

Blog

Understanding the issues facing paediatric intensive care

23 June 2017

Dr Gale Pearson

Following the launch of the review of paediatric critical care and specialised surgery for children in October 2016, Dr Gale Pearson shares an important update on the progress so far.

Since the beginning of the year we have been working to identify and understand the issues facing paediatric critical care and specialised surgery in children in more detail so that improvements can be made for the benefit of patients. We held several engagement events between January and March 2017 – bringing clinicians and experts in paediatric critical care together to discuss the areas they see as the greatest challenge facing services and to get their ideas on how things could be improved. This has helped us to think about how a proposed new model of care could be developed in response to these issues, while also looking at existing data on paediatric critical care which highlights the pressures on critical care services.

We have just produced an [analytical pack containing some of the review's early work](#) which examines why there is pressure on paediatric intensive care units. Over the next few months, we will also be looking at the data available on specialised surgery in children and aim to publish an analysis report on these findings. The pack uses data submitted to the Paediatric Intensive Care Audit Network (PICANet) by the 23 paediatric intensive care units in England. It focuses on level three (intensive care) units because of the completeness of the data available. Level one and two critical care does not have the same level of data available. Some of the key findings from the data suggest that:

- Demand for paediatric critical care services is changing, with relatively stable admission numbers but increasing average length of stay
- There are seasonal peaks in demand for beds and emergency transport services, particularly during November and December, which are largely driven by unplanned respiratory admissions from children under one year of age.
- A small number of children account for a large proportion of resources. The data shows that 10% of children admitted to paediatric intensive care units (PICU) use more than half of the resources.
- Most of the increased demand seen over recent years has been for basic levels of intensive care. Units also vary in their rates of ventilation (artificial breathing), which may suggest differences in admissions criteria as well as variation in case mix

Through reviewing the results of this data, there are several things that we now know and will take into account as the review progresses. These are:

- Some children may be able to move out of PICUs into more appropriate settings, if the right skills and resources are available, to enable care to be delivered outside of intensive care;
- These settings may be a better environment for children and may be closer to the child's home; and
- We need to think about how a proposed new model of care could be developed in response to these issues.

The data and analysis in this pack will be used as the review develops its proposals for a future model of care and tests its emerging thinking with a wide range of stakeholders, including NHS England and CCG commissioners, providers, clinicians and patients and their parents and carers. This will include discussions about the best way to deliver extracorporeal membrane oxygenation in future.

We would really welcome your comments and feedback on the analytical pack. They can be sent to england.paedsreview@nhs.net and will be taken into account when decisions are taken as the review reaches its conclusions. You can also use this email address to ask to be kept informed in the review's developments, or alternatively please [visit our website for more information on opportunities to get involved](#).



Dr Gale Pearson

Dr Gale Pearson has been an intensive care consultant at Birmingham Children's Hospital since 1995 and was involved in the preparation of the policy document on paediatric intensive care 'A Framework for the Future'. He is a former chairperson of the Paediatric Intensive Care Society and was involved in setting up the national audit PICANet. He was also a former National Director of Confidential Enquiries in Children at The Centre for Maternal and Child Enquiries (CMACE). Dr Pearson is the current Chair of the National Clinical Reference Group on Paediatric Intensive Care at NHS England.