

MoVE – A family centred approach to early mobilisation in the PICU



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Background

There is a plethora of literature supporting the benefits of early mobility for adult patients in the intensive care unit. However, evidence in paediatric populations is still emerging. The Paediatric Intensive Care Unit (PICU) at the Royal Hospital for Children (RHC) has taken the opportunity to be at the forefront of this exciting initiative. As the first PICU in the UK to deliver such a service, we are overcoming prevailing barriers to mobilising children admitted to PICU, particularly when ventilated. Evidence suggests when parents can be involved in their child's care whilst in PICU it reduces trauma and distress. (Davidson et al, 2012) Move on Ventilators Early (MoVE) uniquely addresses the benefits of early mobility whilst integrating families into the daily activities of their child.

Aim

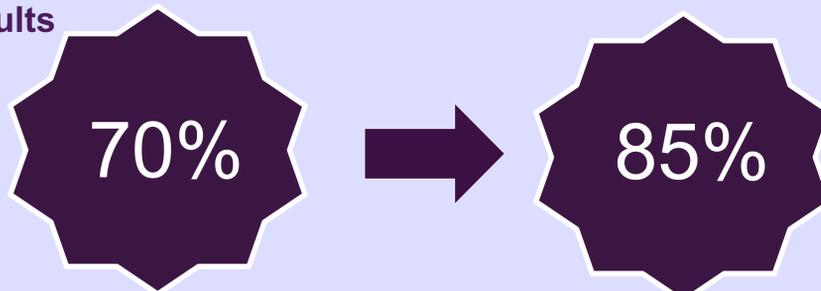
The aim of MoVE was to create an environment where patients could mobilise and take part in activities irrespective of being admitted to PICU. At the core of this, we wanted families to feel empowered in setting daily activity goals and supported to be involved in said activities. In line with NHS Scotland's 20/20 vision, we placed patients and families at the heart of the development and ongoing evaluation of the service.

Method

Each morning, a physiotherapist will screen each child and allocate them to a risk stratified group (Fig. 1) Once allocated to a group, goals are jointly set with families and nursing staff.

Since launching MoVE the change in culture within PICU has resulted in nursing staff continuing to empower families when physiotherapists are not present (ie weekends and public holidays).

Results



Percentage of parents participating in at least 1 early mobility activity daily for first 80 days of MoVE

6 month average (Nov-April) daily parental involvement

Parent and patient feedback has been overwhelmingly positive. Parents enjoy seeing their child progress through the MoVE groups while playing a crucial part of that process. Many parents feel that being able to participate in more activities and increased mobility equates to less ventilator time and time in PICU.

- "I remember pedalling and it felt good to move my legs."
- "Everyday I walked further and looked forward to my sessions."
- "I felt so many emotions witnessing these sessions it's difficult to articulate. They included hope, happiness, amazement, pride."
- "I mean initially we were terrified of even handling [her] when she was over in NICU. But obviously now we get stuck in here"

"I can take a photo of him in bed, and a photo in the chair. Same boy, same condition, same illness...but he looks better in a chair"



"Through the MoVE programme he is **stronger** than we could ever have hoped as we leave today"

MOVE Level	Inclusion Criteria	Activity
(1) Egg	Intubated: FiO2 >60% OR PEEP >8 (unless LTV) Grade of Intubation>1 New tracheostomy insertion prior to first change (2/7 non vent or 1/52 vent) Medical paralysis Inotropic support other than milrinone	Lights on or blinds opened by Ram Lights dimmed and blinds down by 8pm HOB >30 degrees Normal developmental Positioning Passive ROM by nursing staff/parents Supine Pedals
(2) Chick	Intubated/tracheostomy: FiO2 <60% OR PEEP <8 (unless LTV) NIV: FiO2 >60% NIV with no breaks HFNC >8Ltr flow Haemofiltration Groin Line	Egg activities plus: Cuddies with parents Sitting up in bed Sitting over edge of bed (SOE0B) Mat play Consider UTS in chair Consider mobilising
(3) Penguin	Trache/NIV FiO2 <60% HFNC 8 or <8Ltr flow Baseline Respiratory support or LTV EVD cleared by Neuro surgeons	Egg and Chick plus: Active Bed Ex's UTS in chair Sit to stand/Marching on spot Mobility as per trunk control ability Stroll in buggy

Contraindications

- ECMO
- Open Chest
- Open Abdomen
- Unstable #
- Neuro-Protection
- Uncleared Neck or Spine
- < 24 hrs admission to PICU

Fig. 1.



Conclusions

The MoVE initiative has proven to be an effect platform to engage parents with their child's care whilst in PICU. Feedback has shown that we are able to normalise the environment for these patients. Although there is limited data on parents experiences before the project launch, the culture within our unit has shifted to ensure that parents are able to regularly interact with their children in a way that was not previously possible.

Acknowledgements

Thank you to all the staff in PICU who have wholeheartedly embraced this initiative.

Thank you to the families who have been involved and let us be part of your journey.

Using a random number generator, data is collected on two days per month. On those days all patients take part in the audit to determine; number of activities achieved, parental involvement, number of goals achieved and if mobility was achieved by day 3 of admission.

Parent feedback has been gathered by physio led interviews, twitter comments and through every day interactions with parents.

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