

# Breath of Fresh Air! Paediatric Respiratory Physiotherapy Outreach Rapid-response Service

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## Project Background:

Children and young people (CYP) with complex Cerebral Palsy (GMFCS IV and V) have abnormal muscle tone and postural deformities, which restrict lung function. These CYP are susceptible to recurrent respiratory infections. Relaxation of Covid-19 measures in 2021 prompted a global, non-seasonal surge in Respiratory Syncytial Virus (RSV), a common childhood lower respiratory tract infection. RSV causes bronchiolitis or pneumonia, often hospitalising children. To protect these vulnerable CYP a proposal was made to pilot an outreach-in reach, rapid response service.

*“For children who are in and out of hospital all their life, someone coming to the house to help with respiratory physio really relieves the stress and anxiety.”*



## Project Aims/Objectives:

Based upon population health strategies, the project aimed to deliver cost-effective, prudent, innovative, sustainable healthcare to the CYP of Swansea Bay University Health Board (SBUHB) area.

The objectives were to reduce A&E/PAU/hospital admissions, reduce length of stay with early supported discharge, to educate parents/carers to self-manage the CYP and improve quality of life (QoL) for the CYP and their family.

## Project Approach:

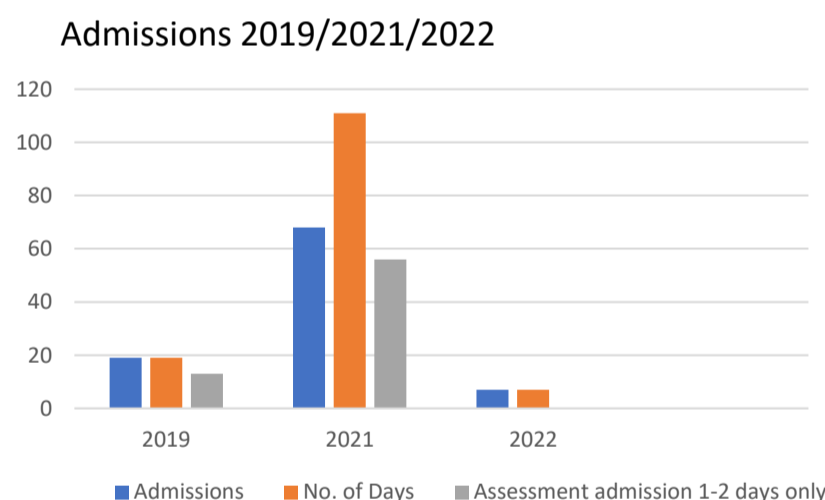
**This is the first paediatric outreach respiratory service in Wales for CYP with complex disability.**

Services were benchmarked across the UK and a Nottingham-based model was adapted for our local population.

A collaborative approach was taken, engaging parents, Allied Health Professionals and medics to create a new service delivery plan. Questionnaires were issued to parents to establish baseline data and pathways were streamlined in an iterative approach to feedback.

## Project Outcomes:

*“Last year we had over 10 ambulance admissions... Since having access to the team we have had no hospital admissions.”*



- **16 admissions were prevented, plus an additional 55 bed days saved** compared to 2021 data
- **6 admissions prevented; 5 bed days saved** compared to 2019 data
- Average of **14 bed days saved per annum** for assessment-only admissions lasting 1-2 days each
- Cost benefit over 8-months a minimum of **£28,350**

*“It stops him getting exposed to extra infections on the wards that make him very ill.”*

## Project Impact:

### Data from PROMs and PREMs:

- **significant improvement in QoL measures for whole family**
- **improved patient-centred care/MDT working**
- **Reduced parental anxiety**
- **Improved sleep**
- **Improved voice projection**
- **Increased alertness**
- **Improved ability to chew and swallow food effectively**

## Key Conclusions:

Introducing a paediatric respiratory physiotherapy outreach-in reach rapid-response service would have a significant impact on social benefit to CYP and their families as well as to Health staff and educational providers. All reported feeling more empowered to manage respiratory symptoms autonomously and to escalate concerns to the right person appropriately.

Parents feel empowered to safely care for their CYP at home and feel **“the service is invaluable.”**

## Next Steps:

- Acquire permanent funding for an outreach service in SBUHB
- Spread and scale the project across Wales
- Development of digital technology (Telehealth) – forecasting/ prophylactic intervention
- Collaboration with Swansea or Cardiff University to research impact of DNase on lung function and infection rates for children with Cerebral Palsy

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# Quotes and AHA Certificate:

***“We feel as a family this type of service is very beneficial and very much needed.”***

***“...a huge thank you to your inpatient seniors [physiotherapists] for all the extra training and teaching that they have offered on call staff this year....really helped with on-call staff confidence and competence with paediatric patients.... increase communication and support ... has been excellent.... been extremely grateful for the help. We have also already seen a decrease in call out rates already from the cascade training for nursing staff, so thank you again for supporting this.”***

***Physiotherapy On-call Lead***



***“I just wanted to commend the expertise and support given by ... and ... for us in Ysgol ... in relation to our complex CYP, in particular, those with respiratory issues.***

***As SBUHB paediatric nurses working full time in the school we are encountering increasingly more complex and indeed unwell pupils. Having physio support in person or at least virtually is invaluable in helping with multidisciplinary decision making and management of those pupils which ultimately supports the families and can keep them out of hospital or appropriately admitted before their condition becomes urgent.***

***Today was an example of a challenging situation in school in which both ... and ... together supported school staff to a very high standard ensuring a child's acute health needs were met timely and ongoing management was appropriate and safe.”***

***SBUHB Paediatric Nurses***

***“... so far with their guidance we have managed to stop (...) going into hospital with the reoccurring colds and viral infections he has had.”***

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