

OPEN HEART

UK death rates for children's heart surgery have almost halved over past decade

This is despite a rise in the number and complexity of cases

Deaths within 30 days of children's heart surgery have almost halved in the UK over the past decade, despite a rise in the number and complexity of cases during that period, reveals an analysis of national data, published in the online journal **Open Heart**.

The findings prompt the researchers to suggest that it is now time to shift the focus to longer term survival and other issues that matter greatly to patients and their families, such as measures of ill health and impact on functional capacity.

Children's heart surgery in the UK has come under intense public scrutiny since the 1990s, when much higher than expected death rates were found at Bristol Royal Infirmary, while recent plans to reconfigure children's heart surgery services in England have shone a further spotlight on the figures.

Mandatory reporting of children's heart surgery outcomes was introduced in 1997, and all specialist centres have submitted data to the UK Congenital Heart Audit since 2000, with figures for each individual centre published since 2004.

In a bid to assess trends over time, the researchers analysed data submitted to the National Institute of Cardiovascular Outcomes Research (NICOR) for all children under 16 between 2000 and 2010 inclusive.

The analysis included a total of 36,641 episodes of surgery, corresponding to 30,041 individual patients, 5142 of whom underwent two or more surgical episodes. In around one in 20 (4.4%) of these episodes, the child had further surgery within 30 days.

The annual number of episodes rose between 2283 in 2000 to 3939 in 2009 while the 30 day death rate fell consistently from 4.3% of cases to 2.6%.

This was despite an increase in the number and complexity of cases coming through for surgery.

These figures, "suggest that rather than turning away higher risk patients during an era when outcomes have been monitored more closely, conversely, a greater proportion of more complex patients were taken on in later years," write the researchers.

Overall death rates are low and falling, and compare well with similar data from other international databases, they say.

"The very low mortality rates at 30 days must shift our focus now towards measures of morbidity, longer term survival outcomes (such as survival to 90 days or 1 year) and functional outcomes, which, although of great importance to patients and their families, are less well delineated, and furthermore may provide evidence on the comparative long term benefits of different surgical strategies and models of care," they conclude.