teaching Hospitals NHS Trust Leeds General Infirmary PICU	Royal College of Anaesthetists	2002 - present
Mr Noel Durkin	Department of Health	Child Health Services Directorate	Department of Health	2002 - present
Dr Ian Jenkins	Consultant in Paediatric Intensive Care	United Bristol Healthcare NHS Trust Bristol Royal Hospital for Children PICU	Paediatric Intensive Care Society	2006 - present
Dr Steve Kerr	Consultant in Paediatric Intensive Care	Royal Liverpool Children's NHS Trust Alder Hey Hospital PICU	Chair of PICS	2003 - present
Ms Helen Laing	Clinical Audit	Healthcare Commission	Healthcare Commission	2004 - 2006
Mr Ian Langfield	Audit Co-ordinator	National Assembly of Wales	National Assembly of Wales	2002 - 2003
Dr Michael Marsh	Consultant in Paediatric Intensive Care	Southampton University Hospitals NHS Trust Southampton General Hospital PICU	Royal College of Paediatrics and Child Health	2002 - present
Dr Jillian McFadzean / Ms Laura Reekie	Consultant in Anaesthesia & Intensive Care / PA	NHS Lothian – University Hospitals Division Edinburgh Royal Hospital for Sick Children	Edinburgh Royal Hospital for Sick Children	2005 - present
Dr Roddy McFaul	Medical Advisor	Child Health Services Directorate	Department of Health	2002 - 2003
Dr Kevin Morris	Consultant in Paediatric Intensive Care	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital PICU	Clinical Lead for the West Midlands Medicines for Children Local Research Network	2006 - present
Professor Jon Nicholl	Director of Medical Care Research Unit	School of Health and Related Research University of Sheffield	Health Services Research / Statistics	2002 - 2006
Dr Gale Pearson	Consultant in Paediatric Intensive Care	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital PICU	Chair of PICANet CAG	2002 - present
Ms Tanya Ralph	Nursing Research Lead	Sheffield Children's NHS Foundation Trust Sheffield Children's Hospital PICU	PICS	2002 - 2006

<b>Name</b>	<b>Position</b>	<b>Organisation</b>	<b>Representation</b>	<b>Period Served</b>
Dr Kathy Rowan (on sabbatical 2004 -, represented by Lucy Scott)	Director	ICNARC	Intensive Care National Audit & Research Centre	2002 - present
Mr Stuart Rowe	PCT Commissioner	Commissioning Department Hammersmith & Fulham PCT	PCT Commissioner (Pan-Thames)	2003 - present
Ms Dominique Sammut	Audit Co-ordinator	Health Commission Wales	Health Commission Wales	2003 - present
Dr Jennifer Smith	Medical Advisor	Office Project Team	Commission for Health Improvement	2002 - 2004
Dr Charles Stack	Consultant in Paediatric Intensive Care	Sheffield Children's NHS Foundation Trust Sheffield Children's Hospital PICU	PICS	2002 - 2006
Professor Stuart Tanner	Medical Advisor in Paediatrics and Child Health	Child Health Services Directorate Department of Health	Department of Health	2003 - 2006
Dr Robert Tasker	Lecturer in Paediatrics	Department of Paediatrics University of Cambridge Clinical School	PICS SG	2004 - present
Dr Edward Wozniak	Medical Advisor in Paediatrics and Child Health	Child Health Services Directorate Department of Health	Department of Health	2006 - present

## APPENDIX D DATA/INFORMATION REQUESTS RECEIVED TO DATE

Request date	Name	Position & Place of work	Information requested	Status
06/07/2004	Tom Blyth	Clinical Research Fellow Department of Paediatric Allergy, St Mary's Hospital, London	<b>ASTHMA STUDY</b> For each month of the study (starting September 2003) the number of children admitted with asthma for each hospital participating in the study, their ages, whether they were ventilated (and if so for how long) and the length of PICU admission. The hospitals involved are – Bristol, Southampton, Guys, Georges, GOS, Brompton, St Mary's, Leicester, Cambridge, Manchester, Alder Hey, Cardiff, Sheffield, Nottingham*, North Staffs*. (* - final approval to recruit not yet obtained). I would also be interested in knowing a list of all PICUs on PICANet so I can see if I could approach any other units.	Completed
24/09/2004	Mark Darowski	Clinical Director, Leeds Teaching Hospitals Trust	<b>LEEDS SMRs</b> 1. SMR for each of the 3 elements of our service (as up-to-date as possible).  2. If the data suggest that SJUH PICU has a high SMR, please can I have an SMR (with CI) for oncology patients admitted to SJUH as compared to a national aggregate score for oncology patients.	Completed
04/10/2004	Charles Stack	Director ICU, Sheffield Children's Hospital	<b>PREVALENCE RATES OF ADMISSION</b> Prevalence rate of admissions per 1000 children per year in PICANet recording area for the last full year.	Completed
06/10/2004	Simon Nadel & DoH	Consultant in Paediatric Intensive Care, St Mary's Hospital London	<b>RSY STUDY</b> Number of children admitted to UK PICUs with a diagnosis of acute viral bronchiolitis, and/or (if possible) a diagnosis of RSV infection.	Completed
18/11/2004	Andrew Magnay	Consultant in Paediatric Intensive Care, University of North Staffordshire NHS Trust	<b>NORTH STAFFS ADMISSIONS</b> Quarterly or 4 monthly report by fiscal year time frames of the following population data, specifically, patients admitted to PICU, University Hospital of North Staffordshire: 1. Number of Admissions by PCT during report time window. 2.a. Number of episodes which completed (=discharge or death) during the report time window by PCT, and b. Number of days of PICU care associated with these discharges/ deaths by PCT; 3. Number of admissions by Health authority; 4. a. Number of episodes which completed (=discharge or death) during the report time window by Health Authority and b. Number of days of PICU care associated with these discharges / deaths by Health Authority	Completed
30/11/2004	Ulf Theilen	Locum Consultant, Royal Hospital for Sick Children, Edinburgh	<b>PERTUSSIS</b> Number of admissions to PICUs in 2003 and 2004 with diagnosis pertussis <ul style="list-style-type: none"> <li>• Number of deaths of these children</li> <li>• Of these children, age at time of death</li> <li>• Use of inotropes (yes/no)</li> <li>• Level of max. mean airway pressure (if available)</li> </ul>	Completed

07/12/2004	Mark Campbell	SHO, Anaesthetics, Derriford Hospital, Plymouth	<b>TEENAGERS IN PICU</b> Epidemiology of critical care in teenagers:-  A) % and numbers of admissions of 13 to 19 year olds (inclusive) B) diagnostic case-mix by broad category C) male: female ratio D) length of stay and invasive or non-invasive ventilation (mean, median and IQR please) E) outcome F) Could we have the same figures for those admitted from another hospital or from an intensive care unit	Rejected
23/12/2004	Rosa Jones	Specialised Services Commissioning Manager, Specialised Services Commissioning Team, Cheshire West PCT	<b>NORTH WEST RSV</b> Number and length of stay in days of children with bronchiolitis, RSV-positive bronchiolitis and RSV-negative infection in children admitted to Royal Liverpool Children's Hospital and Royal Manchester Children's Hospital for the period of March 2003 and February 2004	Completed
10/01/2005	Peter Davis	Consultant Paediatric Intensivist, Bristol Royal Hospital for Children	<b>BURNS STUDY</b> All children admitted to PICUs in UK with burns.  Breakdown of numbers per unit, with identification of units if possible  First portion of postcode to identify geographical location of home address of all PICU burn admissions	Completed (without unit identification)
27/01/2005	Andrew Gill	Senior Casemix Consultant NHS Information Authority	<b>NHSIA STUDY</b>  Full PICANet dataset requested to develop robust Healthcare Resource Groups for Paediatric Critical Care. This work has been commissioned by the Department of Health to support the Payment by Results initiative	PICANet has written a software utility to enable PICUs to provide data from local PICANet databases for the HRG study. PICANet continues to provide support to the PCC Expert Working Group in the development of HRGs for paediatric intensive care.
19/04/2005	Sophie Lusby	Project Manager - Children's Services Barts and the London NHS Trust	<b>NORTH EAST LONDON REQUEST</b> For North East London residents ONLY, for 2003/4 and 2004/5 as far as possible and all queries split by period: <ul style="list-style-type: none"> <li>• How many children treated in PIC?</li> <li>• Numbers/percentages by sex</li> <li>• Numbers/percentages by age, splitting the ages into under 28 days, under 1 year, under 2 years, and above</li> <li>• What were the diagnoses of these children on admission? (numbers/percentages of different diagnoses)</li> <li>• And of these please specify single/multi system failure (numbers/percentages of either)</li> <li>• Length of stay, in hours</li> <li>• Length of intubation, in hours (if not intubated please specify also)</li> <li>• Name of treating PIC (numbers and percentages)</li> </ul> LESS IMPORTANTLY BUT STILL REQUISITE: <ul style="list-style-type: none"> <li>• Numbers by age, as above, but also 2-5 yrs, 5-10, 10 and above</li> <li>• Retrieval/Transfer – type</li> </ul>	Completed

			<ul style="list-style-type: none"> <li>• Other reasons for admission</li> <li>• Co-morbidities</li> <li>• Discharge destination</li> <li>• Diagnosis on discharge</li> <li>• Any information on readmission</li> </ul>	
29/05/2005	Simon Nadel	Consultant in Paediatric Intensive Care, St Mary's Hospital, London	<p><b>SEPSIS STUDY</b></p> <p>The numbers of children admitted to PICUs with a primary or secondary diagnosis of sepsis.  Is this community or nosocomially acquired?  What is the proportion of underlying co-morbidity?  What is the age spread?  Do you have information about aetiology (i.e. infecting organisms)?  How many children with "other" diagnoses (i.e. respiratory / neurological) have a primary infectious cause of PICU admission?  What is the outcome?</p>	Pending
13/06/2005	Stuart Rowe	Lead Commissioner - Pan Thames, Hammersmith and Fulham PCT	<p><b>PAN THAMES COMMISSIONERS' REQUEST</b></p> <p>All data will relate to residents with a postcode in the Pan Thames region and will cover the periods 2003/4 (April – March) and 2004/5 (April – March).</p> <p><b>DATA BY YEAR AND BY SHA</b></p> <ul style="list-style-type: none"> <li>• PICU admissions by month</li> <li>• PICU admissions by gender</li> <li>• PICU admissions by age:  Age groups: ≤28 days, 29 days to &lt;1 year, 1 to &lt;2 years, 2 to &lt;5 years, 5 to &lt;10 years, 10 years plus.</li> <li>• PICU admissions by diagnosis on admission.  Diagnostic groups: Accidents &amp; poisoning, Blood/lymphatic, Cardiovascular, Congenital, Endocrine/metabolic, Gastrointestinal, Infection, Musculoskeletal, Neurological, Oncology, Perinatal, Respiratory, Trauma, Urological, Other.</li> <li>• PICU admissions by intervention received:  Invasive ventilation, Non-invasive ventilation, ECMO, IV vasoactive drug therapy, LVAD, ICP device, Renal support.</li> <li>• PICU admissions by length of stay  In hours: &lt;1, 1 to &lt;4, 4 to &lt;12, 12 to &lt;24, 24 plus.  In days: &lt;1, 1 to &lt;3, 3 to &lt;7, 7 to &lt;14, 14 to &lt;28, 28 plus.</li> <li>• PICU admissions by days of invasive ventilation  In days: &lt;1, 1 to 2, 3 to 5, 6 to 10, 11 plus.</li> <li>• PICU admissions by unit discharge status  Status: Alive or dead.</li> <li>• PICU admissions by unit discharge destination  Destination groups: Home, Same hospital, Other hospital.</li> <li>• Number of retrievals by team type  Team type: Own team, Other specialist team (PICU), Other specialist team (non-PICU), Non-specialist team.</li> </ul> <p>The above can all be done by month for an aggregated Pan Thames dataset.</p> <p><b>UNIT LEVEL DATA BY YEAR AND BY PCT</b></p> <ul style="list-style-type: none"> <li>• PICU admissions by treating unit (*anonymised until agreement received).</li> </ul> <p>*Responsibility of Pan Thames to gain agreement from lead clinician.  The above can all be done by month for an aggregated Pan Thames dataset.</p>	Completed

13/06/2005	Stuart Rowe	Lead Commissioner - Pan Thames, Hammersmith and Fulham PCT	<b>SUPPLEMENTARY REQUEST:</b> All data will relate to residents with a postcode in the Pan Thames region and will cover the periods 2003/4 (April – March) and 2004/5 (April – March). <b>DATA BY YEAR AND BY SHA</b> <ul style="list-style-type: none"> <li>Number of retrievals by primary diagnostic group</li> </ul> Diagnostic groups: Accidents & poisoning, Blood/lymphatic, Cardiovascular, Congenital, Endocrine/metabolic, Gastrointestinal, Infection, Musculoskeletal, Neurological, Oncology, Perinatal, Respiratory, Trauma, Urological, Other ? More details for neurological <ul style="list-style-type: none"> <li>LTV patients</li> </ul> ? Define LTV ? Data <ul style="list-style-type: none"> <li>?Ethnicity / Mortality / Illness severity</li> </ul>	Completed
21/06/2005	Noel Durkin	Child Health Services Directorate, Department of Health	<b>CASELOAD PRESSURES</b> Department of Health provided their draft ' <b>National Paediatric Intensive Care Capacity Stocktake</b> ' proforma and requested PICANet completed the data fields where possible. (Data was requested for 2001 - 2005). 1. Current bed numbers by unit (separated by High Dependency and Intensive Care). 2. Number of these beds which are currently fully staffed and at what WTE per bed. 3. Information on current workload by unit (including number of patients admitted and their average length of stay). 4. Any information on refusals. 5. Number of retrievals by unit. 6. Average bed occupancy by unit and further separated by High Dependency and Intensive Care.	Completed
29/07/2005	Duncan Macrae	PICU Director, Royal Brompton Hospital	<b>GLYCAEMIA CONTROL INTERVENTION TRIAL</b> <ul style="list-style-type: none"> <li>Numbers of admissions of children invasively ventilated</li> <li>Numbers given inotropes</li> <li>Whether they received cardiac surgery or not</li> <li>Length of stay</li> <li>Mortality at discharge.</li> </ul>	Completed
03/08/2005	Kevin Morris	Consultant in PICU, Birmingham Children's Hospital	<b>WEST MIDLANDS BURNS</b> Numbers, severity (%), length of stay, mortality (and time to death).	Completed
16/08/2005	Kevin Morris	Consultant in PICU, Birmingham Children's Hospital	<b>NEURO MONITORING</b> Information about children admitted to PICU with a diagnosis of meningitis or encephalitis and the use of neuro-monitoring in these patients e.g. ICP monitoring	Completed
22/08/2005	Iain MacIntosh	Consultant in PICU, Southampton General Hospital	<b>SOUTHAMPTON RESPIRATORY</b> Number of patients admitted with a respiratory diagnosis. This information divided into bronchiolitis / asthma / pneumonia. We need to then divide the patients into those over one year old and those under one year old	Completed

06/10/2005	David Cremonesini	Registrar, John Radcliffe Hospital, Oxford	<b>OXFORD NIV</b> All children admitted to the PICU in Oxford who have received non-invasive ventilation: <ul style="list-style-type: none"> <li>• Admission number</li> <li>• Casenote number</li> <li>• Name</li> <li>• DOB</li> <li>• Admission date</li> <li>• Discharge status</li> <li>• Discharge date</li> <li>• Non-invasive ventilation</li> <li>• Number of days of non-invasive ventilation</li> <li>• Invasive ventilation</li> <li>• Number of days of invasive ventilation (if applicable)</li> <li>• Tracheostomy</li> <li>• Primary diagnosis</li> </ul>	Completed
10/10/2005	Sophie Lusby	Project Manager - Children's Services Barts and the London NHS Trust	<b>SUPPLEMENTARY REQUEST</b> Supplementary data to that in the report recently provided. <ul style="list-style-type: none"> <li>• Split LOS into &lt;24 hrs, 24 to &lt;48 hrs, 48 hrs plus</li> <li>• Look at number of days ventilated</li> <li>• Look at diagnosis</li> </ul>	Completed
20/10/2005	Zoey Taylor	Audit Clerk, University Hospital of Wales	<b>CARDIFF MENINGITIS</b> Number of patients admitted to Cardiff's PICU with a diagnosis of meningococcal disease (by month / age / admission source).	Completed
26/10/2005	Peter Davis	Consultant Paediatric Intensivist, Bristol Royal Hospital for Children	<b>BRISTOL CPR</b> Numbers of both in-hospital and out-of hospital arrests for 2003-4 admitted to PICU, their ages, admission diagnosis and their ultimate outcome (survival / non-survival). Also their pupillary reaction.	Completed
11/11/2005	Mark Darowski	Clinical Director, Leeds Teaching Hospitals Trust	<b>LEEDS BED PLANNING STUDY</b> <b>Data request from SOAPS for PICU data</b> <ol style="list-style-type: none"> <li>1. Commissioned beds per head of population under age 16 by geographical area. Within this, we need to make an allowance for the cardiac work that comes into Leeds from North Trent.</li> <li>2. Patient flows. <ol style="list-style-type: none"> <li>a. For each PCT within our area, identify all patients requiring PIC care and the units in which they received it.</li> <li>b. For all patients admitted to Leeds/Hull PICU, identify source PCT.</li> </ol> </li> <li>3. Beds days. Total beds occupied per annum and on each day, aggregated by PCT and by commissioning area. <ol style="list-style-type: none"> <li>a. Excluding long term ventilated patients (at various levels), therefore excluding patients who have been ventilated for <ol style="list-style-type: none"> <li>i. &gt; 3/12</li> <li>ii. &gt; 6/12</li> <li>iii. &gt; 9/12</li> </ol> </li> <li>b. Excluding high dependency patients (those who have never been ventilated during their PICU stay)</li> </ol> </li> </ol> <ul style="list-style-type: none"> <li>- Calculate funded beds per 100,000 population.</li> <li>- Calculate funded beds per 100,000 population, weighted for socio-economic deprivation.</li> <li>- Calculate number of beds required to meet 90% and 95% of demand as calculated in 3 above and then</li> </ul>	Completed

			<p>excluding LTV patients (at each level) and HD patients.</p> <ul style="list-style-type: none"> <li>- Calculate on how many days predicted bed requirements are not sufficient to meet demand at each level, and how many patients would have failed to be admitted.</li> <li>- Plot number of children on PICU by day against max number of commissioned beds, nationally and for each commissioning region. Plan services</li> </ul>	
01/12/2005	Tim Martland	Consultant Paediatric Neurologist, Royal Manchester Children's Hospital	<p><b>STATUS EPILEPTICUS STUDY</b></p> <p>PICANet data for children admitted with Status epilepticus (please specify:.....)</p> <p>Treatment used for status epilepticus (possibly use custom fields section of database).</p>	Rejected
06/12/2005	Corinne Camilleri-Ferrante	Consultant in Public Health Medicine, TrentCOM	<p><b>TRENT BED OCCUPANCY</b></p> <p>More information on the bed days in Nottingham (QMC), Sheffield and Leicester, particularly the split in Sheffield between PIC and neonatal surgery beds.</p> <p>The data as they currently appear do not seem logical and I understand that might be the problem.</p>	Completed
08/12/2005	Parviz Habibi	Consultant, St Mary's Hospital	<p><b>BRONCHIOLITIS - MORTALITY</b></p> <p>Annual death rate from bronchiolitis 2004</p>	Completed
08/12/2005	Nadeem Moghal	Consultant Paediatric Intensive Care, Nephrology, RVI Newcastle	<p><b>RENAL FAILURE</b></p> <p>Epidemiology of acute renal failure in PICU setting, nationally – CVVH, HD, PD etc</p>	Completed
12/01/2006	Nour Hassan	Clinical Fellow, Newcastle General Hospital	<p><b>NGH RVI ONCOLOGY</b></p> <p>The following information on oncology admissions to NGH and the RVI:</p> <ul style="list-style-type: none"> <li>• Non-invasive ventilation: Yes/No (if yes, number of days)</li> <li>• Invasive ventilation: Yes/No (if yes, number of days)</li> <li>• Inotropes: Yes/No</li> </ul>	Completed
16/01/2006	Sian Thomas	Project Manager, Welsh Assembly Government	<p><b>WELSH TBI</b></p> <p>Admissions to PICU (outside Cardiff) with a Welsh postcode, aged under 16 years with a primary diagnosis of traumatic brain injury.</p> <p>Time period: June 2003 – May 2005</p>	Completed
01/03/2006	James Fraser	Consultant in Paediatric Intensive Care, Bristol Children's Hospital	<p><b>PICU ACTIVITY</b></p> <p>The number of admissions and number of bed days by PCT</p> <p>(a) for Bristol admissions and</p> <p>(b) for all PICU admissions</p>	Completed
02/03/2006	Anna Seale	SpR Paediatric Cardiology Royal Brompton Hospital	Admissions with TAPVC / congenital pulmonary vein stenosis.	Completed (information returned to individual PICUs)
05/06/2006	Cornelia Junghans	Epidemiologist & Research Fellow, Prognostic Epidemiology Group, UCL Medical School	<p><b>NEL PATIENTS STUDY</b></p> <p>For all patients in the NEL sector:</p> <p>Not currently in the manual but discussed with Roger Parslow:</p> <ol style="list-style-type: none"> <li>1. Individual Townsend score</li> <li>2. Ethnicity obtained by name programme</li> <li>3. Age in months</li> <li>4. Survival in months</li> <li>5. Primary diagnosis by diagnostic group</li> </ol>	Completed



		<p>Data directly from the database:</p> <ol style="list-style-type: none"> <li>1. ADDATE</li> <li>2. ADTIME</li> <li>3. SEX</li> <li>4. ADTYPE</li> <li>5. GEST</li> <li>6. MULT</li> <li>7. SOURCEAD</li> <li>8. PREVICUAD</li> <li>9. CAREAREAAD</li> <li>10. RETRIEVAL</li> <li>11. RETRIEVALBY</li> <li>12. OTHDIAGNOTES</li> <li>13. OTHDIAG</li> <li>14. OPPROCNOTES</li> <li>15. OPPROC</li> <li>16. COMNOTES</li> <li>17. COMDIAG</li> <li>18. PRECEDCPR</li> <li>19. PRECEHOSPCARDARR</li> <li>20. CARDIOMYOCARDITIS</li> <li>21. CARDIACBYP</li> <li>22. SEVCOMBIMMUNE</li> <li>23. SPONTCEREBHAEM</li> <li>24. HIV</li> <li>25. LIVERFAIL</li> <li>26. LEUKLYMPH1ST</li> <li>27. NEUROGENDIS</li> <li>28. HYPOPLAS</li> <li>29. ELECTIVEAD</li> <li>30. PRIMREASON</li> <li>31. INTUBATION</li> <li>32. HEADBOX</li> <li>33. MECHVENT</li> <li>34. CPAPFIRSTHR</li> <li>35. INVVENT</li> <li>36. INVVENTDAY</li> <li>37. NONINVVENT</li> <li>38. NONINVVENTDAY</li> <li>39. INTTRACHEOSTOMY</li> <li>40. VASOACTIVE</li> <li>41. LVAD</li> <li>42. ICPVD</li> <li>43. ICPBOLT</li> <li>44. RENALSUPPORT</li> <li>45. RENALHAEMFIL</li> <li>46. RENALHAEMDIA</li> <li>47. RENALPLASFILT</li> <li>48. RENALPLASEXCH</li> <li>49. RENALPERIDIA</li> </ol>	
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			50. UNITDISSTATUS 51. DISPALCARE 52. UNITDISDATE 53. UNITDISTIME 54. UNITDISDEST 55. UNITDISDESTHOSP 56. COMMENTS	
07/06/2006	James McLean	Matron, Leicester PICU Services	<b>CICU ADMISSIONS</b> All admissions to LRI CICU, with breakdown of level of dependency	Rejected
08/06/2006	Samy Subramaniam	Deputy Manager, Department of Health, Wellington House	<b>COSTINGS</b> Costs / episodes information relating to Paediatric Intensive care. It will be helpful, if you would provide a child's care episodes, relevant costs and other information	Rejected
26/06/2006	Jonathan Round	Consultant, St George's Hospital PICU, Tooting	<b>ONCOLOGY STUDY</b> Raw data on all patients admitted to PICU's in the UK with oncology coding. Data required on: age, sex, oncology diagnosis, and where in treatment (may not be in picanet dataset), if had bone marrow transplant, other diagnoses, PIM data at admission, if ever ventilated (invasive or non-invasive) or received inotropes, outcome, LOS and status at 30 days. I also need source of admission, planned/unplanned and post surgery.	Completed
27/06/2006	Peter Davis	Consultant Paediatric Intensivist, Bristol Royal Hospital for Children	<b>SOUTHWEST AUDIT OF CRITICALLY ILL CHILDREN</b> All children admitted from April 2003 – March 2006 with a postcode starting with one of the following (BA, BS, EX, GL, PL, SN, TA, TQ, TR) to a unit other than Bristol Royal Hospital for Children. Information required: PICU (NHS Trust) admitted (code); First 3-4 characters of postcode (e.g. BS16); Date of admission; Age; Elective or non-elective admission; Retrieval type (if appropriate); Primary diagnosis (+ read code); Length of stay; Discharge outcome	Completed
11/07/2006	Tina McClelland	Audit Nurse, PICU, Alder Hey, Liverpool	<b>SMR STUDY</b> The SMR for Alder Hey is high. Would like to investigate possible reasons for this. Require: <ol style="list-style-type: none"> <li>1. Total deaths, ventilation rate, mortality rate and PIM predicted SMR by year (2003, 2004, 2005)</li> <li>2. Exclude patients who were dead on admission</li> <li>3. Look at whether the SMRs might be related to missing PIM data: reanalyze SMR (across the years 2003/04/05) in three groups 1) all patients 2) those where one or more of the PIM physiological variables are missing (PaO2 Bxs, systolic BP) 3) those where all the PIM physiological variables are missing (PaO2 Bxs, systolic BP)</li> <li>4. Also start to look at whether the SMRs might be related to the case-mix seen at Alder Hey.</li> </ol>	Completed
30/07/2006	David Pedley	Consultant in Emergency Medicine, James Cook University Hospital	<b>LEVEL OF CARE</b> I need information on the level of care in each PICU in England and Wales. In particular I need to establish which units are staffed by full time intensivists and the access to neurosurgical advise / expertise. I was hoping to use levels of care defined by Rosenberg et als in the following paper. Rosenberg etal (Guidelines and levels of care for pediatric intensive care units) Crit Care Med 2004 vol.32 no10. If this is not the classification used by your database is there a UK equivalent and could you supply these	Rejected

			criteria?	
01/08/2006	Heather Titcombe	Specialist Commissioner for Children's Tertiary Services, Jubilee House, South Central SHA, Oxford (host South West SHA)	<p><b>SOUTH WEST</b></p> <p>I would like the following :</p> <p>1. The total number of bed days and the percentage paediatric specialty split, for the following hospitals, using the DH Clinical Terminology Coding System :</p> <ul style="list-style-type: none"> <li>- United Bristol Hospital Trust</li> <li>- Bristol Royal Infirmary</li> <li>- Oxford Radcliffe</li> <li>- Southampton General</li> </ul> <p>2. How many children are refused admission to the hospitals outlined above, what is the reason for the refusal and if possible where did the child then end up?</p>	Completed
17/08/2006	Noel Durkin	Department of Health	<p><b>CARDIAC</b></p> <p>Essentially we are looking for the following data</p> <ul style="list-style-type: none"> <li>- activity by cardiac procedure code</li> <li>- broken down by new PCT (if possible) but more importantly by known paediatric cardiac centre</li> <li>- broken down also by age groups (Neonates [1-30 days], infants [31 -365 days], children [1 -16], adult [16+])</li> <li>- in a form which will enable us to look at patient flows to known centres, including for specific conditions</li> <li>- most recent data available 2004 and 2005 (and 2006 if available).</li> </ul>	Completed
19/09/2006	Richard Appleton & Tim Martland	Consultant Paediatric Neurologists	<p><b>REFRACTORY CONVULSIVE STATUS EPILEPTICUS</b></p> <p>PICANet data to 'flag-up' all children admitted with a diagnosis of 'seizure', 'fit', convulsion or 'status epilepticus' to the PICU. This will use the current field on the standard PICANet data collection sheet. From this population, only data on those children who are still convulsing and who require antiepileptic treatment on admission or within 24 hours of admission to PICU will subsequently be collected. All data will be anonymous. It is hoped that these data will be collected by a medical or nursing member of each participating PICU - using a proforma that will have been devised by RA and TM. This will (hopefully) ensure that ethical approval will not be required.</p>	Pending
03/10/2006	Charles Stack/ Jo Knutton	ICU Director/Audit Nurse, PICU, Sheffield Children's Hospital	<p><b>SHEFFIELD OCCUPANCY/IV</b></p> <p>Total number of calendar days that patients received invasive ventilation on our unit between 01.01.05 (including those already occupying a bed) and the 31.012.05 (inclusive)</p> <p>AND</p> <p>The total number of calendar days that patients were occupying beds, again from 01.01.05 until 31.12.05 inclusive.</p> <p>i.e. a way of calculating the number of days each patient was admitted to give a grand overall number of days, hence if a patient was discharged and another one admitted in to that bed it would count as 2 separate days.</p>	Completed
05/10/2006	David Cremonesini	Respiratory Paeds SpR, John Radcliffe Hospital, Oxford	<p><b>EMPYEMA</b></p> <p>Incidence of empyema in children admitted to PICU in UK over the past years since PICANet started</p>	Pending
09/10/2006	Reinout Mildner	Consultant Paediatric Intensivist, Birmingham Children's Hospital	<p><b>BIRMINGHAM DATA</b></p> <p>For as many years as you have data available:</p> <ol style="list-style-type: none"> <li>1. Bed days at BCH for children with WM postcode</li> <li>2. Interventions at BCH children with WM postcode</li> <li>3. PIM data at BCH children with a WM postcode</li> </ol> <p>Then again but for any PICU</p> <ol style="list-style-type: none"> <li>4. Bed days at any PICU for children with WM postcode</li> <li>5. Interventions at any PICU children with WM postcode</li> </ol>	Completed

			6. PIM data at any PICU children with a WM postcode	
09/10/2006	Reinout Mildner	Consultant Paediatric Intensivist, Birmingham Children's Hospital	<b>WEST MIDLANDS PATIENTS ADMISSIONS OUTSIDE WM</b> For as many years as you have available: Any acute admissions to any UK PICU outside the West Midlands region of patients with a West Midlands postcode. We require number of admissions with date and time of admission. If it is possible to provide primary diagnosis and referring hospital in the West Midlands this would help.	Completed
09/11/2006	Robert Tasker & Mike Sharland	Consultant PICU, Addenbrooke's & Consultant in Paediatric Infectious Disease, St George's	<b>BACTERAEemia</b> Admission information PIM data Interventions Discharge information Ethnic category	Pending
22/11/2006	David Inwald	Consultant in PICU	<b>ST MARY'S ADMISSIONS</b> Admissions 1. Total Admissions (November 05- November 06) 2. Totl intubated 3. Percentage with an endotracheal tube receiving ventilation 4. for up to 6 hours 5. more than 6 hours up to 12 hours 6. More than 12 hours 7. Total retrieved 8. Total presenting from A&E 9. Total post-surgery by specialiy 10. Total numbers according to types of medical conditions 11. Breakdown of patient numbers according to age a. Preterm - please give numbers and specific gestational ages b. Birth to 30 days c. 31 days to one year d. > 1 year to 2 years e. > 1 year to 2 years f. > 2 years to 5 years g. > 5 years to 10 years h. >10 years to 15 years i. > 15 years to 18 years j. > 18 years 12. Mean length of PICU admission (nights) 13. Median length of PICU admission (nights) Outcome: 14. Mortality (total number) 15. Mortality (percentage of total admissions)	Completed
30/11/2006	Melanie Maxwell	Consultant in Public Health Medicine, Wirral NHS Trust	<b>NORTH WEST DATA</b> All data requested relate to 2003-2005, annual data for each of the two units (Royal Manchester Children's Hospital and Royal Liverpool Children's Hospital ) and the UK average if possible:  The median age with the interquartile ranges The data are very skewed and there are concerns that changing patterns are being obscured.  The total bed days by month There are concerns expressed that admission numbers alone do not reflect how busy the units are and we	Completed

			<p>need to explore fluctuations over time in occupancy.  PIMs score - numbers in score group by age group  numbers in score group by admission type  numbers in score group by discharge status</p> <p>There appears to be a significant difference to this between the two units that we would like to explore further.</p> <p>LOS data - mean, median and ranges by age group and admission type  We have the mean for 2005 and in planning terms it is useful to have this information. However, we recognise that the data are very skewed by Long Term Ventilator patients. We also need to explore the impact of the changing casemix of the units.</p> <p>Discharge status by admission type  To further explore the changes in crude death rate over time</p> <p>Diagnostic group by admission type  To further explore the differences in casemix between the two units</p> <p>For 2003-2005, annually can you state:  How many North West residents were admitted to a unit outside the North West?  Numbers  Total bed days  Admissions by Diagnostic groups  Admissions by region (or unit)</p> <p>How many non North - West residents were admitted to one of the North West Units?  Numbers  Total bed days  Admissions by Diagnostic groups  Admissions by region (or unit)</p> <p>These data will provide some information about flows of patients in and out of the Region and will help to identify some unmet need.</p> <p>We also wish to explore whether children with spinal muscular atrophy using PIC services are increasing. Would it be possible for you to search on this diagnosis to examine national trends (as far back as possible) as well as our two local services? The data would be:  Numbers of admissions by year  Total bed days by year  Discharge status  Numbers of readmissions (using 2003 as the base population, how many times have people been readmitted in the next 2 years i.e. a 2*2 table number of readmissions within 2 years (1,2,3 etc) by number of patients.</p>	
16/04/2007	Michelle Milner	Network Manager / Lead Nurse Paediatric Critical Care Network, Leeds PCT	<p><b>OUT OF REGION TRANSFERS</b>  Ideally, I require information on all out of region transfers by PCT to Leeds and Sheffield by date, time of transfer, and type of transfer.  However, this will not be possible as it has the potential to identify individual patients. Therefore my adjusted request is as follows:-  Please supply me with information on transfers from within the Yorkshire and the Humber region, grouped into Sheffield patients and Leeds patients.</p>	Completed

			<ul style="list-style-type: none"> <li>Sheffield patients being the following PCT's:- Barnsley, Sheffield West, North Sheffield, Sheffield South West, South East Sheffield, Rotherham, Doncaster West, Doncaster Central, Doncaster East, North Lincolnshire, North East Lincolnshire</li> <li>Leeds patients from the following PCT's:- Hambleton and Richmondshire, Craven Harrogate and Rural District, Scarborough Whitby and Ryedale, Selby and York, Yorkshire Wolds and Coast, East Yorkshire, Western Hull Teaching, Eastern Hull Teaching, Airedale, Bradford South and West, North Bradford, Bradford City Teaching, Calderdale, Leeds North West, Leeds West, Leeds North East, East Leeds, South Leeds, Huddersfield Central, South Huddersfield, North Kirklees, Wakefield West, Eastern Wakefield).</li> </ul> <p>Please supply this information by date of transfer, time of transfer, care area, retrieval (Y or N) retrieved by (own team other specialist team etc), and admitting PICU.</p> <p>Please note:- I already have the information on children transferred from Leeds PICU to Sheffield PICU and Sheffield PICU to Leeds (Supplied by the individual PICU's) therefore please exclude these patients from the information supplied.</p>	
16/04/2007	Padmanabhan Ramnarayan	Consultant in Paediatric Intensive Care & Retrieval, PICS Informatics Special Interest Group and Study Group Lead	<b>READ CODES</b> Read-coded terms recorded as part of the PICANet dataset, i.e. diagnoses, procedures, other co-morbid conditions, interventions and complications. Patient-identifiable information is not required. We are seeking data from a 2-year period 2004-2006.	Completed
18/04/2007	Mark Peters	Clinical Unit Chair, P/NICU, Great Ormond Street Hospital.	<b>RESPIRATORY FAILURE</b> Age / gestation / LOS / outcome / PIM score and diagnostic coding for all cases of respiratory failure	Completed
18/04/2007	Jonathan Round	Consultant, St George's Hospital PICU, Tooting	<b>ONCOLOGY</b> January 2003 to December 2006 data on PICU patients with a primary oncology diagnosis. All information on these patients except name. DOB needed to match with DOB from oncology datasets at a later stage.	Pending
10/05/2007	Peter Davis	Consultant Paediatric Intensivist, Bristol Royal Hospital for Children	<b>SWACIC UPDATE 2007</b> For period April 2003 – March 2006: 1. A breakdown by PCT for numbers of admissions to Bristol per PCT only including those PCTs from the South West (i.e not all our South Wales admissions etc.) 2. A breakdown by diagnostic groups of admissions to Bristol for the South West PCTs. 3. If possible a breakdown by both diagnostic group & PCT of admissions to Bristol from South West PCTs. 4. PIM breakdown and adjusted SMR for admissions to Bristol from South West PCTs.	Pending

# APPENDIX E DATA COLLECTION FORM



## Data Collection Form

Affix patient sticker here if required

### Admission Information

Admission number	<input type="text"/>	Family name	<input type="text"/>
NHS Number	<input type="text"/>	2nd Family name	<input type="text"/>
Case note number	<input type="text"/>	First name	<input type="text"/>
Address	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Date of birth	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
		If DOB estimated, (or missing, or partly anonymised)	<input type="checkbox"/> 1 = Estimated 2 = Partly anonymised 9 = N/K
		Gestational age at delivery (If age < 2 years)	<input type="text"/> <input type="text"/> weeks Answer range 20 to 44 wks Enter 99 if not known
Postcode	<input type="text"/> <input type="text"/>	Sex (Tick one box)	Male <input type="checkbox"/> Female <input type="checkbox"/> Ambiguous <input type="checkbox"/> N/K <input type="checkbox"/>
Ethnic category	<input type="text"/> Use standard NHS ethnic category and code (see back of form)	Multiple birth	<input type="checkbox"/> 1 = Singleton 2 = Twin 3 = Triplet 4 = quad 9 = N/K
Ethnic code	<input type="checkbox"/>	If not 1 or 9	Delivery order <input type="checkbox"/>

Date of admission to your unit	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Time of admission to your unit	<input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/>
-----------------------------------	---	-----------------------------------	---

<b>Type of admission to your unit</b> (Tick one box) <input type="checkbox"/> Planned - following surgery <input type="checkbox"/> Unplanned - following surgery <input type="checkbox"/> Planned - other <input type="checkbox"/> Unplanned	<b>Previous ICU admission</b> (during current hospital stay) <input type="checkbox"/> ICU <input type="checkbox"/> PICU <input type="checkbox"/> NICU <input type="checkbox"/> None <input type="checkbox"/> N/K (Tick one box)
<b>Source of admission</b> Same hospital <input type="checkbox"/> Other hospital <input type="checkbox"/> Clinic <input type="checkbox"/> Home <input type="checkbox"/> <b>Retrieval / transfer</b> Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, retrieved / transferred by <input type="checkbox"/> Own team <input type="checkbox"/> Other specialist team (PICU) <input type="checkbox"/> Other specialist team (Non PICU) <input type="checkbox"/> Non specialist team <input type="checkbox"/> N/K	<b>Care area admitted from</b> (includes care area where admitted from another hospital. Tick one box) <input type="checkbox"/> X-ray, endoscopy, CT scanner or similar <input type="checkbox"/> Recovery only <input type="checkbox"/> HDU (step up / step down unit) <input type="checkbox"/> Other intermediate care area (Not ICU / PICU / NICU) <input type="checkbox"/> ICU / PICU / NICU <input type="checkbox"/> Ward <input type="checkbox"/> Theatre and recovery <input type="checkbox"/> A & E

<b>Primary diagnosis for this admission</b>
<b>Other reasons for this admission</b>
<b>Operations or procedures performed during this admission</b>
<b>Co-morbidity</b>

### PIM/PIM2 - Medical History

Evidence available to assess past medical history?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes tick appropriate box (es)			
Cardiac arrest before ICU admission	<input type="checkbox"/>	→ If yes: cardiac arrest <b>OUT</b> of Hospital?	<input type="checkbox"/>
Cardiomyopathy or myocarditis	<input type="checkbox"/>	Admitted following cardiac bypass	<input type="checkbox"/>
Severe combined immune deficiency	<input type="checkbox"/>	Spontaneous cerebral haemorrhage	<input type="checkbox"/>
Hypoplastic left heart syndrome	<input type="checkbox"/>	Neurodegenerative disorder	<input type="checkbox"/>
Leukaemia / lymphoma after 1st induction	<input type="checkbox"/>	Severe developmental delay	<input type="checkbox"/>
Liver failure (main reason for PICU admission)	<input type="checkbox"/>	Human Immunodeficiency Virus (HIV)	<input type="checkbox"/>

### PIM/PIM2 - Reason for admission

Please tick this box if the admission was elective: <input type="checkbox"/>			
Please tick one of the boxes below if main reason for this PICU admission:			
Asthma	<input type="checkbox"/>	Croup	<input type="checkbox"/>
Recovery from surgery	<input type="checkbox"/>		
Bronchiolitis	<input type="checkbox"/>	Obstructive sleep apnoea	<input type="checkbox"/>
Diabetic ketoacidosis	<input type="checkbox"/>		

### PIM/PIM2 - Physiology (valid time period: from 1st face to face contact with a doctor until 1 hour after admission to your unit)

Systolic blood pressure	<input type="text"/> <input type="text"/> <input type="text"/> (mmHg)	Blood gas in 1st hour	Yes <input type="checkbox"/>	No <input type="checkbox"/>
PaO <sub>2</sub> (arterial)	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> (kPa)	Base excess (arterial / capillary)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
	or		(indicate plus or minus)	
	<input type="text"/> <input type="text"/> <input type="text"/> (mmHg)			
FiO <sub>2</sub> (at time of above sample)	<input type="text"/> . <input type="text"/> <input type="text"/>	Pupil reaction	Both fixed & dilated <input type="checkbox"/>	Other reaction <input type="checkbox"/>
			N/K <input type="checkbox"/>	
Mechanical ventilation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/K <input type="checkbox"/>	Intubation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		(at time of PaO <sub>2</sub> )	N/K <input type="checkbox"/>	
CPAP	Yes <input type="checkbox"/> No <input type="checkbox"/> N/K <input type="checkbox"/>	Headbox	Yes <input type="checkbox"/>	No <input type="checkbox"/>
(include mask / nasal / negative pressure)		(at time of PaO <sub>2</sub> )	N/K <input type="checkbox"/>	



## Interventions during this admission to your unit

Invasive ventilation	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>	Non-invasive ventilation	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>
If Yes total number of days given		<input type="text"/>		If Yes total number of days given		<input type="text"/>	
START invasive ventilation	<input type="text"/>	<input type="text"/>	<input type="text"/>	START non- invasive ventilation	<input type="text"/>	<input type="text"/>	<input type="text"/>
END invasive ventilation	<input type="text"/>	<input type="text"/>	<input type="text"/>	END non-invasive ventilation	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please note that start and end dates are for your reference only and are not submitted to PICANet

Tracheostomy	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>	ECMO	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>
IV vasoactive drugs	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>	LVAD	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>
Renal support	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>	ICP device	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/K <input type="checkbox"/>

(If Yes to Renal Support please tick treatments given)

Haemofiltration ☐

Haemodialysis ☐

Plasmafiltration ☐

Plasma exchange ☐

Peritoneal dialysis ☐

(If Yes to ICP device please tick as appropriate)

Ventricular drain ☐

ICP bolt ☐

Please note that ventilation for any part of a day (midnight to midnight) is counted as one day.  
EXAMPLE: If a child started ventilation at 23:00 and stopped at 07:00 the next day this would be counted as two days.

## Discharge Information

Status at discharge from your unit	
Alive <input type="checkbox"/>	Dead <input type="checkbox"/> Discharged for Palliative care? <input type="checkbox"/>
Date of discharge	<input type="text"/>
Time of discharge	<input type="text"/>
Destination following discharge from your unit	
Normal residence <input type="checkbox"/>	
Hospice <input type="checkbox"/>	
Same hospital <input type="checkbox"/>	
Other hospital <input type="checkbox"/>	ICU <input type="checkbox"/> PICU <input type="checkbox"/> NICU <input type="checkbox"/> HDU <input type="checkbox"/> SCBU <input type="checkbox"/> Ward <input type="checkbox"/> Other <input type="checkbox"/>
Follow up 30 days post discharge from your unit	
Status	Alive <input type="checkbox"/> Dead <input type="checkbox"/> N/K <input type="checkbox"/>
Date of death	<input type="text"/>
Normal residence <input type="checkbox"/>	N/K <input type="checkbox"/>
Hospice <input type="checkbox"/>	
Same hospital <input type="checkbox"/>	
Other hospital <input type="checkbox"/>	ICU <input type="checkbox"/> PICU <input type="checkbox"/> NICU <input type="checkbox"/> HDU <input type="checkbox"/> SCBU <input type="checkbox"/> Ward <input type="checkbox"/> Other <input type="checkbox"/>

Form completed by:

Comments

#### User defined fields

Variable name	Description				

#### Ethnic categories

These are the standard ethnic categories to be used for the collection of ethnicity information

Ethnic category		Codes	
a	White	British	A
		Irish	B
		Any other White background	C
b	Mixed	White and Black Caribbean	D
		White and Black African	E
		White and Asian	F
		Any other mixed background	G
c	Asian and Asian British	Indian	H
		Pakistani	J
		Bangladeshi	K
		Any other Asian background	L
d	Black or black British	Caribbean	M
		African	N
		Any other Black background	P
e	Other ethnic groups	Chinese	R
		Any other ethnic group	S
f	Not stated	Not stated	Z

A query to [picanet@leeds.ac.uk](mailto:picanet@leeds.ac.uk) will reach every team member

#### Individual contact details

Roger Parslow  
0113 343 4856  
[r.c.parslow@leeds.ac.uk](mailto:r.c.parslow@leeds.ac.uk)

Krishnan Thiru  
020 7762 6713  
[ThiruK1@gosh.nhs.uk](mailto:ThiruK1@gosh.nhs.uk)

## APPENDIX F INFORMATION LEAFLET

### What does PICANet do?

PICANet collects information on all children who are admitted to a paediatric (children's) intensive care unit. You don't need to do anything for your child to be included.

### Why is PICANet important?

The information that we collect for PICANet is helping to find out the best ways to treat and care for children who are ill, so that intensive care services can be better planned for and provided.

### How is PICANet funded?

At present, several healthcare commissioners, the Department of Health and the Royal Hospital for Sick Children, Edinburgh pay for this project.

### What information is needed?

PICANet collects exactly the same information on all children cared for in paediatric intensive care units. Personal details, like name and date of birth, help us to follow your child's progress, if they are moved to another paediatric intensive care unit.

### Where can I get more information?

If you have any questions about PICANet you can:

- ask your child's nurse or doctor for more information
- visit the PICANet website (see below)
- email PICANet (see below)
- contact a member of the PICANet team on one of the telephone numbers below

### PICANet contact information:

**Website:** [www.picanet.org.uk](http://www.picanet.org.uk)

**Email:** [picanet@leeds.ac.uk](mailto:picanet@leeds.ac.uk)

✉ **Patricia McKinney, Roger Parslow & Angie Willshaw**  
PICANet  
Paediatric Epidemiology Group  
Centre for Epidemiology & Biostatistics  
The Leeds Institute of Genetics, Health & Therapeutics  
University of Leeds  
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Leeds LS2 9LN

[p.a.mckinney@leeds.ac.uk](mailto:p.a.mckinney@leeds.ac.uk)

☎ 0113 343 4842

[r.c.parslow@leeds.ac.uk](mailto:r.c.parslow@leeds.ac.uk)

☎ 0113 343 4856

[a.willshaw@leeds.ac.uk](mailto:a.willshaw@leeds.ac.uk)

☎ 0113 343 8125

Information about your child's care, treatment and condition is also collected.

We can use your postcode to help plan future paediatric intensive care services in your area.

### How is information collected?

A member of staff records information about your child's condition or illness onto a paper form in the medical notes. This information is then put onto a computer, sent to the University of Leeds and kept there on a computer.

### Will the information be safe?

We send all information in a very safe way and keep it stored confidentially on a main computer, which is kept in a safe room. No-one can see the information, unless it is their job to do so.

There is no way at all that your child can be identified in any of our reports.

### What will the information be used for?

We use the information to help us write reports and to decide what research on children's intensive care needs to be done.

Because we collect a lot of information, it means that we can look at what is happening all over the country and not just in this hospital.

We are also about to link up with the Office of National Statistics, so that we can see how your child's health is, after they have left the intensive care unit.

### What have we found out so far?

During the past few years, we have shown that about 15,000 children are admitted to paediatric intensive care units in England/Wales and Edinburgh. Almost half of these children are less than one year old. This type of information is useful, because it helps the hospitals and the people who plan health services to know what to expect and to be better prepared.

### Does my child have to be included?

If you do not want information on your child included in PICANet, please tell the nurse or doctor caring for your child. Your decision will not alter the care your child receives in this, or any other hospital.

### Contact information (cont)

✉ **Elizabeth Draper**  
PICANet  
Department of Health Sciences  
University of Leicester  
22 -28 Princes Road West  
Leicester LE1 6TP  
[msn@leicester.ac.uk](mailto:msn@leicester.ac.uk)  
☎ 0116 252 3200

✉ **Krish Thiru**  
Pan Thames Co-ordinator  
PICANet  
Cardiorespiratory and Critical Care Division  
Room 8086, Level 8 – Nurses Home  
Great Ormond Street Hospital for Children  
Great Ormond Street  
London WC1 3JH  
[thiruk1@gosh.nhs.uk](mailto:thiruk1@gosh.nhs.uk)  
☎ 020 7762 6713



**Paediatric Intensive  
Care Audit Network**

**Information leaflet  
for parents, families  
and guardians of  
children admitted to  
paediatric intensive**



Drawn by Zoe  
aged 8.

Version 4.0 Aug 2006

## APPENDIX G DATA VALIDATION REPORT

### The Royal Hospital

#### Key to clinical code errors

Value(s):

READ code followed by READ code description followed by the text recorded in the unit notes e.g. XSDOK- Bronchiolitis [respiratory distress]

Example errors:

A) (no code) – (no description) [(no notes)], this means nothing has been supplied.

B) X44vY – [ASD], this means an invalid READ code and no READ code description have been supplied.

C) 00000 – [abdominal tumour resection], this means no READ code and no READ code description have been supplied.

Admission number 200421	Casenote number 233X	Admitted on 12/02/2004	PICANet ID 450
Reason	Variable(s)	Value(s)	Comment
Missing primary reason	Primary reason for admission	(No code) - (No description) [(No notes)]	Must have a primary reason for admission recorded

Admission number 200462	Casenote number 433RX	Admitted on 15/04/2004	PICANet ID 552
Reason	Variable(s)	Value(s)	Comment
Missing value	Intubation		
Missing value	Number of days intubated		

Admission number 200479	Casenote number 756X	Admitted on 01/05/2004	PICANet ID 660
Reason	Variable(s)	Value(s)	Comment
Incorrect concept domain	Primary reason for admission	X20UN - Nissen fundoplication [Nissen fundoplication]	Primary reason must be a disorder
Missing value	Follow-up status		

Admission number 2004111	Casenote number 999X	Admitted on 16/12/2004	PICANet ID 1273
Reason	Variable(s)	Value(s)	Comment
Incongruent value	Hospital location	Normal residence / Ward	Discharge destination not hospital but hospital location recorded
Logic error	Admission date / Discharge date	12/03/2003 / 10/03/2003	Please check dates; cannot be discharged before admitted
Missing value	Unit discharge status	Not known	Status at discharge from your unit expected (Alive or Dead)

## APPENDIX H MONTHLY ADMISSIONS REPORT

Admissions		SITEID																														
Year	Month	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	31	Total	
2004	1	109	23	71	33	39	99	56	34	89	133	114	20	48	29	42	10	54	19	26	35	18	30	28	3	44	29	5	45		1285	
	2	92	36	70	35	24	77	56	37	89	143	87	22	50	18	39	4	53	7	19	33	24	24	33	7	47	20	8	56		1210	
	3	86	35	50	43	27	68	46	40	104	167	106	20	53	28	39	12	58	18	23	25	28	43	31	3	53	22	2	48		1278	
	4	87	20	51	37	25	87	55	24	78	149	102	23	36	27	27	8	52	11	31	31	23	26	28	7	48	16	7	38		1154	
	5	71	12	54	34	15	78	50	31	75	151	101	36	44	43	33	4	45	13	28	37	18	25	28	4	46	23	2	42		1143	
	6	70	16	54	33	13	77	63	46	84	161	92	31	51	29	23	9	43	14	25	28	14	37	33	6	54	17	4	39		1166	
	7	72	18	47	39	23	60	51	32	76	160	92	26	53	34	29	5	46	17	18	30	18	26	27	7	41	13		39		1099	
	8	78	23	45	28	18	66	53	38	74	162	75	22	47	28	23	5	40	18	25	22	21	42	33	8	53	12	3	28		1090	
	9	82	24	52	44	19	67	41	19	84	158	80	28	41	30	27	9	47	9	22	32	33	37	16	8	50	21	3	28		1111	
	10	74	24	50	44	11	72	32	29	70	138	97	25	48	31	34	7	51	18	27	23	18	26	32	9	74	21	3	43		1131	
	11	90	32	57	44	24	57	52	30	79	145	105	27	51	40	43	6	60	15	22	25	21	36	24	4	60	19	4	39		1211	
	12	85	30	60	35	30	70	39	36	91	150	128	37	31	35	35	3	49	15	31	22	25	28	27	7	44	21	4	47	23	1238	
2004 Total		996	293	661	449	268	878	594	396	993	1817	1179	317	553	372	394	82	598	174	297	343	261	380	340	73	614	234	45	492	23	14116	
2005	1	73	33	55	34	24	79	38	35	91	150	95	22	56	33	36	18	64	19	20	31	20	28	17	6	50	24	5	43	34	1233	
	2	73	20	64	39	31	81	35	30	87	98	92	31	43	36	35	5	40	13	17	27	29	36	29	8	59	24	1	48	37	1168	
	3	92	13	60	45	22	68	58	45	77	133	103	27	39	55	34	9	64	18	24	32	24	26	25	5	46	24	9	39	42	1258	
	4	74	22	56	31	24	72	43	39	86	132	89	29	46	31	34	5	53	18	24	23	18	26	19	7	58	16	2	49	33	1159	
	5	81	23	60	40	20	68	58	30	100	129	73	26	37	29	30	13	44	14	23	20	18	26	28	6	57	24	4	34	29	1144	
	6	78	12	71	34	24	69	36	31	101	127	97	38	58	31	27	9	35	9	31	35	22	36	30	8	55	21	5	40	35	1205	
	7	75	16	60	39	25	74	32	30	79	153	103	36	65	31	30	11	55	8	26	27	26	29	16	7	53	22	4	41	28	1201	
	8	66	9	59	32	16	54	46	32	75	134	88	23	60	35	21	7	44	12	26	27	22	26	24	7	61	24	6	36	47	1119	
	9	85	20	59	31	20	66	48	29	78	115	85	27	50	34	30	5	55	20	32	18	28	34	30	10	71	23	2	40	40	1185	
	10	63	23	60	31	20	76	33	36	91	119	75	20	61	34	39	4	45	11	25	23	16	36	26	11	61	23	3	33	37	1135	
	11	77	24	58	37	23	76	33	36	96	117	113	31	56	34	50	6	48	19	28	30	24	31	31	9	63	32	4	61	28	1275	
	12	84	21	53	32	25	88	43	26	73	139	119	30	47	36	46	5	50	24	36	21	33	23	22	5	54	35	5	51	37	1263	
2005 Total		921	236	715	425	274	871	503	399	1034	1546	1132	340	618	419	412	97	597	185	312	314	280	357	297	89	688	292	50	515	427	14345	
2006	1	92	15	66	30	37	77	44	34	108	137	103	29	54	39	38	5	68	16	27	27	41	42	29	12	70	28	5	31	32	1336	
	2	68	29	51	47	30	80	28	35	104	113	104	18	45	46	35	6	59	12	22	31	27	33	21	4	59	19	7	48	35	1216	
	3	68	23	66	35	30	80	42	32	116	152	89	17	47	41	39	7	49	17	27	40	27	40	22	7	67	26	4	42	48	1300	
	4	88	13	52	27	18	65	49	33	83	134	91	25	50	36	27	7	46	17	32	33	26	41	22	7	51	31	4	40	39	1187	
	5	90	19	57	39	25	80	51	29	90	138	88	28	64	31	40	7	49	19	25	22	28	36	17	11	64	19	2	30	38	1236	
	6	79	17	58	40	20	65	52	31	101	142	84	28	55	31	23	5	37	19	15	40	25	25	26	7	62	27	3	43	33	1193	
	7	99	15	54	37	21	80	42	27	88	155	84	32	52	46	24	2	50	15	20	20	21	37	18	5	46	21	2	29	29	1171	
	8	106	23	50	35	22	65	48	22	82	140	79	30	72	36	15	3	42	13	19	32	14	34	23	11	49	25	2	26	39	1157	
	9	82	21	53	36	21	63	46	24	70	143	88	26	52	37	23	5	47	17	16	30	32	31	23	8	53	30	3	28	25	1133	
	10	92	15	45	48	27	88	61	28	78	127	86	26	65	30	37	5	46	14	23	25	19	36	29	5	59	32		47	39	1232	
	11	101	27	53	32	28	78	42	35	101	132	90	32	60	35	35	12	51	14	22	30	26	35	27	6	57	28	2	41	39	1271	
	12	99	17	54	48	30	108	25	35	98	117	114	31	39	42	33	10	41	17	28	25	21	32	18	7	55	32	3	33	35	1247	
2006 Total		1064	234	659	454	309	929	530	365	1119	1630	1100	322	655	450	369	74	585	190	276	355	307	422	275	90	692	318	37	438	431	14679	
Total		2981	763	2035	1328	851	2678	1627	1160	3146	4993	3411	979	1826	1241	1175	253	1780	549	885	1012	848	1159	912	252	1994	844	132	1445	881	43140	

## APPENDIX I ERROR RATE REPORT



### Unit import and error status report

January 2004 - December 2006

SITEID	Last imported	ExportID	Admissions	First admission	Most recent admission	Missing value	Out of range	Invalid value	Logic violation	Incongruity	Check value	Invalid code	Uncoded reason	Total	Error rate
25	22/02/2007	113	252	05/01/2004	29/12/2006									0	0.000
13	13/04/2007	105	979	02/01/2004	29/12/2006									0	0.000
10	18/04/2007	126	3146	02/01/2004	31/12/2006									0	0.000
15	29/01/2007	98	1241	01/01/2004	31/12/2006									0	0.000
22	13/04/2007	85	848	04/01/2004	30/12/2006									0	0.000
20	01/05/2007	98	885	01/01/2004	31/12/2006									0	0.000
6	09/05/2007	70	2678	02/01/2004	31/12/2006									0	0.000
9	22/02/2007	255	1160	02/01/2004	31/12/2006									0	0.000
26	23/03/2007	100	1994	01/01/2004	30/12/2006	1								1	0.001
4	17/05/2007	264	1328	01/01/2004	31/12/2006				1					1	0.001
24	19/04/2007	124	912	01/01/2004	31/12/2006	1								1	0.001
31	04/04/2007	113	881	07/12/2004	30/12/2006							1		1	0.001
11	29/03/2007	76	4993	01/01/2004	31/12/2006	1	2			2	2			7	0.001
14	31/01/2007	45	1826	02/01/2004	30/12/2006	1				1		1		3	0.002
8	16/05/2007	147	1627	01/01/2004	31/12/2006	3								3	0.002
27	01/05/2007	183	844	01/01/2004	31/12/2006	2								2	0.002
23	09/05/2007	326	1159	01/01/2004	31/12/2006	3					1			4	0.003
16	01/05/2007	55	1175	01/01/2004	30/12/2006	4					1			5	0.004
3	17/04/2007	94	2035	01/01/2004	31/12/2006	2			1	10	2	2		17	0.008
18	30/03/2007	84	1780	01/01/2004	29/12/2006	16								16	0.009
29	04/05/2007	165	1445	01/01/2004	30/12/2006	11					2			13	0.009
5	16/05/2007	145	851	01/01/2004	30/12/2006	10								10	0.012
19	19/03/2007	324	549	02/01/2004	30/12/2006	10								10	0.018
28	10/05/2007	159	132	05/01/2004	28/12/2006	2					1			3	0.023
12	28/02/2007	8	3411	01/01/2004	31/12/2006	90		7	1	4	3	2		107	0.031
21	09/03/2007	49	1012	02/01/2004	31/12/2006	53	1		1		1			56	0.055
17	23/02/2007	78	253	02/01/2004	25/12/2006	14				1				15	0.059
2	17/01/2007	199	763	01/01/2004	30/12/2006	64			1					65	0.085
1	23/03/2007	20	2981	01/01/2004	31/12/2006	282	24		7	37	4	39		393	0.132
			43140			570	27	7	12	55	17	45	0	733	0.017

**Last imported:** the date on which the data was most recently exported

**ExportID:** the ID of the most recent export (this increments with each export)

**Total admissions:** the number of admissions during the time period of this report

**First admission:** the earliest admission date included in this report

**Most recent admission:** the latest admission date included in this report

**Missing value:** value missing when required

**Out of range:** value outside normal ranges (as specified in the manual)

**Invalid value:** value not valid (e.g. wrongly enumerated code)

**Logic violation:** illogical values supplied (e.g. a discharge date before an admission date)

**Incongruity:** value supplied when not required (e.g. a retrieval team specified when the patient was not retrieved)

**Check value:** value requiring confirmation

**Invalid code:** invalid Read Code supplied

**Uncoded reason:** no Read Code supplied

**Total:** total number of errors

**Error rate:** number of errors per patient

## **APPENDIX J    POLICY FOR UNITS FALLING OUTSIDE THE CONTROL LIMITS**

### **PICANet policy on PICUs lying outside the control limits of the mortality ratio funnel plots (PICANet November 2005)**

#### **J.1    Background – mortality ratios and funnel plots**

PICANet is required by the Department of Health to report on the mortality outcomes of all children admitted for paediatric intensive care. The PICANet Clinical Advisory Group and Steering Group recommended that the mortality outcomes from each PICU be adjusted for the illness severity of the child at admission using the Paediatric Index of Mortality (PIM).<sup>1</sup> PICANet reports the unadjusted mortality outcome from all PICUs and a mortality ratio based on the ratio of observed mortality in each PICU to the expected mortality calculated using PIM. From 2005, revised coefficients for PIM have been used derived from the recently completed United Kingdom Paediatric Intensive Care Outcome Study.<sup>2</sup> PIM2<sup>3</sup> has been used for risk-adjustment in this report for 2006 only and will be used in future reports as the data become available.

Earlier work published by members of PICANet team<sup>4</sup> has highlighted the problems of attempting to rank PICUs on their annual mortality, whether unadjusted or adjusted. PICANet, however, has also recognised the need to identify units which appear to have outcomes very different to other units. Consequently, PICANet has published a funnel plot of the observed to expected mortality ratio of individual PICUs. The funnel plots are constructed in such a way that there is an approximately 5% chance of a PICU falling outside the control limits, if the distribution of the mortality ratios is random.

The mortality ratio is calculated for each PICU by dividing the expected number of deaths calculated using the published PIM algorithm by the observed number of deaths for each PICU. The mortality ratio is then plotted on the y-axis against the number of admissions to the PICU on the x-axis. In order to satisfy the condition that if the overall distribution of the mortality ratios is random there exists an approximately 5% chance of a PICU falling outside the control limits, then the upper and lower control limits constructed at an individual PICU level must represent not 95% confidence intervals, but 99.9% confidence intervals around a mortality ratio of 1 by number of admissions.<sup>5</sup> This is analogous to increasing the confidence interval (or significance level) when correcting for multiple comparisons in data containing numerous groups.

## J.2 Data outliers

- A PICU whose mortality ratio lies outside of these control limits will be identified as having returned data that is markedly different to the other PICUs.
- It is important to note that a PICU lying outside the control limits is not sufficient evidence to suggest a PICU has either markedly higher or markedly lower mortality than the other PICUs, it merely indicates that the data they have returned is different to that of other PICUs.
- For those PICUs that do lie outside the control limits, the principals of clinical governance should apply:
  - PICANet will raise the issue with the lead clinician of the PICU and the Trust Chief Executive
  - PICANet will work with the PICU and the Trust, following the plan below until the issue is resolved.

In these circumstances, PICANet will:

- i) Review the data to investigate whether there are data driven reasons for a PICU lying outside of the control limits (it is known that risk-adjustment tools can be unreliable when a PICU has a particularly high proportion of patients at either end of the bounds of the tool.)
- ii) Review the data quality of the PICU. The quality of the data is the PICUs' responsibility. PICANet will provide feedback from PICU visits and central validation procedures. PICUs will be expected to check the quality of individual data items.
- iii) Plot the data quality indicators over time to identify whether the anomaly can be traced to a certain data collection period.
- iv) Plot the mortality ratio over time to identify whether the anomaly can be traced to a certain data collection period.
- v) Plot the observed mortality over time to identify whether the anomaly can be traced to a certain data collection period.
- vi) Plot the expected mortality over time to identify whether the anomaly can be traced to a certain data collection period.
- vii) Investigate the primary reason for admission to the PICU. If the PICU has a markedly high proportion of some primary reason of admission to the PICU compared with other PICUs this may suggest further refinements to the risk-adjustment method are required.
- viii) Produce a brief summary report of the above to be forwarded to the lead clinician and Chief Executive at the PICU concerned, together with an invitation to meet in person to review the data with the PICANet team.

Where reference is made to the Chief Executive, it is accepted that they may be represented by their clinical governance lead.

**NOTE:** Excess mortality in particular sub-groups of patients or associated with other aspects of service provision may be identified using different statistical methods. The process outlined above will be implemented wherever anomalous results/outliers are identified.



### J.3 References

- 1) Parry GJ, Gould CR, McCabe CJ, Tarnow-Mordi WO. Annual league tables of hospital mortality in neonatal intensive care: A longitudinal study. *BMJ* 1998; 316:1931-1935.
- 2) Brady AR, Harrison D, Black S, Jones S, Rowan K, Pearson G, Ratcliffe J, Parry GJ, on behalf of the UK PICOS Study Group. Assessment and Optimization of Mortality Prediction Tools for Admissions to Pediatric Intensive Care in the United Kingdom. *Pediatrics* 2006; 117: 733-742.
- 3) Shann F, Slater A, Pearson G. PIM 2: a revised version of the Paediatric Index of mortality. *Intensive Care Med* 2003; 29:278-285
- 4) Shann F, Pearson G, Slater A, Wilkinson K, Paediatric index of mortality (PIM): a mortality prediction model for children in intensive care. *Intensive Care Med* 1997; 23:201-207
- 5) Spiegelhalter D. Funnel plots for institutional comparison. *Qual. Saf. Health Care*, Dec 2002; 11: 390- 391.

## APPENDIX K PUBLICATIONS/PRESENTATIONS

### K.1 Presentations

Meeting/Conference	Venue	Date	Presentation Title	PICANet Team Attendees
Presentation to Glasgow PICU team	Glasgow	18/08/2003	PICANet	Sam Jones & Tricia McKinney
NW Paediatric Intensive Care Seminar (North West Specialised Commissioning Group)	Dunkenhalgh Hotel, Clayton-le-Moors, Lancashire	23/06/2004	PICANet: Results of national activity	Sam Jones & Roger Parslow
PICANet AGM	London	24/06/2004	Presentation of National report	PICANet Team
Welsh National Commissioning Advisory Board Meeting	Royal Welsh Showground, Builth Wells	28/07/2004	PICANet: Presentation of National and Welsh report	Liz Draper & Nicky Davey
Strategic Issues in Health Care Management, Sixth International Conference	University of St Andrews	02/09/2004	Collection of personally identifiable information for a national clinical database: how feasible is it to obtain signed consent?	Sam Jones
PICS SG	Cambridge University	09/09/2004	PICANet: How can it be used for research and audit?	Nicky Davey, Sam Jones, Roger Parslow & Krish Thiru
Confidential Enquiry into Maternal and Child Health	London	08/03/2005	National Paediatric Intensive Care Database (PICANet)	Liz Draper
Intensive Care National Audit & Research Centre (ICNARC): Eight Annual Meeting of the Case Mix Programme	Savoy Hotel, London	13/04/2005	Why is it important to include information on paediatric admissions in the new Case Mix Programme Dataset?	Sam Jones
Pan Thames Report Update: Commissioning Consortium	London	06/05/2005	PICANet: Update on Pan Thames data quality for commissioning	Krish Thiru & Sam Jones
Paediatric Intensive Care Study Day	Royal Manchester Children's Hospital	10/05/2005	The epidemiology of critical illness in children	Roger Parslow
Trent PIC commissioners	QMC, Nottingham	12/05/2005	PICANet: Presentation of National report 2003-2004	Liz Draper
Paediatric Intensive Care Trainee Meeting	Royal Liverpool Children's Hospital (Alder Hey)	13/05/2005	Role of PICANet and the relevance of the national audit to the clinical community	Nicky Davey & Sam Jones
PICANet AGM	London	24/05/2005	Presentation of National report	PICANet Team
NORCOM, TRENTCOM & LNR PIC commissioners	Leicester	13/06/2005	PICANet in LNR, Trent & South Yorkshire PCTs	Liz Draper
Health Protection Agency (HPA) annual conference	Warwick	12/09/2005	Mortality, deprivation and ethnicity of critically ill children in England and Wales: preliminary findings from the Paediatric Intensive Care Audit Network (PICANet)	Roger Parslow
Paediatric Critical Care Network Board (East Leeds PCT)	Leeds	06/10/2005	PICANet: Presentation of national data and relevance to commissioning	Tricia McKinney
Welsh National Commissioning Advisory Board Meeting	Lamb and Flag Hotel, Llanwenarth, Abergavenny	11/10/2005	PICANet: Presentation of National and Welsh Report	Gareth Parry
PICANet AGM	Perinatal Institute, Birmingham	29/06/2006	Presentation of the National Report	PICANet Team
Pan Thames	London	28/07/2006	Pan Thames PICANet Report	Krish Thiru,

Commissioners Meeting			2004-2005	Tricia McKinney
Paediatric Intensive Care Society Scientific Meeting	Glasgow	16 & 17/11/06	PICU Health Informatics	K Thiru, P Ramnarayan, S Rowe on behalf of the pan Thames Health Informatics Group
University of Leicester,	Department of Health Sciences. University of Leicester	14/03/2007	The UK Paediatric Traumatic Brain Injury Study	Roger Parslow
Paediatric Intensive Care Society Study Group	Cambridge	21 & 22/03/07	PICU Health Informatics: Clinical Information Systems	K Thiru, P Ramnarayan, S Rowe on behalf of the pan Thames Health Informatics Group
Pan Thames Commissioners PbR Roadmap	ASIA House	14/06/2007	PICANet and the PCCMDS	Roger Parslow

## K.2 Publications

Journal	Title	Authors
Pediatrics (2004) <b>113</b> 1653-1657	Trends in the incidence of severe retinopathy of prematurity in a geographically defined population over a 10-year period	Hameed B, Shyamanur K, Kotecha S, Manktelow B, Woodruff G, Draper ES & Field D
Archives of Disease in Childhood (2005) <b>90</b> 380-387	Neuropsychological and educational problems at school age associated with neonatal encephalopathy	Marlow N, Rose AS, Rands CE & Draper ES
Archives of Disease in Childhood (2005) <b>90</b> 1182-1187	Epidemiology of traumatic brain injury in children receiving intensive care in the UK	Parslow RC, Morris KP, Tasker RC, Forsyth RJ & Hawley C
British Medical Journal (2005) <b>330</b> 43 (1 January)	Paediatric cardiac surgical mortality after Bristol: details of risk adjustment tools were not given (letter)	Parry GJ, Draper ES & McKinney P
British Medical Journal (2005) <b>330</b> 877-879 (16 April)	A feasibility study of signed consent for the collection of patient identifiable information for a national paediatric clinical audit database	McKinney PA, Jones S, Parslow R, Davey N, Darowski M, Chaudhry B, Stack C, Parry G, Draper ES for the PICANet Consent Study Group
European Journal of Obstetrics, Gynecology & Reproductive Biology (2005) <b>118</b> 272-274	Presentation of the European project models of organising access to intensive care for very preterm births in Europe (MOSAIC) using European diversity to explore models for the care of the very preterm babies.	Zeitlin J, Papiernik E, Breart G, Draper E & Kollee L
Prenatal Diagnosis (2005) <b>25</b> 286-291	Population based study of the outcome following the antenatal diagnosis of cystic hygroma	Howart ES, Draper ES, Budd JLS, Konje J, Kurinczuk JJ & Clarke M
Emergency Medical Journal (2006) <b>23</b> 519-522	Emergency access to neurosurgery in the United Kingdom	Tasker RC, Morris KP, Forsyth RJ, Hawley CA, Parslow RC, on behalf of the UK Paediatric Brain Injury Study
Intensive Care Medicine (2006) <b>32</b> (9) 1458	Organ donation in paediatric traumatic brain injury	Morris KP, Tasker RC, Parslow RC, Forsyth RJ, Hawley CA
Intensive Care Medicine (2006) <b>32</b> (10) 1606-1612	Monitoring and management of intracranial pressure complicating severe traumatic brain injury in children	Morris KP, Forsyth RJ, Parslow RC, Tasker RC, Hawley CA on behalf of the UK Paediatric Traumatic Brain Injury Study Group and the Paediatric Intensive Care Society Study Group
Lancet (2006) <b>367</b> 1080-85	Outcome after neonatal continuous negative-pressure ventilation: follow-up assessment	Telford K, Waters L, Vyas H, Manktelow BN, Draper ES, Marlow N
Pediatrics (2006) <b>117</b> 733-742	Assessment and optimisation of mortality prediction tools for admissions to paediatric intensive care in the United Kingdom	Brady AR, Harrison D, Black S, Jones S, Rowan K, Pearson G, Ratcliffe J, Parry GJ; UK PICOS Study Group
Archives of Disease in Childhood. Fetal and Neonatal Edition (2007) <b>92</b> 19-24	Outcome following neonatal continuous negative pressure ventilation	Telford K, Waters L, Vyas H, Manktelow BN, Draper ES, Marlow N
Paediatric Intensive Care Medicine (2007) ( <i>In Press</i> )	Prediction of raised intracranial pressure complicating severe traumatic brain injury in children: implications for trial design	Forsyth RJ, Parslow RC, Tasker RC, Hawley CA, Morris KP. On behalf of the UK Paediatric Traumatic Brain Injury Study Group and the Paediatric Intensive Care Society Study Group (PICS SG)

### K.3 Abstracts

Abstract	Title	Authors
Health Protection Agency (HPA) Annual Conference, 12-15 September 2005, Warwick (oral presentation)	Mortality, deprivation and ethnicity of critically ill children in England and Wales: preliminary findings from the Paediatric Intensive Care Audit Network (PICANet)	Parslow RC, Tasker RC, Chater T, Davey N, Draper ES, Jones S, Parry GJ & McKinney PA.
European Society for Paediatric and Neonatal Intensive Care (ESPNIC) annual conference, 15-17 September 2005, Antwerp (oral presentation)	Mortality, deprivation and ethnicity of critically ill children in England and Wales: preliminary findings from the Paediatric Intensive Care Audit Network (PICANet)	Parslow RC, Tasker RC, Chater T, Davey N, Draper ES, Jones S, Parry GJ, Thiru K & McKinney PA.
Developmental Medicine and Child Neurology (2005) 47 (Suppl 101) 4	Design of randomized controlled trials of the management of raised intracranial pressure in paediatric traumatic brain injury	Forsyth RJ, Morris K, Parslow RC, Hawley C & Tasker RC
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (oral presentation)	Infants admitted to paediatric intensive care with acute respiratory failure in England and Wales	Parslow RC, McKinney PA, Draper ES, O'Donnell R
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (poster presentation)	Collecting national data for clinical audit: The Paediatric Intensive Care Audit Network in Great Britain	Parslow RC, McKinney PA, Draper ES, Thiru K
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (poster presentation)	Admission to PICU with severe bronchiolitis and acute respiratory failure after preterm birth is associated with a longer duration of stay and a higher incidence of apnoeas but not mortality	O'Donnell DR, Parslow RC, McKinney PA, Draper ES
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (poster presentation)	Severe bronchiolitis is associated with the annual UK winter increase in PICU admissions and prolonged stay compared with other diagnoses	O'Donnell DR, Parslow RC, McKinney PA, Draper ES
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (poster presentation)	Hyperglycaemia and insulin therapy in UK paediatric intensive care units	Nayak P, Morris KP, Parslow RC
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (oral presentation)	The effect of missing data on PIM-predicted SMR	Emsden S, Baines P, McClelland T, Parslow RC
5 <sup>th</sup> World Congress on Pediatric Critical Care, 24-28 June 2007, Geneva, Switzerland (poster presentation)	Clinical information system utilisation in paediatric intensive care: A UK perspective	Ramnarayan P, Thiru K, Rowe S on behalf of pan Thames Health Informatics Group
The 15th Annual Public Health Forum, Edinburgh International Conference Centre, 28-29 March 2007, Edinburgh, UK (poster presentation)	Using Data to Inform Commissioning of Paediatric Intensive Care	Sidhu S, Rowe S & Thiru K

## APPENDIX L MEMBERSHIP OF THE PAEDIATRIC CRITICAL CARE EXPERT WORKING GROUP

<b>Chair</b>	Nick Griffin (Chair)	Consultant Paediatrician, Northampton General Hospital
<b>Project Manager</b>	Ian Hughes	IC
<b>Clinical Representatives</b>	Kevin Morris	Consultant Paediatric Intensivist, Birmingham Children's Hospital
	Pete Barry	Consultant Paediatric Intensivist, University Hospitals of Leicester
	Charles Stack	Consultant Paediatric Intensivist, Sheffield Children's Hospital
	Andy Darbyshire	Nurse Consultant, Paediatric HDU, Alder Hey Hospital, Liverpool
	William Booth	Senior Nurse, Paediatric Intensive Care Unit, Bristol Royal Hospital for Children. And Chair of the Royal College of Nursing Paediatric Intensive Care Nurses Forum
	Ian Murdoch	Clinical lead, Guys Hospital, London
	Robert Yates	Consultant Paediatric Intensivist, Manchester Children's Hospital
<b>PICANet</b>	Roger Parslow	Senior Research Fellow, PICANet
<b>Department of Health</b>	Professor Stuart Tanner	Department of Health, Medical Adviser, Paediatrics & Child Health,
<b>Commissioning</b>	Stuart Rowe	Pan Thames PICU Commissioning Consortium
<b>Casemix</b>	Paul Smith	Senior Casemix Consultant, HSCIC.
<b>Costing</b>	Sujit Kooner	Costing Consultant, HSCIC.
<b>Finance</b>	Lee Bond	Director of Finance, Sheffield Children's Hospital
<b>Previous members:</b>	Andy Gill	Senior Casemix Consultant, IC
	Lyvonne Tume	Lecturer Practitioner, Alder Hey Hospital, Liverpool

## APPENDIX M MAPPING OF INTERVENTIONS TO DIFFERENT HRG LEVELS

HRG	Label	Criteria
7	Intensive Care - ECMO/ECLS	Extracorporeal membrane oxygenation (ECMO) / Extracorporeal Life Support (ECLS) including VAD, or aortic balloon pump
6	Intensive Care Advanced Enhanced	Invasive Mechanical Ventilation (IMV) or Advanced Respiratory Support (ARS) <b>Plus</b> one or more of: Burns >79% BSA >80 mls/kg volume boluses  <b>OR</b> HRG 5 + Isolation
5	Intensive Care Advanced	Invasive Mechanical Ventilation (IMV) or Advanced Respiratory Support (ARS) <b>Plus</b> one or more of: Haemofiltration Haemodialysis Peritoneal dialysis Burns 50-79% BSA Extracorporeal Liver Support (MARS) Exchange transfusion iNO Surfactant Plasmafiltration  <b>OR</b> HRG 4 + Isolation
4	Intensive Care Basic Enhanced	Invasive Mechanical Ventilation (IMV) <b>Plus</b> one or more of: Vasoactive infusion ICP monitoring Burns 20-49% BSA Intravenous thrombosis CPR in last 24 hrs  <b>OR</b>

HRG	Label	Criteria
3	Intensive Care Basic	Advanced Respiratory Support (ARS) (Jet ventilation or High Frequency Oscillatory Ventilation (HFOV))
		<b>OR</b>
		HRG 3 + Isolation
		Invasive Mechanical Ventilation (IMV)
		<b>OR</b>
		Non invasive ventilation / CPAP
		<b>Plus</b> one or more of:
		Burns >79% BSA
		>80 mls/kg volume boluses
		Haemofiltration
		Haemodialysis
		Peritoneal dialysis
		Burns 50-79% BSA
		Extracorporeal Liver Support (MARS)
		Exchange transfusion
		iNO
		Surfactant
		Plasmafiltration
		Vasoactive infusion
		ICP monitoring
		Burns 20-49% BSA
		Intravenous thrombolysis
		CPR in last 24 hrs
		<b>OR</b>
		HRG 2 + Isolation
2	High Dependency Advanced	Non invasive ventilation / CPAP
		Arterial monitoring
		Haemofiltration
		"Acute" haemodialysis
		"Acute" Peritoneal dialysis
		Plasmafiltration



HRG	Label	Criteria
		Exchange transfusion
		Temporary pacing
		Vasoactive infusion
		Intravenous thrombolysis (tPA, streptokinase)
		ICP monitoring
		Intraventricular catheter / external ventricular drain
		CPR in last 24 hrs
		iNO
		Surfactant
		Extracorporeal Liver Support (MARS)
		>80 mls/kg volume boluses
		Apnoea Requiring Intervention in past 24 hrs (>3 stimulation or bag-mask)
		<b>OR</b>
		HRG 1 + Isolation
1	High Dependency	CVP monitoring
		Continuous ECG monitoring
		Oxygen Therapy plus Continuous Pulse Oximetry
		Nasopharyngeal airway
		Care of tracheostomy
		Upper airway obstruction requiring nebulised adrenaline
		Severe Asthma requiring intravenous bronchodilator, or continuous nebulisers
		DKA requiring continuous insulin infusion

## APPENDIX N PCCMDS: HIGH COST DRUGS WHICH ARE UNBUNDLED

High Cost Drug	OPCS 4.3 Code	OPCS 4.3 Code Label	HRG	HRG Label
Sildenafil	X821	Pulmonary hypertension drugs Band 1	XD01Z	Primary Pulmonary Hypertension drugs Band 1
Bosentan	X822	Pulmonary hypertension drugs Band 2	XD02Z	Primary Pulmonary Hypertension drugs Band 2
Iloprost	X823	Pulmonary hypertension drugs Band 3	XD03Z	Primary Pulmonary Hypertension drugs Band 3
Epoprostenol	X824	Pulmonary hypertension drugs Band 4	XD04Z	Primary Pulmonary Hypertension drugs Band 4
Factor VIIa (recombinant)	X831	Blood products Band 1	XD05Z	Blood products Band 1
Recombinant activated protein C	X832	Blood products Band 2	XD06Z	Blood products Band 2
Alteplase	X833	Fibrinolytic drugs Band 1	XD07Z	Fibrinolytic drugs Band 1
Retepase	X833	Fibrinolytic drugs Band 1	XD07Z	Fibrinolytic drugs Band 1
Tenecteplase	X833	Fibrinolytic drugs Band 1	XD07Z	Fibrinolytic drugs Band 1
Nitric oxide	X841	Medical gases Band 1	XD08Z	Medical gases Band 1
Botulinum toxin	X851	Torsion dystonias and other involuntary Band 1	XD09Z	Torsion dystonias and other involuntary movements drugs Band 1
Riluzole	X852	Amyotrophic lateral sclerosis drugs Band 1	XD10Z	Amyotrophic lateral sclerosis drugs Band 1
Amphotericin liposomal	X861	Anti-fungal drugs Band 1	XD11Z	Anti fungal drugs Band 1
Caspofungin	X861	Anti-fungal drugs Band 1	XD11Z	Anti-fungal drugs Band 1
Flucytosine	X861	Anti-fungal drugs Band 1	XD11Z	Anti-fungal drugs Band 1
Voriconazole	X862	Anti-fungal drugs Band 2	XD12Z	Anti-fungal drugs Band 2
Adefovir	X863	Hepatitis B treatment drugs Band 1	XD13Z	Hepatitis B treatment drugs Band 1
Interferon alfa	X863	Hepatitis B treatment drugs Band 1	XD13Z	Hepatitis B treatment drugs Band 1
Peginterferon alpha	X864	Respiratory syncytial virus treatment and Hepatitis C treatment drugs Band 1	XD14Z	Respiratory syncytial virus treatment and Hepatitis C treatment drugs Band 1
Ribavirin	X864	Respiratory syncytial virus treatment and Hepatitis C treatment drugs Band 1	XD14Z	Respiratory syncytial virus treatment and Hepatitis C treatment drugs Band 1
Palivizumab	X865	Respiratory syncytial virus prevention drugs Band 1	XD15Z	Respiratory syncytial virus prevention drugs Band 1
Pegvisomant	X871	Growth hormone receptor antagonist drugs Band 1	XD16Z	Growth hormone receptor antagonist drugs Band 1
Somatropin	X872	Growth hormone analogue drugs Band 1	XD17Z	Growth hormone analogue drugs Band 1
Teriparatide	X873	Bone metabolism drugs Band 1	XD18Z	Bone metabolism drugs Band 1
Alemtuzumab	X891	Monoclonal antibodies Band 1	XD19Z	Monoclonal antibodies Band 1
Rituximab	X892	Monoclonal antibodies Band 2	XD20Z	Monoclonal antibodies Band 2
Beta interferon	X893	Immunomodulating drugs Band 1	XD21Z	Immunomodulating drugs Band 1
Glatiramer	X893	Immunomodulating drugs Band 1	XD21Z	Immunomodulating drugs Band 1
Lanreotide	X894	Somatostatin analogues Band 1	XD22Z	Somatostatin analogues Band 1
Octreotide	X894	Somatostatin analogues Band 1	XD22Z	Somatostatin analogues Band 1
Darbopoetin alfa	X901	Hypoplastic haemolytic and	XD23Z	Hypoplastic haemolytic and

		renal anaemia drugs Band 1		renal anaemia drugs Band 1
Epoetin alfa and beta	X901	Hypoplastic haemolytic and renal anaemia drugs Band 1	XD23Z	Hypoplastic haemolytic and renal anaemia drugs Band 1
Antilymphocyte globulin	X902	Hypoplastic haemolytic and renal anaemia drugs Band 2	XD24Z	Hypoplastic haemolytic and renal anaemia drugs Band 2
Filgrastim	X903	Neutropenia drugs Band 1	XD25Z	Neutropenia drugs Band 1
Lenograstim	X903	Neutropenia drugs Band 1	XD25Z	Neutropenia drugs Band 1
Pegfilgrastim	X903	Neutropenia drugs Band 1	XD25Z	Neutropenia drugs Band 1
Total parenteral nutrition	X904	Intravenous nutrition Band 1	XD26Z	Intravenous nutrition Band 1
Cysteamine (mercaptamine)	X911	Metabolic disorder drugs Band 1	XD27Z	Metabolic disorder drugs Band 1
Sodium phenylbutyrate	X912	Metabolic disorder drugs Band 2	XD28Z	Metabolic disorder drugs Band 2
Miglustat	X913	Metabolic disorder drugs Band 3	XD29Z	Metabolic disorder drugs Band 3
Agalsidase beta (galactosidase)	X914	Metabolic disorder drugs Band 4	XD30Z	Metabolic disorder drugs Band 4
Imiglucerase	X914	Metabolic disorder drugs Band 4	XD30Z	Metabolic disorder drugs Band 4
Laronidase	X914	Metabolic disorder drugs Band 4	XD30Z	Metabolic disorder drugs Band 4
Adalimumab	X921	Cytokine inhibitor drugs Band 1	XD31Z	Cytokine inhibitor drugs Band 1
Anakinra	X921	Cytokine inhibitor drugs Band 1	XD31Z	Cytokine inhibitor drugs Band 1
Etanercept	X921	Cytokine inhibitor drugs Band 1	XD31Z	Cytokine inhibitor drugs Band 1
Infliximab	X921	Cytokine inhibitor drugs Band 1	XD31Z	Cytokine inhibitor drugs Band 1
Rasburicase	X922	Hyperuricaemia drugs Band 1	XD32Z	Hyperuricaemia drugs Band 1
Efalizumab	X951	Immune response drugs Band 1	XD33Z	Immune response drugs Band 1
Flebogamma	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
Gammagard	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
Octagam	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
Sandoglobulin	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
Subcuvia	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
Subgam	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
Vigam	X961	Immunoglobulins Band 1	XD34Z	Immunoglobulins Band 1
	X818	Other specified high cost gastrointestinal drugs	XD35Z	Other specified high cost drugs
	X828	Other specified high cost hypertension drugs	XD35Z	Other specified high cost drugs
	X838	Other specified high cost other cardiovascular drugs	XD35Z	Other specified high cost drugs
	X848	Other specified high cost respiratory drugs	XD35Z	Other specified high cost drugs
	X858	Other specified high cost neurology drugs	XD35Z	Other specified high cost drugs
	X868	Other specified high cost anti-infective drugs	XD35Z	Other specified high cost drugs
	X878	Other specified high cost endocrinology drugs	XD35Z	Other specified high cost drugs
	X888	Other specified high cost reproductive and urinary tract drugs	XD35Z	Other specified high cost drugs
	X898	Other specified high cost immunosuppressant drugs	XD35Z	Other specified high cost drugs
	X908	Other specified high cost haematology and nutrition	XD35Z	Other specified high cost drugs

		drugs		
	X918	Other specified high cost metabolic drugs	XD35Z	Other specified high cost drugs
	X928	Other specified high cost musculoskeletal drugs	XD35Z	Other specified high cost drugs
	X938	Other specified high cost ophthalmology drugs	XD35Z	Other specified high cost drugs
	X948	Other specified high cost ear, nose and throat drugs	XD35Z	Other specified high cost drugs
	X958	Other specified high cost dermatology drugs	XD35Z	Other specified high cost drugs
	X968	Other specified high cost immunology drugs	XD35Z	Other specified high cost drugs
	X978	Other specified high cost anaesthesia drugs	XD35Z	Other specified high cost drugs
	X819	Unspecified high cost gastrointestinal drugs	XD36Z	Unspecified high cost drugs
	X829	Unspecified high cost hypertension drugs	XD36Z	Unspecified high cost drugs
	X839	Unspecified high cost other cardiovascular drugs	XD36Z	Unspecified high cost drugs
	X849	Unspecified high cost respiratory drugs	XD36Z	Unspecified high cost drugs
	X859	Unspecified high cost neurology drugs	XD36Z	Unspecified high cost drugs
	X869	Unspecified high cost anti-infective drugs	XD36Z	Unspecified high cost drugs
	X879	Unspecified high cost endocrinology drugs	XD36Z	Unspecified high cost drugs
	X889	Unspecified high cost reproductive and urinary tract drugs	XD36Z	Unspecified high cost drugs
	X899	Unspecified high cost immunosuppressant drugs	XD36Z	Unspecified high cost drugs
	X909	Unspecified high cost haematology and nutrition drugs	XD36Z	Unspecified high cost drugs
	X919	Unspecified high cost metabolic drugs	XD36Z	Unspecified high cost drugs
	X929	Unspecified high cost musculoskeletal drugs	XD36Z	Unspecified high cost drugs
	X939	Unspecified high cost ophthalmology drugs	XD36Z	Unspecified high cost drugs
	X949	Unspecified high cost ear, nose and throat drugs	XD36Z	Unspecified high cost drugs
	X959	Unspecified high cost dermatology drugs	XD36Z	Unspecified high cost drugs
	X969	Unspecified high cost immunology drugs	XD36Z	Unspecified high cost drugs
	X979	Unspecified high cost anaesthesia drugs	XD36Z	Unspecified high cost drugs

## APPENDIX O CHANGES TO THE STRUCTURE OF NHS PRIMARY CARE IN ENGLAND ON 1ST OCTOBER 2006

On 1st October 2006, the number of primary care organisations in England was reduced from 303 to 152 (including 148 primary care trusts and 4 care trusts).

On 1st July 2006 the number of strategic health authorities in England was reduced from 28 to 10.

New SHA		Old SHA		New PCO		Old PCO	
Q30	NORTH EAST	Q09	NORTHUMBERLAND, TYNE & WEAR	5D7	NEWCASTLE PCT	5D7	NEWCASTLE PCT
				5D8	NORTH TYNESIDE PCT	5D8	NORTH TYNESIDE PCT
				5KF	GATESHEAD PCT	5KF	GATESHEAD PCT
				5KG	SOUTH TYNESIDE PCT	5KG	SOUTH TYNESIDE PCT
				5KL	SUNDERLAND TEACHING PCT	5KL	SUNDERLAND TEACHING PCT
				TAC	NORTHUMBERLAND CARE TRUST	TAC	NORTHUMBERLAND CARE TRUST
		Q10	COUNTY DURHAM AND TEES VALLEY	5D9	HARTLEPOOL PCT	5D9	HARTLEPOOL PCT
				5E1	NORTH TEES PCT	5E1	NORTH TEES PCT
				5J9	DARLINGTON PCT	5J9	DARLINGTON PCT
				5ND	COUNTY DURHAM PCT	5J8	DURHAM DALES PCT
						5KA	DERWENTSIDE PCT
						5KC	DURHAM AND CHESTER-LE-STREET PCT
						5KD	EASINGTON PCT
						5KE	SEDFIELD PCT
				5KM	MIDDLESBROUGH PCT	5KM	MIDDLESBROUGH PCT <sup>1</sup>
				5QR	REDCAR AND CLEVELAND PCT		
						5KN	LANGBAURGH PCT

<sup>1</sup> Middlesbrough County remains as 5KM

New SHA		Old SHA		New PCO		Old PCO	
Q31	NORTH WEST	Q13	CUMBRIA AND LANCASHIRE	5CC	BLACKBURN WITH DARWEN PCT	5CC	BLACKBURN WITH DARWEN PCT
				5HP	BLACKPOOL PCT	5HP	BLACKPOOL PCT
				5NE	CUMBRIA PCT	5D4	CARLISLE AND DISTRICT PCT
						5D5	EDEN VALLEY PCT
						5D6	WEST CUMBRIA PCT
						5DD	MORECAMBE BAY PCT <sup>2</sup>
				5NF	NORTH LANCASHIRE PCT	5HE	FYLDE PCT
						5HF	WYRE PCT
				5NG	CENTRAL LANCASHIRE PCT	5F2	CHORLEY AND SOUTH RIBBLE PCT
						5F3	WEST LANCASHIRE PCT
				5NH	EAST LANCASHIRE TEACHING PCT	5HD	PRESTON PCT
						5G7	HYNDBURN AND RIBBLE VALLEY PCT
		Q14	GREATER MANCHESTER	5F5	SALFORD PCT	5G8	BURNLEY, PENDLE AND ROSSENDALE PCT
						5F5	SALFORD PCT
				5F7	STOCKPORT PCT	5F7	STOCKPORT PCT
				5HG	ASHTON, LEIGH AND WIGAN PCT	5HG	ASHTON, LEIGH AND WIGAN PCT
				5HQ	BOLTON PCT	5HQ	BOLTON PCT
				5J5	OLDHAM PCT	5J5	OLDHAM PCT
				5JX	BURY PCT	5JX	BURY PCT
				5LH	TAMESIDE AND GLOSSOP PCT	5LH	TAMESIDE AND GLOSSOP PCT <sup>3</sup>
				5NQ	HEYWOOD, MIDDLETON AND ROCHDALE PCT	5F4	HEYWOOD AND MIDDLETON PCT
				5NR	TRAFFORD PCT	5JY	ROCHDALE PCT
						5CX	TRAFFORD SOUTH PCT
				5NT	MANCHESTER PCT	5F6	TRAFFORD NORTH PCT
						5AA	SOUTH MANCHESTER PCT
		Q15	CHESHIRE & MERSEYSIDE	5J2	WARRINGTON PCT	5CL	CENTRAL MANCHESTER PCT
						5CR	NORTH MANCHESTER PCT
				5J4	KNOWSLEY PCT	5J2	WARRINGTON PCT
				5NJ	SEFTON PCT	5J4	KNOWSLEY PCT
						5F9	SOUTHPORT AND FORMBY PCT
				5NK	WIRRAL PCT	5M5	SOUTH SEFTON PCT
						5F8	BEBINGTON AND WEST WIRRAL PCT
				5NL	LIVERPOOL PCT	5H2	BIRKENHEAD AND WALLASEY PCT
						5G9	NORTH LIVERPOOL PCT
				5NM	HALTON AND ST HELENS PCT	5HA	CENTRAL LIVERPOOL PCT
						5HC	SOUTH LIVERPOOL PCT
				5NN	WESTERN CHESHIRE PCT	5J1	HALTON PCT
						5J3	ST HELENS PCT
				5NP	CENTRAL AND EASTERN CHESHIRE PCT	5H3	CHESHIRE WEST PCT
						5H6	ELLESMERE PORT AND NESTON PCT
						5H4	CENTRAL CHESHIRE PCT
						5H5	EASTERN CHESHIRE PCT

<sup>2</sup> South Lakeland became part of Cumbria PCT while Lancaster became part of North Lancashire PCT

<sup>3</sup> Tameside and Glossop PCT reports to North West SHA but part of the PCT falls within East Midlands SHA

New SHA		Old SHA		New PCO		Old PCO	
Q32	YORKSHIRE AND THE HUMBER	Q11	NORTH AND EAST YORKSHIRE AND NORTHERN LINCOLNSHIRE	5AN	NORTH EAST LINCOLNSHIRE PCT	5AN	NORTH EAST LINCOLNSHIRE PCT
				5EF	NORTH LINCOLNSHIRE PCT	5EF	NORTH LINCOLNSHIRE PCT
				5NV	NORTH YORKSHIRE AND YORK PCT	5E2	SELBY AND YORK PCT
						5KH	HAMBLETON AND RICHMONDSHIRE PCT
						5KJ	CRAVEN, HARROGATE AND RURAL DISTRICT PCT
						5KK	SCARBOROUGH, WHITBY AND RYEDALE PCT
				5NW	EAST RIDING OF YORKSHIRE PCT	5E3	EAST YORKSHIRE PCT
				5NX	HULL TEACHING PCT	5E4	YORKSHIRE WOLDS AND COAST PCT
						5E5	EASTERN HULL PCT
		Q12	WEST YORKSHIRE	5J6	CALDERDALE PCT	5E6	WEST HULL PCT
				5N1	LEEDS PCT	5J6	CALDERDALE PCT
						5HH	LEEDS WEST PCT
						5HJ	LEEDS NORTH EAST PCT
						5HK	EAST LEEDS PCT
						5HL	SOUTH LEEDS PCT
						5HM	LEEDS NORTH WEST PCT
				5N2	KIRKLEES PCT	5J7	NORTH KIRKLEES PCT
						5LJ	HUDDERSFIELD CENTRAL PCT
				5N3	WAKEFIELD DISTRICT PCT	5LK	SOUTH HUDDERSFIELD PCT
						5E7	EASTERN WAKEFIELD PCT
				5NY	BRADFORD AND AIREDALE TEACHING PCT	5E8	WAKEFIELD WEST PCT
						5AW	AIREDALE PCT
						5CF	BRADFORD CITY TEACHING PCT
						5CG	BRADFORD SOUTH AND WEST PCT
						5CH	NORTH BRADFORD PCT
		Q23	SOUTH YORKSHIRE	5H8	ROTHERHAM PCT	5H8	ROTHERHAM PCT
				5JE	BARNSELY PCT	5JE	BARNSELY PCT
				5N4	SHEFFIELD PCT	5EE	NORTH SHEFFIELD PCT
						5EN	SHEFFIELD WEST PCT
						5EP	SHEFFIELD SOUTH WEST PCT
						5EQ	SOUTH EAST SHEFFIELD PCT
				5N5	DONCASTER PCT	5CK	DONCASTER CENTRAL PCT
						5EK	DONCASTER EAST PCT
						5EL	DONCASTER WEST PCT

New SHA		Old SHA		New PCO		Old PCO	
Q33	EAST MIDLANDS	Q16	THAMES VALLEY	5PD	NORTHAMPTONSHIRE TEACHING PCT	5DV	CHERWELL VALE PCT <sup>4</sup>
		Q24	TRENT	5EM	NOTTINGHAM CITY PCT	5EM	NOTTINGHAM CITY PCT
				5ET	BASSETLAW PCT	5ET	BASSETLAW PCT
				5N6	DERBYSHIRE COUNTY PCT	5EA	CHESTERFIELD PCT
						5ED	AMBER VALLEY PCT
						5EG	NORTH EASTERN DERBYSHIRE PCT
						5ER	EREWASH PCT
						5H7	DERBYSHIRE DALES AND SOUTH DERBYSHIRE PCT
						5HN	HIGH PEAK AND DALES PCT
						5AL	CENTRAL DERBY PCT
				5N7	DERBY CITY PCT	5ED	AMBER VALLEY PCT
						5EX	GREATER DERBY PCT
						5AM	MANSFIELD DISTRICT PCT
				5N8	NOTTINGHAMSHIRE COUNTY TEACHING PCT	5AP	NEWARK AND SHERWOOD PCT
						5EC	GEDLING PCT
						5EV	BROXTOWE AND HUCKNALL PCT
						5FA	ASHFIELD PCT
						5FC	RUSHCLIFFE PCT
				5N9	LINCOLNSHIRE TEACHING PCT <sup>5</sup>	5D2	WEST LINCOLNSHIRE PCT
						5D3	LINCOLNSHIRE SOUTH WEST TEACHING PCT
						5H9	EAST LINCOLNSHIRE PCT
						5EH	MELTON, RUTLAND AND HARBOROUGH PCT
		Q25	LEICESTERSHIRE, NORTHAMPTONSHIRE AND RUTLAND	5PA	LEICESTERSHIRE COUNTY AND RUTLAND PCT	5JA	HINCKLEY AND BOSWORTH PCT
						5JC	CHARNWOOD AND NORTH WEST LEICESTERSHIRE PCT
						5JD	SOUTH LEICESTERSHIRE PCT
						5EJ	LEICESTER CITY WEST PCT
				5PC	LEICESTER CITY PCT	5EY	EASTERN LEICESTER PCT
						5AC	DAVENTRY AND SOUTH NORTHAMPTONSHIRE PCT
				5PD	NORTHAMPTONSHIRE TEACHING PCT	5LV	NORTHAMPTONSHIRE HEARTLANDS PCT
						5LW	NORTHAMPTON PCT

<sup>4</sup> Northamptonshire part became part of Northamptonshire Teaching PCT while the Oxfordshire part became part of Oxfordshire PCT

<sup>5</sup> Lincolnshire PCT reports to East Midlands SHA but part of the PCT falls within Yorkshire and the Humber SHA



New SHA		Old SHA		New PCO		Old PCO	
Q34	WEST MIDLANDS	Q26	SHROPSHIRE AND STAFFORDSHIRE	5M2	SHROPSHIRE COUNTY PCT	5M2	SHROPSHIRE COUNTY PCT
				5MK	TELFORD AND WREKIN PCT	5MK	TELFORD AND WREKIN PCT
				5PH	NORTH STAFFORDSHIRE PCT	5HR	STAFFORDSHIRE MOORLANDS PCT
						5HW	NEWCASTLE-UNDER-LYME PCT
				5PJ	STOKE ON TRENT PCT	5ME	NORTH STOKE PCT
						5MF	SOUTH STOKE PCT
				5PK	SOUTH STAFFORDSHIRE PCT	5DQ	BURNTWOOD, LICHFIELD AND TAMWORTH PCT
						5ML	EAST STAFFORDSHIRE PCT
						5MM	CANNOCK CHASE PCT
						5MN	SOUTH WESTERN STAFFORDSHIRE PCT
		Q27	BIRMINGHAM AND THE BLACK COUNTRY	5M1	SOUTH BIRMINGHAM PCT	5M1	SOUTH BIRMINGHAM PCT
				5M3	WALSALL TEACHING PCT	5M3	WALSALL TEACHING PCT
				5MV	WOLVERHAMPTON CITY PCT	5MV	WOLVERHAMPTON CITY PCT
				5MX	HEART OF BIRMINGHAM TEACHING PCT	5MX	HEART OF BIRMINGHAM TEACHING PCT
				5PE	DUDLEY PCT	5HT	DUDLEY SOUTH PCT
						5HV	DUDLEY BEACON AND CASTLE PCT
				5PF	SANDWELL PCT	5MG	OLDBURY AND SMETHWICK PCT
						5MH	ROWLEY REGIS & TIPTON PCT
						5MJ	WEDNESBURY AND WEST BROMWICH PCT
				5PG	BIRMINGHAM EAST AND NORTH PCT	5MW	NORTH BIRMINGHAM PCT
				TAM	SOLIHULL CARE TRUST	5MY	EASTERN BIRMINGHAM PCT
		Q28	WEST MIDLANDS SOUTH	5CN	HEREFORDSHIRE PCT	5CN	HEREFORDSHIRE PCT
				5MD	COVENTRY TEACHING PCT	5MD	COVENTRY TEACHING PCT
				5PL	WORCESTERSHIRE PCT	5DR	WYRE FOREST PCT
						5MR	REDDITCH AND BROMSGROVE PCT
						5MT	SOUTH WORCESTERSHIRE PCT
				5PM	WARWICKSHIRE PCT	5M9	RUGBY PCT
						5MP	NORTH WARWICKSHIRE PCT
						5MQ	SOUTH WARWICKSHIRE PCT

New SHA		Old SHA		New PCO		Old PCO	
Q35	EAST OF ENGLAND	Q01	NORFOLK, SUFFOLK AND CAMBRIDGESHIRE	5PN	PETERBOROUGH PCT	5AF	NORTH PETERBOROUGH PCT
				5PP	CAMBRIDGESHIRE PCT	5AG	SOUTH PETERBOROUGH PCT
						5GF	HUNTINGDONSHIRE PCT
						5JH	CAMBRIDGE CITY PCT
						5JJ	SOUTH CAMBRIDGESHIRE PCT
						5JK	EAST CAMBRIDGESHIRE AND FENLAND PCT
				5PQ	NORFOLK PCT	5A2	NORWICH PCT
						5CY	WEST NORFOLK PCT
						5G1	SOUTHERN NORFOLK PCT
						5JL	BROADLAND PCT
						5JM	NORTH NORFOLK PCT
				5PR	GREAT YARMOUTH AND WAVENEY PCT	5GT	GREAT YARMOUTH PCT
						5JV	WAVENEY PCT
				5PT	SUFFOLK PCT	5JQ	IPSWICH PCT
						5JR	SUFFOLK COASTAL PCT
						5JT	CENTRAL SUFFOLK PCT
						5JW	SUFFOLK WEST PCT
		Q02	BEDFORDSHIRE AND HERTFORDSHIRE	5GC	LUTON PCT	5GC	LUTON PCT
				5P2	BEDFORDSHIRE PCT	5GD	BEDFORD PCT
				5P3	EAST AND NORTH HERTFORDSHIRE PCT	5GE	BEDFORDSHIRE HEARTLANDS PCT
						5GG	WELWYN HATFIELD PCT
						5GH	NORTH HERTFORDSHIRE AND STEVENAGE PCT
						5GJ	SOUTH EAST HERTFORDSHIRE PCT
						5GK	ROYSTON, BUNTINGFORD AND BISHOP'S STORTFORD PCT
				5P4	WEST HERTFORDSHIRE PCT	5CP	HERTSMERE PCT
						5GV	WATFORD AND THREE RIVERS PCT
						5GW	DACORUM PCT
						5GX	ST ALBANS AND HARPENDEN PCT
		Q03	ESSEX	5P1	SOUTH EAST ESSEX PCT	5AK	SOUTHEND ON SEA PCT
				5PV	WEST ESSEX PCT	5JP	CASTLE POINT AND ROCHFORD PCT
						5AJ	EPHING FOREST PCT
						5DC	HARLOW PCT
				5PW	NORTH EAST ESSEX PCT	5GN	UTTLESFORD PCT
						5AH	TENDRING PCT
						5GM	COLCHESTER PCT
				5PX	MID ESSEX PCT	5GL	MALDON AND SOUTH CHELMSFORD PCT
						5JN	CHELMSFORD PCT
						TAG	WITHAM, BRAINTREE & HALSTEAD CARE TRUST
				5PY	SOUTH WEST ESSEX PCT	5GP	BILLERICAY, BRENTWOOD AND WICKFORD PCT
						5GQ	THURROCK PCT
						5GR	BASILDON PCT

New SHA		Old SHA		New PCO		Old PCO	
Q36	LONDON	Q04	NORTH WEST LONDON	5AT	HILLINGDON PCT	5AT	HILLINGDON PCT
				5H1	HAMMERSMITH AND FULHAM PCT	5H1	HAMMERSMITH AND FULHAM PCT
				5HX	EALING PCT	5HX	EALING PCT
				5HY	HOUNSLOW PCT	5HY	HOUNSLOW PCT
				5K5	BRENT TEACHING PCT	5K5	BRENT TEACHING PCT
				5K6	HARROW PCT	5K6	HARROW PCT
				5LA	KENSINGTON AND CHELSEA PCT	5LA	KENSINGTON AND CHELSEA PCT
				5LC	WESTMINSTER PCT	5LC	WESTMINSTER PCT
		Q05	NORTH CENTRAL LONDON	5A9	BARNET PCT	5A9	BARNET PCT
				5C1	ENFIELD PCT	5C1	ENFIELD PCT
				5C9	HARINGEY TEACHING PCT	5C9	HARINGEY TEACHING PCT
				5K7	CAMDEN PCT	5K7	CAMDEN PCT
		Q06	NORTH EAST LONDON	5K8	ISLINGTON PCT	5K8	ISLINGTON PCT
				5A4	HAVERING PCT	5A4	HAVERING PCT
				5C2	BARKING AND DAGENHAM PCT	5C2	BARKING AND DAGENHAM PCT
				5C3	CITY AND HACKNEY TEACHING PCT	5C3	CITY AND HACKNEY TEACHING PCT
				5C4	TOWER HAMLETS PCT	5C4	TOWER HAMLETS PCT
				5C5	NEWHAM PCT	5C5	NEWHAM PCT
				5NA	REDBRIDGE PCT	5NA	REDBRIDGE PCT <sup>6</sup>
				5NC	WALTHAM FOREST PCT	5NC	WALTHAM FOREST PCT <sup>7</sup>
		Q07	SOUTH EAST LONDON	5A7	BROMLEY PCT	5A7	BROMLEY PCT
				5A8	GREENWICH TEACHING PCT	5A8	GREENWICH TEACHING PCT
				5LD	LAMBETH PCT	5LD	LAMBETH PCT
				5LE	SOUTHWARK PCT	5LE	SOUTHWARK PCT
				5LF	LEWISHAM PCT	5LF	LEWISHAM PCT
				TAK	BEXLEY CARE TRUST	TAK	BEXLEY CARE TRUST <sup>8</sup>
		Q08	SOUTH WEST LONDON	5A5	KINGSTON PCT	5A5	KINGSTON PCT
				5K9	CROYDON PCT	5K9	CROYDON PCT
				5LG	WANDSWORTH PCT	5LG	WANDSWORTH PCT
				5M6	RICHMOND AND TWICKENHAM PCT	5M6	RICHMOND AND TWICKENHAM PCT
				5M7	SUTTON AND MERTON PCT	5M7	SUTTON AND MERTON PCT

6 Formed on 01/04/2003 from Redbridge PCT and part of Chingford, Wanstead and Woodford PCT

7 Formed on 01/04/2003 from Walthamstow, Leyton and Leytonstone PCT and part of Chingford, Wanstead and Woodford PCT

8 Formed on 01/10/2003 from Bexley PCT

New SHA		Old SHA		New PCO		Old PCO	
Q37	SOUTH EAST COAST	Q18	KENT AND MEDWAY	5L3	MEDWAY PCT	5L3	MEDWAY PCT
				5P9	WEST KENT PCT	5CM	DARTFORD, GRAVESHAM AND SWANLEY PCT
						5FF	SOUTH WEST KENT PCT
						5L2	MAIDSTONE WEALD PCT
				5QA	EASTERN AND COASTAL KENT PCT	5L4	SWALE PCT
						5LL	ASHFORD PCT
		Q19	SURREY AND SUSSEX			5LM	CANTERBURY AND COASTAL PCT
						5LN	EAST KENT COASTAL PCT
						5LP	SHEPWAY PCT
				5LQ	BRIGHTON AND HOVE CITY PCT	5LQ	BRIGHTON AND HOVE CITY PCT
						5KP	EAST ELMBRIDGE AND MID SURREY PCT
				5P5	SURREY PCT	5KQ	EAST SURREY PCT
						5L5	GUILDFORD AND WAVERLEY PCT
						5L6	NORTH SURREY PCT
						5L7	SURREY HEATH AND WOKING PCT
				5P6	WEST SUSSEX PCT	5FK	MID-SUSSEX PCT
						5L8	ADUR, ARUN AND WORTHING PCT
						5L9	WESTERN SUSSEX PCT
						5MA	CRAWLEY PCT
						5MC	HORSHAM AND CHANCTONBURY PCT
				5P7	EAST SUSSEX DOWNS AND WEALD PCT	5LR	EASTBOURNE DOWNS PCT
						5LT	SUSSEX DOWNS AND WEALD PCT
				5P8	HASTINGS AND ROTHER PCT	5FH	BEXHILL AND ROTHER PCT
						5FJ	HASTINGS AND ST LEONARDS PCT

New SHA		Old SHA		New PCO		Old PCO	
Q38	SOUTH CENTRAL	Q16	THAMES VALLEY	5CQ	MILTON KEYNES PCT	5CQ	MILTON KEYNES PCT
				5QD	BUCKINGHAMSHIRE PCT	5DP	VALE OF AYLESBURY PCT
				5QE	OXFORDSHIRE PCT	5G4	CHILTERN AND SOUTH BUCKS PCT
						5G5	WYCOMBE PCT
						5DT	NORTH EAST OXFORDSHIRE PCT
						5DV	CHERWELL VALE PCT <sup>9</sup>
						5DW	OXFORD CITY PCT
						5DX	SOUTH EAST OXFORDSHIRE PCT
						5DY	SOUTH WEST OXFORDSHIRE PCT
				5QF	BERKSHIRE WEST PCT	5DK	NEWBURY AND COMMUNITY PCT
		Q17	HAMPSHIRE AND ISLE OF WIGHT	5QG	BERKSHIRE EAST PCT <sup>10</sup>	5DL	READING PCT
						5DN	WOKINGHAM PCT
				5FE	PORTSMOUTH CITY TEACHING PCT	5DM	SLOUGH PCT
						5G2	BRACKNELL FOREST PCT
				5L1	SOUTHAMPTON CITY PCT	5G3	WINDSOR, ASCOT AND MAIDENHEAD PCT
				5QC	HAMPSHIRE PCT	5FE	PORTSMOUTH CITY TEACHING PCT
						5L1	SOUTHAMPTON CITY PCT
						5A1	NEW FOREST PCT
						5DF	NORTH HAMPSHIRE PCT
						5E9	MID-HAMPSHIRE PCT
						5FD	EAST HAMPSHIRE PCT
						5G6	BLACKWATER VALLEY AND HART PCT
						5LX	FAREHAM AND GOSPORT PCT
						5LY	EASTLEIGH AND TEST VALLEY SOUTH PCT
				5QT	ISLE OF WIGHT NHS PCT	5DG	ISLE OF WIGHT PCT
						RR2	ISLE OF WIGHT HEALTHCARE NHS TRUST

<sup>9</sup> Northamptonshire part became part of Northamptonshire Teaching PCT while the Oxfordshire part became part of Oxfordshire PCT

<sup>10</sup> Berkshire East PCT reports to South Central SHA but part of the PCT falls within South East Coast SHA

New SHA		Old SHA		New PCO	Old PCO
Q39	SOUTH WEST	Q20	AVON, GLOUCESTERSHIRE AND WILTSHIRE	5A3 SOUTH GLOUCESTERSHIRE PCT	5A3 SOUTH GLOUCESTERSHIRE PCT
				5FL BATH AND NORTH EAST SOMERSET PCT	5FL BATH AND NORTH EAST SOMERSET PCT
				5K3 SWINDON PCT	5K3 SWINDON PCT <sup>11</sup>
				5M8 NORTH SOMERSET PCT	5M8 NORTH SOMERSET PCT
				5QH GLOUCESTERSHIRE PCT	5KW CHELTENHAM AND TEWKESBURY PCT
					5KX WEST GLOUCESTERSHIRE PCT
					5KY COTSWOLD AND VALE PCT
				5QJ BRISTOL PCT	5JF BRISTOL NORTH PCT
					5JG BRISTOL SOUTH AND WEST PCT
				5QK WILTSHIRE PCT	5DH WEST WILTSHIRE PCT
					5DJ SOUTH WILTSHIRE PCT
					5K4 KENNET AND NORTH WILTSHIRE PCT
		Q21	SOUTH WEST PENINSULA	5F1 PLYMOUTH TEACHING PCT	5F1 PLYMOUTH TEACHING PCT
				5QP CORNWALL AND ISLES OF SCILLY PCT	5FM WEST OF CORNWALL PCT
					5KR NORTH AND EAST CORNWALL PCT
					5KT CENTRAL CORNWALL PCT
				5QQ DEVON PCT	5CV SOUTH HAMS AND WEST DEVON PCT
					5FQ NORTH DEVON PCT
					5FR EXETER PCT
					5FT EAST DEVON PCT
					5FV MID DEVON PCT
					5FY TEIGNBRIDGE PCT
				TAL TORBAY CARE TRUST	TAL TORBAY CARE TRUST <sup>12</sup>
		Q22	DORSET AND SOMERSET	5QL SOMERSET PCT	5FW SOMERSET COAST PCT
					5FX MENDIP PCT
					5K1 SOUTH SOMERSET PCT
					5K2 TAUNTON DEANE PCT
				5QM DORSET PCT	5CD NORTH DORSET PCT
				5QN BOURNEMOUTH AND POOLE PCT	5FN SOUTH AND EAST DORSET PCT
					5FP SOUTH WEST DORSET PCT
					5CE BOURNEMOUTH TEACHING PCT
					5KV POOLE PCT

11 Swindon PCT reports to South West SHA but part of the PCT falls within South Central SHA

12 Formed on 01/10/2005 from Torbay PCT

## APPENDIX P GLOSSARY

The following abbreviations / terms are used within the text of this report:

<b>A&amp;E</b>	Accident and Emergency Department
<b>AIC</b>	Adult Intensive Care
<b>AICU</b>	Adult Intensive Care Unit
<b>ANZPICS</b>	Australian and New Zealand Paediatric Intensive Care Registry
<b>CAG</b>	Clinical Advisory Group
<b>CATS</b>	Children's Acute Transfer Service
<b>CT3</b>	Clinical Terms 3
<b>ECMO</b>	Extra corporeal membrane oxygenation
<b>ENB</b>	English National Board
<b>GB</b>	Great Britain
<b>GOSH</b>	Great Ormond Street Hospital
<b>HB</b>	Health Board
<b>IC</b>	Information Centre for health and social care
<b>ICNARC</b>	Intensive Care National Audit & Research Centre
<b>ICP device</b>	Intracranial pressure device
<b>Invasive ventilation</b>	Any method of ventilation delivered via an endotracheal tube, laryngeal mask or tracheotomy tube
<b>IQR</b>	Interquartile Range
<b>IV vasoactive therapy</b>	Intravenous drug therapy to support blood pressure and heart rate
<b>LVAD</b>	Left ventricular assist device to support cardiac function
<b>NPfIT</b>	National Programme for Information Technology
<b>NSPD</b>	National Statistics Postcode Directory
<b>NHS</b>	National Health Service
<b>NHSIA</b>	National Health Service Information Authority
<b>NHSnet</b>	A secure wide area network connecting NHS organisations which enables units to transfer data electronically to PICANet
<b>Non-invasive ventilation</b>	Any method of ventilation NOT given via an endotracheal tube, laryngeal mask or tracheostomy tube
<b>PbR</b>	Payment by Results
<b>PCCEWG</b>	Paediatric Critical Care Expert Working Group
<b>PCCMDS</b>	Paediatric Critical Care Minimum Dataset
<b>PCO</b>	Primary Care Organisations
<b>PIAG</b>	Patient Information Advisory Group
<b>PIC</b>	Paediatric Intensive Care
<b>PICANet</b>	Paediatric Intensive Care Audit Network
<b>PICNET</b>	Paediatric Intensive Care Network
<b>PICS</b>	Paediatric Intensive Care Society

<b>PICS SG</b>	Paediatric Intensive Care Society Study Group
<b>PICU</b>	Paediatric Intensive Care Unit
<b>PIM</b>	Paediatric Index of Mortality
<b>PIM 2</b>	Paediatric Index of Mortality version 2
<b>READ Codes</b>	Clinical terminology used to describe clinical conditions, symptoms and observations
<b>RSV</b>	Respiratory syncytial virus
<b>SCT</b>	See SNOMED CT®
<b>SHO</b>	Senior House Officer
<b>SG</b>	Steering Group
<b>SNOMED CT®</b>	SNOMED CT® is a clinical terminology - the Systematised Nomenclature of Medicine. It is a common computerised language that will be used by all computers in the NHS to facilitate communications between healthcare professionals in clear and unambiguous terms
<b>SMR</b>	Standardised mortality ratio
<b>SHA</b>	Strategic Health Authority
<b>SWACIC</b>	South West Audit of Critically Ill Children
<b>UK PICOS</b>	United Kingdom Paediatric Intensive Care Outcome Study







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