NEONATAL GROUP APCP

Writing a business case / Collecting information for developing a new service

Points to Consider

Every Trust/PCT will have its own paperwork or proforma and the following can be adapted to fit the paperwork - the essence of the content will be the same. If your bid can tap into your Trusts priorities (e.g. reducing length of stay) then it may have more success. Not all of these headings may be necessary depending on the actual bid and the required paperwork used locally. Headings are usually very similar.

Introduction and Background

Be very clear and concise on the service development you are proposing. The salient points should be obvious throughout the business case, so ensure it is easy to read.

- For example:

- Respiratory Physiotherapy

- Neonatal care is an evolving service, with massive developments in the medical care of these children, meaning that children are being born younger and sicker and surviving \(^1\). As in other developed countries, the number of babies born with low birth weight is increasing, along with a rise in overall births per year. In 2005, 8% of live births were born preterm and one in 10 newborn babies required admission to a neonatal unit \(^1, 2\). Sophisticated medicine has now seen the survival rate for babies born at 25 weeks increase to 66% nationally\(^1\).
- The increasing survival that is demonstrated in nationwide research is reflected on the Neonatal Unit at (name of hospital).
- Data on the activity levels for the Intensive Care and High Dependency cots on (name of ward) has showed a steady rise in activity. In the last 10 years, to 2011, intensive care and high dependency activity on (name of ward) has risen by X %.
- In this extremely premature state, these infants' lungs are extremely immature and their physiology is only just compatible with life. These babies require long periods of respiratory support while their lungs mature.
- Any patient who is ventilated for a long period of time is at high risk of respiratory complications \(^3, 4\). This can take the form of collapse or consolidation of part of the lungs, chest infections, pneumonia or excessive amounts of secretions. All of these problems can, at worst, be life threatening for a young vulnerable infant, and at best increase the time that they spend in NICU.
- A long term consequence of extreme prematurity is Bronchopulmonary Dysplasia (BPD) or Chronic Lung Disease (CLD), where the lungs have been damaged as a direct result of not being mature enough, or as a secondary complication from needing a long period of time ventilated on high amounts of
oxygen. Infants with BPD/CLD are also more likely than normal children to develop additional acute respiratory problems, which may benefit from chest physiotherapy. EPlcure 1 provides us with data showing that 51% of infants born <25 weeks were oxygen dependant at term corrected age, and at 11 years old 56% of patients have abnormal lung function.

- Although chest physiotherapy cannot help with maturing infant’s lungs, the common additional complications from which these infants suffer can respond very well to physiotherapy treatment. This can have huge implications on the short and long term health of the child and the financial implications of potential shortened stay in the NICU.
- Chest Physiotherapy techniques are utilised to improve the respiratory function of the ventilated and extubated neonate, particularly when respiratory function is compromised by excessive secretions and mucus plugging.
- It is vital that respiratory physiotherapy is utilised selectively and appropriately with a high standard of handling, positioning, pacing and supporting the baby to minimise stress and potential discomfort in line with Network (for example) developmental care guidelines.
- As there is no current funding for respiratory physiotherapy services on (name of ward), the demand for chest physiotherapy is unable to be met. Historically, the referrals for chest physiotherapy had been very low from NNU, and as such had been absorbed into existing staffing levels. As the patient caseload changed, and the number of referrals increased, this became unsustainable. As the demands on paediatric physiotherapy rise in other areas the ability to work flexibly and cover the caseload on the Neonatal Unit diminishes.

- **Neuro-Developmental Physiotherapy:**
  - As younger babies survive, we are seeing increased morbidity in longer term outcomes. An extremely premature infant’s brain is not designed to withstand the environment in which they find themselves, and secondary complications such as intra-ventricular haemorrhages and periventricular leukomalacia are common.
  - A large study of >810 children born at 25 week gestation or under has given us an alarming insight into the scope of this problem. At one year of age, 18% of these infants had developmental problems and 17% had specific neurological problems. At 30 months of age (2 ½ years), even more problems were apparent, with 51% of infants having a disability of some kind, with 22% classed as ‘severe’.
  - With early and timely physiotherapy assessment and treatment, these patients can start preventative therapeutic intervention immediately to address the problems associated with an immature nervous system. Any specific neuro-developmental problems highlighted can then also be addressed to
optimise the potential for recovery which has been demonstrated in young babies, in order to improve their functional outcomes in later childhood\textsuperscript{17, 18}.

- There is currently no funded service to treat neuro-developmental infants within the neonatal unit. Urgent or severe cases are currently seen by the paediatric physiotherapy team, but are provided with assessments and advice only rather than the ongoing therapy they require.

- The Neuro-developmental follow up clinic from the NNU reviews vulnerable infants up to two years of age to monitor their developmental progress. This clinic has been historically been covered by (how and who) (or has not had any physiotherapy input)

- As many milder disabilities do not become evident until the child is older and ‘doing more’\textsuperscript{15}, it is imperative that physiotherapy continues to be (or should be) involved in Neuro-developmental follow up clinic to provide assessments, advice and referrals for infants in need. It is essential that developmental problems are picked up in a timely manner and not missed until the child starts school.

- Babies receiving specialist neonatal care have their health outcomes monitored\textsuperscript{23}. This includes babies who had neonatal encephalopathy

**Description and proposed costs**

Give an outline of the service being proposed

E.g., “Neonatal Respiratory Physiotherapy Service” or “A screening service for treatment and referral to ongoing services of VLBW infants” (description of the group can come later)

State if this is a short term pilot, temporary or permanent post. This is normally set at the mid-point of the band you are proposing.

- **For example:**
  - “Previous benchmarking results from Ronan\textsuperscript{19} considered the grades of staff working within the units. In 91\% of NNUs the highest grade of staff was a band 7 or 8, to reflect the complexity and highly sub specialised skills that this work entails. Recently, the neonatal group of the Association of Paediatric Chartered Physiotherapists published a Competence Framework and Evidence Based Practice Guidance for physiotherapists working in Neonatal Units in the United Kingdom (2011)\textsuperscript{20}. The guidance states that:

  - ‘Neonatal physiotherapy is an advanced practice sub-speciality area within physiotherapy and the physiotherapist must possess advanced clinical competencies to manage vulnerable infants, with complex medical, physiological, and behavioural conditions, who may inadvertently be harmed through examination and intervention procedures.”
It is recommended that the neonatal physiotherapist has at least a Masters degree or appropriate professional experience to Masters level; Agenda for Change Bands 7 or 8 depending on the level of freedom to act autonomously and the knowledge, skill and experience required for the role.’

- This underpins the requirements of physiotherapists within this area to have a highly complex set of skills for assessment, observation, intervention, evaluation and interpretation of findings for the extremely fragile preterm population in neonatal intensive care and intermediate care settings.

- In response to the above information, a Band 7 physiotherapist is the minimum band appropriate to work within this role. This is in alignment with the British Association of Perinatal Medicine (BAPM) ‘Service standards for hospitals providing neonatal intensive and high dependency care’ which state that physiotherapists working within an NNU setting should be Band 7 or above.

Aim of the proposed post
Outline the aims of the proposed post/service

- **E.g:** To provide a safe and efficient evidence based respiratory service for the treatment of premature infants. This will involve setting up a comprehensive teaching and education framework for all staff on the neonatal unit to be safe and competent in this area of care.

- To establish clear guidelines and protocols in line with the evidence base for this group of infants, to ensure safe and effective treatment.

Benefits to patient care
Outline the perceived benefits
For example:
A screening service for treatment and referral to ongoing services of VLBW infants
- Identifies “at risk” infants
- Ensures timely referral to appropriate services
- Allows planning of appropriate intervention

- **For example:**
- To provide safe and efficient evidence based respiratory service for the treatment of premature infants
- To provide safe and effective means of managing clearance of secretions
- Provide short term improvements in ventilation, lung function and oxygenation
- Reduce the risk of complications associated with chest physiotherapy
- Improved competence of staff
- Improved confidence of parents
- Reduce number of complaints
Benefits to the Trust/ network

• Address Governance issues
• Align the service with National and International recommendations

Benefits for ongoing provision of care by Community Services

➢ **For example:**
  ➢ Developmental Screening services:

  ➢ Will focus services for the ‘at-risk’ infant
  ➢ Can initiate input in the neonatal unit to ensure seamless transition to community services
  ➢ Can allay parental anxiety
  ➢ Will align services with the National Service Framework and local guidance on standards of care (including the Neonatal Toolkit)

NB If you can tap into evidence, national guidance, benchmarking and safety/governance issues this will carry a lot of weighting.

Impact on other Relationships

This is a really good point to tease out especially if it directly impacts on the support and empowerment colleagues;

• Supports and educates nursing colleagues
• Trains appropriate personnel
• Sets up a framework to assess competency, increase confidence and prevent risk
• Results in a safe practice

Evidence for the project/post/service development

Reference your points with the highest level of evidence available.
Refer to recently published national documents – some are listed at the end of the document
For example: Neonatal standards of care, National Guidelines and Trust Objectives:

The Department of Health’s ‘Toolkit for High Quality Neonatal Services’, October 2009, state that:

All units caring for babies requiring intensive care and providing a chest clearance service should have access to a paediatric respiratory physiotherapist with experience in assessing and treating premature and sick newborn babies

Specialist neonatal physiotherapy services should be available across a network an accessible to all units for neurodevelopmental assessment and intervention and follow-up after discharge

Staff competent in neurodevelopmental assessment are available to follow up babies identified as being at high risk of neurodevelopmental problems, including babies with a birth weight of less than 1,000g and/or born at less than 31 weeks gestation

This has been built upon by the British Association of Perinatal Medicine (BAPM) Service Standards for hospitals providing neonatal care, who in addition to the above outline the respiratory, dietetic, speech and language, neuro-developmental and orthopaedic roles expected from neonatal therapists. Unfortunately, no guidance is available for benchmarking numbers of staffing per cots.

Specialist Care Quality Neonatal Standards recently published by National Institute of Clinical Excellence (NICE) state that a multidisciplinary service including therapist support who are trained and competent in the care of neonates is available.

For example “this business case fits with two of the main Trust priorities as below:

Maintaining the highest standards of safety
  o Neonatal respiratory physiotherapy is not without risks, and these have been shown to be higher when a lot of chest clearance is carried out by nursing staff without the appropriate teaching, training and support. Appropriate physiotherapy provision would minimise these risks and ensure patient safety.

Achieving world-class clinical outcomes
  o High calibre clinical outcomes for preterm infants are not achievable without the appropriate staffing levels available.
Present locally gathered evidence/data and outline the need for the service or the consequences if the bid is refused or the post not funded

- **E.g Impact of Non Approval:**
  - “Therapy input into neonatal follow up clinics is a local quality improvement goal which the (name of hospital) is currently not achieving.
  - If this business case is not approved, the neonatal unit will continue to receive sub-optimal level of physiotherapy input for their vulnerable patients. By continuing in our current situation, we are not meeting the requirements of national standards of care, current government initiatives and Trust objectives.
  - By not enabling patients to have access to early neuro-developmental intervention (to include physiotherapy), their long term neurological outcome cannot be optimised in the early ‘window of opportunity’, which will in turn have longer term cost implications for the Trust as their disability evolves”.
  - See Appendix 1 for SWOT Analysis

**Other Points to consider**

Before you put the request together it is worth auditing current practice against the evidence/local guidance.

If you need to carry out a pilot study to prove your case make sure your time frame is realistic and what you want to achieve is specific.

Consider bench marking with other units/colleagues to see if there is a shortfall in quality of evidence based practice (see benchmarking article by Christa Ronan, APCP Journal 2012).

You can expand and emphasize certain points as required – this needs to be done taking into consideration the target audience. Remember, medical terminology/language is not necessarily understood by those reading the business case!

Please ensure you update the references as required.

Finally be very realistic about what you can provide if limited funding is available.

If you get two days worth, then the focus has to be around teaching i.e. train the trainer type approach or a screening service.

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References:

1. EPICure 1 Study, miscellaneous publications 2000-2008, (www.EPICure.ac.uk)
2. Kuriakose, S, 29th Nov 2007, ‘Preliminary data from the TRPG/SEND Two Year Neonatal Outcomes Programme’, Presented at the North East London Perinatal Network Annual Meeting (contact address for correspondence: 4th Floor, Imperial College London, Chelsea & Westminster Hospital, London SW10 9NH)
Cochrane Review’. The Cochrane Database of Systematic Reviews, 4:CD001814.

Other useful sources of information:

"Making the business case: It’s your business” – an information paper from the Chartered Society of Physiotherapy July 2012

Relevant evidence including Cochrane reviews are available www.evidence.nhs.uk

EPIcure 2 data www.epicure.ac.uk/publications

www.bliss.org.uk