

2017

Commissioning Tool for Community Paediatric Respiratory Physiotherapy Posts



Written and compiled by the ACP
Respiratory Committee

Commissioning tool for Community Respiratory Paediatric Physiotherapy Posts

Introduction

The following tool has been developed by the APCP Respiratory Committee to give physiotherapy managers the evidence needed to support a business case for a community paediatric respiratory physiotherapy post. It includes relevant research articles and details of successful business cases from trusts across the UK.

This tool has been developed to be used in conjunction with the CSP information paper: [Making the business case: It's your business](#), July 2012. There are also further business case tools available on the CSP website.

It is recommended that managers develop a robust training and clinical supervision plan for these often isolated posts.

Background

The increasing demand for specialist paediatric respiratory care in the community is being driven by a variety of factors:

- There are increasing number of children and young people surviving with multiple and profound impairments in whom respiratory pathology is a major contributing factor to reduced quality of life, morbidity, and mortality (Winfield et al 2014).
- There are increasing numbers of these children and young people with severe disability and complex needs living in the community aided by technologies such as gastrostomy feeding, tracheostomy and home ventilation (Cohen et al 2011, Fraser et al 2012). The current economic and political climate has also propelled a drive toward community-based care for long term conditions (Winfield et al 2014).
- Children and young people with severe disability and complex needs often have problems with coordination of swallow, gastro-oesophageal reflux, scoliosis, restrictive lung disease and respiratory secretions clearance which puts them at risk of recurrent chest infections (Seddon et al 2003).
- Chest infections in these children and young people lead to frequent emergency department attendances and hospital admissions which are often prolonged and may involve paediatric intensive care (Mahon et al 2004, O'Mahony et al 2013). They consume considerable emergency and acute paediatric health services (Newacheck

et al 2004)

- Children and young people with respiratory conditions like Cystic Fibrosis, Primary Ciliary Dyskinesia and neuromuscular disease are generally seen in specialist clinics with respiratory physiotherapy input enabling long term treatment plans to minimise recurrent chest infections. Children and young people with cerebral palsy or complex disabilities are generally not seen in specialist clinics that include respiratory physiotherapy, and may only get input from respiratory physios during acute admissions to hospital.

Winfield et al (2014) suggests proactive respiratory care, improved access to specialist equipment and the availability of trained staff could allow treatment of subacute and chronic respiratory conditions in the community, while facilitating timely discharge and preventing hospital readmissions.

Evidence is now emerging from community paediatric respiratory physiotherapy services to show that we, as physiotherapists can achieve these aims.

The following information has been collated in order to provide examples of successful services currently providing community respiratory physiotherapy, providing summaries of the services and key results in order to help and assist managers who are aiming to implement and develop new services within their Trusts.

Edinburgh Royal Hospital for Sick Children

Summary of service:

- 1 whole time equivalent (WTE) band 7 physiotherapist covering City of Edinburgh, East and Midlothian. Highly specialised in assessment and treatment of children and young people with respiratory problems
- Monday to Friday 9am-5pm
- 24 hour response time from initial telephone contact to initial assessment
- 48 hour community visit following discharge from hospital with respiratory issues
- Any child or young person with respiratory concerns aged between 0-18 years

- New patient seen within 4 weeks of referral

Key results:

- 17 patients audited
- 60% decrease in accident and emergency (A&E) attendances demonstrated over 3 years
- 62.5% decrease in admissions from A&E over 3 years
- Length of stay reduced by 174 bed days over 3 years
- Net saving of £114,318 over 3 years

Challenges and solutions:

- Inappropriate referrals:
 - Information leaflet for parents/carers produced
- No specialist cover initially granted for period of leave:
 - Re-audit of admissions and length of hospital stay demonstrated rise in admissions therefore specialist cover allocated for leave
- Delay in actioning positive sputum/swab bacteria results:
 - Independent prescribing

Nottingham University Hospitals NHS Trust

Summary of service:

- 1 WTE band 8a independent prescriber and 2 WTE band 7 physiotherapists. Highly specialised in assessment and treatment of children and young people with respiratory problems
- Aged between 0-25 years.
- Under care of GP from Nottingham City or County
- Child or young person with a severe disability, life limiting/threatening condition and with severe respiratory problems
- Referred from consultant paediatricians
- New patient seen within 2 weeks
- Rapid response available within 24 hours once initial assessment made

Key results:

- Service evaluation (Wolff A. et al 2015)
- 1WTE band 7 physiotherapist over 12 month period from July 2010-June 2011 and included 34 children and young people aged 1-19 years.
- Respiratory admissions fell from 43 to 25
- Respiratory bed days fell from 383 to 236
- Cost saving £78,155
- Parent feedback:
 - Excellent service
 - Children and young people need this service
 - Gives peace of mind

Challenges and solutions:

- Bank holidays and weekends
 - Weekend winter service runs from October to March (Saturday on call)
- Parents forgetting to contact service:
 - Appropriate communication from service, encouragement of other team members to contact service
- Parents accessing A and E service unnecessarily:
 - Encouragement to access GP, promote use of individual emergency care plans, improved communication

Bart's and the London NHS Trust

Summary of service:

- Two WTE physiotherapist (B6 and B7)
- 110 children and young people on caseload covering borough of Tower Hamlets
- Aged 0-19 years
- Conditions include cerebral palsy (CP), spinal muscular atrophy (SMA), Duchenne

muscular dystrophy (DMD), bronchiectasis and other respiratory diagnoses

- New patients seen within 2 weeks of referral
- Urgent referrals contacted and assessed within 72 hours
- Cough swabs sent to be processed within 20 hours of taking swab and actioned within 1 week

Key results:

- December 2007-March 2008 with 1 WTE band 7 physiotherapist. 20 patients were audited
- Hospital admissions reduced by 40.7%
- Total length of hospital stay reduced by 43% (stat significant $p < 0.02$)
- Number of A&E attendances reduced by 71% (stat significant $p < 0.002$)
- Reduced number of sick days from school by 64%
- 100% parents/carers found service useful and would like service continued
- 75% of parents/carers felt confident performing chest physiotherapy compared to 25% pre service
- Excellent parent/carer satisfaction

Alder Hey Children's Hospital, Liverpool

Summary of service:

- Complex neurological patients were identified by the community paediatric respiratory service
- Participants received an initial holistic assessment
- Intervention included both:
 - a) Prophylactic chest management:
 - 24 hr chest management plans
 - Highlight medical management issues to consultants
 - Review current and initiate new respiratory techniques
 - Integration into normal activities- school and respite
 - 4 monthly monitoring
 - b) Rapid Respiratory Response:

- Open referral to CPRS
 - Same day CPRS assessment in the community
 - Respiratory physiotherapy
 - Fast track review with consultants when unwell
 - Fast track discharge
 - Respiratory physio input to return to pre-morbid function where possible
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- Data of admissions and A&E attendances for 38 patients were collected independently by a data analyst from Liverpool Primary Care Trust for the years preceding and during the pilot to compare these and their on-going costs.

Key Results:

- Cost savings for year one = £133,178
- Cost savings for year two = £125,792
- Total saving = £ 258,970

Other impacts seen:

- School attendances improved
- Quality of Life improvements reported by parents
- Improved respiratory stability via improved targeted chest management
- Improved confidence of carers and community staff to manage these children and young people in the community with the individual chest management plan and tertiary support
- Improvement in education of all carers leading to improved monitoring and earlier intervention
- Improved clinical effectiveness of available technology due to targeted training
- Rapid response by physio with expertise helped prevent escalation of treatment
- Fast track access to consultants lead to reduced interventions and prevented admissions

Challenges and solutions:

None reported

Summary of all services:

- Specialist assessment of individual patient needs
- Development of personal respiratory care plan
- Provide training in preventative secretion clearance to parents/carers, school and respite services
- Provide rapid response to children and young people when they become acutely unwell during service hours
- Provide specialist emergency treatment such as standard chest physio (percussions and modified postural drainage), cough assist, lung volume recruitment (LVR) bag, use of oral/nasopharyngeal (NP) suction
- Collection of sputum/swabs to provide information on appropriate use of antibiotics
- Close links with GP's and specialist hospital staff to ensure prompt provision of antibiotics and mucolytics where appropriate
- Facilitate early supported discharge if a child or young person is admitted to hospital
- Support transition to adult services where appropriate

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