

The Yorkshire and Humber
Paediatric Critical Care
Operational Delivery Network

Annual Report 2018/2019

CONTENTS PAGE

		Page No.
1.	<u>Foreword by Y&H PCC ODN Executive Group Chair – Sarah Halstead, Senior Service Specialist & Right Care Associate, NHSE</u>	3
2.	<u>Work Plan - Achievements to date:</u>	3
	2.1 WC4 Paediatric Networked Care	3
	2.2 Service Evaluation – ED and Anaesthetics	4
	2.3 Surge & Escalation	5
	2.4 HDU Audit	6
	2.5 Long Term Ventilation Group	7
3.	<u>National Pilot Site</u>	8
4.	<u>Education – Elaine Eckersley</u>	9
	4.1 Attendance	10
	4.2 2019 Update	11
	4.3 Nurse Education	12
	4.4 Multi Professional Education	12
5.	<u>Clinical Leads Report</u>	12
6.	<u>Clinical Forums 2018/19</u>	12
	6.1 Format	13
	6.2 Aims	13
	6.3 Topics	13
	6.4 Engagement	15
	6.5 Evaluation	15
7.	<u>Paediatric Major Trauma Guidelines</u>	17
	7.1 Aims and Purpose of the Group	17
	7.2 Membership	17
	7.3 Accountability	17
	7.4 Progress	18
8.	<u>Work Plan Priorities</u>	18
9.	<u>Embrace Report</u>	18
	9.1 Highlights	18
	9.2 Activity 2018/19	18
10.	<u>Financial Performance 2018/19</u>	19
11.	Appendices 1 and 2 are attached as a separate document	

1. Foreword by Y&H PCC ODN Executive Group Chair – Sarah Halstead, Senior Service Specialist, NHSE

It is with great pleasure that I once again present this Annual Report for 2018/19 on behalf of the Yorkshire & Humber Paediatric Critical Care Operational Delivery Network (Y&H PCC ODN).

This year, as with previous, has presented many opportunities to work collaboratively as a region and to embed innovation to deliver and improve process and efficiency of services.

This past year we have had the opportunity to work more closely with NHS England's National Team, being invited to be a Test Bed Site as part of the National Review of Paediatric Critical Care and Surgery in Children. This invitation again reiterated the success of the Y&H PCC ODN and the recognition that our ways of working could be shared and replicated nationally as examples of best practice. Much of the Networks work and documentation has been shared and added to the National ODN Toolkit.

I would like to thank both individuals and the units' contribution to the work being undertaken across the region to ensure that optimum care is provided.

I hope you find this report both informative and an accurate representation of the excellent work that has been achieved over the past 12 months.

Sarah Halstead
Y&H PCC ODN Executive Group Chair

2. Work Plan – Achievements to Date

2.1 WC4 Paediatric Networked Care

Summary Report March 2019

Cquin undertaken by the Y&H PCC ODN on behalf of the Tertiary Units

This scheme aimed to align to the national PIC service review. It aimed to gather information which allowed the demand across the whole paediatric critical care pathway to be considered. The aims of this work have been previously described. The Cquin is now complete and the following section summarises the work that has been undertaken, work that has been generated as part of its completion and any outstanding actions. This summary has been provided to NHS England (NHSE) and the participating tertiary units.

Part 1 – Service Evaluation

Commenced April 2016 – see attached report in Appendix 1.

The next stage in the process is to undertake a service evaluation of Anaesthesia and Emergency Departments across the region to complete the pathway for the critically ill child. This is planned for 2019.

Part 2 – HDU Audit

2017 – Summary report attached in Appendix 2.

Part 3 – Agree Changes

In order for units to be designated we would need to understand how their Anaesthetic and ED departments complied against the PICs Standards.

Therefore, a further Service Evaluation process was agreed to be undertaken as part of the ODNs 2019/20 Work Programme.

In addition, the ODN would provide a draft service specification on behalf of Y&H for Level 2 care being undertaken outside of the PICUs.

Part 4 – Implement Changes

Awaiting Draft Paediatric HDU Service Specification from the CRG.

Awaiting publication of the revised PICs National Standards.

A Working Group has been established to develop a draft service specification for Level 2 care provided in a District General Hospital.

No further reporting is to be submitted for the Cquin WC4 Paediatric Networked Care.

2.2 Service Evaluation – ED and Anaesthetics

A Service Evaluation of level 1, 2 and 3 care was carried out in all of the paediatric units in our region throughout 2016 – 2017. In 2018 an update was provided by all of the DGH's and a final report was produced in early 2019.

The Service Evaluation process identified the key challenges that units are facing. Common themes that emerged were workforce issues especially middle grade doctors above ST4, education and training around critical care competencies, including advanced life support for nursing staff, and data collection. None of these were unexpected – the local teams fed back that it was very helpful to share challenges with the network team.

- There were many examples of good practice seen around the region, including team working across different specialities, in house simulation training, parent information and feedback and use of regional guidelines, particularly around transport.
- The ODN have been able to support the district general hospitals with particular challenges by providing a regional education programme which is delivered to local hospital sites. This includes the Paediatric Resuscitation and Stabilisation (PReS) day which is a multi-disciplinary simulation training day around management of critically ill children. This comprises clinical aspects of care as well as human factors. Nurse skills study days are also provided to the paediatric teams and adult nurses in ED by the network educator.
- The PCCODN is also able to share good practice from around the region such as local critical care group meetings attended by paediatrics, ED and anaesthetics where cases can be discussed with Embrace and the PCCODN as well as education/training, guidelines, equipment and governance issues.
- Regional guidelines have been updated and shared with all hospitals in the region.
- Clinical Forums organised by the PCCODN on topics including Hi flow, sepsis, status epilepticus and also provide opportunities for shared learning.
- The Lead Nurse has shared a competency package developed by one of the local hospitals, which was adapted from Time to Move On, for local implementation.
- The audit form used by the PCCODN has also been shared with the regional units to encourage them to collect PCCMDS (Paediatric Critical Care Minimum Dataset).
- The results of the Service Evaluation have been shared with the Commissioners.

Update 2018

All units were contacted again approximately one year after their original service evaluation visit and were asked to provide an update on the recommendations they received during the process. The following areas have improved following the reviews:

- Following the service evaluation visits more areas were able to access training in advanced life

support for nurses. The majority of hospitals now have at least one nurse per shift with advanced life support training.

- All units now have a minimum of two registered children's nurses per shift.
- Nurse competencies are still a work in progress but the majority of units now have adopted a skills passport.
- Data collection starting locally in many areas.
- Regional guidelines being used in all areas.
- The area that has seen no improvement is middle grade cover for level 2 care. There are still shortages all over the region and this is recognised as a national problem. The ODN will continue to monitor.
- The next stage in the service evaluation process is to undertake a service evaluation of Anaesthesia and Emergency Departments across Yorkshire and Humber commencing April 2019. This process will use the PICS Standards 2015 and RCPCH Facing the Future: Standards for Children in Emergency Care Settings 2018.

2.3 Surge and Escalation

A winter planning meeting took place in September 2018 for Yorkshire and Humber and was attended by representatives from Sheffield Children's Hospital PICU, Leeds Children's Hospital PICU, Embrace, Specialised Commissioning and Y&H PCCODN.

This provided an opportunity to discuss winter planning and capacity issues for Yorkshire and Humber. A new national SOP was introduced for 2018 and the Yorkshire and Humber version was amended accordingly.

Actions completed for Yorkshire and Humber included:

- Each PIC network area should ensure that the CMS2 system is updated every 6 hours, at 6.00 am, 12.00 am, 6.00 pm and 12.00 pm. Embrace were asked to continue this role for Yorkshire and Humber.
- Update surge protocols – an operational matrix has been developed for use in hours and out of hours – please see (<https://www.networks.nhs.uk/nhs-networks/yorkshire-humber-paediatric-critical-care-odn/guidelines/management-of-surge-escalation-in-pcc-services-standard-operating-procedure>). Ensure networks are aware of procedures, in particular the requirement to establish a Critical Care Control Group.
- Networks to refresh knowledge of levels of care that can be managed in different settings across stakeholders – Service Evaluation and Audit work undertaken by Yorkshire and Humber have ensured a sound working knowledge of care provision in our region.
- The Lead Nurse met with the North East and North West PCC ODNs and the Regional Programme of Care Lead NHSE to work through the surge process for the North of England.

In addition to the above actions, information was received around actual bed capacity versus commissioned bed capacity enabling a clear understanding of bed availability in the Yorkshire and Humber region over winter.

Weekly SITREP reports were collated by the Lead Nurse and submitted to NHS England between November and February.

The Lead Nurse communicated on a daily basis with the Matrons in Leeds and Sheffield about bed availability.

All out of region transfers were recorded by Embrace and provided to the Lead Nurse on a weekly basis.

Repatriation and discharge issues reported to the Lead Nurse if over 12 hours.

2.4 HDU Audit

Background

As part of the ongoing work programme for 2018/19, a 3 month audit of level 1 and level 2 paediatric high dependency care was carried out in the Yorkshire & Humber region. This used the 2016 Paediatric Critical Care Minimum Dataset (PCCMDS).

Process

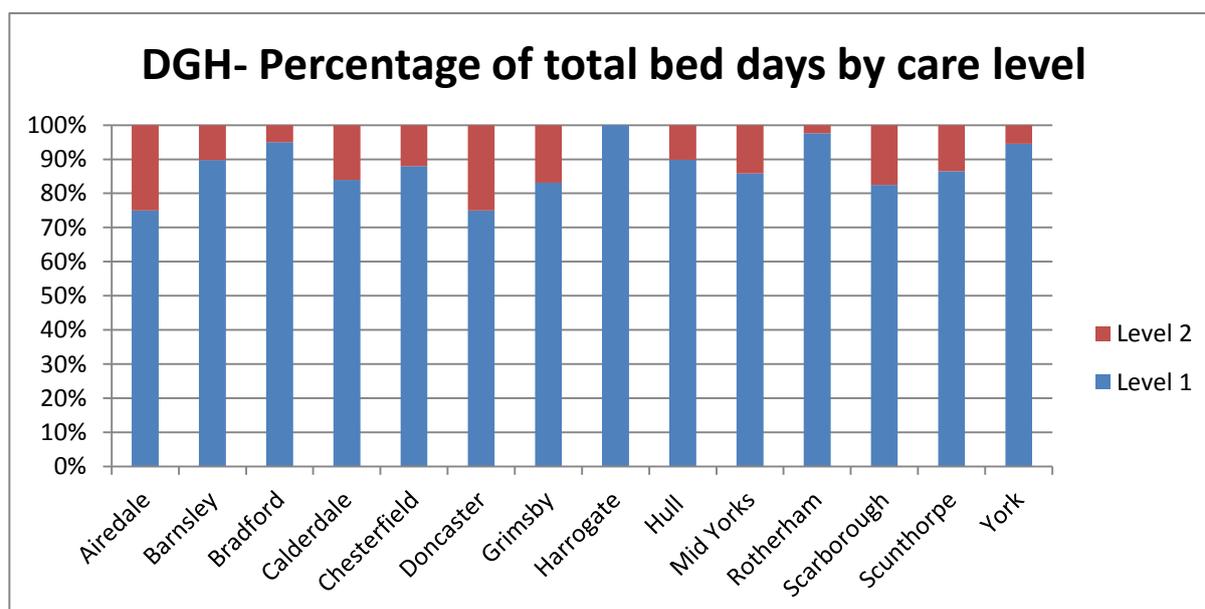
The Data collection form was sent out to all DGH's in the region as well as tertiary centres. The project ran for a 3 month period commencing Monday 5th November 2018 until Sunday 3rd February 2019. One proforma was completed for each child receiving any of the listed interventions for longer than 4 hours. The interventions on the form were based on the 2016 Paediatric Critical Care Minimum Dataset. The information was then returned to the PCCODN for analysis. An individual report of the results from each hospital was sent out to each Trust so they could comment on the data.

Results

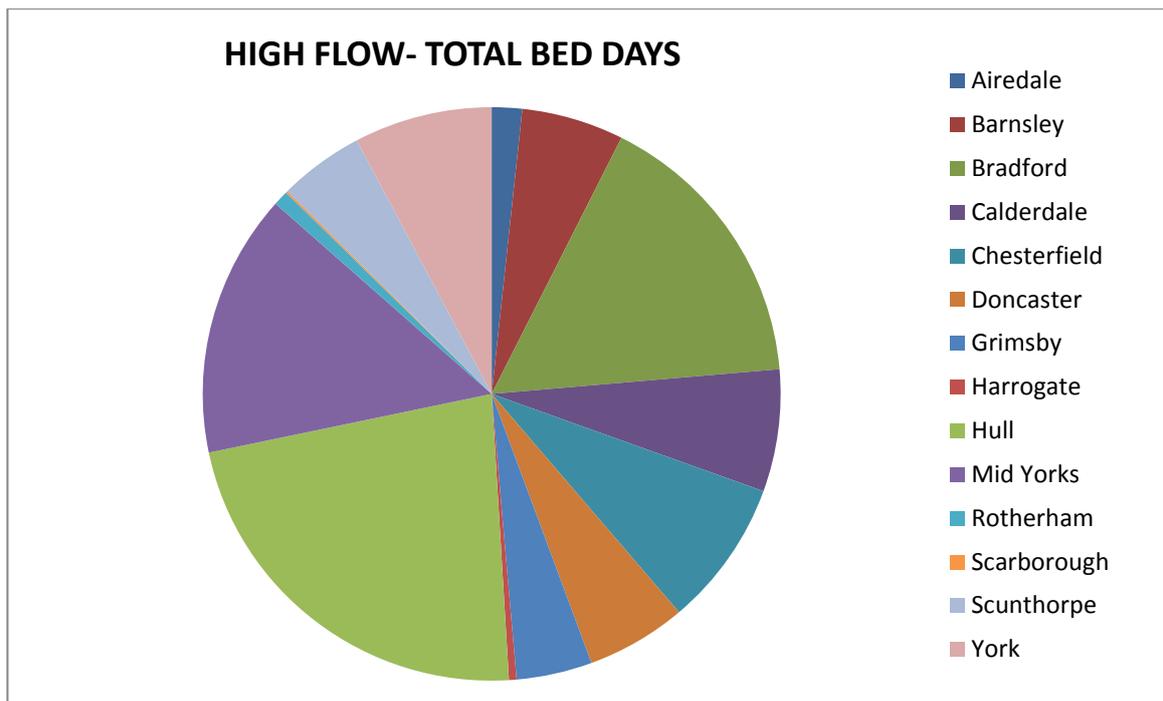
There was a 100% response rate from all hospitals in the region, which comprises 16 hospitals that are part of 14 Trusts. A total of 1,119 patients were included in the audit.

Analysis of the data from the DGH wards outside of designated Level 2 areas shows that:

- 13 hospitals provided some Level 2 care during the audit period. *The following graph represents the amount of level 1 and 2 work provided by each of the district general hospitals during the audit period.*



- 10 DGH units out of 14 were delivering level 2 non- invasive respiratory support, including CPAP.
- Other Level 2 work within the DGH's is predominantly stabilisation e.g. fluid boluses, inotropes, apnoea requiring bag valve mask ventilation.
- High Flow nasal cannula oxygen therapy accounted for 944 bed days. All DGH's except one are now able to provide humidified high flow nasal cannula oxygen therapy. *The pie chart below shows the total bed days per unit for patients receiving high flow.*



- The amount of level 2 work provided in the DGH setting equates to approximately 3 extra level 2 beds per day.

2.5 Long Term Ventilation Working Group – Sian Cooper, Clinical Lead (North)

2.5.1 Aims and Purpose of the Group

A Working Group was established in January 2019 in response to the NHS England National Paediatric Intensive Care Review and engagement with the members of the Yorkshire & Humber Paediatric Critical Care ODN as part of the on-going work programme of the Network. Sian Cooper is Chair on behalf of the Paediatric Critical Care ODN with support from Karen Perring.

The Group will work collaboratively to provide up to date guidance to support the management of children requiring long term ventilation in Yorkshire & Humber. This guidance will incorporate the latest evidence base and include clinical, ethical, operational and logistical aspects.

The aim will be to:

- Provide an up to date document for the whole region of Yorkshire & Humber.
- Improve equity of access to local and specialist services, including critical care.
- Ensure consistent application of standards across the region.
- Enable and facilitate the provision of safe, high quality care as close to home as possible.
- Improve outcomes, including experience and quality of care for patients.
- Enhance collaborative networking throughout the region.
- Ensure public and patient engagement.
- Engage with commissioners to support the process.

2.5.2 Membership

The Group is open to all relevant stakeholders across Yorkshire & Humber. Members of all units providing specialist services are represented on the Working Group and will be consulted when guidance is being developed. The Group will meet quarterly.

2.5.3 Accountability

Individual group members and subgroups will develop work with representation from each tertiary unit with DGH representation where possible. Consultation will be achieved more widely by the YHPCCODN and other regional channels of communication identified by the group.

The YHPCCODN will have overall responsibility for consultation, sign-off of the final work produced, dissemination via the Networks, and for future review.

Accountability at Board level is provided by the Executive Lead.

2.5.4 Progress

The Group has met twice with all stakeholders now represented on the Group, with the exception of the Neonatal Network. Parent/Carer Focus Groups have been held in both Leeds and Sheffield Children's Hospitals, and a mapping exercise to determine total numbers and regional distribution of patients has been carried out. Agreement has been reached to use the West Midlands Quality Review Service (WMQRS) Quality Standards as the benchmark for best practice nationally, and priorities have been set to work towards over the next year.

3. National Pilot Site – Emma Andrews, Network Manager

In September 2018 the Y&H ODN was invited to be a test bed site for the national review of paediatric critical care and surgery in children, following the submission of an expression of interest over the summer period.

This process was undertaken over a 6 month period and sought to allow NHS England to examine the establishment and working practice of the ODN. The team were involved in weekly teleconferences and met with both the national team and a team from McKinsey, a management consultancy who were engaged to develop a toolkit and data modelling tool. It was also a great opportunity to reflect on the excellent engagement and robust structures we have in place for our Network, and a realisation again of how far ahead we are in Yorkshire and the Humber in terms of the establishment and engagement of the Network.

We would have liked the National Team to attend some of our events, such as the Clinical Forum, Working Groups and Education days to allow them to see first-hand how the Network works, but this was not possible. We did however provide comprehensive feedback and details of the activities we undertake.

Following the completion of the 6 month test bed process a number of recommendations have been made, the most significant of these is the mandate to establish ODNs in all areas across the country. In terms of priorities, there were none recommended that are not already on our work programme.

A toolkit for the establishment of ODNs and a data modelling tool have been published via the NHS Networks platform and are available to view via a registration process. We will continue with a business as usual approach as many of the first year KPIs we have already achieved as a Network.

Thank you to all those involved and who responded to the national team on behalf of the Network.

4. Education – Elaine Eckersley. Update provided by Karen Perring Lead Nurse

This report contains a summary of the PCCODN training activity for 2018.

The PCC ODN education program continues to develop, changes are made according to the PCCODN work priorities and the needs identified by the individual units.

The Study days consist of multi professional learning and nurse education days.

The multi professional days known as the Paediatric Resuscitation & Stabilisation (PReS) include clinical simulations, the teaching is focused on clinical skills, knowledge & team dynamics. The simulations aim to be as realistic as possible, delegates include nursing, anaesthetic, paediatric, and emergency department teams.

Teams are encouraged to share knowledge during the debrief discussion/learning conversation which follows each simulation. This discussion encourages teams to revisit their own internal resources and access to the PCCODN clinical guidelines. It enables internal networking between professionals that would only work together during an emergency.

There is emphasis on recognition of deterioration and the subtle clinical signs of serious illness such as sepsis. Resuscitation and stabilisation with appropriate escalation are covered on all training days.

PReS simulations can be pre-planned or reactive to identify risk where local learning and latent risk can be identified and further incidents prevented e.g. tracheostomy emergencies.

In order to ensure teaching credibility one of the PCCODN Clinical Leads is involved in the PReS education day, this would be Dr Sian Cooper for the north and Dr Rum Thomas for the south

The PCCODN continues to support training days specifically for nursing staff, the content can be flexible according to the speciality.

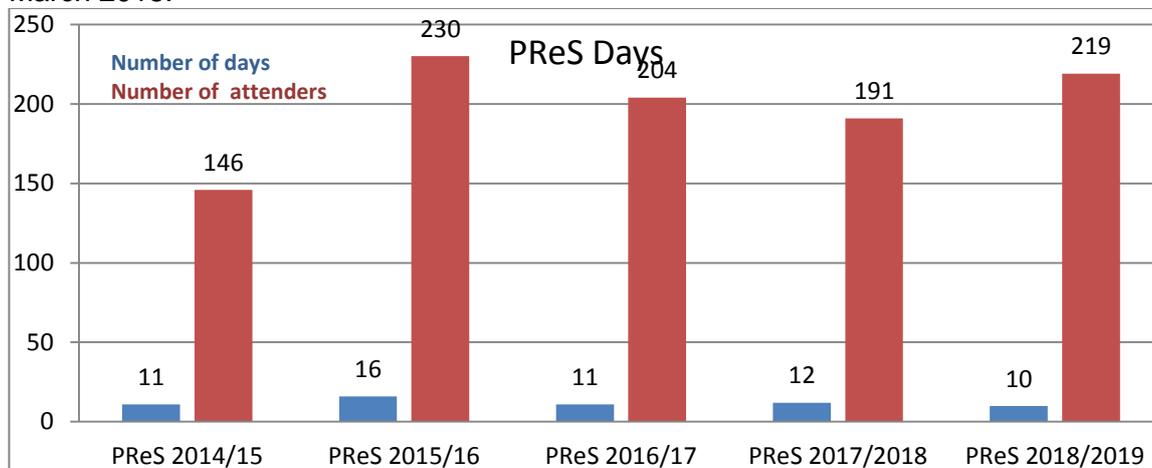
Meetings with the local nurse managers/education leads to plan the final content of the days ensures that duplication with local training is avoided and allows the day to remain focused with specific learning outcomes.

Drug calculations and preparation of infusions continues as an important element of the training and relates to patient safety, the aim is to reduce the risk of errors. The content may include some elements from the skill passport.

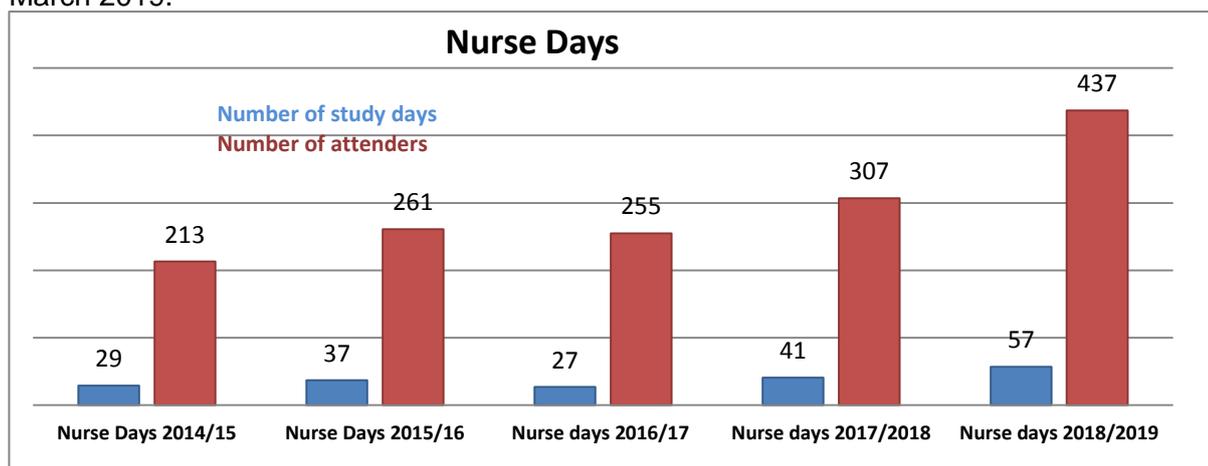
The nurse training days are facilitated by the educator as no further PCCODN help is needed. The PCCODN educator works in close partnership with local educators, they are encouraged to assist with education events and are able to develop their own teaching skills and knowledge of paediatrics to support their local teams.

4.1 Attendance

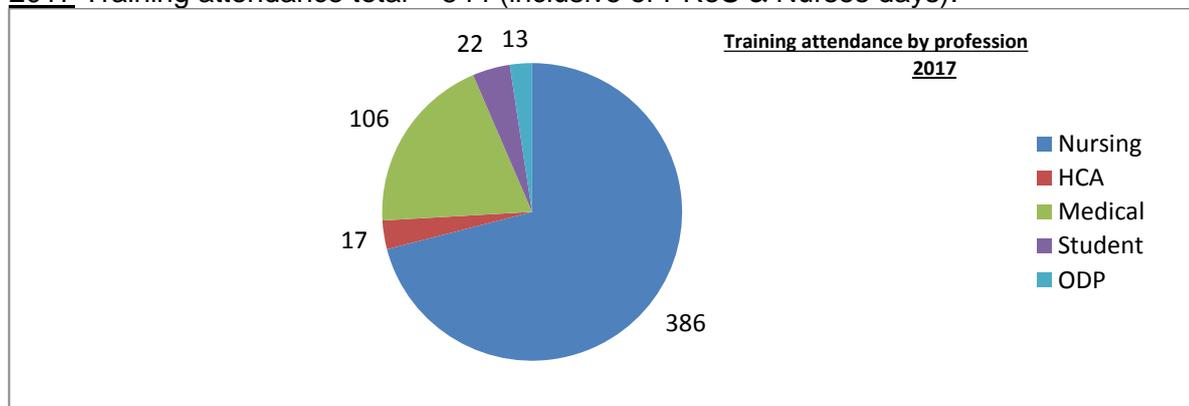
The attendance at PReS days April 2018 –March 2019 shows an increase compared to April 2017 – March 2018.



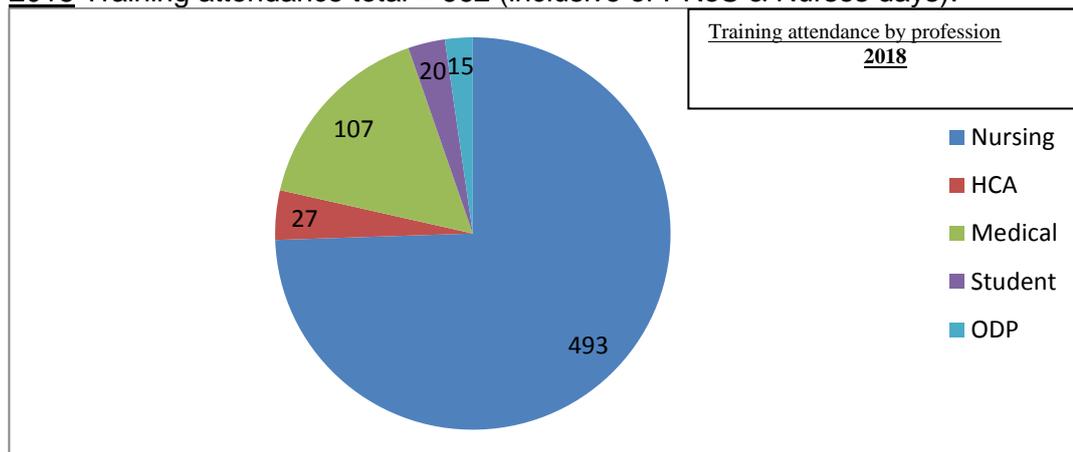
The attendance at Nurse training days also demonstrated a sharp increase in the period April 2018- March 2019.



2017 Training attendance total = 544 (inclusive of PReS & Nurses days).



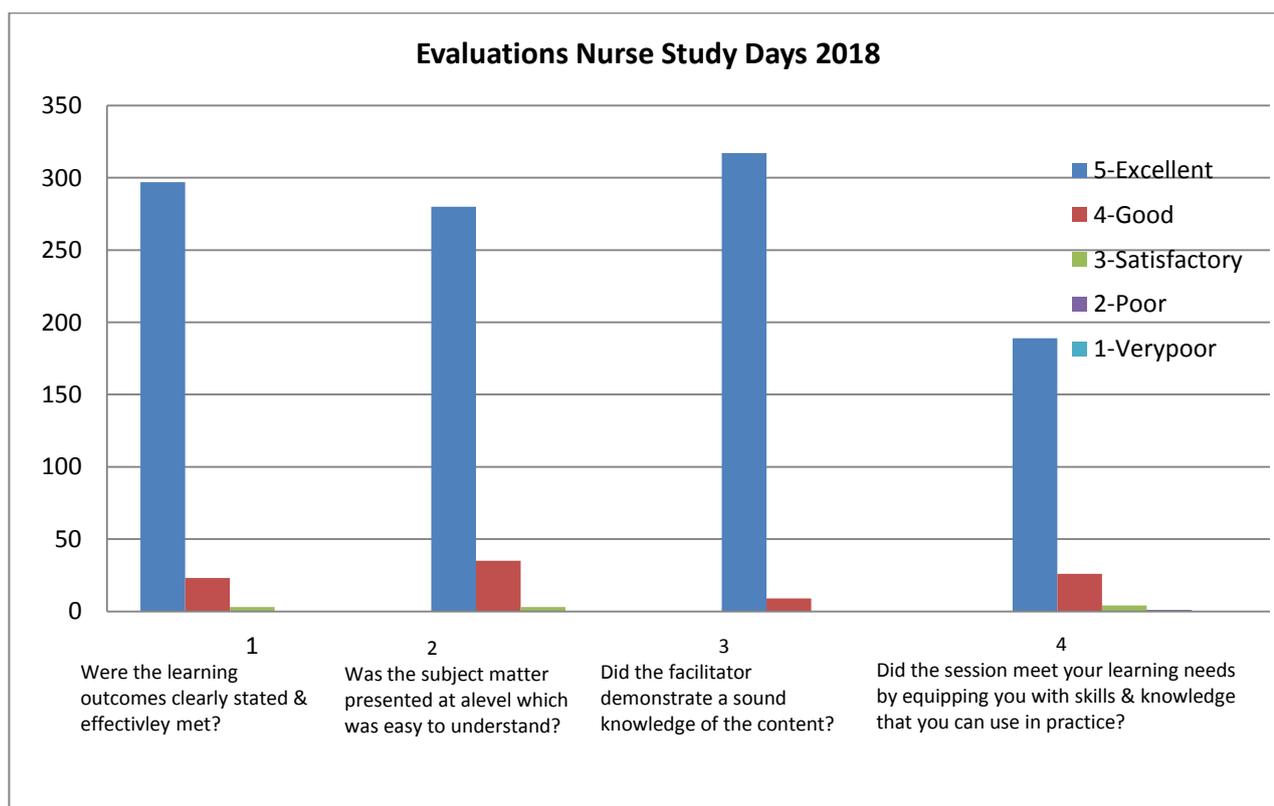
2018 Training attendance total = 662 (inclusive of PReS & Nurses days).



Nursing attendance has increased in the period January to December 2018 compared to January to December 2017. However, the nurse attenders will always dominate due to the larger number of nurse days offered.

Evaluations 2018

Nurse day evaluations remain very positive with most scoring excellent for the questions asked.



PReS day evaluations also remain very positive with most scoring excellent for the questions asked.

4.2 2019 Update – Karen Perring

Following a review of the 2018 education programme by the PCCODN Core Team we have made a number of changes to the programme for 2019.

4.3 Nurse Education

Due to the National PIC Review, our findings from Service Evaluation work and ongoing work around the skills passport and nurse competencies for paediatric critical care, the PCCODN reviewed the current provision of nurse education in the Yorkshire & Humber region.

The network educator carried out a scoping exercise, visiting teams around the region to discuss competencies and the nurse skills passport. After much discussion and reflection on previous work it was felt that a regional programme focussed on level 1 paediatric critical care competencies within the skills passport would be the best way forward. A regional nurse education programme has been developed and will be launched in spring 2019. The aims/objectives of the day are:

1. A systematic "paediatric approach" to caring for the critically ill child.
2. Recognition of the deteriorating child.
3. Identify when to escalate care and use of SBAR.
4. Identify use of appropriate clinical interventions to manage critically ill child.

It was agreed that a standardised approach to this training would enable nursing staff to add this day to their passport and ensure consistency if they were to move to different hospitals within the region. This has been communicated to all the paediatric Matrons/Ward Managers across the region.

4.4 Multi-professional Education

The PReS (Paediatric Resuscitation and Stabilisation) day programme has been extremely successful over the last 5 years, however last year saw an increasing number of cancellations due to difficulty in attendance with correct skill mix of staff. After reviewing the evaluations and training numbers the decision was taken to try running Regional PReS days for 2019 and to divide the hospitals into groups in order to improve the chances of the correct attendance and skill mix. The programme has been updated to include 4 simulations and a question and answer session at the end of the day.

5. Clinical Leads

The Clinical Leads continue to support the delivery of services across the Network region, both by providing ad hoc expertise and independent advice where required, design and organisation of the Clinical Forum programme, but also supporting the DGHs (in partnership with the Lead Nurse) with their critical care review meetings. Over the past 12 months additional work has been undertaken to ensure that meetings are occurring in all hospitals across the region where possible.

These meetings are usually attended by representatives from the ODN, local PICU, the DGH and Embrace and are structured around two-way feedback with a focus on learning and improving systems. The meetings also offer the opportunity to review and discuss new or revised local guidelines, plans for procuring equipment, local training needs and how they are met. The ODN also uses this forum to update the DGHs and Embrace on the work of the ODN and any work at a national level that might impact on the care of the critically ill or injured child or young person.

6. Clinical Forums 2018/19 Dr Sian Cooper Clinical Lead (North)

The PCCODN hosts quarterly Clinical Forums; three half days each with a particular theme and the fourth slot being taken by the Annual Conference. The aims are to raise awareness of important or challenging issues, and to share ideas and best practice around the region.

6.1 Format

The Forums are usually 3 or 4 hours long and take place in Wakefield or Barnsley, with a broad invitation to staff from all hospitals in the region to attend. The Forums this year have been based on topics that have been requested by ODN members, with experts invited to speak. This year, one took the form of an engagement event to link in to the work on data collection and service evaluations that the ODN has undertaken on all paediatric units in the region.

6.2 Aims

- To engage and involve ODN membership.
- To share best practice and latest evidence.
- To share useful learning and expertise.
- To learn from complex or challenging clinical cases.

6.3 Topics

6.3.1 Has Time Moved On? – 17 September 2018 (41 attended)

Brief timeline of events in Y&H since publication of RCPCH Time to Move On and PICS standards.	Sian Cooper, YHPCCODN Clinical Lead (North)
YHPCCODN presentation to Specialised Commissioning Oversight Group.	Sian Cooper, YHPCCODN Clinical Lead (North) Karen Perring YHPCCODN Lead Nurse
Update on progress of NHS England review of paediatric critical care and specialised surgery review	Sian Cooper YHPCCODN Clinical Lead (North)
Proposed plans for YHPCCODN: <ul style="list-style-type: none"> • New structure. • Work plan. • Designation of level 2 PCC units. 	Helen Brown YHPCCODN Network Director
Round table discussions: <ul style="list-style-type: none"> • Implications for commissioners, managers, clinicians and patients. • What do you see yourselves delivering? • What would you need to support this change? • What would be the impact upon your services? 	All

6.3.2 Pitfalls in sepsis / Transition – 6 November 2018 (57 attended)

Challenges in sepsis	Mathew Kurian, Consultant Paediatrician Doncaster & Bassetlaw NHS Foundation Trust
A deteriorating patient	Mark Winton & Rachel Riddell Consultant Paediatrics and High Dependency Sheffield Children's Hospital Fatemah Rajah, Embrace Transport Consultant
I wish I had thought sepsis!	Rachel Riddell Consultant Paediatrics and High Dependency Sheffield Children's Hospital
When is it not sepsis?	Edward Snelson Consultant Paediatric Emergency Medicine

	Sheffield Children's Hospital
Update on transition in critical care	Clare Windsor Consultant Adult Intensive Care Rotherham General Hospital

6.3.3 Improving outcomes in paediatric cardiac arrest – 12 March 2019 (66 attended)

Restart a Heart Campaign	Andy Lockey Consultant in Emergency Medicine, Calderdale Vice President, Resuscitation Council UK
Reducing cardiac arrests in the Paediatric Intensive Care Unit	Khurram Mustafa Y&H Future Leaders fellow in Quality Improvement ST6 GRID trainee in Paediatric Intensive Care, Leeds
The benefits of CPR coaching	Ramesh Kumar Consultant in Paediatric Intensive Care, Leeds
You've got them back... now what? All you need to know about post cardiac arrest care in the first four hours	Barney Scholefield Consultant in Paediatric Intensive Care & NIHR Clinician Scientist, Birmingham Children's Hospital
Paediatric ECMO delivery in Yorkshire & Humber	Santosh Sundararajan Consultant in Paediatric Intensive Care, Leeds
UK research on management and outcomes in paediatric cardiac arrest	Barney Scholefield Consultant in Paediatric Intensive Care & NIHR Clinician Scientist, Birmingham Children's Hospital

6.3.4 Annual Conference, Wetherby – 8 June 2018

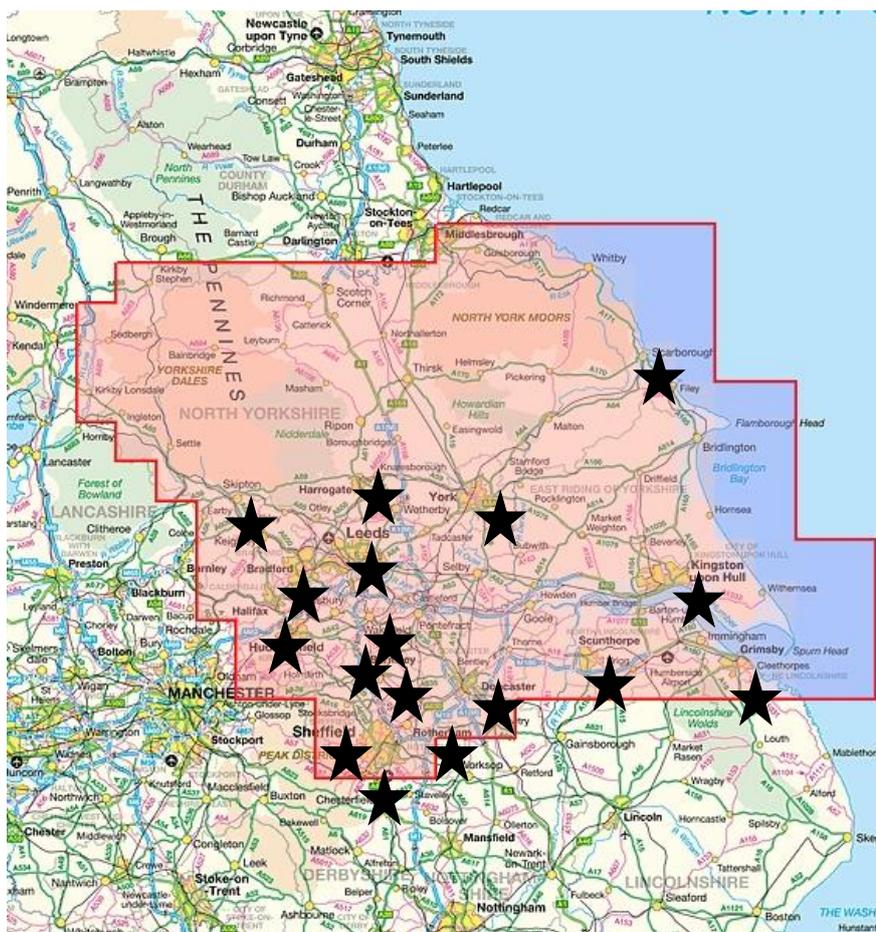
Every year the PCCODN hosts an annual conference aimed at all staff in Yorkshire and Humber with an interest in the pathway of the critically ill child. This event has been well attended by around 70 to 80 delegates in the last few years. Speakers are mostly from within Yorkshire and Humber with occasional invited speakers from wider afield.

This year the topics included:

- PCC ODN network updates, including education and Clinical Forums
- HDU audit and service evaluation outcomes
- National Paediatric Intensive Care Review update
- Children's airways in the Wild West
- Critical care transition – the Sheffield experience
- Mind the Gap – the generational impact
- "Bee prepared" – learning from the Manchester Arena Major Incident

Constructive comments and suggestions for improvement are always reviewed each year with a view to the next conference, and we always welcome suggestions for themes or topics for the following year.

6.4 Engagement



Specialty

- ✓ Emergency
- ✓ Anaesthesia
- ✓ Paediatrics
- ✓ Transport
- ✓ Intensive care
- ✓ Palliative care
- ✓ ODNs

Role

- ✓ Nurses
- ✓ Junior doctors
- ✓ Consultants
- ✓ Advanced practitioners
- ✓ Educators
- ✓ Managers

6.5 Evaluation

We ask attendees to complete an evaluation at every event to tell us what they liked best about the event, what they would want to change, and suggestions for future events. The suggestions for the coming year included:

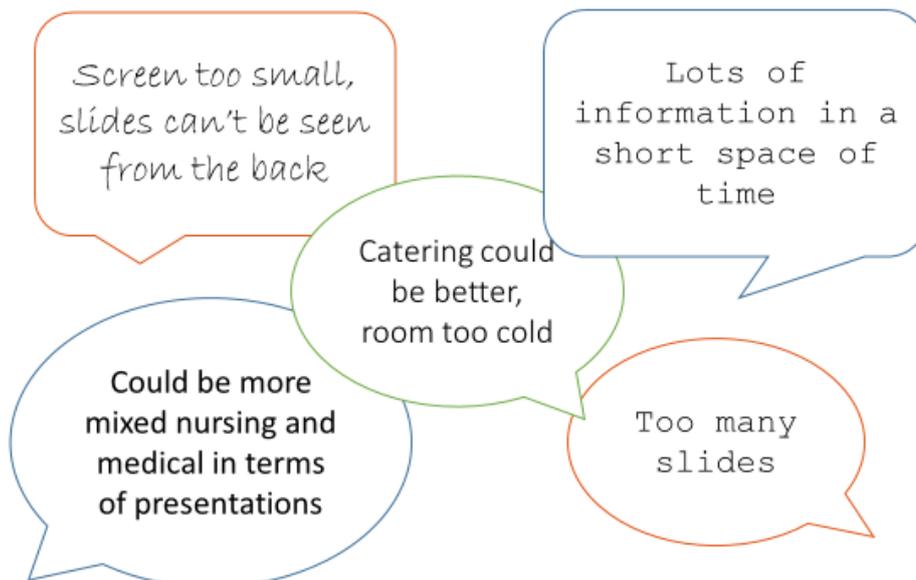
- Post event care and transfer to PICU
- Management of paediatric major trauma
- Cardiac management in non-cardiac centre
- Neurological problems
- Asthma
- Diabetic ketoacidosis
- Sepsis
- Advanced care planning
- Haemodynamic Support
- Ethics and the law.

We also collected free text comments with a selection included on the next page.

What did you like most about the event?



What did you like least about the event?



7. Paediatric Major Trauma Guidelines – Sian Cooper, Clinical Lead (North)



7.1 Aims and Purpose of the Group

A Working Group was established in September 2016 in response to a request from the Yorkshire & Humberside Major Trauma Regional Reference Group to develop a Regional Paediatric Major Trauma Guideline, with Sian Cooper as Chair on behalf of the PCCODN.

The region consists of three Major Trauma ODNs, and four Major Trauma Centres – two adult centres, one paediatric and one combined adult and paediatric. It was felt that there should be a consistent approach across the region, particularly in relation to guidance for Trauma Units, and that it would be helpful to produce one document that could apply to all Paediatric Major Trauma in Yorkshire & Humber.

The group has worked collaboratively to produce a working document that provides guidance for Trauma Units and Major Trauma Centres receiving children with major trauma. This guidance incorporates the latest evidence base and best practice for treating major trauma in children. It is a clinical document, incorporating operational and logistical aspects, and reflects current pathways in Yorkshire & Humber. The aim is to:

- Provide an up to date document for the whole region of Yorkshire & Humber.
- Improve equity of access to Major Trauma Centres and critical care services.
- Ensure consistent application of standards across the region.
- Improve outcomes including experience and quality of care for patients and safer service delivery.
- Enhance collaborative networking throughout the region.
- Ensure public and patient engagement where possible.

7.2 Membership

The group was open to clinicians from all units receiving paediatric major trauma patients. Members of all three Major Trauma ODNs, the two paediatric Major Trauma Centres (MTC) and some of the Trauma Units (TU) were represented on the working group and have been involved in developing the guideline in collaboration with their colleagues around the region. There was also representation from Embrace.

7.3. Accountability

Individual group members and subgroups developed sections of the guideline with representation from each MTC and with TU representatives where possible. This was a large piece of collaborative work with wider consultation once it was complete via the Yorkshire and Humber Major Trauma Regional Reference Group (RRG) and also the Paediatric Critical Care ODN.

The RRG retains overall responsibility for consultation with the Major Trauma ODN membership, signing off the final version of the guidelines, dissemination of the guidelines via the Networks, and for review of the guidelines in the future. The working group will meet again when the guidelines are due for review.

Accountability at Board level is provided by the Executive Lead.

7.4 Progress

The final guideline was ratified and published in July 2018, with an amendment in December 2018 and review date July 2021. It was made available via all Major Trauma Network websites, the Embrace website, and on our own YHPCCODN website.

8. Work Plan Priorities 2019/20

- Long Term Ventilation.
- Development of Service Specification for the provision of Level 2 Critical Care outside of a Tertiary Centre.
- Continue to provide relevant education programme and events.
- Continue to work with ICS/STP to support the delivery of integrated care.
- Continue to work with NHSE in the further development of ODNs nationally.

9. Embrace Report

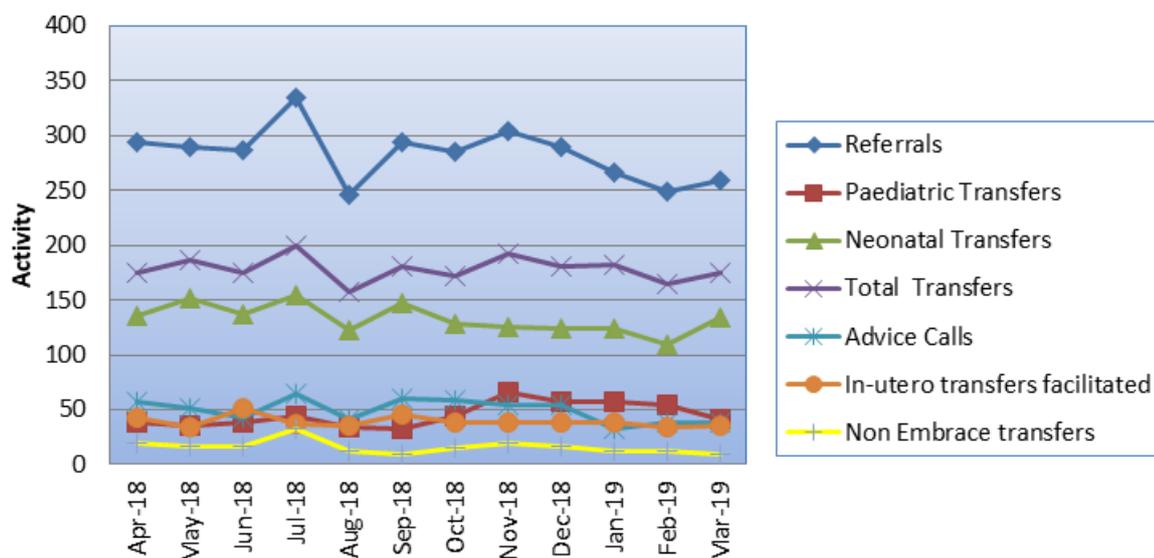
9.1 Highlights

- Embrace received 3,397 referrals and activated teams for 2,139 transfers of infants and children across Yorkshire, the Humber and beyond.
- Embrace completed 31 helicopter and 19 fixed wing missions.
- Fully accredited by the Commission on Accreditation of Medical Transport Systems (camts.org and camtsglobal.org) for critical care transport by ground, rotary wing and fixed wing.
- Accredited partnerships with Yorkshire Ambulance Service NHS Trust, IAS Medical, Air Alliance and The Children's Air Ambulance.
- Key performance reporting to PICANet, Neonatal Transport Group and the Ground and Air Medical qQuality Transport (GAMUT) database.
- Introduction of Datix incident reporting and risk management software.
- National Peer Review of the service by NHS England.
- Introduction of new transport specific uniforms.
- Commissioning of three new road ambulances.

9.2 Activity 2018/19

Consolidated activity	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Referrals	294	289	287	334	246	294	285	304	290	266	249	259
Paediatric Transfers	39	36	38	44	34	33	44	66	57	58	54	41
Neonatal Transfers	136	151	137	155	123	147	128	126	124	124	110	134
Total Transfers	175	187	175	199	157	180	172	192	181	182	164	175
Advice Calls	57	51	43	65	41	60	59	54	55	32	39	39
In-utero referrals facilitated	43	34	52	37	35	45	39	39	38	39	34	35
Non Embrace transfers	19	17	17	33	13	9	15	19	16	13	12	10

Embrace Activity 2018/19



10. Financial Performance 2018/19

Yorkshire & Humber Paediatric Critical Care Operational Delivery Network Income and Expenditure for year ending 31 March 2019

Income:	£'000s
Income from NHS England 18/19	140
Winter pressure funding	40
Existing reserves	65
Pay expenditure:	
Medical - Consultant	0
Nursing	106
Information	1
Management/admin support	35
Non-pay:	
Trust overheads (8%)	11
Additional expenditure	9
Total expenditure	162
Reserves c/f	83

Resource allocation plan 2019/20 onwards:

Pay expenditure:		£'000s
Medical - Consultant	2 PAs	27
Nursing	2.5 WTE	129
Information		10
Management/Admin support		41
Non-pay:		
Trust overheads (10%)		14
Expenditure		10
Forecast annual spend		231
Annual overspend		(91)

Reserves will be available in 2019/20, and will be in addition to the funding allocation for 2019/20.

As such, all unspent funding will remain ring fenced within the PCCODN budget.

11. Appendices

The following Appendices are attached as separate documents:

Appendix 1 – Service Evaluation

Appendix 2 - HDU Audit 2017 Summary