

SAFE AND SUSTAINABLE CHILDRENS HEART SERVICES REVIEW – OXFORD PERSPECTIVE

Background

The National Specialist Commissioning Group is currently reviewing Paediatric Cardiac Services to ensure that we have safe and sustainable services. There are currently 11 children's heart surgery centres in England employing approximately 30 surgeons as follows:

- Evelina Children's Hospital, Guys Thomas NHS Foundation Trust *
- Royal Brompton Hospital NHS Foundation Trust
- Hospital for Sick Children, Great Ormond Street NHS Trust
- Bristol Children's Hospital, United Bristol Healthcare NHS Trust
- Southampton General Hospital NHS Trust *
- Oxford Children's Hospital, Oxford Radcliffe Hospitals NHS Trust *
- Birmingham Children's Hospital
- Glenfield Hospital, Leicestershire
- Leeds General Infirmary *
- Royal Liverpool Children's Hospital / Alder Hey
- The Freeman Hospital, Newcastle *

Between them they carry out 3.800 heart operations on UK children a year. All currently provide safe services but there is a concern at national level that given changes such as the European Working Time Directive too few surgeons are employed to enable a safe 24/7 service to be provided. The main driver for the safe and Sustainable (S&S) review has been the perception that surgical results are better in larger centres. This is not supported by examination of statistics – there is no direct relationship between case load and mortality except for the very small units doing less than 75 cases per year – all 11 units

shown above do more than 100 cases per year. The S&S review wants to create fewer larger centres – 6 or so – increasing the number of surgeons working in each centre to at least 4 and increasing the total volume of work they undertake.

This would mean the closure of 5 children's heart surgery programmes with parents and children having to travel longer distances for surgery.

It is suggested that non surgical paediatric cardiac services could continue to be provided at the local level so that access for parents to local services will be maintained. This is a nonsense as most cardiology would have to move to one of the 6 proposed super centres as it is not safe to do interventional cardiology in the absence of a surgical facility close by in case of the admittedly rare occasion on which a child needs immediate access to an operating theatre. The loss of interventional cardiology means that few paediatric cardiologists would wish to be based in a local centre without surgery, interventional cardiology and all that accompanies these aspects of a service. Services in de-designated centres would rapidly approach that provided in district general hospitals as specialist staff left or retired and could not be replaced.

Is there an alternative – short term

The concerns raised by S&S are mainly about units with small numbers of cases and providing 24/7 cover with 2 or less surgeons. It would be possible to ensure that more surgeons are recruited to ensure at least 4 surgeons are working in each unit to facilitate a 24/7 operating capacity. This would not be very costly in national terms as it would only require recruitment to say a maximum of 14 posts at costs of approximately £100,000 per post = £1.4million. Although the NHS faces increasing pressure on resources, this is not a large sum given the NHS annual budget of £100 billion Critics of such a solution may argue that there are not enough qualified surgeons to fill these posts in the short term pending an increase in training opportunities and new young surgeons qualifying for such appointments. This is a short term problem which can be resolved by an international recruitment campaign to boost numbers of qualified and experienced paediatric cardiac surgeons in the UK.

This would also enable a reorganisation of national workloads so that each centre handles circa 300 operations on children each year. This is sufficient workload to maintain a thriving centre especially when it is coupled with the increasing number of operations required for adults with congenital heart surgery who often need a redo or corrections as they get older.

Oxford Children's Heart Centre

Oxford performs approximately 300 procedures (surgical operations or catheter interventions) a year on adult and child patients with congenital heart disease aged from birth to 80plus years. The Oxford unit is part of the Oxford Children's Hospital and is therefore co-located with other specialist paediatric services on the John Radcliffe Hospital campus, the Women's Hospital, which is also on the JR campus, provides maternity services including those for women at high risk during their pregnancy, Fetal Medicine and fetal intervention and a large Level 3 Neonatal Intensive Care Unit providing a regional service. There are plans for a significant expansion to NICU to increase the number of babies treated from 7,500 per annum.

The Children's Heart Federation estimates that 1 in every 138 children is born with Congenital heart Disease. Given the JR has over 8000 births per annum this amounts to 60 babies a year just in Oxfordshire with similar numbers in each of the other 5 counties served by the Oxford unit. Children with congenital heart disease often require a series of operations as they grow into their teenage years building on early treatment in their first years of life. Such young women may also require specialist treatment in the JR's High Risk Maternity Unit as they reach the age of wanting to start their own families.

Oxford has also developed an excellent service for Grown Ups with Congenital Heart Disease who are now being treated in the new Oxford Heart Centre which opened in 2010.

Many children with congenital heart disease are diagnosed in the womb requiring heart surgery in the neonatal period. Oxford is very well placed to provide this type of surgery with its combination of fetal/neonatal/maternity

and paediatric cardiac services all linked together on the same site together with excellent new parent's accommodation in the Oxford Children's Hospital.

Oxford is one of the few UK centres to have performed interventional catheter procedures on children still in the womb who would not otherwise have survived until birth (Such interventions require close collaboration between fetomaternal medicine, cardiology and neonatal services.)

Oxford's Professor Steve Westaby, Adult and Paediatric Cardiac Surgeon, has saved a number of children and teenagers lives by pioneering temporary artificial hearts which allow the patients own heart to recover. He is the UK and European lead clinician for this work performing these life saving operations in many EU countries.

Oxford also leads the way in interventional cardiology with Dr Neil Wilson, Paediatric Interventional Cardiologist having pioneered new and innovative procedures on children and adults in Oxford, with referrals from other tertiary centres for these procedures being made to him.

The Oxford Children's Hospital as a tertiary children's hospital is currently well placed to offer access to the full range of specialist children's services except for paediatric renal services. In the longer term, children with congenital heart disease often need major non-cardiac surgery for associated problems. Support from paediatric cardiology and paediatric cardiac anaesthesia is vital to allow this to take place safely. However, if the Children's Heart Surgery Unit closed with a consequent loss of paediatric cardiac expertise, this would mean that some children would have to travel to other centres for non-cardiac surgery.

Similarly many children with what appear to be non cardiac problems turn out to need specialist cardiological and on occasion cardiac surgical input urgently. Children referred often as emergencies to fetomaternal or tertiary services would not have access to all appropriate care if there was not a comprehensive cardiac service on site. Thus if paediatric cardiac surgical centres are to be closed, careful consideration must be given to which centres have other

tertiary practices which would be undermined or even effectively closed by such changes.

Most experts agree that children's heart surgery should be performed on an integrated site which has the whole range of facilities available as for example these children often require emergency access to renal, neurological and other specialist children's services

As a result of significant public and private investment (half the capital and equipment costs of the Oxford Children's Hospital were funded by charitable donations) Oxford meets this criteria (signified as *) but at least 6 of the other centres under review do not. Oxford is also well placed geographically providing services to residents of Oxfordshire, Buckinghamshire, Berkshire, Wiltshire, Northamptonshire and Gloucestershire and the Western suburbs of London.

Critique of the Safe and Sustainable Review.

The current review is flawed in that it is focused predominantly on the surgical episode and not on the wider picture of what services make up a fully integrated service for children with heart disease and how and where should this be provided and what impact changes in cardiac provision will have on other hospital based specialist services for children. A fully integrated service should consider a child and its parents' needs from before birth to old age. This means that ideally services need to be provided on hospital sites which include fetal, maternity and neonatal services, the full range of paediatric specialties and adult congenital heart services.

Closure of 5 current centres will create a scenario in which there is a greatly increased need for transport services for sick children – both emergency cases being transferred for emergency treatment and less sick children being repatriated to local centres. The costs and impact and staffing needs of this should not be underestimated.

The way in which the current review has been conducted is deeply flawed and unlikely to survive legal challenge. Of particular note is the way in which the review team has used the recent Inquiry into four unexpected deaths of

children with heart disease in the Oxford Children's Heart Unit to denigrate the reputation of the unit and use backdoor influence to ensure that surgical services remain suspended even though the Inquiry report published in July 2010 exonerated the individual surgeon and found no fault with surgical practice in the unit.

In addition the S&S review team has sought to subvert the democratic process by announcing in a Press Statement issued on 14th October 2010 that the Oxford unit would not be included in any of the future options for the re-configuration of children's heart services which would be issued for public consultation early in 2011. This matter has now been taken up by the Oxfordshire Joint Health Overview and Scrutiny Committee which has pointed out in a letter dated 28 October 2010 to The Rt Hon. Andrew Lansley MP that *'If the John Radcliffe is not included in consultation, how could it be possible to come to any decision other than that the unit should close? And how could the decision be subject to consultation if the John Radcliffe is not included in the options?'*

Financial Implications

The financial implications of the review have not yet been published but it is clear that the loss of paediatric cardiac surgical services will lead to a loss of income for the Oxford Radcliffe Hospitals NHS Trust running into £2/3 million per annum based on current tariffs. Although the review proposes that paediatric cardiological services will be retained at local hospitals feeding into the proposed 5/6 super surgical centres, it is hard to see how this will be economically viable.

The loss of children's heart surgery may threaten the viability of the Oxford Children's Hospital, as a loss of income of this magnitude cannot easily be replaced by developing alternative services. The capital costs of the Oxford Children's Hospital were part funded from one of the largest fundraising campaigns in the NHS in recent years raising £14 million or approximately half the total capital costs of the new hospital. Any threat to the potential viability of the Oxford Children's Hospital is likely to provoke considerable public protest.

No information has been provided as to the likely capital costs of S&S's proposals given that all of the new proposed super centres will have to provide more theatres / intensive care beds / patient facilities etc to meet the increased patient flows. By contrast, Oxford is well placed to provide these services without new capital development with a new Children's Hospital and new Adult Cardiac Centre.

No information has yet been provided as to where the Oxford patient flows will be redirected. If children needing heart surgery are in future referred to London this is likely to result in considerably increased costs for the commissioners of the service as London units are allowed to charge an additional London premium currently £3,750 per case reflecting the increased cost of providing services in London. This will put increased pressure on local budgets.

In addition, parents will incur increased costs in travelling longer distances to access services and may find it difficult to make daily visits to a hospital further away if they have other children to care for. No information has been given as to who will fund any excess costs incurred by parents

Way Forward

If we are planning for the early part of the 21st century, a comprehensive review needs to consider the range of physical facilities and equipment needed to establish state of the art units which are future proofed for at least the next 20 to 30 years. The current review fails to do this relying on alarmist statements that Ministers will be faced with another Bristol situation if they take no action. This is despite the fact acknowledged by S&S that no current unit, including Oxford, is unsafe and the fact that there is virtually no international evidence to support their case that only larger units undertaking at least 400 operations with each surgeon performing 100 cases per annum will be safe and sustainable. Indeed the North American evidence provides a useful counterpoint to this in that most US Children's Heart Surgeons only perform circa 75 operations per annum.

A new review needs to be commissioned taking account of international experience where parents can be confident that a properly evidenced range of options can be produced with sufficient time for consultation with all stakeholders and a commitment of the necessary resources to effect change.

Young Hearts

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