

The death of a ten-year old child called Nicholas Geldard in 1995, the subject of an enquiry commissioned by the North West Regional Health Authority (1), acted as a catalyst for reviewing the way in which critically ill children were treated in the NHS. Nicholas Geldard died in a paediatric intensive care unit (PICU) following a spontaneous cerebral haemorrhage. He had previously been transferred from the admitting hospital to another hospital for a CT scan and then to the PICU in which he died. Unfortunately there was no local PICU bed (in Manchester) and he was transferred to the PICU in Leeds, necessitating an extended transfer time. Despite the publication of a report in 1987 by the British Paediatric Association (BPA – the organisation that preceded the Royal College of Paediatrics and Child Health (RCPCH) identifying the lack of a coherent paediatric intensive care (PIC) service in the UK (2), and the subsequent establishment of the Paediatric Intensive Care Society (PICS), who published detailed standards for PIC in 1992 (3), the organisation of PIC had not progressed quickly.

There was an outcry at the time of Nicholas Geldard's death, and also following publication of the Regional Health Authority's enquiry (the then MP for Peckham, Ms Harriet Harman described it as '*...hard to find words to express the sense of outrage and betrayal that everyone must feel on hearing how 10-year-old Nicholas Geldard died.*' (4)). In response to this report, the Secretary of State for Health commissioned a report on how PIC services had been developed and run within the NHS and how they should be planned for the future. To produce the report, the Department of Health set up a national coordinating group in June 1996 to develop a policy framework for PIC and report to the Chief Executive of the NHS executive the following year. The resultant report, *Paediatric Intensive Care: A Framework for the Future*, published in July 1997, set out a strategy for developing and unifying the service for critically ill children in each area of the country and made a number of recommendations based on the evidence available (5). In particular, the report identified a number of key features of the PIC service at that time:

- 1) the service had developed in an *ad hoc*, unplanned way over the preceding 20 years
- 2) PIC was provided in a range of settings including designated PICUs, adult intensive care units (AICUs), general children's wards, single speciality hospitals and special care baby units (SCBUs).
- 3) There was a lack of evidence on standards that provide the best outcomes for critically ill children.

- 4) There were 223 designated PIC beds, many of which were in units with less than 3 beds.
- 5) Half of the children treated were under 2 years of age.
- 6) There were few specialised retrieval services for critically ill children (many of which were not staffed on a 24-hour basis).
- 7) There were not enough clinicians and nurses with PIC skills.

In an editorial discussing the implications of the policy framework outlined in this document, Jane Ratcliffe, a consultant in PIC at the Royal Liverpool Children's Hospital NHS Trust, Alder Hey commented:

*Quality of paediatric intensive care includes effectiveness and appropriateness of treatment within a child and family orientated environment. There is no validated paediatric scoring system for severity of illness in the United Kingdom and no information about long term outcome. We urgently need such studies so that further reorganisation of the paediatric intensive care service is informed by research and audit. (6)*

Due in part to this report and the subsequent dialogue between the clinical community, the NHS and the Department of Health (DoH), the concept of a national database of PIC was developed. The Paediatric Intensive Care Society Study Group (PICS SG), a sub-group of the Paediatric Intensive Care Society (PICS), the professional body of clinicians and nurses working in PIC, commenced discussions with the DoH with a view to developing and maintaining a clinical database. The aims of the database were to: identify best clinical practice; monitor supply, demand and outcomes; facilitate healthcare planning and quantify resource requirements; permit the study of the epidemiology of critical illness in children; plan for future practice, research and interventions and to accumulate baseline data for randomised clinical trials (RCTs).

As PICS SG did not have the necessary infrastructure to manage a national project that demanded technical and organisational resources, they made approaches to the Paediatric Epidemiology Group (PEG) at the University of Leeds who had a proven track record in managing large population-based registers and had organisational links with the Northern and Yorkshire Clinical Trials Unit. PEG was already managing the UK Paediatric Traumatic Brain Injury Study (UKPTBIS) based in PICUs in the UK and initiated by the Traumatic Brain Injury special interest group of

PICS SG. Negotiations with the DoH continued and they were provided with a draft dataset and proposal drawn up by PICS SG and PEG with a view to receiving funding for setting up and running the national database. The DoH put the development and day-to-day running of the national database out to competitive tender in 2000. In collaboration with research groups at the University of Sheffield and Leicester (who had established track records in modelling risk-adjusted outcomes in neonatal intensive care and neonatal staffing issues) a joint bid was put forward by the three universities. This bid was successful and Paediatric Intensive Care Audit Network (PICANet) was established in 2001.

Refs:

- 1) Ashworth W. *Inquiry into the care and treatment of Nicholas Geldard*. 1996, Manchester: North West Regional Health Authority.
- 2) British Association of Paediatrics. Report of a working party of the British Paediatrics Association on Paediatric Intensive Care, London, 1987.
- 4) Hansard (Commons). 6<sup>th</sup> March 1996, Column 358. [Online] [Accessed 22/03/2007] Available on the World Wide Web at:  
<[http://www.publications.parliament.uk/pa/cm199596/cmhansrd/vo960306/debt\\_ext/60306-27.htm](http://www.publications.parliament.uk/pa/cm199596/cmhansrd/vo960306/debt_ext/60306-27.htm)>.
- 3) Paediatric Intensive Care Society. Standards for Paediatric Intensive Care. Paediatric Intensive Care Society, London, 1992.
- 5) National Coordinating Group on Paediatric Intensive Care. *Paediatric intensive care: a framework for the future*. 1997, London: Department of Health.
- 6) Ratcliffe J. Provision of intensive care for children. A geographically integrated service may now be achieved. *BMJ* 1998; 316:1547-1548.