

Paediatric Critical Care & Specialised Surgery in Children Review

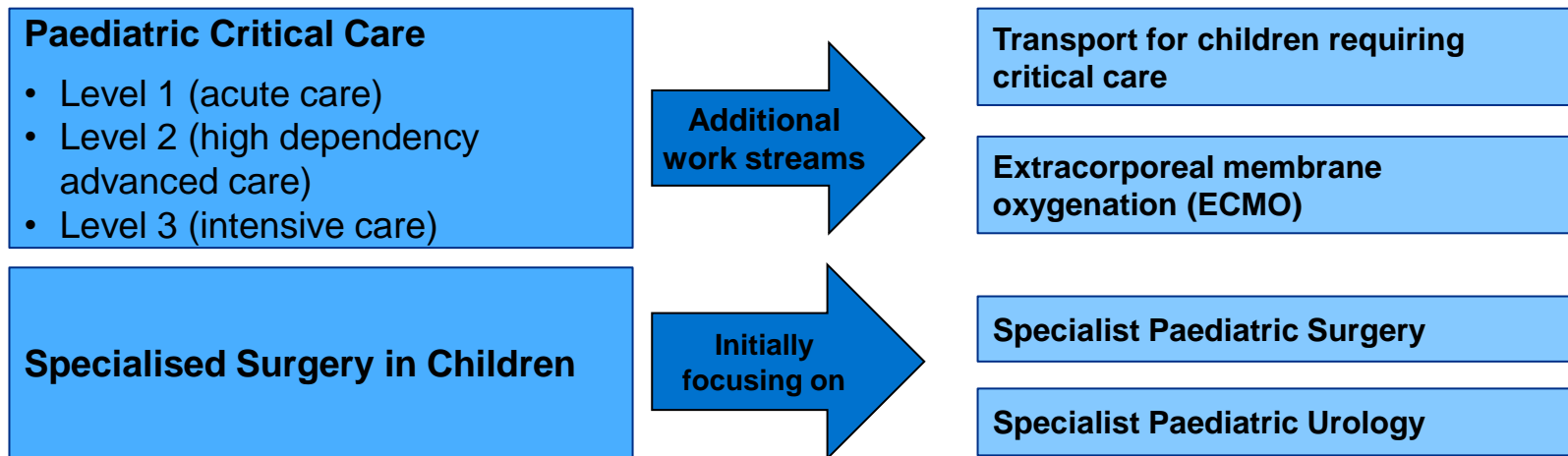
Update on National Programme
July 18



A National Review of Paediatric Critical Care and Specialised Surgery in Children was established to develop sustainable services across England

Aim:

- develop a sustainable model of care
- maintains current high quality services
- sustainable and affordable way in the future



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:

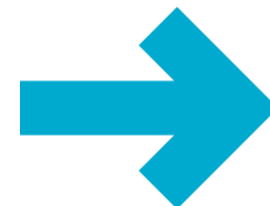
- Perceived impact on waiting times for specialised surgery and General Paediatric Surgery (GPS)
- Patients and families travelling further than necessary, with potential impact on clinical outcomes for time critical emergency interventions

Investing in additional beds is not an option as the workforce does not currently exist to meet the current commissioned bed numbers

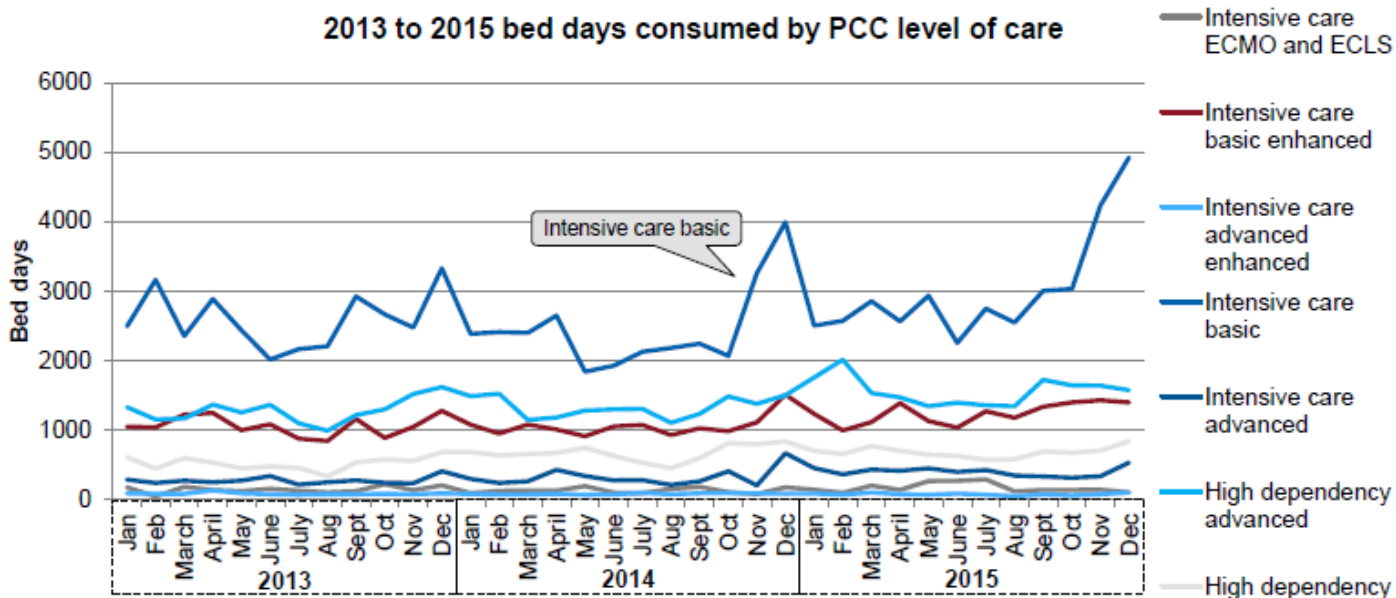


Analysis of PICAnet Data demonstrates that there is increasing activity within PIC Units. At a national level units are routinely operating above optimal capacity.

- The paediatric critical care service is facing increasing pressures due to lack of capacity and staff pressure.
- The data suggests activity has been increasing within PIC units and in particular there has been increase in activity that is eligible for treatment in lower levels of critical care setting, such as a HDU.
- Currently, units are operating at 96% capacity, where optimal capacity is set around 85% to allow capacity to respond to spikes in demand.
- Units have been operating at over 90% capacity for a number of years.
- With the increasing demand for Critical Care beds due to more patients living longer with complex conditions and the range of interventions available to treat patients demand is forecast to continue to increase.
- The analysis indicates these pressures have persisted despite national increases in bed numbers, which suggests that investing in additional beds is not the answer.
- It is forecast that by 2022 without intervention now, the national PIC capacity will be consistently at 100%.

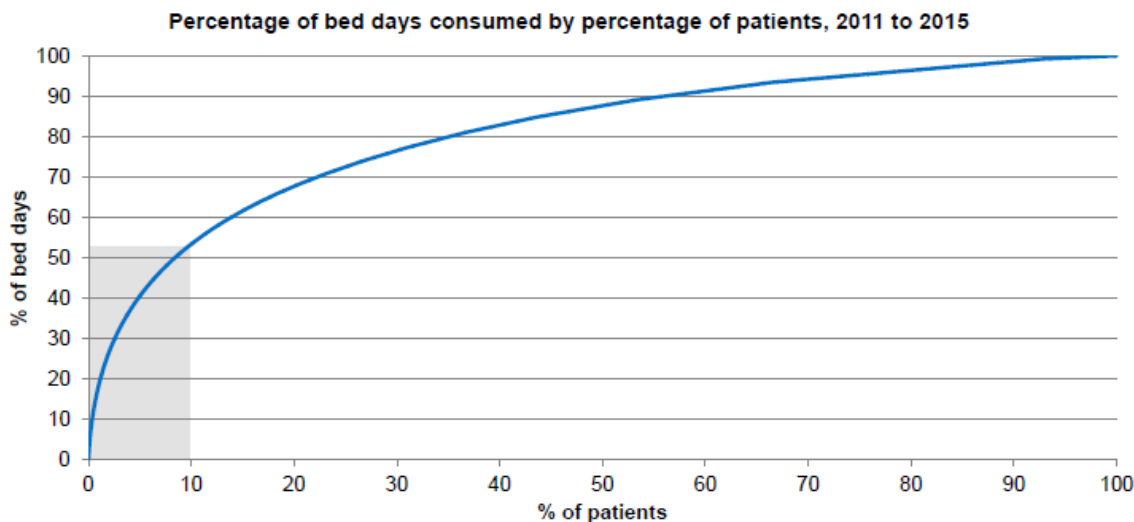


PICAnet analysis shows the split of activity across the different levels of critical care and the patient cohort



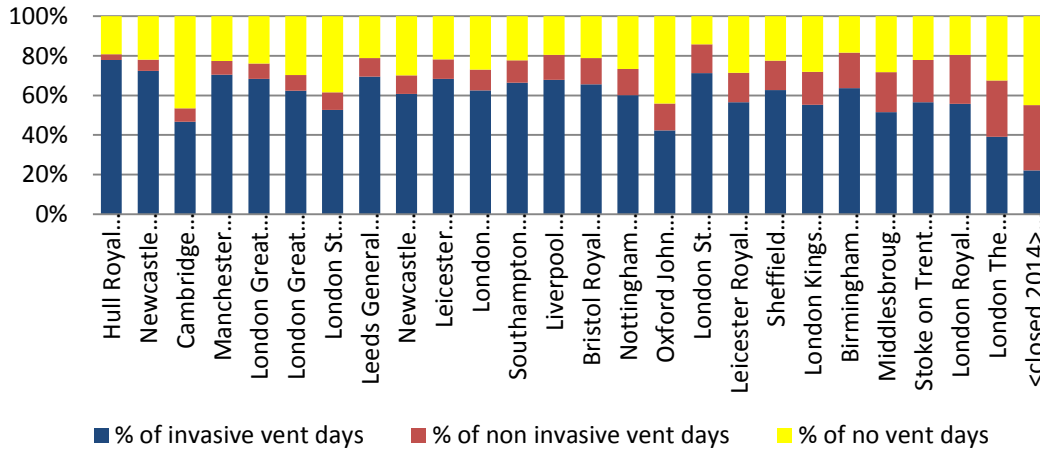
Most of the increase in bed days seen over the last five years has been in those children who require the most basic levels of intensive care.

50% of the PIC capacity is taken up with 10% of the patient cohort, suggesting there are some very long stay patients or patients with multiple admissions in year.

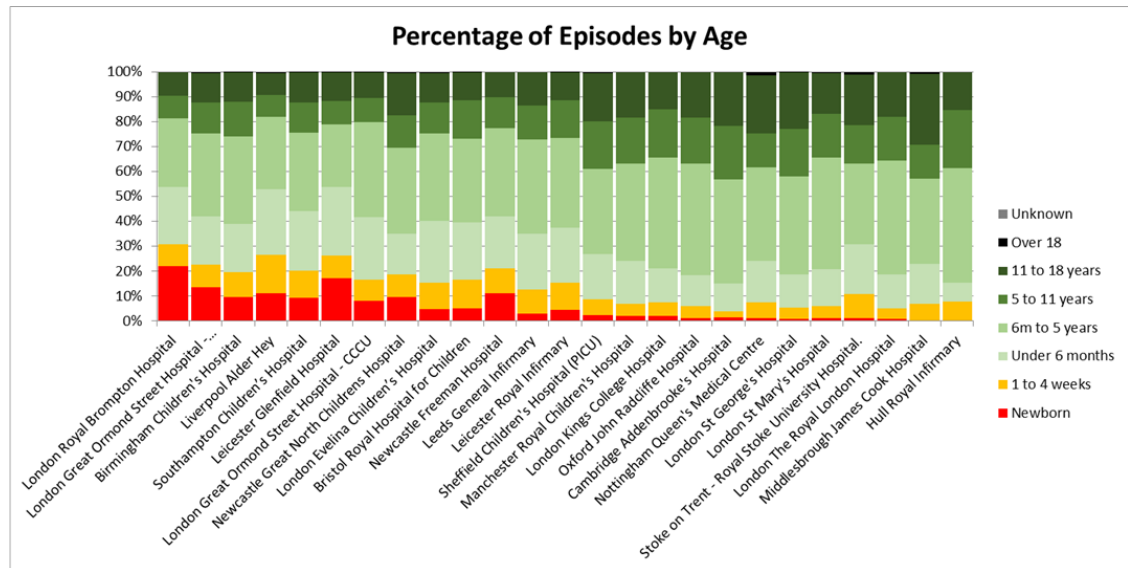


PICAnet analysis also shows variation in delivery and access between providers

Percentage of bed days patients are on invasive and non invasive ventilation and not ventilated on PICUs



Percentage of Episodes by Age



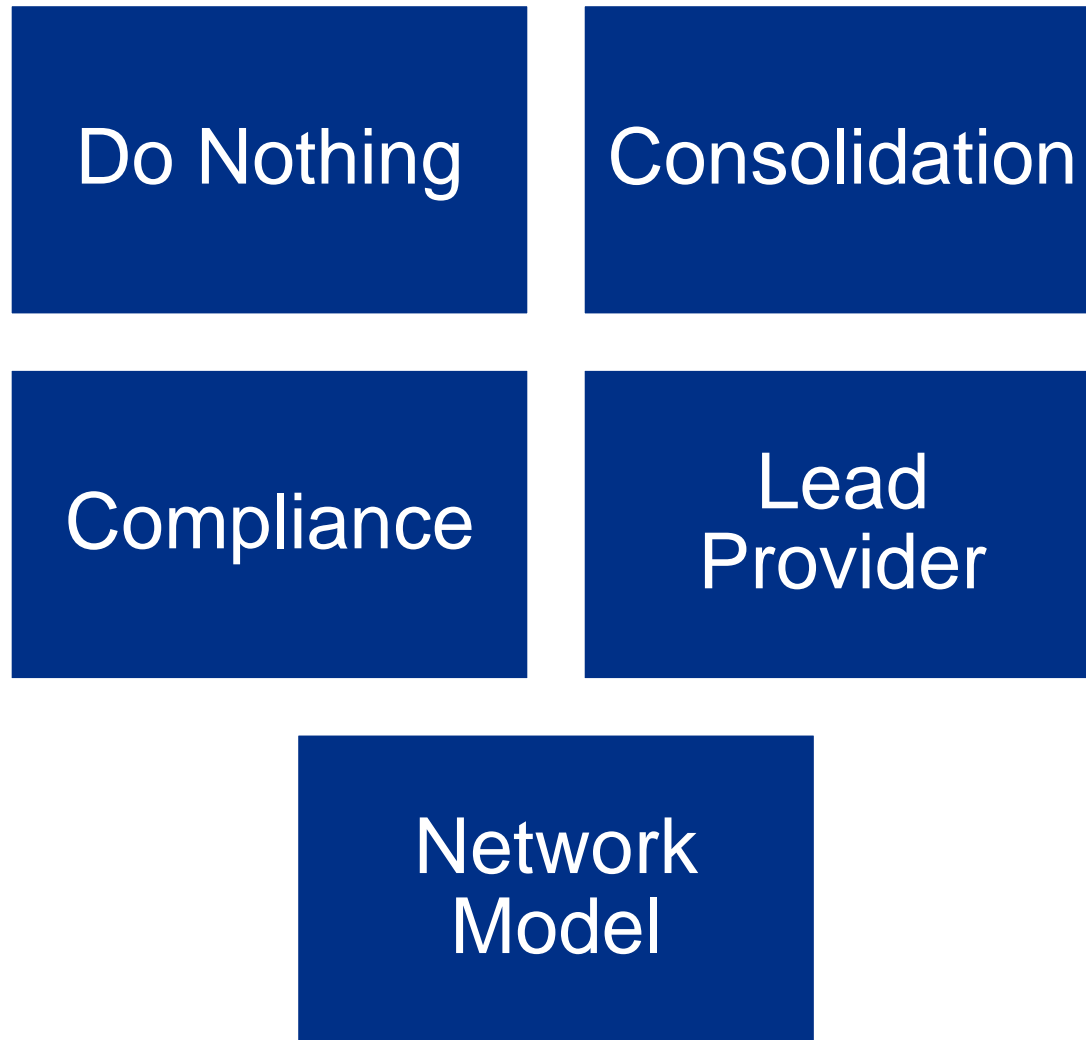
An Expert Stakeholder Panel for the review was convened to inform the vision and model of care



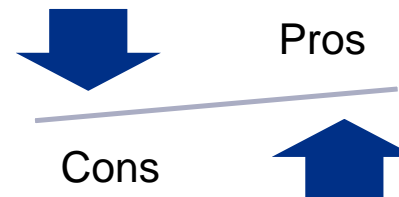
- Membership includes:
 - Paediatric Intensive Care Society
 - Royal College of Surgeons
 - Academy of Medical Royal Colleges
 - Children's Hospital Alliance
 - Paediatric Intensive Care Society: Acute Transport Group
 - Royal College of Paediatrics and Child Health
 - National Clinical Directors for 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
 - National Parent Carer Forum
 - Congenital Committee, Society for Cardiothoracic Surgery in Great Britain and Ireland
 - Association of Paediatric Anaesthetists of Great Britain and Ireland



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



The options were appraised to consider the risks and benefits of each



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.	Unable to staff beds. May require accessing beds outside of NHS/ England at times of surge.
Consolidate into super centres	Current workforce numbers adequate to cover smaller number of centres. Successful model overseas.	Would require: <ul style="list-style-type: none"> - 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. Politically difficult to achieve.

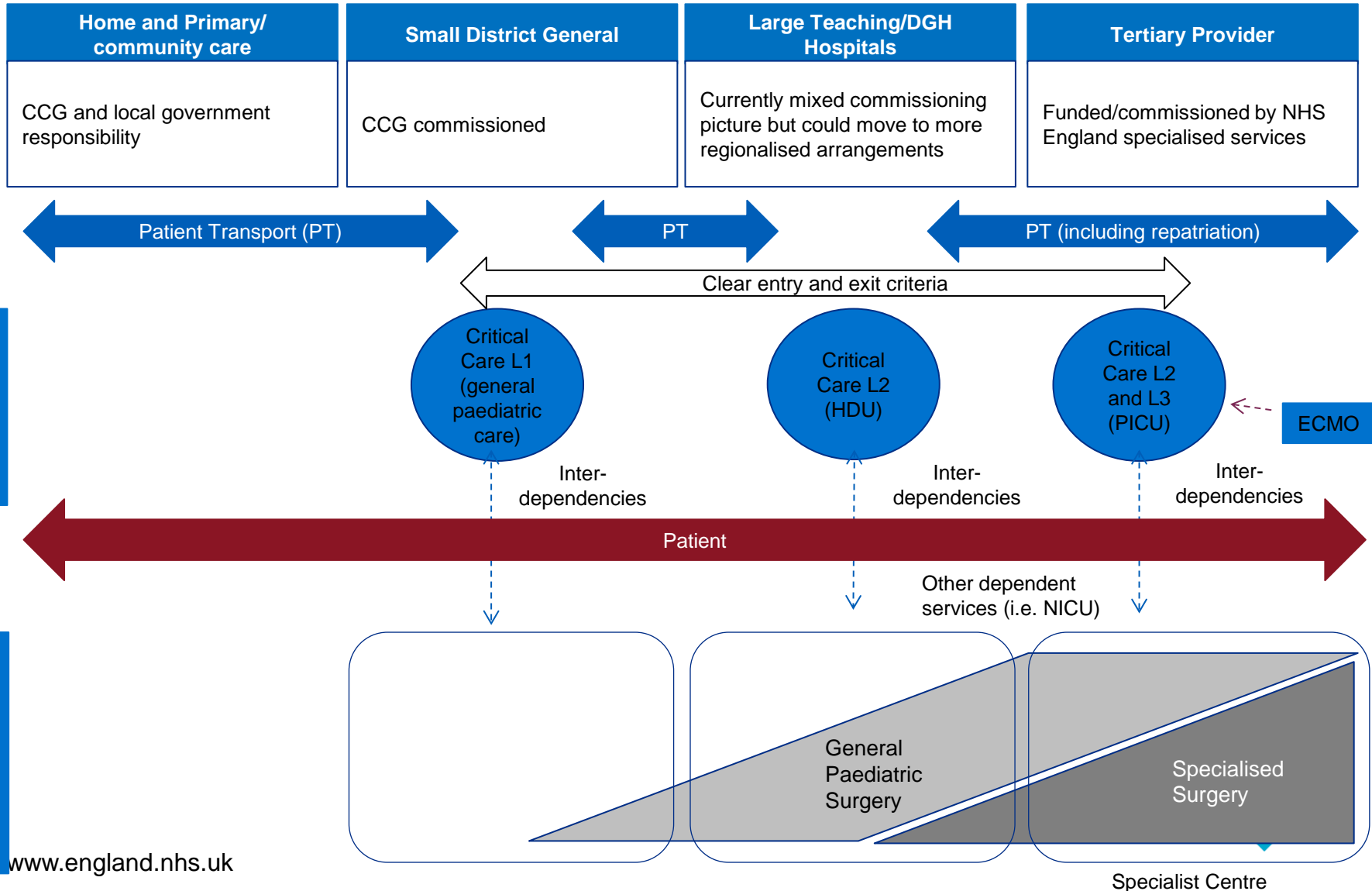


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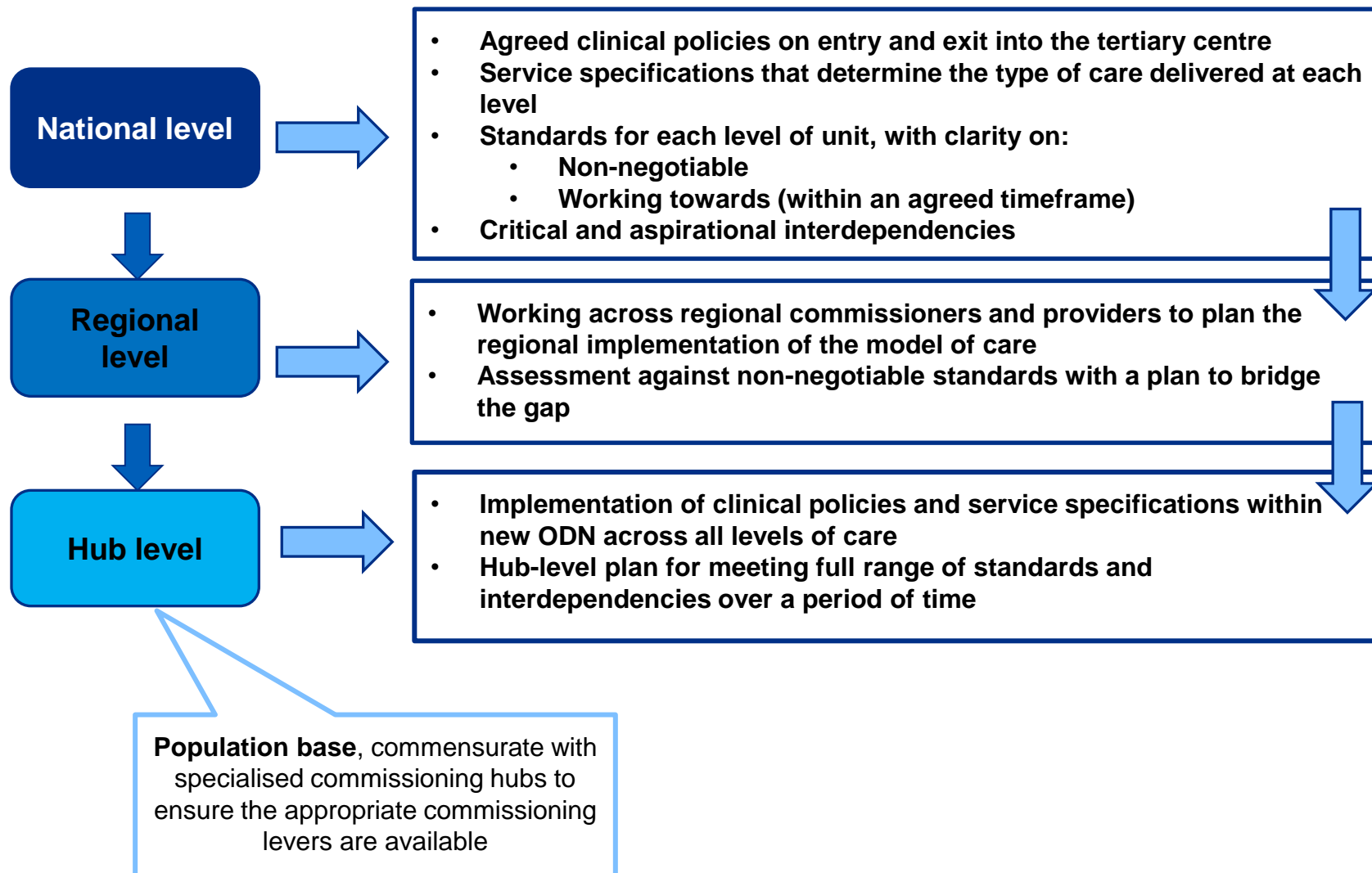
Option	Pros	Cons	Risks
Compliance against service standards	Approach undertaken by other service reviews. Supports commissioning approach. Allows services to develop.	Standards would be very complex given cross specialty nature of services. Does not facilitate system wide approaches to solutions, especially 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.



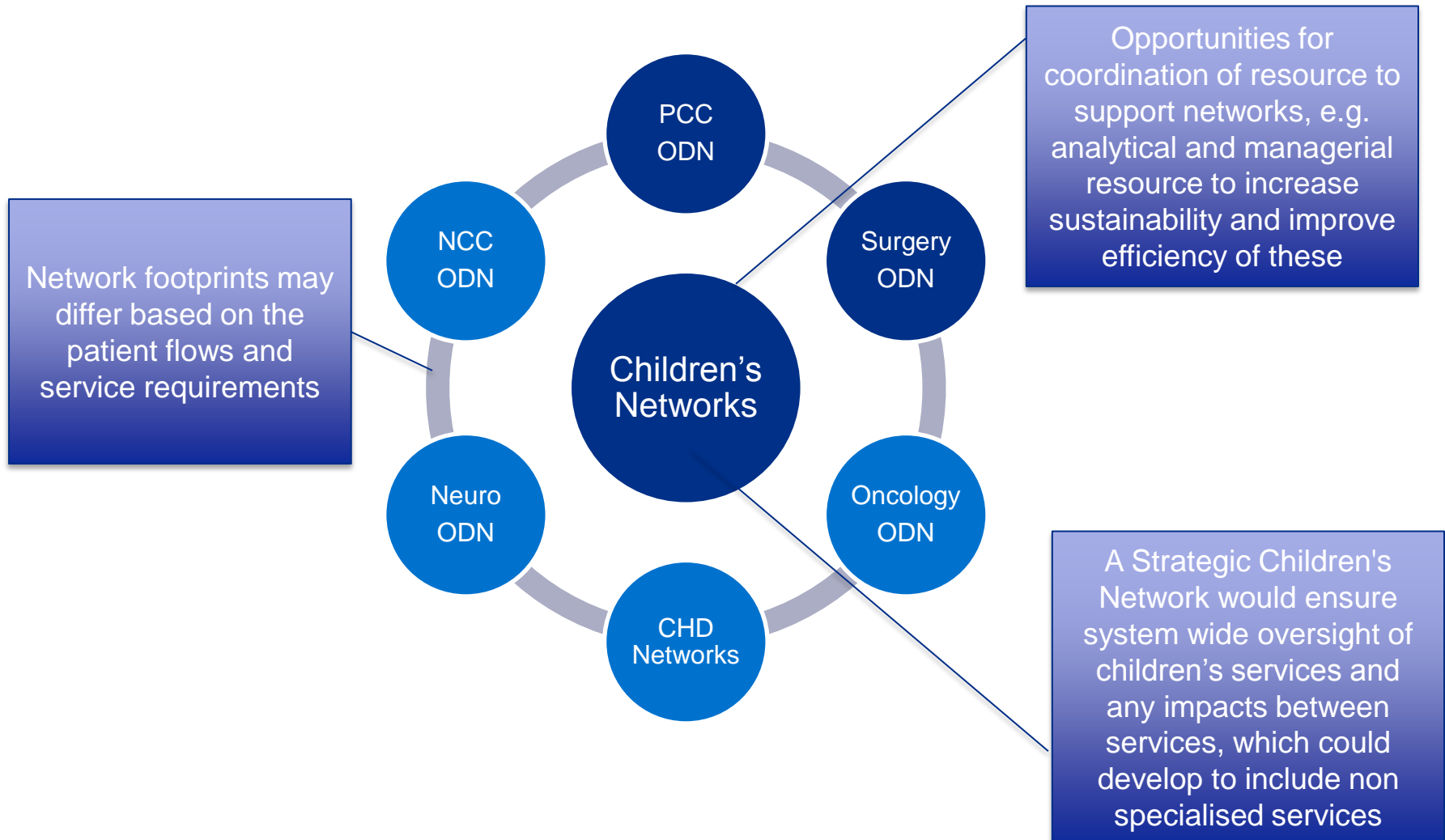
The preferred option was a network model, ensuring that children are cared for in the most appropriate environment for both paediatric critical care and surgery



Operational Delivery Networks are proposed to initially be sat within Specialised Commissioning, but with ability to move to new place based vehicles



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



Key work streams are progressing at a national level to move the review into implementation, supporting the regional teams with local mobilisation

Scoping the **variation in the acute transport services** to consider the impact of any extension to encompass high dependency and step down care

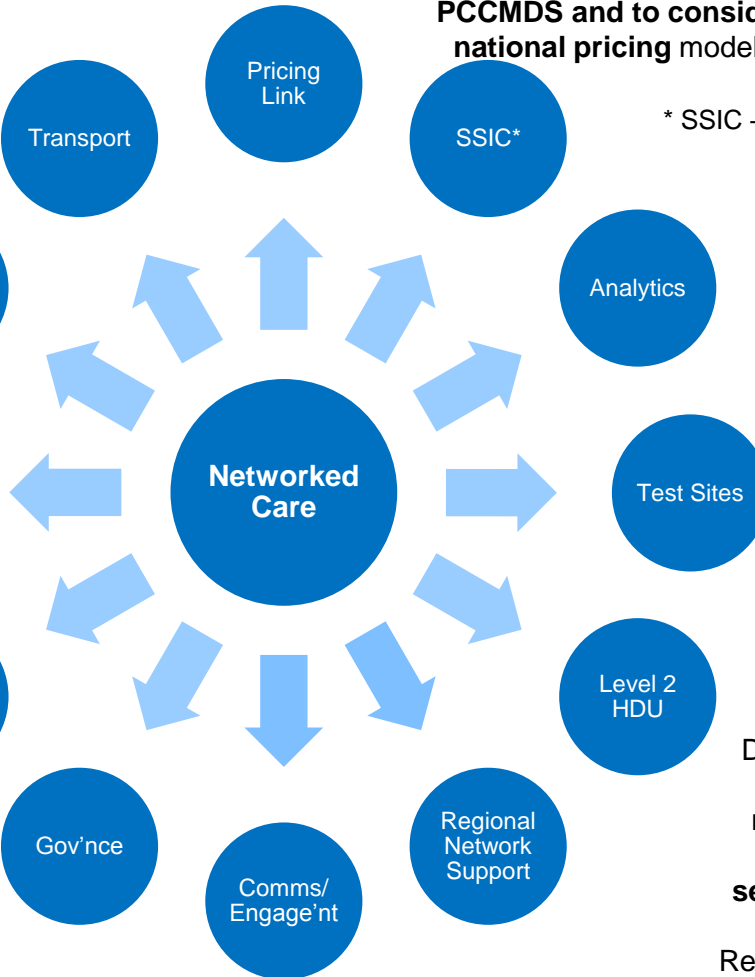
Working with NHS Digital and the pricing team to **strengthen the requirement to utilise the PCCMDS and to consider national pricing models**

* SSIC – Specialised Surgery in Children

Testing the vision through robust activity, finance and economical modelling, and working with regional teams to support the development of tools and resources to support the implementation of the model of care

Working with areas where systems is already engaged in this work as **test sites to go further, faster and develop tools and learning to share nationally**

Developing views about the **safe and effective management of children outside of the tertiary setting**; led by the Paediatric Intensive Care Clinical Reference Group and informed by regional engagement discussions



Supporting **regions to establish local networks** and working with **patient groups to ensure clear messaging** around the review

Engaging with the LTV hubs to look at good practice and opportunities to extend these nationally

Maintaining **national network with proposed regional networked model** to better facilitate timely access to care. Work on ECMO transport interdependencies

Working with the colleges and Health Education England and Professional Bodies to **inform changes in workforce planning** to redress the resource skills and confidence issues presented throughout this review

We can only maximise health value within an ODN if we consider what happens above and below a local health economy for PIC

National

- Service specifications
- Future workforce requirements (Health Education England/ Royal Colleges)
- Tariff reform
- Training programme development with professional organisations

Health Economy

Establish an ODN model across defined footprint (proposed as hub level)

Organisational

- Optimum pathway (flow) within a PIC Unit
- GIRFT* (devices, min volumes etc.)

* The Getting It Right First Time (GIRFT) programme aims to improve the quality of care within the NHS by bringing efficiencies and improvements focusing on service lines within providers



Two test sites are being established to develop their networks further and faster to test the networked model of care approach, with consideration of:

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

- Maximise value within PIC pathway
- Interface between providers (including paediatric surgery on the same site as PCC level 2 – set out what the future state of paediatric surgery looks like)
- LHE capacity vs demand
- Options for future provider landscape
- 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

- Two sites identified via regional diagnostic conversations
- Sites will be provided additional support via the national team from Sept onwards
- Ongoing support from national team to non-test site areas
- National 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, with some indicators being achieved sooner where local systems are able to go further faster

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 development started (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
- System metrics in place to monitor impact of change

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12 months

Funded ODN infrastructure in place. Test Site managed networks successful

- Local governance arrangements for network established
- Commissioning of agreed model for ECMO provision
- Review resource pack completed, pulling together learning from test sites, specifications, tools etc.
- Local workforce strategies in place
- Data strategy in place to ensure Paediatric Critical Care MDS in place across all providers for PCC & SSIC
- 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

The national programme team will seek ongoing engagement with national stakeholders throughout the next phase of the review



- The system wide nature of the issues require coordinated approaches to address these and deliver a model of care for paediatric critical care and specialised surgery in children that is sustainable.
- Please send any comments or queries to:
england.paedsreview@nhs.net

