

Sharp rise in children admitted to intensive care in England and Wales since 2009

October 27 2017

The number of children admitted to intensive care in England and Wales has risen sharply since 2009, but is not explained by either population growth or the rising birth rate, finds research published online in the *Archives of Disease in Childhood*.

However, this trend will put further strain on an already overstretched NHS, warn the researchers.

Over the past 20 years, the number of [children](#) admitted to [intensive care](#) has gone up as a result of the rising birth rate and the increasing number of babies surviving extreme prematurity. But it is not clear what is behind the additional surge since 2009.

To try and explore this further, the researchers analysed anonymised admissions data from the Paediatric Intensive Care Audit Network (PICANet) for children up to the age of 15 between 2004 and 2013. PICANet records details of all children admitted to intensive care in England and Wales.

They also analysed national population data, including births, to compare predicted numbers of admissions with the actual figures, averaged over periods of three years.

Admission rates were grouped by age and ethnicity (South Asian and non-South Asian origin) as children from a South Asian background are at heightened risk of admission to intensive care.

The analysis showed that the numbers of children admitted to intensive care rose for all age groups throughout the study period?by nearly 15 per cent in England and by just over 2 per cent in Wales.

Admission rates were higher among boys than girls (1.2:1), and among children of South Asian ethnicity (75% higher for infants; 107% higher for 1-5 year olds; 93% higher for 6-15 year olds per 1000 of the population).

The steepest rises were among younger children up to the age of 5, and those with breathing or cardiovascular problems. Infants under the age of 1 made up almost half the total annual admissions.

And from 2009 onwards, more children were admitted to intensive care than would be expected from the birth rate, the numbers of children of comparable ages/ethnic background in the general population, and the numbers of those requiring help with breathing?an indicator of critical illness.

The numbers of children requiring assisted ventilation rose significantly over the study period, so this trend cannot be attributed to a lowering in the admission threshold for intensive care, explain the researchers.

And while the numbers of children being admitted to intensive care has risen since the centralisation of facilities in 2002, this still doesn't explain the additional surge after 2009.

Migration may be a factor, they suggest.

Admission rates were particularly high in five regions of England, with the South Central region top of the league table. Here, admissions rose by more than 43 per cent, followed by London (nearly 31%), East of England (nearly 23%) West Midlands (22.5%), and the South East Coast

(nearly 12%).

These five regions also had the highest numbers of mothers born outside the UK, particularly Eastern Europe.

And the period from 2009 onwards also coincided with the start of acute financial strain within the NHS, the researchers highlight.

"Over the period from 2004 to 2009, public healthcare spending in the UK increased by 8.3% per annum, however from 2009 onwards, it grew at just 1.9%," they write.

But whatever the reasons, the rise in the number of children with chronic complex conditions looks set to continue, putting further strain on an already overstretched health service, they suggest.

"Increasing numbers of critically ill children requiring PIC [paediatric intensive care] in England and Wales, will prove challenging both for [these] services and commissioners, as increased demand potentially outstrips resource," they conclude.

Provided by British Medical Journal

Citation: Sharp rise in children admitted to intensive care in England and Wales since 2009 (2017, October 27) retrieved 18 April 2024 from <https://medicalxpress.com/news/2017-10-sharp-children-intensive-england-wales.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.