

Paediatric Critical Care and Specialised Surgery in Children Review



October 2018



The aims of the Paediatric Critical Care and Specialised Surgery in Children review focus on achieving a sustainable service the meets the current and future needs of children and their families



Develop a **Sustainable** Model of Care Maintain and Improved equity and improve current high treatment in quality the right place and time services

The case for change is compelling, requiring a coordinated approach to long term systems change

Paediatric Critical Care

Year on year pressure due to a number of compounding factors:

- Increasing demand for specialised life preserving interventions
- Increased survival rates of children with complex and life-limiting conditions
- Long term lack of workforce to fill vacancies

• Ongoing surge pressures every winter

Specialised Surgery in Children

Concerns over increasing activity in specialised centres/ decreasing capacity for local hospitals to manage acute need of local patients:

- Perceived impact on waiting times for specialised surgery and General Paediatric Surgery (GPS)
- Patients and families travelling further than necessary, with potential impact on clinical outcomes for time critical emergency interventions



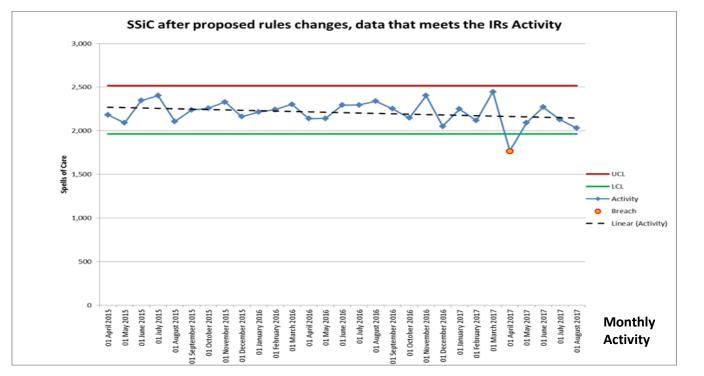


Analysis



Initial analytics suggest that there has been a static activity trend in specialised surgery, but this may not reflect the true nature of demand





We need to understand whether this is due to

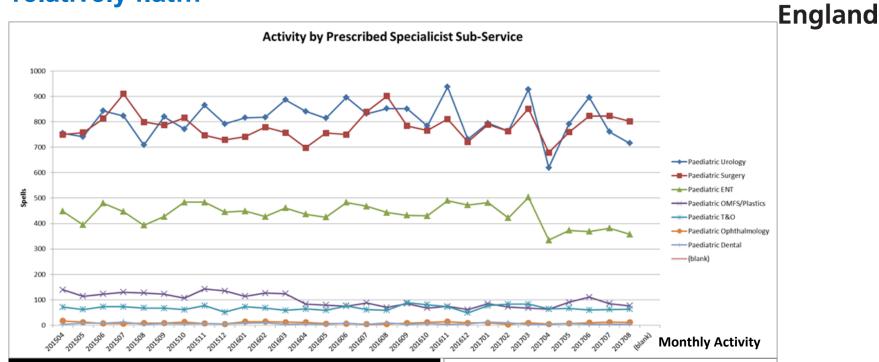
- stable demand?
- capacity limitations?

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cancelled procedures due to PIC bed availability?

year	Average Spells	Average Monthly Tariff (SUS Tariff inc MFI
2015/16	2240	£8,958,570
2016/17	2239	£9, 274, 804
2017/18 (M1-M5)	2058	£8,791,489

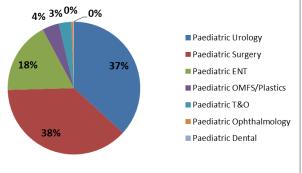
Within surgical sub-specialties, activity trends also appear relatively flat...



Prescribed Specilised Sub-	2015/16	2016/17	2017/18	Grand Total
Paediatric Urology	803	836	757	809
Paediatric Surgery	782	786	777	783
Paediatric ENT	445	457	363	436
Paediatric OMFS/Plastics	125	76	85	98
Paediatric T&O	67	71	63	68
Paediatric Ophthalmology	10	8	9	9
Paediatric Dental	7	6	4	6
Grand Total	2240	2239	2058	2208

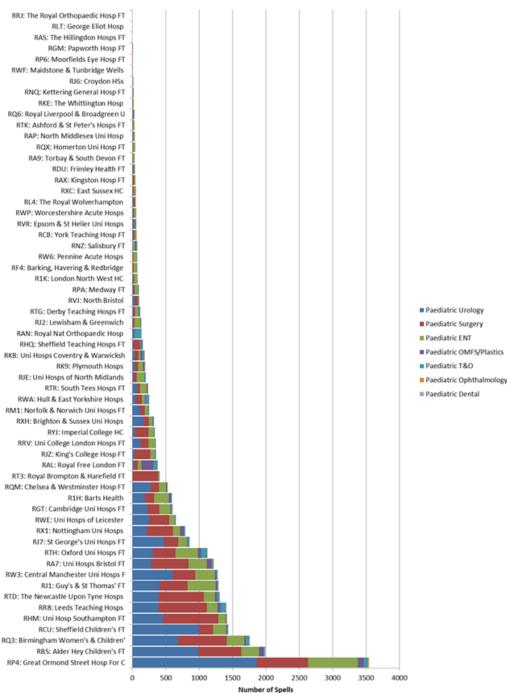


NHS



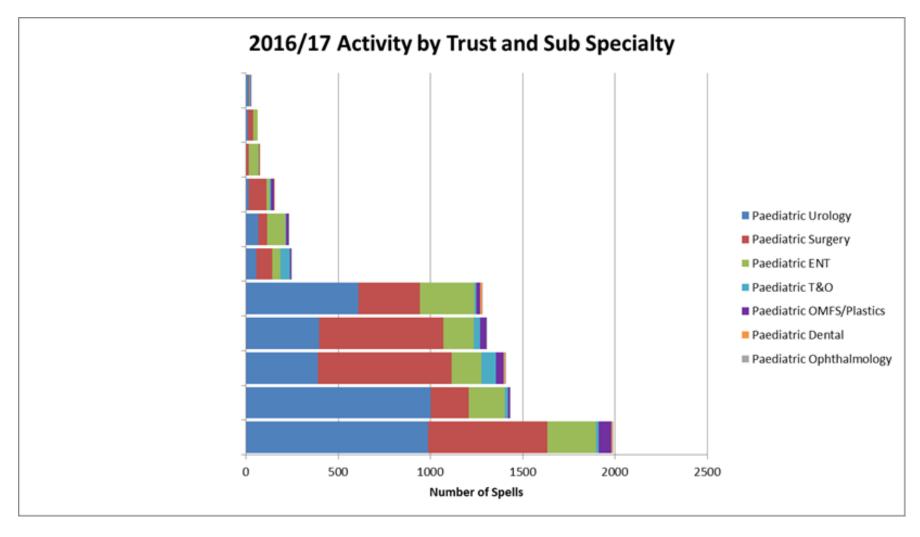
We see a long provider tail of 'smaller' providers that appear to be delivering specialised activity across some subspecialties





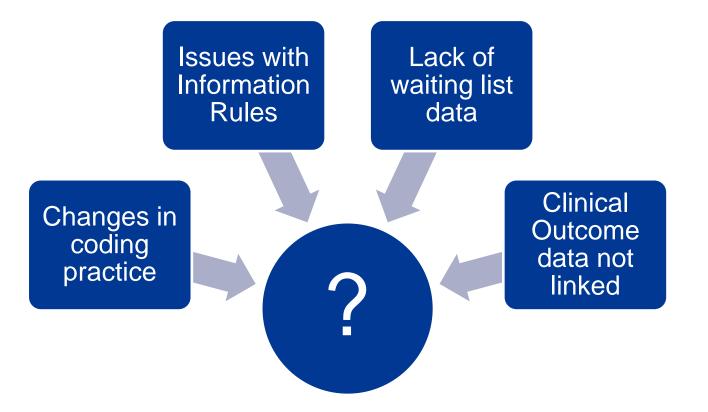
This may reflect coding issues, appropriate subspecialty work, outreach from tertiary centres or occasional practice





The reported experience on the ground suggests that there has been a centralisation of non specialised paediatric surgical activity to specialised hospitals, however it is not possible currently to validate the scale of this:





General Paediatric Surgery 'Signpost Procedures' in Specialised Hospitals have been reviewed as a proxy for this shift in activity



General Paediatric Surgical Procedures (non specialised)				
Inguinal Herniotomy				
Hydrocoele				
Umbilical Hernioto				
Orchidopexy for UDT				
Circumcision				
SWORD Evidence for clinicians		09/10	16/17	% change
	GPS Activity	12,883	12,952	+1%
	General Surgeons	4,699	3,090	-34%
	Paediatric Surgeons	8,184	9,862	+21%

≻ All GPS admissions to tertiary units ↑ 5.8%
 ≻ Elective GPS provision by DGH general surgeons ↓34%

Activity mapping shows that there has been a greater increase in elective GPS activity being undertaken at specialised centres than in DGHs

8000

7000

6000

5000

4000

3000

2000

1000

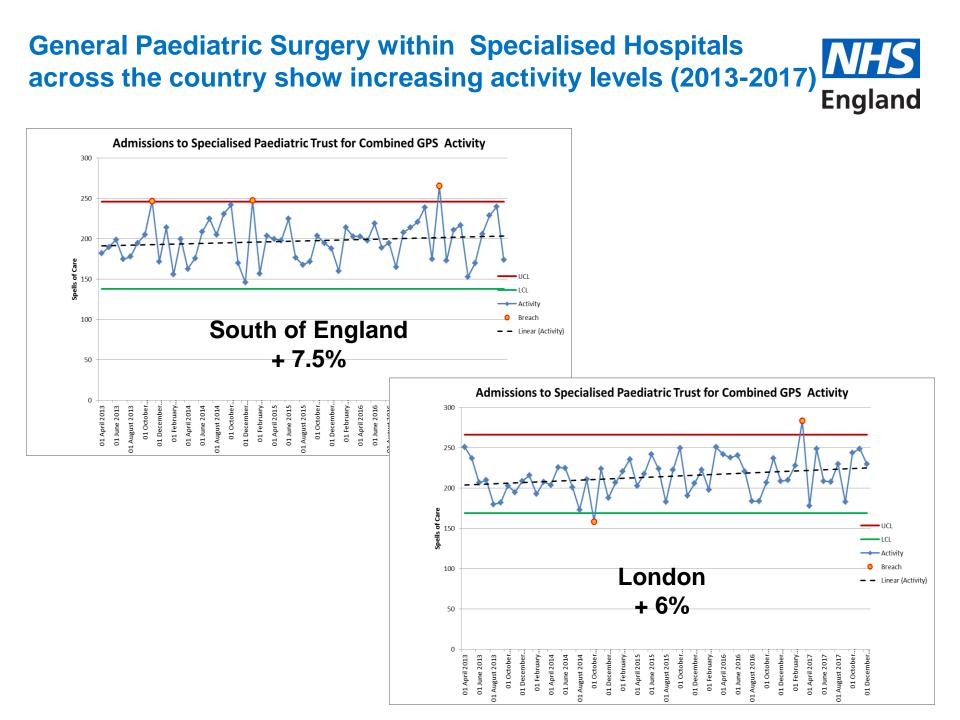
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Adult

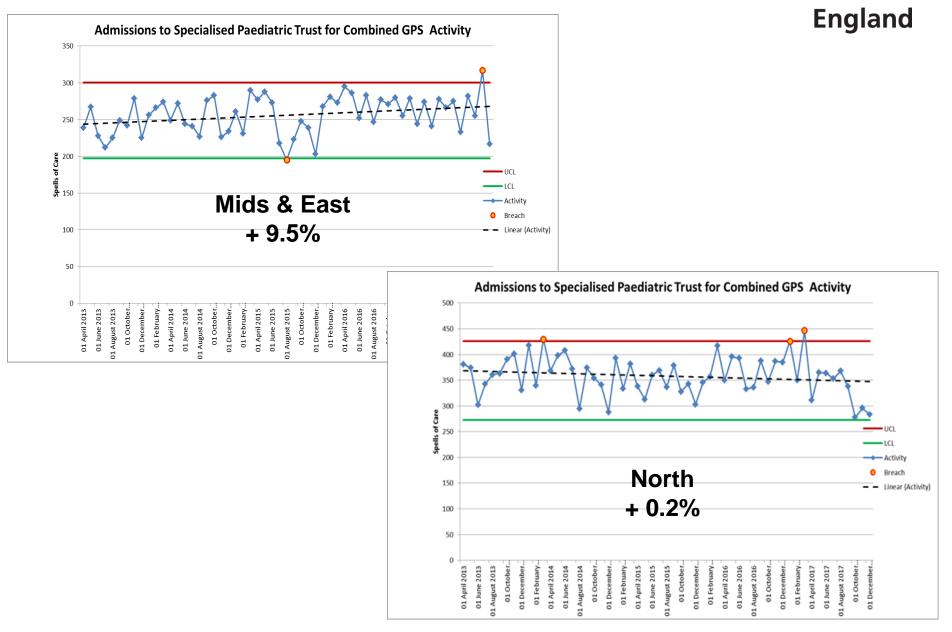


Paed Surgeon - Periphery

Paed Surgeon - Base

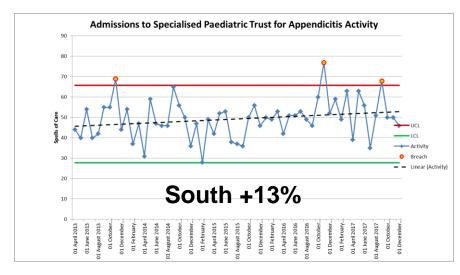


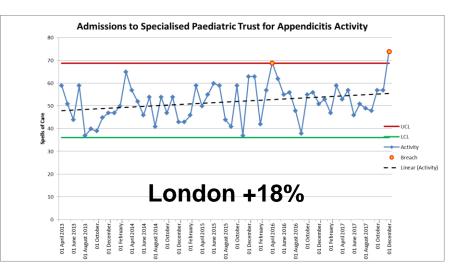
The shift in GPS activity to specialised paediatric providers differs across the regions (2013-2017)

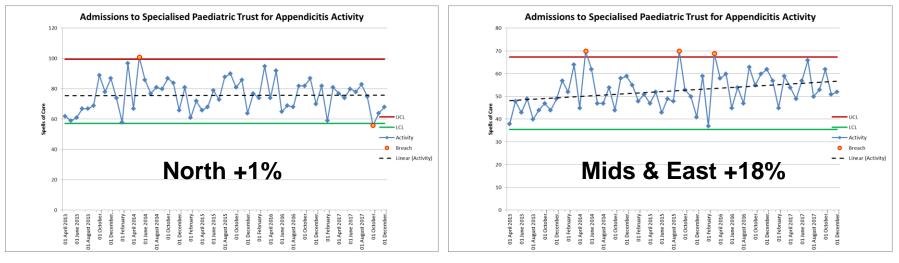


Emergency GPS procedures where treatment access time impacts on clinical outcomes have also shifted to specialised centres in most regions England

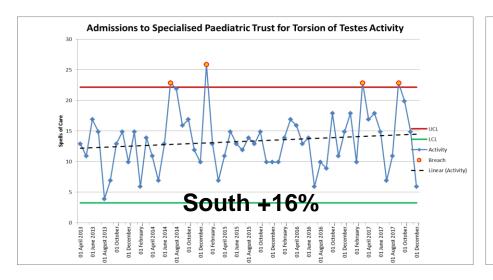
Emergency – Appendicectomy: Increase of 12.5% across England

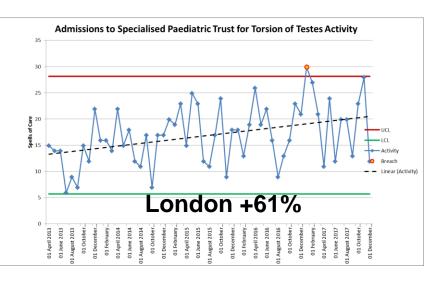




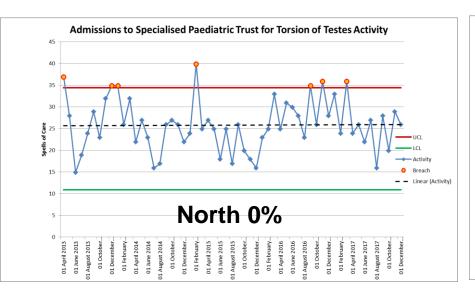


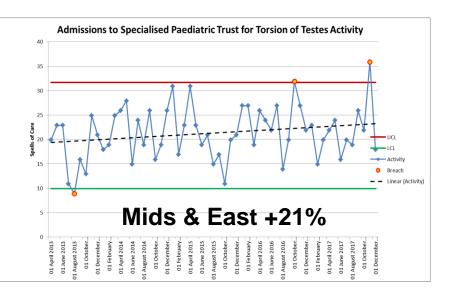
Emergency – Scrotal Exploration: increase of 24.5% across England





England







Options

An Expert Stakeholder Panel for the review was convened to inform the vision and model of care

- Membership includes:
 - Paediatric Intensive Care Society
 - Royal College of Surgeons
 - Academy of Medical Royal Colleges
 - Children's Hospital Alliance
 - Paediatric Intensive Care Society: Acute Transport Group
 - Royal College of Paediatrics and Child Health
 - National Clinical Directors for Children & Young People, and Heart Disease
 - Faculty of Intensive Care Medicine
 - Royal College of Anaesthetists
 - Royal College of Nursing
 - Neonatal, Paediatric Intensive Care, and Specialised Surgery in Children Clinical Reference Groups
 - Paediatric Intensive Care Audit Network
 - Congenital Committee, Society for Cardiothoracic Surgery in Great Britain and Ireland
 - National Parent Carer Forum
 - Intensive Care Society (Adult)
 - Association of Paediatric Anaesthetists of Great Britain and Ireland
 - British Association of Paediatric Surgeons
 - Children's Surgical Forum





A number of options were considered to address the issues raised in the case for change for both paediatric critical care and specialised surgery in children



Network

Model



A number of options were considered in order to reach an informed decision on the best approach



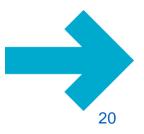
Cons Risks

Options	Pro	Cons	Risks
Do Nothing	No change to provider configuration or requirement to develop non-specialised services.	Would require 60 more PIC beds at a cost over £20m/ year recurrently. Continued impact on specialised waiting times for surgery and children travelling long distances for routine surgery.	Unable to staff beds. May require accessing beds outside of NHS/ England at times of surge. Impact on clinical outcomes through delayed access to surgery.
Consolidate into fewer larger centres	Current workforce numbers adequate to cover smaller number of centres. Successful model overseas. Would remove issues over small volume activity/ occasional practice in surgery and remove need to separate specialised and non specialised activity.	 Would require: closing of a number of units and longer travel times for patients upskilling of local hospitals to identify and stabilise patients for longer journeys expansion of transport services incl. air national procurement to identify centres capital investment to build super centres. 	Previous experience shows large percentage of staff unwilling to move with the service, resulting in loss of staff to the specialty. May decrease clinical outcomes where time to access treatment an important factor. May result in difficulty of managing patients who present via A&E in an emergency as limited staff experienced in paediatrics surgically/ critical care on site. Politically difficult to achieve.

A number of options were considered in order to reach an informed decision on the best approach



Option	Pros	Cons	Risks
Compliance against service standards	Approach undertaken by other service reviews. Supports commissioning approach. Allows services to develop.	Standards would be very complex given cross specialty nature of services. Does not facilitate system wide approaches to solutions, especially where local services are non-compliant with no alternative provider locally.	Would limit impact of review to services directly commissioned by NHSE.
Lead Prover Model with subcontracting arrangements	Enables formal delegation of network to a lead provider.	Promotes competition over collaboration as would require national procurement. May make local solutions too rigid, inhibiting the ability for the system to respond to times of surge or changes in demand.	Likely to only be possible for NHSE commissioned services and not whole pathway approach until pooled budgets possible.
Network Model of Care *PREFERRED OPTION	Develops local networks with key stakeholders to manage local health system and respond to local issues and demand.	Complex system requiring multiple stakeholder engagement at local and national level. Will require longer term change in training programmes to support development of services outside of specialised centres.	Clear governance structures need to be in place to ensure network functions and all parties are held to account for delivery.



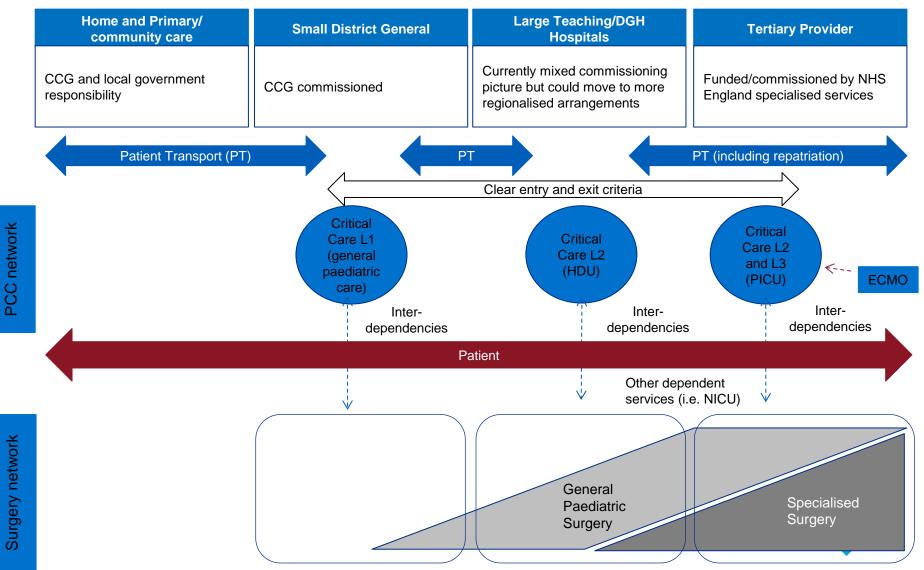


A Network Approach to Paediatric Critical Care and Specialised Surgery in Children



The preferred option was a network model, ensuring that children are cared for in the most appropriate environment





Specialist Centre

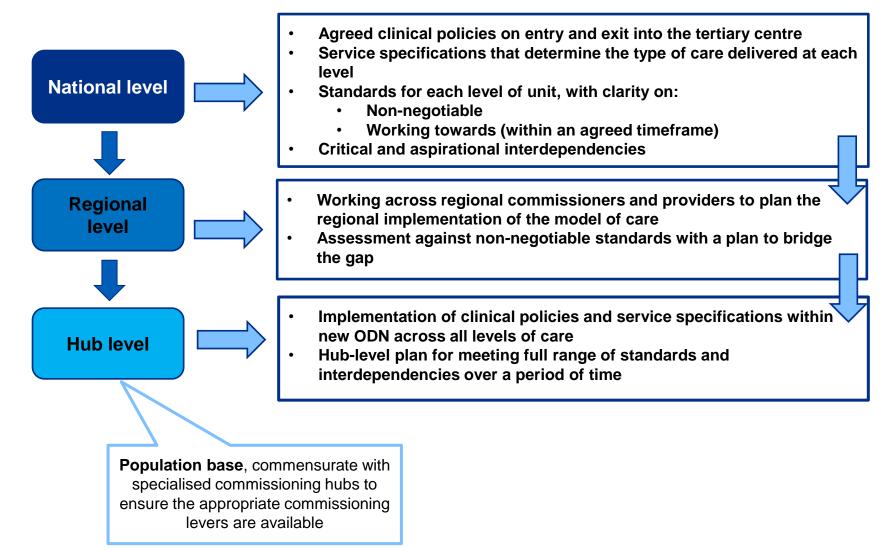
Operational delivery networks that bring centres together could ensure that the review's aims and principles are delivered



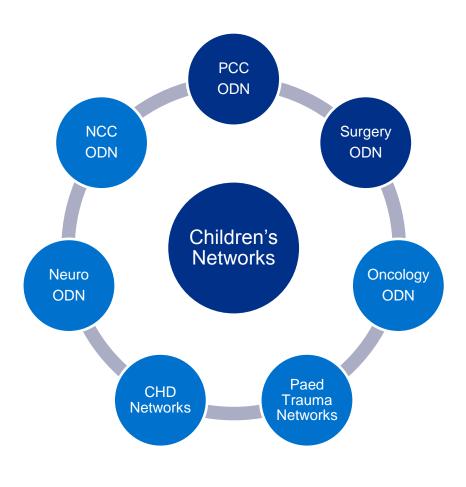
		What could this look like?	How could this be measured?
	Right place	 Children treated in the right place, at the right time, and close to home where possible. 	Distance from home (postcode data)Level of care provided
	Greater collaboration between services	 Planning services as a system rather than individual organisations Partnerships between national and local commissioners, providers, patients and families. 	 Establishment of systems of leadership, financial and risk management Shared resourcing, education and learning
	Improving the quality of care	 Sustainable services Working across a network to achieve PICS and RCS standards Reduced variation in care Improved equity of access 	 Level of care provided Occupancy and refusal rates Surgical cancellation rates Achievement of PICS and RCS standards
	Patient centred care	 Whole patient pathway focused on the needs of the child Families involved in their children's care 	 Ability to demonstrate mechanisms for meaningful patient engagement Achievement of PICS and RCS standards
£	Improving value for money	 A national approach to pricing based on level of care and activity Preventing admission to PIC or specialised surgery where not clinically appropriate 	 Cost and activity data collected by agreed contractual datasets

Operational Delivery Networks with commissioner and provider involvement proposed to drive forward change





Opportunities to develop overarching Children's Strategic Networks to ensure alignment between networks and offer England efficiency and sustainability opportunities



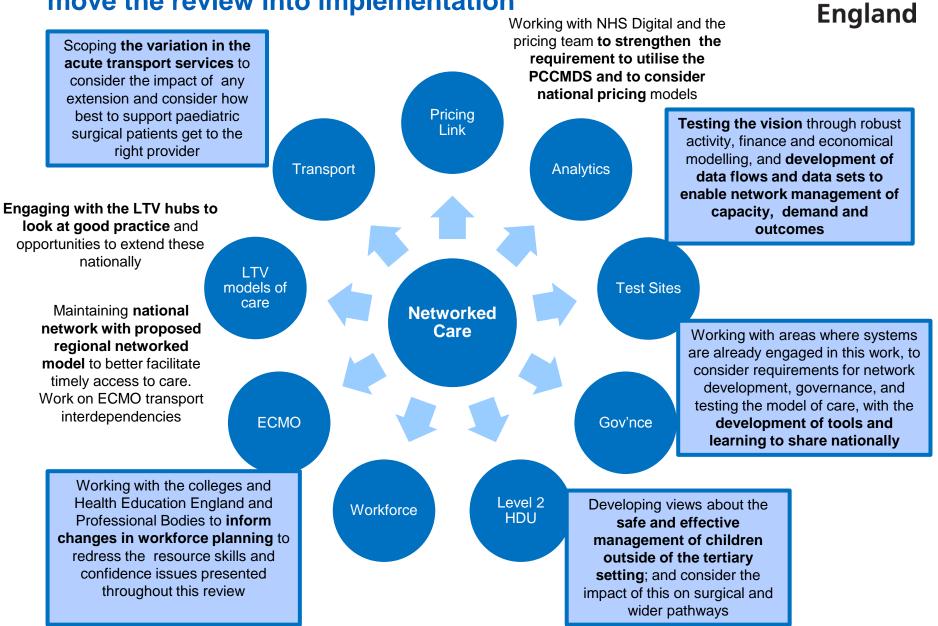




Current focus



Key work streams are progressing at a national level to move the review into implementation



NHS

Test sites will be provide external resource to aid implementation and help answer the following questions:



What is the optimum model of care for a local ODN?

- Maximise value within PCC and Specialised Surgery In Children pathways
- Interface between providers (including interdependencies between paediatric surgery and critical care services)
- LHE capacity vs demand
- · Options for future provider landscape and local model of care
- Interface with transport
- Cost of future state

How do you establish an ODN in a rapid cycle time?

- Governance
- Accountabilities
- · Funding and payment systems
- Contractual arrangements
- Data and information

Test Site Implementation

- · Identified sites via regional diagnostic conversations
- 2 sites proposed
- 10 week CSU & programme team support to test and develop tools and learning, spread over 5 month period
- Ongoing support from national team to non-test site areas
- National commissioner learning sets to be implemented across all regions to share best practice



Indicators of success will be iterative and develop as the programme is implemented



6 months

Network foot prints and membership agreed, with initial meetings held

- Networks/ Regions working with their own data to determine local issues
- ECMO networks and specifications agreed
- Transport Gap Analysis complete
- National Workforce Strategy developed (HEE)
- Support of professional organisations to implementation approach
- Test sites established with plans for monitoring success over winter
- National implementation group and learning sets in place

12 months

Funded ODN infrastructure in place. Test Site managed networks successful

- Local governance arrangements for network established
- Procurement of national ECMO centres
- Review resource pack launched, pulling together learning from test sites, specifications, tools
- Local workforce strategies in place
- Data strategy in place to for PCC and Surgery
- Transport service action plan developed to meet future network needs

24 months

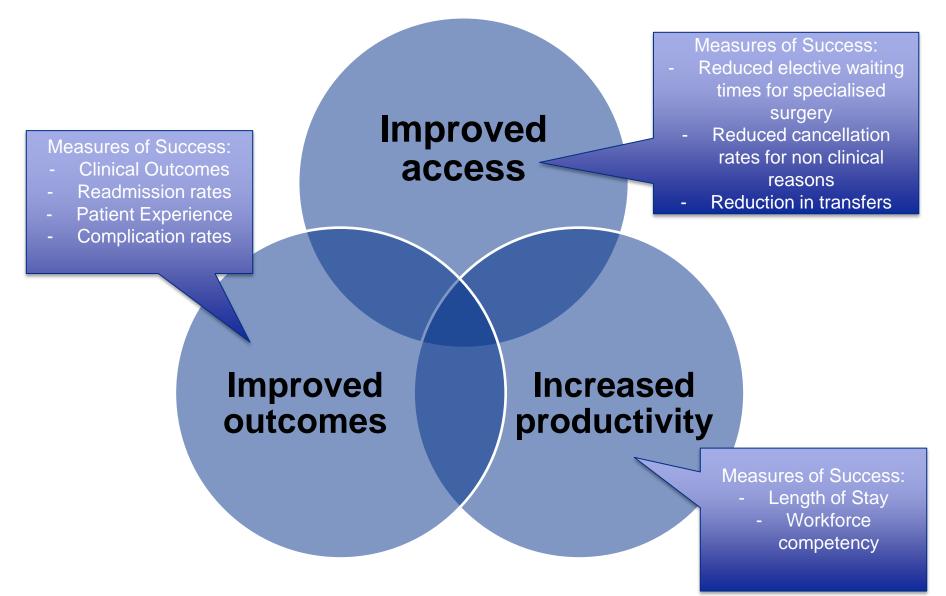
Networks managing local systems, including decommissioning of services not meeting standards

- Surge capacity and management in place, so no patient goes out of area for a PCC bed
- Patients treated close to home/ most appropriate setting
- Models of care for LTV patients developed & implemented to meet individual need
- 24+ months: Children's Networks established nationally, coordinating the work across children's ODNs (cancer, neurology, critical care, surgery)

Embedding the new model fully will a 3-5 year programme of system wide change

Indicators of success and how these are measured should be agreed at the start of the network development process









- Progress National Work Streams & Engagement
- Continue to develop analytical tools to support networks
- Work with test sites to develop and test tools to support implementation
- Identification Rules Review at Sub specialty level
- Regional input to understand trends and waiting lists



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