





# NOVEMBER 2016

ANNUAL REPORT





**A**PPENDICES

Paediatric Intensive Care Audit Network



### DATA COLLECTION PERIOD JANUARY 2013 – DECEMBER 2015













UNIVERSITY OF LEEDS



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### A. PARTICIPATING ORGANISATION & HOSPITAL CHARACTERISTICS

NHS Trust / Organisation	Participating Hospital	Unit	Funded PIC beds	Funded HD beds	Type of unit
Barts Health NHS Trust	The Royal London Hospital	PCCU	2	41	General
Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital		PICU	29	0	General including cardiac, liver, neurosurgical, ECLS, ENT, oncology, metabolic and spinal
Cambridge University Hospitals NHS Foundation Trust	Addenbrooke's Hospital	PICU	9	4	General including neurosurgery and major trauma
Cardiff & Vale NHS Trust	Cardiff University Hospital	PCCI	6	4	General
Central Manchester & Manchester Children's University Hospitals NHS Foundation Trust	Royal Manchester Children's Hospital	PICU	15	0	General
		ссси	17	0	Cardiac
Great Ormond Street Hospital for Children NHS Trust	Great Ormond Street Hospital for Children	PICU	13	0	General
		NICU	8	0	Neonatal Unit
Guy's & St. Thomas' NHS Foundation Trust	Evelina London Children's Hospital	PICU	18	0	General & Cardiac
HSE (Health Services Executive)	Children's University Hospital, Dublin	PICU	9	0	General, Neurosurgical (up to 6 years of age), Craniofacial & Surgical Neonatal.
	Our Lady's Children's Hospital, Dublin	PICU	18	5	General & Cardiac
Hull & East Yorkshire Hospitals NHS Trust     Hull Royal Infirmary		AICU	2	0	2 designated PIC beds
King's College Hospital NHS Trust	King's College Hospital	PICU	7	8 <sup>1</sup>	General & Hepatic & Neurosurgical
Leeds Teaching Hospitals NHS Trust	Leeds General Infirmary	PICU	16	0	General, Neurosurgery, Liver & Cardiac
Newcastle Upon Tyne Hospitals NHS	Great North Children's Hospital	PICU	11	2	General & Surgical ICU
Foundation Trust	Freeman Hospital	CICU	11	0	Cardiothoracic surgery, heart failure, ECMO
NHS Lothian – University Hospitals Division	Royal Hospital for Sick Children, Edinburgh	PICU	8	6	General (plus neurosurgical and spinal)
NHS Greater Glasgow and Clyde – Women and Children's Division Royal Hospital for Sick Children (Yorkhill)		PICU	20	2	General, Neurosurgical Cardiac & ECMO
Oxford University Hospitals NHS Trust     The John Radcliffe Hospital		PCCU	8	9	General including neurosurgical, craniofacial and major trauma.

NHS Trust / Organisation	Participating Hospital	Unit	Funded PIC beds	Funded HD beds	Type of unit
Nottingham University Hospitals NHS Trust	Nottingham Children's Hospital	PICU	8	6	General (plus regional oncology, major trauma, ENT, paediatric surgery, neurosurgical, spinal, supraregional renal service and cleft lip & palate services)
Royal Brompton & Harefield NHS Foundation Trust	Royal Brompton Hospital	PICU	16	4	Cardiac & Respiratory
Alder Hey Children's NHS Foundation Trust	Alder Hey Children's Hospital	PICU	21	0	General & Cardiac
Sheffield Children's NHS Foundation Trust	Sheffield Children's Hospital	PCCU	10	8 <sup>2</sup>	General (plus major trauma, neurosurgery, ENT, oncology, metabolic, paediatric surgery, spinal)
University Hospitals Southampton NHS Foundation Trust	Southampton Children's Hospital	PICU	13	0	General, Cardiac & Neurosurgery
South Tees Hospitals NHS Foundation Trust	The James Cook University Hospital	PICU	4	3	General
St. George's Healthcare NHS Trust	St. George's Hospital	PICU	6	6	General, Neurosurgical, Oncology & Paediatric Surgery
Imperial College Healthcare NHS Trust	St. Mary's Hospital	PICU	8	2	General
Belfast Health and Social Care Trust	Royal Belfast Hospital for Sick Children	PICU	12 <sup>3</sup>	0	General
University Hospitals Bristol NHS Foundation Trust	Bristol Royal Hospital for Children	PICU	17	0	General, Cardiac, Neurosurgery, Burns and Major Trauma
	Leicester Royal Infirmary	CICU	6	0	General
University Hospitals of Leicester NHS Trust	Glenfield Hospital	PICU	7	0	Cardiac & ECMO
University Hospitals of North Midlands NHS Trust	Royal Stoke University Hospital	PICU	6	1	General
	The Harley Street Clinic	PICU	13	5	General & Cardiac
HCA Healthcare (non NHS)	The Portland Hospital for Women and Children	PICU	7	0	General

The Royal Alexandra Children's Hospital, Brighton ceased designation as a PICU in 2014 1 ITU/ HDU beds are used flexibly if required

Sheffield did not submit data for HDU beds in 2015 but nurse staffing establishment covers ICU and HD beds
 Belfast routinely admits patients under 14 years only

\* The above information was recorded in November 2015

### **B. C**LINICAL ADVISORY GROUP MEMBERSHIP

Name	Position	NHS Trust / Hospital	Period served
Dr Rachel Agbeko	Paediatric Intensivist	Newcastle upon Tyne Hospitals NHS Foundation Trust Great North Children's Hospital	2012 - present
Dr John Alexander	Consultant in Paediatric Intensive Care	University Hospitals of North Midlands NHS Trust Royal Stoke University Hospital	2012 - present
Simon Chiles	Senior Charge Nurse	University Hospitals of Leicester NHS Trust Leicester Royal Infirmary	2014 - present
Kathryn Claydon - Smith	Clinical Nurse Specialist	Central Manchester & Manchester Children's University Hospitals NHS Trust Royal Manchester Children's Hospital	2009 - present
Dr Peter Davis (Chair)	Consultant in Paediatric Intensive Care	University Hospitals Bristol NHS Foundation Trust Royal Hospital for Children	2006 - present
Dr Andrew Durward (sharing with Dr Shane Tibby)	Consultant in Paediatric Intensive Care	Guy's & St Thomas' NHS Foundation Trust Evelina Children's Hospital	2002 - present
Judith Gray	Sister	Newcastle upon Tyne Hospitals NHS Foundation Trust Newcastle Freeman Hospital	2015 - present
Dr Hilary Klonin	Consultant in Paediatric Intensive Care	Hull & East Yorkshire Hospitals NHS Trust Hull Royal Infirmary	2002 - present
Dr Jillian McFadzean (representing Scotland)	Consultant in Paediatric Intensive Care	NHS Lothian – University Hospitals Division Edinburgh Royal Hospital for Sick Children	2005 - 2015
Dr Cathy McMahon	Consultant in Paediatric Intensive Care	Our Lady's Children's Hospital, Crumlin, Dublin 12 & The Children's University Hospital, Dublin	2011 -2016
Lesley Molony	Information Officer	Southampton Universities Hospital NHS Trust Southampton Children's Hospital	2013 - present
Dr Roddy O'Donnell	Consultant in Paediatric Intensive Care	Cambridge University Hospitals NHS Foundation Trust Addenbrooke's Hospital	2002 - present
Dr Paula Lister	Consultant Paediatric Intensivist	Great Ormond Street Hospital for Children NHS Trust Great Ormond Street Hospital for Sick Children	2012 - present
Dr John Pappachan (shared with Peter Wilson)	Anaesthetics and Paediatric Intensive Care Medicine	Southampton Universities Hospital NHS Trust Southampton Children's Hospital	2012 - present
Dr Nazima Pathan (shared with Roddy O'Donnell)	Consultant in Paediatric Intensive Care	Cambridge University Hospitals NHS Foundation Trust Addenbrooke's Hospital	2012 - present
Dr Adrian Plunkett	Consultant Paediatric Intensivist	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital	2012 - present
Dr Padmanabhan Ramnarayan	Consultant	Great Ormond Street Hospital NHS Trust Children's Acute Transport Service	2012 - present

Name	Position	NHS Trust / Hospital	Period served
Dr Kay Rushforth	Senior Sister	Leeds Teaching Hospitals NHS Trust Leeds General Infirmary	2012 - 2015
Dr Mark Terris (representing Northern Ireland)	Consultant Anaesthetist	Belfast Health and Social Care Trust Royal Belfast Hospital for Sick Children	2014 - present
Dr Shane Tibby (Shared with Dr Andrew Durward)	Consultant in Paediatric Intensive care	Guys and St Thomas Foundation Trust Evelina Children's Hospital	2011 - present
Dr Alistair Turner	Consultant in Paediatric Intensive Care	Royal Hospital for Children, Glasgow	2016 - present
Dr Allan Wardhaugh (representing Wales)	Consultant in Paediatric Intensive Care	Cardiff & Vale NHS Trust University Hospital of Wales	2004 - present
Dr Peter Wilson (shared with John Pappachan)	PICU Consultant	Southampton Universities Hospital NHS trust Southampton Children's Hospital	2011 - present

### C. STEERING GROUP MEMBERSHIP

Name	Position	Organisation	Representation	Period Served
Christopher Coslett	Directorate Manager for Cardiothoracic Services and Critical Care	Cardiff University Hospitals	Wales, ICNARC	2016 - present
Dr Mark Darowski	Consultant Paediatric Anaesthetist	Leeds Teaching Hospitals NHS Trust Leeds General Infirmary PICU	Royal College of Anaesthetists	2002 - 2015
Dr Peter Davis	Consultant in Paediatric Intensive Care	University Hospitals Bristol NHS Foundation Trust Bristol Royal Hospital for Children	Chair of PICANet CAG	2011 - present
Charlie Evans	Case Mix Programme Manager	Intensive Care National Audit & Research Centre (ICNARC)	Intensive Care National Audit & Research Centre (ICNARC)	2015 - present
Peter-Marc Fortune	Consultant Paediatric Intensivist Associate Clinical Head	Royal Manchester Children's Hospital	Paediatric Intensive Care Society President (October 2016)	2016- Present
Julia Grace	National Commissioner	NHS England	National Commissioner for PIC CRG	2013 - 2016
Tasneem Hoosain	HQIP PICANet Coordinator	Healthcare Quality Improvement Partnership	Commissioning and funding body	2015-present
Rachel Lundy	National Commissioner	NHS England	National Commissioner for PIC CRG	2016-present
Dr Michael Marsh (Chair)	Consultant in Paediatric Intensive Care	Southampton University Hospitals NHS Trust Southampton Children's Hospital PICU	Royal College of Paediatrics and Child Health	2002 - present
Dr Jillian McFadzean	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
Jenny Mooney	Director of Operations	Healthcare Quality Improvement Partnership	Commissioning and funding body	2015- present
Dr Kevin Morris	Consultant in Paediatric Intensive Care	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital PICU	Immediate Past President of the Paediatric Intensive Care Society	2006 - 2016
Professor John Newton	Regional Director of Public Health	South Central Strategic Health Authority	Public Health England	2009 - 2015
Dr Gale Pearson	Consultant in Paediatric Intensive care	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital	Chair of Paediatric Intensive Care Clinical Reference Group	2015 - present
Dr Mark Peters	Clinical Unit Chair	Great Ormond Street Hospital for Children Great Ormond Street Hospital, London	Chair of Paediatric Intensive Care Society Study Group	2008 - 2016
Laura Reekie	Data Manager	NHS Lothian – University Hospitals Division Edinburgh Royal Hospital for Sick Children	Database Representative	2005 - 2016
Lucy Lloyd Scott	Casemix Programme Manager	Intensive Care National Audit & Research Centre (ICNARC)	Intensive Care National Audit & Research Centre (ICNARC)	2002 – 2015
Dr Mark Terris	Consultant Anaesthetist	Belfast Health and Social Care Trust Royal Belfast Hospital for Sick Children	Northern Ireland	2012 - present

Name	Position	Organisation	Representation	Period Served
Heather Wardle	Matron PICU & Cardiac Children's Services	Leeds Teaching hospital	PICS Nurse Management Group	2016-present
Dominique Gray Williams	Audit Co-ordinator	Welsh Health Specialised Services Committee	Welsh Health Specialised Services Committee	2003 - 2016
Lucy Wheeler	Parent	N/A	Parent representation	2011 - present
Dr Peter Wilson	Clinical Director for Child Health	Southampton Children's Hospital	Paediatric Intensive Care Society President	2011 - present

### D. PIC FAMILIES GROUP MEMBERSHIP

Name	Position	Organisation	Period Served
Dr John Alexander	Consultant in Paediatric Intensive Care	University Hospitals of North Midlands NHS Trust Royal Stoke University Hospital	2010 – 2013 Re-joined 2015
Fiona Bickell	Retrieval Nurse Practitioner	South Thames Retrieval Service	2010 - present
Sarah Bundy	Family Liaison Sister	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital PICU	2010 - present
Dr Gillian Colville	Clinical Psychologist	St George's Healthcare NHS Trust St George's Hospital	2009 - present
Helene Craddock	Senior Staff Nurse	University Hospitals Bristol NHS Foundation Trust Bristol Royal Hospital for Children	2011 - present
Angela Danjelo	Lay Representative	N/A	2013 - present
Professor Elizabeth Draper	Principle Investigator	PICANet	2009 - present
Debra Ehala	Sister	Newcastle upon Tyne Hospitals NHS Foundation Trust Great North Children's Hospital	2009 - present
Kate Foden	Sister	University Hospitals of North Midlands NHS Trust Royal Stoke University Hospital	2013 - present
Phillip Hudnott	Audit Nurse	Central Manchester & Manchester Children's University Hospitals NHS Trust Royal Manchester Children's Hospital	2011 - 2014
Dr Hilary Klonin	Consultant in Paediatric Intensive Care	Hull & East Yorkshire Hospitals NHS Trust Hull Royal Infirmary	2009 - present
Caroline Lamming	Research Nurse	PICANet	2009 - present
Sally Bolsover	Critical Care Sister	Sheffield Children's NHS Foundation Trust Sheffield Children's Hospital	2011 - present
Shelley Marsh	Lay Representative	N/A	2011 - present
Tina McClelland	Audit Sister	Alder Hey Children's NHS Foundation Trust Alder Hey Children's Hospital	2009 - 2014
Petra Schroff	Family Liaison Nurse	Great Ormond Street Hospital for Children NHS Trust Great Ormond Street Hospital for Sick Children	2011 - present
Karen Starkie	Retrieval Nurse	South Thames Retrieval Service	2013 – present
Adam Tansey	Lay Representative	N/A	2011 - present
Eleanor Willey	Family Liaison Nurse	Birmingham Children's Hospital NHS Trust Birmingham Children's Hospital PICU	2014 – present

PICA Net	PICA Net Admission Paediatric Intensive Care Audit Network · Data Collection Form Admission				
Patient	t <b>details</b> (or hospital lab	e/)			
Family First na	name		NHS/CHI/H&C number	Tick if patient is not eligible for number	
Addres Postco			Date of birth (dd/mm/yyyy)         Indicate if date of birth is         Estimated       Anonymise         Sex         Male       Female	d Duknown Ambiguous Duknown	
White White White Mixee Mixee Asiae	category te British te Irish te other ( <i>specify below</i> ) ed White and Black Caribbeau ed White and Black African ted White and Asian ted other ( <i>specify below</i> ) an Indian an Pakistani ethnic category	Asian Bangladeshi Asian other (specify below) Black Caribbean Black African Black other (specify below) Chinese Other (specify below) Not stated (declined) Unknown	Gestational age at delivery (if particular of the second s	tient is under 2 years old)	
Admiss	ion details				
Admiss Type o Plan Unpi Plan Unpi	the time of admission to the following surgery lanned – following surgery ned – other lanned – o		Source of admission Same hospital Other hospital Clinic Other hospital Home Care area admitted from (include X-ray / endoscopy / CT scanner Recovery only HDU (step up/step down unit) Other intermediate care area Retrieval / transfer? Yes No Type of transport team	ICU / PICU / NICU     Ward     Theatre and recovery     A & E	
	J	, con entrioopital stay)	PICU Centralised transport service (PIC) Transport team Transport team	Other specialist team Other non-specialist team Unknown	
Contac	t us • picanet@leeds.	ac.uk			
	<i>officer</i> 343 8125 h@leeds.ac.uk	Lee Norman Database manager (0113) 343 8125 I.j.norman@leeds.ac.uk PICANet Admission data co	Caroline Lamming Research nurse (0116) 252 5414 crl4@leicester.ac.uk allecton form - Version 92 - November 2014 - Copyrig	Sarah Fleming Senior research fellow (0113) 343 4878 s.j.fleming@leeds.ac.uk pt © 2014 Universities of Leeds and Leloester	

### E. DATA COLLECTION FORM - ADMISSION

PIM2/PIM3				
This applies to observations recorded between the first face-to- face contact with ICU doctor <b>until one hour after admission</b> . Always use the first recorded measurement during this time period.	Systolic blood pressure mmHg Blood gas measured?			
Elective admission				
Tick if this is an elective admission				
Main reason for PICU admission Asthma Bronchiolitis Croup Obstructive sleep apnoea Recovery from surgery Elective liver transplant Diabetic ketoacidosis Seizure disorder Other (none of the above) Is evidence available to assess past medical history? Yes No If yes, tick all that apply Cardiac arrest before ICU admission Cardiac arrest OUT of hospital Cardiomyopathy or myocarditis Severe combined immune deficiency Hypoplastic left heart syndrome	Arterial PaO2       Arterial PaO2         Intubation?       mmHg         Intubation?       At the time of arterial         Yes       No         Headbox?       PaO2 sample         Immol/I       Capillary         Venous       Arterial         Lactate (specify source)       Arterial         Immol/I       Capillary         Venous       Venous         Mechanical ventilation?       Yes         Yes       No			
Leukaemia or lymphoma after first induction	CPAP? (include mask, nasal, and negative pressure ventilation)			
Liver failure main reason for ICU admission				
Acute NEC main reason for ICU admission				
Spontaneous cerebral haemorrhage	Pupil reaction			
Neurodegenerative disorder	Both fixed and dilated     Other reaction			
Human Immunodeficiency Virus (HIV)	Unknown			
Bone marrow transplant recipient				
Disapassa and procedures				
Diagnoses and procedures         Primary diagnosis for this admission         Other reasons for this admission				
Operations and procedures performed during and prior to this admission				
Co-morbidity				
Was a tracheostomy performed during this admission?				

Discharge information	Comments
Status at discharge from your unit	
Discharged for palliative care?	
Date and time of discharge (dd/mm/yyyy hh:mm)	
Date and time of death (dd/mm/yyyy hh:mm)	
Destination following discharge from your unit	
Hospice Other hospital PICU	
☐ Scbb ☐ Ward ☐ Other	
Follow-up 30 days post-discharge from your unit	
Status Alive Dead Unknown	
Date of death (dd/mm/yyyy)	
Location	
Normal residence     Same hospital       Hospice     Other hospital	
SCBU	Form completed by
Other	
Custom audits (for local use)	

### F. DATA COLLECTION FORM - REFERRAL

PICA Paediatric Intensive Care Audit Network · Data Collection Form						
Please complete this form for all requests for transport within the PIC service and/or for all requests for a PICU admission when clinicians agree that a PICU bed is necessary Patient details (or hospital label)						
Family name	NHS/CHI/H&C number       Tick if patient is not eligible for number         Date of birth (dd/mm/yyyy)					
Referral details (complete only when clinicians agree that I	PIC transport and/or PICU admission is necessary)					
Date and time of referral call when clinicians agreed that         PIC transport and/or PICU admission was necessary	Outcome of this referral event         Record the outcomes for both transport and admission; if either not requested of your organisation, tick "not requested"         Transport outcome         Accepted for transport         Refused – no transport team available         Refused – time critical transfer         Refused – out of scope of care         Transport outcome         Accepted for admission         Refused – no staffed bed available         Refused – no staffed bed available         Refused – out of scope of care         Admission outcome         Accepted for admission         Refused – no staffed bed available         Refused – out of scope of care         Admission not requested         Transport team         Destination unit (or location)					
Comments						
Form completed by Contact us • picanet@leeds.ac.uk	]					
Jodie Batchelor         Lee Norman           Project officer         Database manager           (0113) 343 8125         (0113) 343 8125           j.a.batchelor@leeds.ac.uk         I.j.norman@leeds.ac.uk	Caroline Lamming         Sarah Fleming           Research nurse         Senior research fellow           (0116) 252 5414         (0113) 343 4878           crl4@leicester.ac.uk         s.j.fleming@leeds.ac.uk           a collection form - Version 2.0 - May 2014 - Copyright © 2011-14. Universities of Leeds and Leicester					

PICA Paediatric Intensiv	/e Care Audit No	etwork · Data Co	Dilection Form Transport
Patient details (or hospital label) Family name First name Address		NHS/CHI/H&C numb	Tick if patient is not eligible for number
Postcode		Sex Fema	
Transport details			
Date and time accepted for transport         Image: constraint of the second s	Collection area X-ray/endoscopy/C Recovery only HDU (step up/step of Other intermediate Other intermediate Other transport ser Collection unit (or /c Most senior membe present at collection Consultant/Associa ST 4 - 8 ST 1 - 3 None Did a medical techn the patient? Yes No - parent not pre No - parent not pre No - parent not pre	PICU down unit) NICU care area Ward ery A & E vice cation) er of medical staff n unit ite Specialist/StaffGrade ician accompany pany the patient? sent d to accompany	Outcome of this transport event         Patient transported         Not transported – condition improved         Not transported – condition deteriorated         Not transported – other reason         Patient died before transport team arrived         Patient died while transport team present         Patient died during transit         Destination type         PICU         NICU         ICU         HDU         Ward         Theatre         Other transport service         Normal residence         Hospice
Critical incidents			
Identify all critical incidents while transp         No critical incidents         Accidental extubation         Required intubation in transit         Complete ventilator failure	ort team in attendanc Loss of medical gas Loss of all IV acces Cardiac arrest Medication administ	s supply is tration error	Equipment failure or incompatibility impacting on patient care Other critical incident (specify)
(0113)3438125 (0113)34	e <i>manag</i> er 138125 n@leeds.ac.uk	Caroline Lamming Research nurse (0116) 252 5414 crl4@leicester.ac.u	Sarah Fleming Senior research fellow (0113) 343 4878 k s.j.fleming@leeds.ac.uk ay 2014 · Copyright © 2011-14 Universities of Leeds and Leicesh

### H. INFORMATION LEAFLET – FAMILIES AND CARERS

If you would like to know more about PICANet you can:

Talk to the Doctors and Nurses

Email picanet@leeds.ac.uk

Visit our website at www.picanet.org.uk

Or

Call our **Research Nurse**, Caroline Lamming on

0116 252 5414

Or write to Caroline at:

crl4@leicester.ac.uk

Or by post at:

PICANet Department of Health Sciences University of Leicester 22 -28 Princess Road West Leicester, LE1 6TP HQIP

#### Principal investigators:

Professor Elizabeth Draper PICANet Department of Health Sciences University of Leicester 22 -28 Princess Road West Leicester, LE1 6TP

0116 252 5468

Dr Roger Parslow PICANet Division of Epidemiology & Biostatistics School of Medicine University of Leeds 8.49 Worsley Building Leeds, LS2 9JT

0113 343 4856

www.picanet.org.uk

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Paediatric Intensive Care Audit Network



Information Leaflet for families and carers of children admitted to paediatric intensive care.

#### What does PICANet do?

PICANet collects information on all children who are admitted to a paediatric (childrens) intensive care service. 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 very ill, so that intensive care services can be better planned for and provided in the future.

#### How is PICANet funded?

Funding is provided by the National Clinical Audit & Patient Outcomes Programme administered by the Healthcare Quality Improvement Partnership (HQIP) for England, Welsh Health Specialised Services Committee, NHS Lothian – University Hospitals Division, The Royal Belfast Hospital for Sick Children, National Office of Clinical Audit Ireland (NOCA) and HCA International.

#### How is information collected?

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

#### What information is needed?

PICANet collects exactly the same information on all children cared for in paediatric intensive care units and by the specialist paediatric intensive care transport services.

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. 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.

#### What will the information be used for?

We use the information to help us write reports and to decide what further information on childrens intensive care is needed to help hospitals plan for the future. 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 have also linked up with the other databases; so that we can see how your child's health is after they have left the intensive care unit.

#### 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 secure 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 have we found out so far?

During the past few years, we have shown that over 19,000 children are admitted to the paediatric intensive care service in the United Kingdom and Ireland each year. 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 which could identify your child included in PICANet, please tell the nurse or doctor caring for your child. They will make sure your child's confidential information is not sent to PICANet. Your decision will not alter the care your child receives in this or any other hospital.

### I. INFORMATION LEAFLET- CHILDREN

If you would like to know more about PICANet you can:

Talk to your **nurse or doctor** 

Send us an email us at **picanet@leeds.ac.uk** 

Visit our website at www.picanet.org.uk

Or

Call our Research Nurse, Caroline Lamming on

0116 252 5414

Or write to Caroline at:

crl4@leicester.ac.uk

Or by post at: PICANet Department of Health Sciences University of Leicester 22 -28 Princess Road West Leicester, LE1 6TP HQIP

#### Principal investigators:

Professor Elizabeth Draper PICANet Department of Health Sciences University of Leicester 22 -28 Princess Road West Leicester, LE1 6TP

0116 252 5468

Dr Roger Parslow PICANet Division of Epidemiology & Biostatistics School of Medicine University of Leeds 8.49 Worsley Building Leeds, LS2 9JT

0113 343 4856

www.picanet.org.uk

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Paediatric Intensive Care Audit Network



Information leaflet for children admitted to paediatric intensive care.

#### What is a paediatric intensive care unit?

This is a children's hospital ward where very poorly children are looked after by lots of special doctors and nurses who work together to help every child. It can also be called a children's intensive care unit.

#### What is PICANet?

PICANet is a project, paid for by the Government and hospitals, run by the Universities of Leeds and Leicester.

#### What does PICANet do?

PICANet collects lots of information about how children are looked after in children's intensive care units in England, Wales, Scotland, Northern Ireland and the Republic of Ireland. We also collect information if you are moved to a different children's intensive care unit.

#### Why is PICANet important?

We need this information, so that we can try and help to improve the care of all children who are looked after in children's intensive care.

#### What information is needed?

Information about you, such as your name, your birthday and your hospital number, helps us to follow your progress whilst you are being looked after in children's intensive care. We also collect information about why you are in hospital and how you are looked after.

#### How is information collected?

Doctors and nurses put information from your hospital notes onto a computer in the hospital and send it to the University of Leeds, where it is kept on a main computer.

PICANet collects the same information on all children who are looked after in children's intensive care. We get information on a lot of children, over 19,000 each year. This means that we can look at what is happening across the whole country and not just in your hospital.



#### What happens to my information?

The information is used to write reports which help doctors and nurses to decide the best way to look after children who need intensive care.

No-one will be able to tell that your details are in the report, because we do not use any names or details that could identify you.

#### Will the information be safe?

All information is kept in a safe room on a computer. No-one can see the information, unless it is their job to look.

#### Do I have to be included?

No, if you do not want your information to be included in the project, please tell your doctor or nurse. They will then make sure that no personal details are sent to PICANet.

Your decision will not change how you are looked after in this or any other hospital.

### J. DATA VALIDATION FORM

P	CA Net.	dit	
	PICU name	Visited by	Date of visit
_	Variable	Visit value	Discrepancy
Event	Case note number		
	Event ID		
details	Date of admission		
Admission details	Time of admission	± 30 minutes is acceptable	
Adm	Type of admission to unit	Planned – following surgery Unplanned – following surgery Planned – other Unplanned – other	
	Previous ICU admission	ICU  PICU  NICU  None  Unknown	
	Care area admitted from	<ul> <li>X-ray / endoscopy / CT scanner</li> <li>Recovery only</li> <li>HDU (step up / step down unit)</li> <li>Other intermediate care area</li> <li>ICU / PICU / NICU</li> <li>Ward</li> <li>Theatre and recovery</li> <li>A &amp; E</li> </ul>	
	Retrieval / transfer	☐ Yes ☐ No	
	Type of transport team	PICU     Centralised transport service (PIC)     Transport team from neonates     Other specialist team     Other non-specialist team     Unknown	
	Transport team [name]		
PIM	Elective admission	Yes [Ticked] No [Unticked]	
	Main reason for admission	Asthma Bronchiolitis Croup Obstructive sleep apnoea Recovery from surgery Diabetic ketoacidosis Seizure disorder Other (none of the above)	
	Surgical procedure	Bypass cardiac procedure Non-bypass cardiac procedure Elective liver transplant Other procedure	
L		Continued over	

PICANet Admission data validation audit data collection form - Version 2.0 - 8 January 2015

	Variable	Visit value	Discrepancy
PIM (continued)	Systolic blood pressure	mmHg ± 5 mmHg is acceptable	
M (con	Blood gas measured	Yes     No	
2	Arterial PaO <sub>2</sub>	. kPa OR mmHg	
	FiO <sub>2</sub>		
	Intubation	Yes No	
	Headbox	☐ Yes ☐ No	
	Base excess		
	Base excess source	Arterial Capillary Venous	
	Lactate	mmol/l	
	Lactate source	Arterial Capillary Venous	
	Mechanical ventilation	Yes No	
	СРАР	Yes     No	
	Pupil reaction	Both fixed and dilated Other reaction Unknown	
ions Diagnoses	Primary diagnosis for this admission		
Daily interventions	Invasive ventilation days	Start date         Stop date           /         /         20         /         /         /         20         /         /         20         /         /         /         20         /         /         /         20         /         /         /         20         /         /         20         /         /         /         20         /         /         /         /         /         /         /         /         /         /         /         /         /<	
Daily	Non-invasive ventilation days	Start date         Stop date           /         /         20         /         /         /         20         /         /         20         /         /         /         20         /         /         /         20         /         / <t< th=""><th></th></t<>	
	High flow nasal cannula therapy days	Start date         Stop date           /         /         20         /         /         /         20         /         /         20         /         /         /         20         /         /         /         20         /         /         /         20         /         /         20         /         /         /         20         /         /         /         /         /         /         /         /         /         /         /         /         /<	
Discharge	Date of discharge	/ / 20	
Disc	Time of discharge	± 30 minutes is acceptable	

### K. DATA VALIDATION REPORT

This is a sample validation report, these real-time reports along with many others, can be produced by individual organisations through PICANet

Web.

Rule ID

**Rule Title** 

3072 Status at 30 days post-discharge from your unit

### Validation Report Core Dataset

### London General Hospital

The following events have outstanding validation issues. If you need to query any of these issues with the PICANet team please quote the EventID of the record. The RuleID is a unique identifier for each rule used by the PICANet team.

EventID:					
Event Type	Event Date	Local ID	Record Number	Case Note No	
Admission	14/01/2014		2571	55598	
Rule ID	Rule Title		Rule Message		
4306	Address line 1		Missing value		
EventID:					
Event Type	Event Date	Local ID	Record Number	Case Note No	
Admission	29/01/2014		258	555	
Rule ID	Rule Title		Rule Message		
4306	Address line 1		Missing value		
EventID:					
Event Type	Event Date	Local ID	Record Number	Case Note No	
Admission	30/01/2014		25	5567	
Rule ID	Rule Title		Rule Message		
4308	NHS/CHI/H&C number		Missing value	Missing value	
EventID:					
Event Type	Event Date	Local ID	Record Number	Case Note No	
Admission	16/04/2014		20140178	2437	

**Rule Message** 

Missing value

### L. PUBLICATIONS, ABSTRACTS & PRESENTATIONS 2013-2015

### PUBLICATIONS

Journal	Title	Authors
Paediatric Critical Care Medicine 2013; 14(7): 673-81	Paediatric Index of Mortality 3: An Updated Model for Predicting Mortality in Paediatric Intensive Care.	Lahn Straney, Archie Clements, Roger C. Parslow, Gale Pearson, Frank Shann, Jan Alexander, Anthony Slater, for the ANZICS Paediatric Study Group and PICANet
Journal of Paediatrics 2013;163(4): 1039-44	Effects of out-of-hours and winter admissions and number of patients per unit on mortality in paediatric intensive care.	McShane P, Draper ES, McKinney PA, McFadzean J, Parslow RC.
Intensive Care Med 2013;39(6): 1080-87	Risk-adjusted monitoring of blood-stream infection in paediatric intensive care: a data linkage study.	Harron K, Wade A, Muller-Pebody B, Goldstein H, Parslow R, Gray J, Hartley JC, Mok Q, Gilbert R.
PLOS ONE 2013; 8 (12): e.85278	Linkage, Evaluation and Analysis of National Electronic Healthcare Data: Application to Providing Enhanced Blood-Stream Infection Surveillance in Paediatric Intensive Care.	Katie Harron, Harvey Goldstein, Angie Wade, Berit Muller-Pebody, Roger Parslow, Ruth Gilbert
N Engl J Med 2014;370(2): 107-18	A randomized trial of hyperglycemic control in paediatric intensive care.	Macrae D, Grieve R, Allen E, Sadique Z, Morris K, Pappachan J, Parsow R, Tasker RC, Elbourne D
Health Technology Assessment 2014; 18 (26): 1-209	A clinical and economic evaluation of Control of Hyperglycaemia in Paediatric intensive care (CHiP): a randomised controlled trial.	Duncan Macrae, Richard Grieve, Elizabeth Allen, Zia Sadique, Helen Betts, Kevin Morris, Vithayathil John Pappachan, Roger Parslow, Robert C Tasker, Paul Baines, Michael Broadhead, Mark L Duthie, Peter-Marc Fortune, David Inwald, Paddy McMaster, Mark J Peters, Margrid Schindler, Carla Guerriero, Deborah Piercy, Zdenek Slavik, Claire Snowdon, Laura Van Dyck and Diana Elbourne
Intensive Care Medicine 2014; 40 (12): 1916-23	Risk of bloodstream infection in children admitted to paediatric intensive care units in England and Wales following emergency inter-hospital transfer.	Katie Harron, Quen Mok, Roger Parslow, Berit Muller Pebody, Ruth Gilbert and Padmanabhan Ramnarayan.
BMJ Open 2014;4(11): e006647	Estimating the incidence, prevalence and true cost of asthma in the UK: Secondary analysis of national stand-alone and linked databases in England, Northern Ireland, Scotland and Wales-A study protocol.	Mukherjee M, Gupta R, Farr A, Heaven M, Stoddart A, Nwaru BI, Fitzsimmons D, Chamberlain G, Bandyopadhyay A, Fischbacher C, Dibben C, Shields M, Phillips C, Strachan D, Davies G, McKinstry B, Sheikh A, McClelland K, Hamilton K, Burgess K, Stewart R, McVeigh S, Murray P, Gingles J, Maguire J, Kennedy C, Myers J, Doole C, Rosato M, Brunton C, Walsh C, McKeown N, Fitzpatrick S, McLoughlin R, Vitty A, Copyright C, Batchelor J, McShane P, Fleming S, Parslow R, Robinson E, Hickford D, Dingle H, Lloyd-Scott L, Harrison D, Martin P, Hussey L, Agius R, Price D, Von Ziegenweidt J, Carter V,

Journal	Title	Authors
		Skinner D, Hutton C, Bathie E, Chisolm A, Been J, Kotz D, Payne R, Julious S, Goodacre S, Devereux G, Steiner M, Weir C, Parker R, Feng Z, McAllister D, Carter R, May L, Limb E, Vidal-Diez A, Carey I, Dickie C, Malloy A, Milligan D, Barclay K, Ho D, Alexander M, Burns G, McAnaw J, Hourcastagné P, Ralph L, Smith A, Walker C, Mikolajczak D, Briggs R, Hopkins L, Wilson L, Bell M, Quirk S, Morris C, Simpson M, Sisk R, Haddow C, Nowell S, Hair D, Duffy A, Robertson I, Pritchard A, Peacock J, Fleming M, Kirby B, Clark D, Caldwell J, Young C, Bailey A, Melrose C, Morrice L, Douglas A, Bromley C, Campbell R, Wierzoch A.
N Engl J Med 2014; 370 (2): 107-18	A randomized trial of hyperglycemic control in pediatric intensive care.	Macrae D, R Grieve, E Allen, Z Sadique, K Morris, J Pappachan, R Parslow, RC Tasker, D Elbourne
BMJ Quality & Safety 2014; 23 (9): 782-8	Differences in case-mix can influence the comparison of standardised mortality ratios even with optimal risk adjustment: an analysis of data from paediatric intensive care.	Manktelow BN, TA Evans, and ES Draper.
Critical care medicine 2015;43(5):1070-78	Monitoring Quality of Care Through Linkage of Administrative Data: National Trends in Bloodstream Infection in U.K. PICUs 2003- 2012.	Harron K, Parslow R, Mok Q, Tibby SM, Wade A, Muller-Pebody B, Gilbert R.
BMJ Open 2015; 5 (8): e008118	Data linkage errors in hospital administrative data when applying a pseudonymisation algorithm to paediatric intensive care records.	Hagger-Johnson G, K Harron, T Fleming, R Gilbert, H Goldstein, R Landy, RC Parslow
Resuscitation 2015; 97: 122-128	Observational study of children admitted to United Kingdom and Republic of Ireland Paediatric Intensive Care Units after out-of- hospital cardiac arrest.	Scholefield, B.R., F. Gao, H.P. Duncan, R.C. Tasker, R.C. Parslow, E.S. Draper, P. McShane, P. Davies, K.P. Morris
Seizure: European Journal of Epilepsy 2015; 29: 153-161	Admissions to paediatric intensive care units (PICU) with refractory convulsive status epilepticus (RCSE): A two-year multi- centre study.	Tully, I., E.S. Draper, C.R. Lamming, D. Mattison, C. Thomas, T. Martland, R. Appleton

### **A**BSTRACTS

Abstract	Title	Authors
24 <sup>th</sup> ESPNIC Annual Meeting, Rotterdam, 12 <sup>th</sup> -15 <sup>th</sup> June 2013 (Oral Presentation)	Weight-for-age distribution and case-mix adjusted outcomes of 14,205 critically ill children	N.J. Prince, K. Brown, R.C. Parslow, M.J. Peters
PICS 2015 conference, 14 <sup>th</sup> -16 <sup>th</sup> September 2015	Descriptive Epidemiology of Admissions to PICU of Children Less Than 2 Years Old Who Were Born Post-Term in the UK and the Republic of Ireland, 2003-2014	M. Kapetanstrataki, S.J. Fleming, E. S. Draper, K. Johnson, R. C. Parslow
Survival Analysis for Junior Researchers Conference, 13-14 April 2016	Survival in Paediatric Intensive Care Units (PICU) and Beyond, England	Kapetanstrataki M, Fleming SJ, Parslow RC

and Wales, 2004 -2014	

### **P**RESENTATIONS

Meeting/Conference	Venue	Date	Presentation Title	PICANet Team Attendees
24 <sup>th</sup> ESPNIC Annual Meeting	Rotterdam, Netherlands	12- 15/06/2013	Presentation on 'Epidemiology of paediatric and neonatal intensive care'	Liz Draper
PICANet AGM	University Hospitals Bristol Education centre	13/11/2013	Presentation on National Report	Roger Parslow/ Liz Draper
PIC Directors Meeting	London	25/03/2014	Capacity in PIC	Liz Draper
East Midlands PIC Commissioners	NEC Birmingham	04/2014	Ten year trends in PIC	Liz Draper
PICANet AGM	Manchester	05/11/2014	Presentation on National Report	PICANet Team
HQIP Clinical Audit & QI Awards. Junior Doctors Finals Day	Leicester	19/11/2014	National Clinical Audit Update - PICANet	Liz Draper
Royal College of Paediatrics and Child Health Annual Conference 2015	ICC, Birmingham	29/04/2015	Prolonged invasive ventilation in paediatric intensive care: children resident in England and Wales, 2004-2013	S Fleming, K Morris, C Lamming; A Evans; R Parslow; E Draper
29 <sup>th</sup> Annual PICS Conference	ICC, Birmingham	14- 16/09/2015	Survival in PICU and beyond	Roger Parslow, Sarah Fleming, Melpo Kapetanstrataki
PICANet AGM	Royal College of Nursing, London	04/11/2015	Presentation on National Report	PICANet Team

### M. STAFFING STUDY DATA COLLECTION FORMS 2015-16

[							
WEEK COMMENCING -		PICU S	Staffing St	udy 2015		PLEASE COMPLETE	Site ID
16 <sup>th</sup> November 2015		A study of	occupancy & nurs	e staffing provision		Hospital	
	Nurs	ina Establis	hment and	l staffina In	formation	Unit	
	PICA Net Net Net Net Net Net Net Net Net Net						
<b>Net</b> M L M L							
Part 1 Nurse Establishment In				sert zero if no staff	at this grade	(print name)	
	1.	2.	3.	4.	5.	6.	7.
	Nursing establishment W.T.E. Exclude supernumerary student nurses, receptionists, audit staff/ data cierks, housekeepers	Vacancies in Nurse establishment WTE	No. of persons currently in post	No. of specialist nurses with paediatric intensive care qualification	No. of registered children's nurses RSCN or degree or diploma recognised by NMC in children's branch of nursing	No. with Valid Paediatric Resuscitation Training	No. with Valid Advanced Paediatric Resuscitation Training
Band 2 - 3							
Band 4							
Band 5							
Band 6							
Band 7							
Band 8							
Band 9							
Other please specify details- i.e. Agency / Bank (state Band)							
1.							
2.							
3.							
4.							

#### Complete Part 2 overleaf

#### Part 2 Dedicated Roles

Does your unit have the following persons in post: (please tick appropriate box)							No. in post
1. Fami	1. Family Care Sister YES NO						
2. Prac	. Practice Educator YES NO						
3. Discharge co-ordinator YES NO							
					If N	IO tick on	e box below <b>:</b>
	Who has	a) Named PIC nurse					
	responsibility for b) Named PIC team						
	discharge planning?	c) Specialist team providing care for specific condition i.e. long term ventilation					
	- 0	d) Hospital wide discharge planning team					

If you have any additional queries please contact: Caroline Lamming tel: 0116 252 5414 or email:crl4@leicester.ac.uk

We advise you to retain a photocopy of the completed form.

Using the FREEPOST envelope supplied, please return the completed forms by FRIDAY 27th NOVEMBER 2015 to:-

FREEPOST RTHJ-ZYYG-BXRT PICANet Staffing Study (0593) F.A.O: Caroline Lamming, PICANet Research Nurse University of Leicester, Bent of Health Sciences 22-28 Princess Road West Leicester, LE1 6TP

PICANet Staffing Study 2015 Nursing Establishment& Staffing Info v1.4 27/10/2014

## PICU Staffing Study 2015

#### HOW TO FILL IN THE Nursing Establishment and Staffing Information Form

This form applies to the **designated paediatric intensive care unit** and where applicable **the PICU based retrieval service in your hospital Only count HDU** if located in the same unit and staffed by the PICU shift staffing roster. The form collects information on both *STAFF and skill mix.* 

Each PICU should complete one copy of this form. Every section should be completed once on the first day of the staffing study (Please enter zeros to show you have not missed a column).

#### COUNTING STAFF - DIFFERENT GROUPS OF STAFF

Only count the staff included in the establishment to deliver clinical care to patients. EXCLUDE clerical staff, research and audit staff/data clerks, receptionists, housekeepers and supernumerary student nurses

- 1. The current combined, whole time equivalent, funded nursing establishment of persons working at this grade to give clinical care. Include all clinical nursing staff, any link nurses employed to give clinical care, any learners or nurses in training but only if not supernumerary.
- 2. The current, whole time equivalent, vacancies in nurse establishment at the specified grade.
- 3. The overall total number of (persons) on your PICU currently in post at this grade.
- 4. The combined whole time equivalents of staff currently in post at this grade i.e. a nurse working part time may only be 0.5 WTE.
- 5. The number of nurses with appropriate level competencies in paediatric critical care currently in post. Include all specialist nurses in PIC with critical
- appropriate level competencies in paediatric critical care assessed through a validated accredited education and training programme. 6. The number of registered children's nurses currently in post to give clinical care. Include all nurses with an RSCN or degree or diploma in children's
- branch nursing recognised by the NMC.
- 7. The number of nurses currently in post with valid Paediatric Resuscitation training or equivalent.

8. The number of nurses currently in post with valid Advanced Paediatric Resuscitation training or equivalent.

If you have any additional queries please contact: Caroline Lamming tel: 0116 252 5414 or email:crl4@leicester.ac.uk

We advise you to retain a photocopy of the completed form.

PICANet Staffing Study 2015 Nursing Establishment& Staffing Info v1.4 27/10/2014

WEEK COMMENCING -	PICU Staffing Study 2015	PLEASE COMPLETE
16th November 2015	A study of occupancy, nursing and medical staffing provision	Hospital
PICA / /	Medical Establishment Information	Unit
<b>Net</b> // L // L	Please see attached instructions     Complete part 1 and 2	Form completed by:
	<ul> <li>Please complete every column, insert zero if no staff at this grade</li> </ul>	(ocint name)
	What is the model of service in your Hospital?	

(please circle): Standalone PICU Combined PICU and retrieval service

#### Part 1 Medical Establishment Information:

				Number of	staff in post	Number of	vacant posts	Combined total DCC PAs of funded staff in post.			otal DCC PA's t posts
				ICU	Transport	ICU	Transport	ICU	Transport	ICU	Transport
grade	Consultant	Paediatricians	substantive								
50	Paediatric	raeulaci icialia	locum								
ant	Intensivists	Anaesthetists	substantive								
불		Andesthetists	locum								
Consultant	Non-PICM consulta	-PICM consultants substantive									
0	NON-FICINI CONSULTANTS		locum								
	Associate specialist	e /staff grade	substantive								
	Associate specialist	system grade	locum								
				Number of	staff in post	Number of vacant posts		Combined total WTE of medical establishment		Combined total WTE of vacant posts	
				ICU	Transport	ICU	Transport	ICU	Transport	ICU	Transport
	ST 4-8	Paediatrics									
	UK training	training Anaesthesia									
	scheme	Other [please specify]									
a	ST 4-8 equivalent, I	not on UK training sch	eme								
ad	ST 1-3	Paediatrics									
Training grade	UK training	Anaesthesia									
-E	scheme	Other [please specify]									
ie .		not on UK training sch	eme								
-	Foundation year 1-	2									
staff				Number of	staff in post	Number of	vacant posts	Total hours medical rota			
La S				ICU	Transport	ICU	Transport	ICU	Transport		
Other	ANPs on medical ro	ota									
0	Physician Associate	s									

Please return in **FREEPOST** envelope to:-FREEPOST RTHJ-ZYYG-BXRT PICANet Staffing Study (0593) F A.O: Caroline Lamming, PICANet Research Nurse University of Leicester, <u>Degt</u> of Health Sciences 22-28 Princess Road West Leicester, LEI 6TP

by Friday 27th November 2015

#### Part 2 Trainee Rota

Are the trainees on a full shift rota	? [tick yes or no]	YES	NO			
	nt to 13 hours' duration and the doctors on du y working arrangement that does not allow fo r the purposes of banding					
If not on a full shift rota, what rota	Partial shift		YES	On call	YES	
What banding supplements do the	e trainee posts attract?	Please tick appropriate box				
Band 1 (40 -48 hours/week)	A - most antisocial hours					
	B - moderate antisocial hours					
	C - least antisocial hours -					
Band 2 (48-56 hours/week)	A - most antisocial hours					
	B - least antisocial hours					
Band 3 (>56 hours/week or non-co	mpliance with New Deal regulations)			_		

If you have any additional queries please contact: Caroline Lamming tel: 0116 252 5414 or email:crl4@leicester.ac.uk

You are advised to retain a photocopy of the completed form

Using the FREEPOST envelope supplied, please return the completed forms by FRIDAY 27<sup>th</sup> NOVEMBER 2015 to:-

#### FREEPOST RTHJ-ZYYG-BXRT

PICANet Staffing Study (0593) F.A.O: Caroline Lamming, PICANet Research Nurse University of Leicester, Dept. of Health Sciences 22-28 Princess Road West Leicester LE1 6TP

PICU Staffing Study 2015

week commencing 16th November 2015

Please return in FREEPOST envelope to:-

### HOW TO FILL IN THE Medical Establishment Part 1 and 2

This form applies to the designated paediatric intensive care unit and where applicable the PICU based retrieval service in your hospital.

Only count HDU if located in the same unit and staffed by the PICU shift staffing roster.

Each PICU should complete one copy of this form. Every section should be completed once on the first day of the staffing study (Please enter zeros to show you have not missed a column).

The form is collecting data on the total establishment required to deliver the wider service (PART 1) and the trainee (PART 2). These are measured in different ways for different grades. Please complete both sections.

#### For consultant specialist staff:

- 1. A Consultant Paediatric Intensivist is defined as one who has undertaken relevant training in paediatric intensive care medicine as described by the Intercollegiate Committee for Training in Paediatric Intensive Care Medicine (ICTPICM) or an equivalent national organisation, including at least two years of L3 PCCU training and a period of anaesthesia training (paediatric trainee) or paediatric training (anaesthesia trainee).
- 2. Contractual commitments are measured in Programmed Activities (PA's); each PA having a timetabled value of 4 hours (or 3 hours if the PA is undertaken in premium time - defined as 19:00-07.00hrs Monday to Friday and all day on weekends and bank holidays).
- 3. PA's are classified as Direct Clinical Care (DCC) if it involves working with patients or named-patient related activity. Do not include SPA's Supporting Professional Activity which do not involve direct or named-patient clinical care.
- 4. Some consultants may be employed across 2 units or divisions (e.g. anaesthesia and PICU). DCC's that are flexibly worked across 2 units or divisions should be averaged.

For trainee medical staff:	FREEPOST RTHJ-ZYYG-BXRT
UK training schemes include those managed by the GMC.	PICANet Staffing Study (0593) F.A.O: Caroline Lamming, <u>PICANet</u> Research Nurse
If you have any additional queries please contact: Caroline Lamming tel: 0116 252 5414 or email:crl4@leicester.ac.uk	University of Leicester, Dept of Health Sciences 22-28 Princess Road West Leicester, LE1 6TP
PICANet Staffing Study 2015 Medical Establishment v1.0 27.10.2015	by Friday 27 <sup>th</sup> November 2015

Band 1 Nurring Band 2 Band 4 Band 6 Band 6 Band 7 Band 5	2 - 3 4		C perso	us off du	iumber on ty available r retrieval				-			
Band 2 Band 4 Band 5 Band 6 Band 7	12 2002 2 - 3 4 5										12 noon	
Band 6 Band 7					r recibeval		Grades of M	edical Staff		No. of persons on duty and present	No of persons on call	No. of persons off sick
		_					Primary	Consultant Paediatric	Paediatricians			
Band 8	7	_					clinical responsibility	Intensivists	Anaesthetists			
	s						to PICU*	Non-PICM	consultants			
Band 9						Consultant	Clinical	Consultant Paediatric	Paediatricians			
Le Ageney	ne specify details- /Bank incl.band		_				availability but not primary	Intensivists	Anzesthetists			
2.		-					responsibility**	Non-PICM	consultants			
3.						Associate sp	ecialist/staff					
4.						Senior train	ee - ST 4-8 or equ	ivalent				
	•					Junior train	ee – ST 1-3 or eq	uivalent				
dditional	Number of beds	n PICU funde		f Beds	Reaton for cloture	Foundation	Year 1-2					
formation	syumper of beas	beds	Open & Op	es & Closed upty	sia∬skoviage	ANP on the	medical rota					
llected at	ICU designated						ssistant on the me					
noon	HDU designated					Any other staff	State speciality & gr	ಜರ್ಶ				
Γ	Total number of children in	No. Level	No. Level	No. Level	No. Level	working on the medical	1.					
L	the unit	IV	ш	п	I	rota at specified	2.					
						time	3.					
L				1	return in FREEPOST					7 0	lansa raturn	a in FREEPO
LEASE COMPLET	Z	Si	te ID		ge to:-	COMPLETE		Site ID			svelege to:-	
ospital				FREE	POST RTHJ-ZYYG-BX	tel						RTHJ-ZYY
nit				F.A.C	Net Staffing Study (0593 : Caroline Lamming,					7	A.O: Carol	affing Study line Lammir
orm completed i wint name)	by:				Net Research Nurse rsity of Leicester, Dept o	completed by:				2	ICANet Re niversity of	f Leicester, I
ontact tel. no:				Healt	Sciences Princess Road West	name)				н	ealth Scien	
mail address:					Princess Road West ster, LE1 6TP	ct tel. no:					2-28 Prince eicester, LB	
mail address:					iter, LE1 6TP 7/11/2015	address:				L	eicester, LB	21 6TP

PICA Net M Othe Pies Bar	CU Staffin, ccupancy & nursing er Profession dies to the designate use complete every co de or access to this so de or access to this so de so access to the so access to the so de so access to the so access to the so de so access to the so access to t	and medical s mals Sur 1 PICU in your Jumn, insert ze rvice please contact (	raffing provision W <b>ey Form</b> hospital ro if no staff at this Caroline Lamming
1. Type of Staff	2. Please tick if your unit	3. Total numbe of rerrious pe	
	has dedicated time	week i.e. hal day = 1 sessio	f daily clinical
Paediatric Pharmacist			
Paediatric Physiotherapist			+
Paediatric Distician			+
Play Specialists			
Any other staff group working on PICU			
I.			
2.			
	MOT Las de Cillas	ving	
Please tick the boxes below if your 1 5. Type of Service	6. Access to service in hospital	7. Time dedicate to PICU	to paediatrics
5.	6. Access to service	7. Time dedicate	d Time dedicated
5. Type of Service	6. Access to service	7. Time dedicate	d Time dedicated to paediatrics
5. Type of Service Interfaith support	6. Access to service	7. Time dedicate	d Time dedicated to paediatrics
S. Type of Service Interfaith support Social Workers	6. Access to service	7. Time dedicate	d Time dedicated to paediatrics
5. Type of Service Interfaith support Social Workers Interpreters	6. Access to service	7. Time dedicate	d Time dedicated to paediatrics
S. Type of Service Interfaith support Social Workers Interpreters Berervenent Support	6. Access to service	7. Time dedicate	d Time dedicated to paediatrics
S Type of Service Inserfaith support Social Worksen Inserpreters Benervanan Support Patient Advice and Advocacy Service	6. Access to service	7. Time dedicate	d Time dedicated to paediatrics
Secial Workers Basefahls support Social Workers Interpreters Basers wanast Support Perstant Advice and Advocary Sarvice Psychological Support for Familias	6. Access to service	7. Time dedicate to PICU	d Time dedicated to paediatrics
5 Type of Service Insertain support Social Workers Interpreters Bereavement Support Perchological Support for Sentise Psychological Support for Sentise Set DRespired. Unit	6. Access to service	7. Time dedicate to PICU PICU PICE	d Time dedicated o paediatrics services 
Social Workers Integraters Social Workers Integraters Esservement Support Peychological Support for Families Psychological Support for Staff Size IDRegited,	6. Access to service	7. Time dedicat to PICU	d Time defacered     to peakierrics     services      roture in PREPOSIT emologies      roture in PREPOSIT emologies      roture in PREPOSIT emologies      roture in PREPOSIT emologies      roture in PREPOSIT      rot

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16 <sup>th</sup> Novembe			study of occu ivanced	ipancy, nursin <b>Practice</b>	ng Stud <sup>g and medical</sup> Practiti nt Inforn	staffing pro ONET (A	vision	Hot Uni Far	nse completed by:	Site ID
	·	:	Please comp	DOES NOT	erleaf umn, insert z employ Advar and return	iced Practi		is grade	onane)	
Bands of Advance Practitioners	l. A.P.P establishment W.T.E.	2. Number of perioni currently in post	Number of Combined persons w.t.e. currently of persons	4. 5. Number Number educated to currendly in Masters training level		6. Proportion of w.t.e. sttributed to ut.e. research rots		tion of .e. ning/medical or	7. In/are person(s) included on Nursing (N) ex Medical (M) establishmeet? Please insert N or M or back	8. No. with Valid Advancod Paediatric Resuscitatios Training or oquivalent
Band S						Nursing	Medi	ical Research		
Band 7										
Band 6 Other (please state Sand)										
Additional information	>				(Please tick app	opriate box)	P	case return in FREEP	08T noview septied to	c.
Do you include the of qualified nurses Any additional commen	per funded bed?			or the numbe	r YES	NO	PI F. U	niversity of Leicester,		iune

PICANet Staffing Study 2015 APP Establishment & Staffing Info v1.3 15/10/2015

### N. DATA REQUESTS DECEMBER 2014 – DECEMBER 2015

More detailed information can be requested from picanet@leeds.ac.uk

Request Date	Name	Position & Place of Work	Data requested	Date Provided	What has been/ will be done with the data?
			Admissions Dataset 1. Patient details –ethnic category, date of birth, sex,		This national programme continues the
			birth order, case note number 2. All fields under Admission Details 3.		work of the Confidential Enquiry into
			PIM2/PIM3 – Main reason for PICU admission, 3. Diagnoses and		Child Health (CMACE) and more
			Procedures – Primary diagnosis for this admission, other reasons for this		recently the Child Health Reviews – UK
			admission, operations and procedures performed during or prior to this		undertaken by the Royal College of
			admission, co-morbidity, , mechanical ventilation, comorbidity 4. All		Paediatrics and Child Health. This new
			fields under Discharge Information 5. All fields under Follow up 30 Days		programme will be undertaken in
			Post Discharge from your Unit Referral Dataset 1. Patient details, ethnic		partnership with Swansea University
			category, date of birth, sex, birth order, GP practice code 2. Referral		and will add to the previous work to
			details – Date and Time of Referral Call, Referring Unit, Referring		define the full pathway of care and
			Speciality, Outcome of this Referral Event, Destination Unit (or location)		access to services for children. The
		Professor of Child	Transport Dataset 1. Patient details - Patient details –ethnic category,		programme will look at routinely
17/12/2015	Alison Kemp	Health, Cardiff	other ethnic category, date of birth, sex, case note number 2. Transport		collected datasets (e.g. PICANET) .
		University	details – Collection unit (or location) and destination unit (or location),	Ongoing	Where we can, we will link
			date and time accepted for transport, transport number, outcome of this		administrative health care data, which
			transport event, parent accompanying 3. Transport Times – base to		offers a source of data to provide a
			collection unit -organisational delay, base to collection not applicable,		population based overview of
			depart base, arrive collection unit (or location) 4. Transport journey-		adolescent mental health and
			patient journey – patient journey not applicable, mode of transport,		childhood neurodisability (we do not
			depart collection unit, arrive destination unit, organisational delay. This		intent to link PICANET data with any
			national programme continues the work of the Confidential Enquiry into		other routinely collected data
			Child Health (CMACE) and more recently the Child Health Reviews – UK		however) . The data requested in this
			undertaken by the Royal College of Paediatrics and Child Health. This		form is for the child neurodisability

			new programme will be undertaken in partnership with Swansea		aspect of the project, and will explore
			University and will add to the previous work to define the full pathway of		routinely collected administrative
			care and access to services for children. The programme will look at		healthcare data. Cerebral palsy has
			routinely collected datasets (e.g. PICANET). Where we can, we will link		been selected as an index condition for
			administrative health care data, which offers a source of data to provide		chronic neurodisability.
			a population based overview of adolescent mental health and childhood		
			neurodisability (we do not intent to link PICANET data with any other		
			routinely collected data however) . The data requested in this form is for		
			the child neurodisability aspect of the project, and will explore routinely		
			collected administrative healthcare data. Cerebral palsy has been		
			selected as an index condition for chronic neurodisability.		
			Admissions Dataset: 1.Patient details – postcode, ethnic category, other		This national programme continues the
			ethnic category, NHS/CHI/H&C number, NHS/CHI/H&C number eligibility,		work of the Confidential Enquiry into
			case note number, date of birth, sex, GP practice code. 2. All fields under		Child Health (CMACE) and more
			Admission Details 3.PIM2/PIM3 – Main reason for PICU admission 4.		recently the Child Health Reviews – UK
			Diagnoses and Procedures – Primary diagnosis for this admission, other		undertaken by the Royal College of
			reasons for this admission, co-morbidity 5.All fields under Growth		Paediatrics and Child Health. This new
			Measurements 6.All fields under Discharge Information 7.All fields under		programme will be undertaken in
			Follow up 30 Days Post Discharge from your Unit Referral Dataset:		partnership with Cardiff University and
			1.Patient details – postcode, ethnic category, other ethnic category,		will add to the previous work to define
			NHS/CHI/H&C number, NHS/CHI/H&C number eligibility, date of birth,		the full pathway of care and access to
		Associate Professor,	sex, GP practice code. 2.Referral details –Date and time of referral call,		services for children. The programme
16/12/2015	Ann John	Swansea University	Referring Unit, Referring Speciality, Outcome of this Referral Event,	Ongoing	will link administrative health care
		(Farr Institute)	Destination Unit (or location) Transport Dataset: 1.Patient details –		data, which offers a source of data to
			postcode, NHS/CHI/H&C number, NHS/CHI/H&C number eligibility, date		provide a population based overview of
			of birth, sex, case note number (destination PICU) 2.Transport details –		adolescent mental health and
			date and time accepted for transport, transport number, collection unit		childhood neurodisability, with
			(or location), parents accompanying, outcome of this transport event,		confidential case note reviews, which
			destination unit (or location). 3. Transport Times: base to collection unit		are detailed enough to explore
			- base to collection unit not applicable, depart base, arrive collection		complex pathways of care, between
			unit (or location) organisational delay 4. Transport Times: patient journey		primary and secondary care, health
			- patient journey not applicable, mode of transport, depart collection		and social care, and access to

			unit, arrive destination unit, organisational delay. This national		educational needs. In addition to this
			programme continues the work of the Confidential Enquiry into Child		two surveys will be undertaken: one to
			Health (CMACE) and more recently the Child Health Reviews – UK		look at the organisation of care and
			undertaken by the Royal College of Paediatrics and Child Health. This		one to gain the views of patients,
			new programme will be undertaken in partnership with Cardiff		relatives and associated groups. The
			University and will add to the previous work to define the full pathway of		data requested in this form is for the
			care and access to services for children. The programme will link		adolescent mental health aspect of the
			administrative health care data, which offers a source of data to provide		project, and will explore routinely
			a population based overview of adolescent mental health and childhood		collected administrative healthcare
			neurodisability, with confidential case note reviews, which are detailed		data.
			enough to explore complex pathways of care, between primary and		
			secondary care, health and social care, and access to educational needs.		
			In addition to this two surveys will be undertaken: one to look at the		
			organisation of care and one to gain the views of patients, relatives and		
			associated groups. The data requested in this form is for the adolescent		
			mental health aspect of the project, and will explore routinely collected		
			administrative healthcare data.		
			All patients over a 5 year span who have been admitted to a PIC directly		
			from a Neonatal unit. Gestational age at birth Age at admission to PIC		
		Consultant PICU,	Weight Sex Outcome (discharge and 30 days) Discharge date		To investigate the outcome of these
15/12/2015	Patrick Davies	Nottingham	Tracheostomy inserted yes/no Number of invasive ventilated days	26/01/2016	babies and try to work out what their
		University Hospitals	Number of tracheostomy ventilated days Number of non-invasive		pathways are
			ventilated days Ventilation status at discharge from PIC Oxygen status at		
			discharge If applicable, date of death and diagnosis leading to death		
			Date of PICU admission; Admission type; Source of admission; Care area;		To describe changes over the past
			PIM-2 score; Date of PICU discharge/death; Vital status at discharge;		decade in clinical outcomes (mortality,
		Consultant in	Invasive ventilation days; NIV days; ICU-free days at 28 days; VFD at 28		LOS, LOV, VFD-28, ICU free days at 28
		PICU/Retrieval,	days. To describe changes over the past decade in clinical outcomes		days) for the 3 main types of PICU
25/11/2015	P Ramnarayan	CATS, Great	(mortality, LOS, LOV, VFD-28, ICU free days at 28 days) for the 3 main	04/12/2015	admissions (planned, unplanned from
		Ormond Street	types of PICU admissions (planned, unplanned from same hospital and		same hospital and unplanned from
		Hospital	unplanned from other hospital), including changes in the PIM-2 score		other hospital), including changes in
			between the groups over the past decade.		the PIM-2 score between the groups

					over the past decade.
16/11/2015	David Inwald	PICU Consultant,	CRN, admit date, primary and secondary diagnoses, all comorbidities,	16/11/2015	Audit
		Imperial NHS Trust	ideally in single Excel sheet format with above		
		PICU Consultant,			Report outcome and activity data for
, ,	Andrew	Evelina Hospital,	Follow up on previous data request for all admissions to PICU for years	25/11/2015	asthma
	Nyman	London	2013 and 2014 inclusive.		
		Locum Consultant,			To describe this rare complication in
21/10/2015	Jessica Bate	University Hospital	Number of children with underlying diagnosis of cancer admitted to PICU	19/11/2015	children with cancer requiring intensive
		Southampton	from 1 Jan 2002 to 1 Jan 2012		care
			Primary diagnosis Diagnostic group Number of admissions for this		
			diagnosis Median days of invasive ventilation Lower IQR and Upper IQR		To evaluate the efficacy of a sedation
		Senior Lecturer,	Number of invasive ventilation days delivered Number of admissions		and ventilator weaning protocol in
24/08/2015	Bronagh	Queen's University,	with 1 day of IV Number of admissions with 1 or 2 days IV % admissions	08/09/2015	reducing duration of mechanical
	Blackwood	Belfast	with 1 day of IV % admissions with 1 or 2 days of IV. To evaluate the		ventilation
			efficacy of a sedation and ventilator weaning protocol in reducing		
			duration of mechanical ventilation		
			We require data on all admissions for influenza or suspected influenza to		
			PICUs between 2003 and 2015. The data items we require are: 1.		
			Demographic/birth: age at admission (in weeks), gender, ethnic group,		
			gestational age, birth weight, birth order, multiplicity 2. Admission:		
			admission date, Anonymised PICU ID, previous ICU admissions, transfer,		
			admission source, admitted from, main reason for admission,		The aim of the study is to determine
		Senior Research	planned/unplanned 3. PIM2/3: elective admission, reason for admission,		the burden of influenza in PICUs in the
21/08/2015	Pia Hardelid	Associate, UCL	past medical history, blood gases, intubation, headbox, FiO2, mechanical	20/01/2016	UK, and describe characteristics and
		Institute of Child	ventilation, CPAP, pupil reaction, PIM/PIM2/3 score including PICANet		outcomes of admitted children before,
		Health	recalibrated scores 4. Diagnoses: primary diagnoses, other diagnoses,		during and after the 2009 pandemic.
			comorbidity, tracheostomy during admission 5. Interventions during		
			admission: airway and ventilator support, ECMO, infusion of inotrope,		
			renal interventions. Daily intervention data (PCCMDS) grouped into HRGs		

			is requested for those PICUs who submit this to PICANet for a sub-		
			analyzic of level of some delivered for the later admission of the many sector		
			analysis of level of care delivered for the later admissions (we recognise		
			that the PCCMDS data will not be available for all PICUs and only for later		
			years). 6. Discharge: dead/alive, date of discharge, discharge destination		
			We request data items listed in point 1 to estimate influenza admission		
			rates to PICU according to demographic characteristics, and according to		
			birth characteristics (for babies aged less than one year). Denominators		
			for these analyses will obtained from the Office for National Statistics.		
			The data items requested in point 2, 3 and 4 will be used to describe		
			characteristics of children admitted to ICU with influenza/suspected		
			influenza in terms of their method of admission, timing of admission in		
			relation to influenza season, severity of illness at admission and		
			comorbidities. A variable indicating ICU admissions within the same PICU		
			will be used to examine potential differences in testing and diagnosis of		
			influenza. The data items requested in point 4 (tracheostomy during		
			admission) and points 5 and 6 will be used to determine outcomes		
			among children with influenza in intensive care: mortality, need for		
			assisted ventilation and renal support. Discharge and admission dates		
			will be used to calculate length of stay in ICU. The aim of the study is to		
			determine the burden of influenza in PICUs in the UK, and describe		
			characteristics and outcomes of admitted children before, during and		
			after the 2009 pandemic.		
		Research Nurse,	Number of patients readmitted to PICU within 48 hours of discharge		
19/08/2015	Philip Hudnott	, Royal Manchester	grouped in to totals each month.	19/08/2015	Data needed for CQC visit to Trust
		, Children's Hospital			
		,			I am presenting at PICS Conference
			The number of children admitted to UK + Eire PICUs with a diagnosis of		(14th to 16th Sept) and would like to
		Consultant in PICU,	\'meningitis\' and \'encephalitis\'. Also the proportion of these groups		set the scene with the numbers of
12/08/2015	Kevin Morris	Birmingham	that underwent ICP monitoring, broken down by age bands ideally (12	14/08/2015	children currently admitted to PICUs
12, 30, 2010		Children\'s Hospital	years).	, 00, 2010	and how often ICP monitoring is being
		ennaren (s nospital			used across different age bands

		Professor of			Data were sought initially by Ms Omnia
16/07/2015	Mark S	Statistical	Continued use of the data sought by Ms Omnia Aminas as part of her	12/08/2015	Aminas (as part of her MSc project) to
	Gilthorpe	Epidemiology,	MSc project (submitted: 17/03/15)		undertake preliminary/pilot work on
		University of Leeds			methods development with a view that
					such work would form the basis of a
					grant proposal to go to external
					funding bodies, for which this (follow-
					on) access to data request would be
					made. Unfortunately, Ms Aminas
					withdrew from this project and there
					was no progress made on the proposed
					preliminary work by her. It is therefore
					proposed that the preliminary/pilot
					work is instead undertaken by the now
					named applicant (Prof Mark S
					Gilthorpe) and his main methodologica
					collaborator (Dr Marc de Kamps).
					Preliminary investigation of new
					methods development will form the
					basis of a grant proposal to be
					submitted late 2015 or sometime in
					2016, depending upon progress of the
					pilot work. The target external funding
					body will be initially the MRC
					(methodology panel), as the intended
					proposal will be linked to the
					established MRC Centre for Medical
					Bioinformatics based at the University
					of Leeds. The preliminary/pilot work
					will explore the feasibility of developing
					new methods and novel applications of
					existing methods to assess outcomes in

paediatric intensive care, specifically
to: a) help identify, with improved
precision, factors associated with
better patient outcomes b) identify
patient subgroups at greatest risk of
death or specific morbidities who
might therefore be suitable for entry
into clinical trials that seek to evaluate
novel interventions or improved
patient care c) elucidate potential
causal factors from non-causal factors
amongst the relationships identified as
highly predictive of patient outcomes
d) assess the performance of these
new methodologies through the re-
analysis of earlier published studies
From this work it is hoped that
methodologies developed can be
applied to the exploration of complex
routinely collected healthcare data
(often called 'big data') beyond the
paediatric intensive care setting We
will apply conventional statistical
methods such as generalised linear and
mixed modelling along with Bayesian
networks to model the patient journey
through the paediatric intensive care
system to address a), b) and c) above.
Moreover, we intend to investigate the
viability of so-called Deep Learning
architectures to capture hidden
regularities in these patient journeys.

Scientific outputs (e.g. abstracts,
journal publications, funding proposals
arising from this work will involve
collaborators listed below according to
appropriate levels of input, but always
specifically informed by the lead
collaborator, Dr Roger Parslow. A key
outcome will be the identification of
potential new methods or applications
of existing methods that would
improve the assessment of outcomes
in paediatric intensive care, followed
by the submission of at least one grant
for external funding to develop these
ideas further. The research team will
offer a seminar and/or workshop on
methods developed, once complete,
for dissemination at appropriate
venues such as PICANet affiliated
departments or at relevant
conferences. We understand that we
seek access to an unusually large
amount of data, but access will be
limited to the research team, data will
be stored on a secure server at the
University of Leeds with the same
security arrangements as the main
PICANet server, and Dr Parslow, a
member of the research team and co-
PI for PICANet, will have direct
involvement in and oversight of how
the data are analysed.
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		Data Manager,	0-16 year old children admitted to PICU in UK and Republic of Ireland		To inform evidence-based national
		Research	with Enterovirus or Human Parechovirus infection (positive culture		guidance and to prompt a new
06/07/2015	Serena Braccio	coordinator, Public	and/or PCR from any site). To inform evidence-based national guidance	22/09/2015	surveillance study on Enterovirus and
		Health England	and to prompt a new surveillance study on Enterovirus and Human		Human Parechovirus serious infection
			Parechovirus serious infection		
			For children aged 12 years and older at admission : age at admission		
			length of stay admission PIM2 score year admitted sex source of		Comparison of characteristics and
01/07/2015	Dora Wood	SpR, Great Ormond	admission admission type primary diagnosis outcome invasive ventilation	27/08/2015	outcome of teenagers admitted to
		Street Hospital	tracheostomy ECMO vasoactive therapy renal support ICP device.		intensive care units (with data from
			Comparison of characteristics and outcome of teenagers admitted to		ICNARC\'s CMP).
			intensive care units (with data from ICNARC\'s CMP).		
					As approximately only 40% of children
					have arterial gases available at the time
					of admission to ICU, the oxygenation
					variable is likely to be under-
					represented in the PIM score. Oxygen
					saturations measured using
03/06/2015	Samiran Ray	Great Ormond	Mortality data for children retrieved by CATS in the period between	31/07/2015	plethysmography however is used
		Street Hospital	01/10/2013 and 30/09/2014.		universally. We have created an
					saturation based relcement for the
					PaO2/Fio2 variable in the PIM score
					and aim to validate it on the children
					retrieved via CATS between
					01/10/2013 and 30/09/2014
			Total number of records for children (age 28 days to <=16) who have had		Our proposed research aims to develop
			a cardiac arrest between 1st January 2010 and 1 May 2015 - number		prediction models that will explore
		Research Fellow,	where location of arrest was pre-hospital - number of these where the		when and in what circumstances it
06/05/2015	Alison Booth	Centre for Reviews	location of arrest was an emergency department - number where the	07/07/2015	might be appropriate to stop CPR in
		& Dissemination	location of arrest was a PICU We are also interested in data on duration		children and young people. It will also
			of resuscitation but understand collection of this information is not		explore how such information is best
			within the remit of PICANET.		shared with families, providing an
					· · · · · · · · · · · · · · · · · · ·

					evidence base to support the management and involvement of parents and carers in decision-making processes.
01/05/2015	Julia Grace	Accountable Commissioner, PCC CRG, NHS England	For all Level 3 PCC\'s - for the following years: Oct 11 - Feb 12 Oct 12 - Feb 13 Oct 13 - Feb 14 Admissions and Discharges per month Occupied bed days per month	11/05/2015	Planning and development of appropriate winter surge plans.
17/04/2015	Clare Wilson	SHO, St Mary's Hospital, London	Full dataset, including PIM2 score	29/05/2015	Troponin is routinely measured on all children admitted to our PICU. We want to review and correlate this with the clinical parameters available through PICANET.
23/03/2015	Philip Keel	Scientist, Public Health England	Please could you supply the following data for all children admitted to PICUs in England with a diagnosis of Varicella. The date range is January 1st 2004 – December 31st 2013 Age at admission Sex Week, month and year of admission. PIM2 score Length of stay in days Ventilation mode (IV, NIV, IV and NIV, none) Ventilation days (NIV, IV) Discharge outcome (Alive/Dead) Primary and secondary diagnoses (Read Codes and associated terms) Source of Admission Health Region	01/05/2015	We are currently producing an update paper on the epidemiology of varicella in England. Using data on PICU submissions will allow us to explore the burden of disease at the severe end of the spectrum.
19/03/2015	Karen Keown	ST6 Trainee PICU, Royal Belfast Hospital for Sick Children	1. Number of patients with Bronchiolitis as primary diagnosis 2. Number of these patients invasively Ventilated, number of patients ventilated with advanced vent (HFOV) 3. Number of patients with primary diagnosis of Bronchiolitis requiring use of Nitric Oxide 4. Number of patients with primary diagnosis of Bronchiolitis requiring inotropes. To ascertain numbers and level of support for bronchiolitis patients this winter, with comparative figures with last winter	01/05/2015	Significant morbidity associated with Bronchiolitis in our unit winter 2014, figures for internal audit and analysis and to facilitate planning and resources for next winter.

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			All' available (e.g. demographics, LOS, type & duration of ventilation/O2,		
			inotrope use, medications prescribed, fluids prescribed, underlying		To assess the burden of disease and
		Academic Clinical	medical conditions, diagnoses on PICU etc) anonymised PICAnet data for		healthcare costs of HMPV to PICU
18/03/2015	Simon	Lecturer, University	children admitted to UK PICUs and testing positive for human	02/09/2015	services in the UK to help provide a
	Drysdale	of Oxford	metapneumovirus (HMPV). To assess the burden of disease and		case for the development of a new
			healthcare costs of HMPV to PICU services in the UK to help provide a		vaccine/treatment.
			case for the development of a new vaccine/treatment.		
			Patient demographics Age in months Sex IMD Ethnic category Other		1) This is a Master's student project
			ethnic category Birth order (all admissions) Gestational age at delivery		that will address the development of
			Multiplicity Admission details Admission time of day Admission month		new methodologies to assess
			Admission day (Mon, Tue etc.) Admission quarter of year (Autumn,		outcomes in paediatric intensive care;
			Winter, etc.) Admission number Type of admission to unit Previous ICU		specifically to: a) help identify, with
			admission Source of admission Care area admitted from Retrieval/		improved precision, factors associated
			transfer Type of transport team Retrieval by Transport team Other		with better patient outcomes b)
			transport team PIM2 / PIM3 elements Elective admission Main reason		identify patient subgroups at greatest
			for PICU admission Recovery from surgery: procedure Is evidence		risk of death or specific morbidities
			available to assess past medical history Cardiac arrest before ICU		who might therefore be suitable for
			admission Cardiac arrest OUT of hospital Cardiomyopathy or myocarditis		entry into clinical trials that seek to
			Severe combined immune deficiency (SCIDS) Hypoplastic left heart		evaluate novel interventions or
17/03/2015	Omnia Izzeldin	MSc student,	syndrome Leukaemia or lymphoma after completion of first induction	20/05/2015	improved patient care c) elucidate
	Kamil Amin	University of Leeds	Liver failure main reason for ICU admission Admitted following cardiac		potential causal factors from non-
			bypass Acute Necrotising Enterocolitis (NEC) main reason for ICU		causal factors amongst the
			admission Spontaneous cerebral haemorrhage Neurodegenerative		relationships identified as highly
			disorder Severe developmental delay Human Immunodeficiency Virus		predictive of patient outcomes d)
			(HIV) Bone marrow transplant recipient Systolic blood pressure Blood		assess the performance of these new
			gas measured? Arterial PaO2: Oxygen pressure (kPa) Arterial PaO2:		methodologies through the re-analysis
			Oxygen pressure (mmHg) FiO2 Intubation Headbox Base excess Base		of earlier published studies 2) From this
			excess: Source Lactate Lactate: Source Mechanical ventilation CPAP Pupil		work it is hoped that methodologies
			reaction Tracheostomy Is the patient on a clinical trial Clinical trial name		developed can be applied to the
			Height Weight Abdominal circumference Comments Status at discharge		exploration of complex routinely
			from your unit Discharged for palliative care Date of discharge Time of		collected healthcare data (often called
l			discharge Date of death Time of death Destination following discharge		'big data') beyond the paediatric
	1	1	1	1	I

from your unit Destination following discharge from your unit: hospital	intensive care setting 3) The Masters
area Follow up 30 days post discharge from your unit Location at 30 days	project will provide pilot information
following discharge from your unit Location at 30 days following	on the feasibility for a larger scientific
discharge from your unit: hospital area Invasive ventilation Invasive	proposal to go to external funding
ventilation: days Non-invasive ventilation Non-invasive ventilation: days	bodies for research into developing
Extracorporeal membrane oxygenation (ECMO) IV vasoactive drug	methodologies appropriate for 'big
therapy Left ventricular assist device (LVAD) Intracranial pressure device	data', linked to the established MRC
Intracranial pressure device (ventricular drain) Intracranial pressure	Centre for Medical Bioinformatics at
device (ICP bolt) Renal support Renal support: haemofiltration Renal	the University of Leeds We will apply
support: haemodialysis Renal support: plasmafiltration Renal support:	conventional statistical methods such
plasma exchange Renal support: peritoneal dialysis Diagnoses and	as generalised linear and mixed
Procedures Primary Diagnosis Other Reason Operation or Procedure Co-	modelling along with Bayesian
Morbidity Daily Interventions Activity date No defined critical care	networks to model the patient journey
activity Continuous ECG monitoring Continuous pulse oximetry Invasive	through the paediatric intensive care
ventilation via endotracheal tube Invasive ventilation via tracheostomy	system to address a), b) and c) above.
tube Non-invasive ventilatory support Advanced ventilatory support (jet	Moreover, we intend to investigate the
ventilation) Advanced ventilatory support (oscillatory ventilation)	viability of so-called Deep Learning
Nasopharyngeal airway Tracheostomy cared for by nursing staff	architectures to capture hidden
Supplemental oxygen therapy (irrespective of ventilatory state) High flow	regularities in these patient journeys.
nasal cannula therapy Upper airway obstruction requiring nebulised	Scientific outputs (e.g. abstracts,
adrenaline (epinephrine) Apnoea requiring intervention (>3 in 24 hours	journal publications, funding proposals
or requiring bag and mask ventilation) Acute severe asthma requiring	arising from this work will involve
intravenous bronchodilator therapy or continuous nebuliser Unplanned	collaborators listed below according to
extubation Arterial line monitoring External pacing Central venous	appropriate levels of input. A key
pressure monitoring Continuous infusion of inotrope, vasodilator or	outcome will be the outline proposal o
prostaglandin Bolus IV fluids (>80 ml/kg/day) in addition to maintenance	at least one grant for external funding
IV fluids Cardio-pulmonary resuscitation Extracorporeal membrane	to develop methods further. A further
oxygenation (ECMO) Ventricular assist device (VAD) Aortic balloon pump	data request will be submitted for the
Peritoneal dialysis Haemofiltration Haemodialysis Plasma filtration	continued use of the PICANet dataset
Plasma exchange ICP-intracranial pressure monitoring Intraventricular	provided for this request to be used as
catheter or external ventricular drain Diabetic ketoacidosis (DKA)	part of the grant proposal. The
requiring continuous infusion of insulin Exchange transfusion	research team will offer a seminar

			Intravenous thrombolysis Extracorporeal liver support using molecular		and/or workshop on the methods
			absorbent recirculating system (MARS) Patient nursed in single		developed for dissemination at
			occupancy cubicle Medical gases band 1 - nitric oxide Surfactant Reason		appropriate venues, such as PICANet
			for isolation		affiliated departments or at relevant
					conferences. We understand that we
					have requested an unusually large
					amount of data which may cause
					concern about how it is used and
					where it will be stored. Access to the
					data will be limited to the research
					team and will be stored on a secure
					server at the University of Leeds with
					the same security arrangements as the
					main PICANet server. As a member of
					the research team, Dr Parslow, who is a
					co-PI for PICANet will have direct
					involvement in and oversight of how
					the data is analysed.
	Louise	The Portland	If possible I require a report regarding the number of bed days seperated		
10/03/2015	Eastland	Hospital	into HDU and PICU levels of care for each individual month from the start March 14 to End of Feb 2015.	23/03/2015	Data for submission to CQC
					The intervention in the SANDWICH trial
					is a bundle comprising sedation and
					ventilation weaning practice. It will
					most likely involve titrating sedation to
		Senior Lecturer,	We'd like data for the following variables: PICU ID Event ID Admission		achieve a sedation level appropriate to
26/02/2015	Bronagh	Queens University	date Admission time Discharge date Discharge time Admission type (all	16/04/2015	a stage in the ventilator weaning
	Blackwood	Belfast	admissions) Ventilation status (none; invasive; non-invasive) Age of the		process terminating with a daily
			child in weeks Number of ventilator days (invasive; non-invasive).		screening of readiness to undertake a
					2-h SBT prior to extubation. The main
					outcomes that will make a meaningful
					difference for patients/parents and

healthcare resource are the duration of
mechanical ventilation and PICU LOS.
Generally, children who are admitted
following elective surgery who, once
awake, are extubated quickly without
the need for a 2-h SBT are not likely to
receive the sedation and ventilation
bundle and perhaps should be
excluded from the trial or the analysis.
Furthermore, there are 20 PICUs that
have expressed an interest in
participating in this study and there are
some differences in terms of
geographical location, size of unit and
staffing, and usual care practices. We
intend to explore these factors by
interrogating data from the paediatric
clinical database. ANALYSIS
OBJECTIVES: To provide information
relevant to the SANDWICH trial
regarding number of (a) ventilation
days and (b) PICU LOS for the purpose
of determining: -What is the
distribution [mean/SD; median/IQR] of
these outcomes across PICUs on all
admissions of invasively ventilated
children? -What is the distribution of
these outcomes across PICUs for
planned (elective) admissions and non-
planned admissions of invasively
ventilated children? -Does the
distribution of these outcomes vary

					across PICUs for the 8 main reasons for PICU admission? -What is the number of invasively ventilated children who are discharged < 12 and < 24 hours across all PICUs? -Are there differences in the distribution of these outcomes between PICUs that have nurse/physiotherapy staff trained to wean ventilation (n = 6 units) versus those that do not? -Are there differences in the distribution of these outcomes between PICUs that always practice 24/7 extubation (n = 3 units) versus those units that do not?
20/02/2015	Jenny Morris	MSc Epidemiology & Biostats Student, University of Leeds	Summary Interventions PCCMDS (2007-2013) Sex, Age (in weeks) Diagnostic Groups Ethnicity PIMr and Variables Source of admission Admission type Admission date Discharge data: date and discharge status Tracheostomy performed Unit (de-identified) Primary Diagnosis: clinical code and diagnosis description.	19/05/2015	The aim of this study is to investigate the use of acute NIV as first line therapy within first 24 hours of PICU admission. In particular, exploring if the use of NIV as first line therapy is associated with increased PICU length of stay and PICU mortality compared to use of IV as first line therapy.
18/02/2015	lan Braithwaite	Senior Transport Nurse, EMBRACE	I would like to find out what air transports took place over a recent 12 month period, using the \"aircraft type\" field, and the collection/destination units and transport team. I would also like to find out the occasions over the same period where transports that were performed by road took longer than 2 hours from leaving base to arriving at the collection unit, or longer than 2 hours between departing the collection unit and arriving at the destination unit.	18/08/2015	To establish actual and potential air transport utilisation in the UK. Data will stimulate discussion within the PICS air transport group.

03/02/2015	Deepan Vyas	Locum Consultant, Imperial Healthcare NHS Trust	We are interested in knowing the number of intensive care unit (Critical Care) admissions for anaphylaxis in years 2008-2013. We would like the data broken down by sex, by quinary age group, by calendar year of admission, and by diagnostic code ie ICD-10 codes T63.4 and X23 [insect venom anaphylaxis], T78.0 and T78.1 [food anaphylaxis], T78.2 [idiopathic anaphylaxis], T80.5 and T88.6 [drug anaphylaxis].	09/03/2015	Aim of study is to better understand the epidemiology of anaphylaxis
22/01/2015	Robin Marlow	PhD Student / ST7 Bristol Childrens, University of Bristol	Number of admissions to PICU with head injury (ICD10 codes S00-S09) per year. If allowable the number of these that died per year.	17/05/2015	To determine how epidemiology of paediatric head injury has changed over time and if there have been benefits from the introduction of the NICE guidelines.
16/12/2014	James Woods	Information Manager, Royal Brompton and Harefield Hospitals Trust	PICANet Risk adjusted mortality score for our patients, 2013/2014	16/12/2014	Check against national dashboard score

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