

Northern Health and Social Care Trust

Subject: Business Cases – Children’s Services Antrim Area
Hospital

Content: To consider Business Cases for Neo Natal Unit and A2
Paediatric Ward

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FOR CONSIDERATION

Business Case for Approval at Trust Board 24 May 2012

Project: To convert the playroom area within A2 Paediatric Ward in Antrim Area Hospital to a separate clinical and waiting room for ward attenders.	Capital Cost	Change in Revenue
<p>Background</p> <p>The Paediatric Ward in Antrim Area Hospital was built in 1994 to accommodate the needs of acute paediatrics within the Northern Health and Social Care Trust. The Paediatric ward was built to standards that were acceptable 20 years ago resulting in the current design, layout, work flows and functionality of the unit being ineffective and inefficient.</p> <p>The ward was initially twice the size, incorporating the A1 paediatric surgical ward and A2 paediatric medical ward. However A1 was later converted over to breast screening after the amalgamation of the paediatric surgical ward and medical ward into one children's ward.</p> <p>Rationale for Investment</p> <p>There are on-going concerns about the patient flow through A2 resulting in:</p> <ul style="list-style-type: none"> • High turnover through A2 in AAH due to lack of Ambulatory facilities. • Throughput of patients and multiple routes of direct access to the ward, resulting in ineffective and inefficient functionality. • Potential mechanisms by which children are admitted to ward are: <ol style="list-style-type: none"> 1. A/E 2. G/P 3. Direct access/complex health 4. Consultant reviews 5. Planned admissions/ENT/Surgical/Medical 6. Ward Attenders – day cases 7. Junior Doctor reviews 	<p>£150,000</p>	<p>£0</p>

8. Paediatric OPD attending ward for bloods/weighing

Statement of Need

A capacity and demand analysis exercise was completed by the Trust planning department in July 2009 in response to a perceived increase in ward attenders. The outcome of this exercise evidenced that from the 2006/07/08/09 fiscal years there has been an increase of 11.6% traffic through A2. During 2009/10 ward attenders were redirected to the ambulatory unit in the MUH in a deliberate attempt to help decrease the patient flow through A2.

The attendance of children to emergency departments (ED) has risen steadily over the past 10 years, accounting for approximately 25% throughput. 50% of all paediatric admissions come from the ED and LOS has fallen to under 24hrs in a growing number of cases. Children attending the ED in AAH are very often referred to the ward for paediatric assessment or investigations.

Reducing the incidence of healthcare associated infection (HAI) is a major challenge for all those working in healthcare. Within a children's unit, it is essential to protect patients who are immuno-compromised and at high risk of acquiring an infection. Children attending the ward as ward attenders may have a communicable or infectious disease which can have implications for in-patients.

Proposal

As part of the Right for Our Children project which is leading the reform and modernisation of paediatrics in the NHSCT, this proposal sets out to address the risks associated with patient flow by providing a separate and dedicated clinical and waiting area for ward attenders with the conversion of the playroom in A2 children's ward to a clinical room, waiting area and small play area for children waiting to be seen as ward attenders. This will result in:

- More effectively managing infection, prevention and control challenges.
- Improving patient flow throughout the unit.
- An improved family and child experience.

Business Cases for Approval at Trust Board 24 May 2012

Project: Proposal to provide extension to the Neonatal Intensive Care Unit within the Neonatal Unit in Antrim Area Hospital.	Capital Cost	Change in Revenue
<p>Background The Neonatal Unit at Antrim Area Hospital was built in 1994 to accommodate the needs of neonates requiring neonatal intensive care, high dependency care and special care from maternity units both within and out with the Northern Health and Social Care Trust.</p> <p>The unit is commissioned for 16 cots; 4 level 1 cots, 2 level 2 cots and 10 level 3 cots. Six of the cots are intensive care cots and are located in the Neonatal Intensive Care Unit; there are also two sets of four cot nurseries and two single cot isolation rooms.</p> <p>Rationale for Investment The NNU in AAH was built to standards that were acceptable 20 years ago resulting in the current design, layout, work flows and functionality of the unit being ineffective. The NNU in AAH has had no investment since it was opened in 1994, yet the demand for Neonatal Intensive Care has increased in partnership with the growth in clinical expertise in caring for and sustaining neonates.</p> <p>There has been significant development in the range and design of equipment necessary to sustain and care for these neonates resulting in a technologically depend care environment. This equipment is bulky which limits the available clinical work space around the cots and also reduces the capacity of the current storage facilities within the unit. The equipment must be kept on site in a state of readiness for immediate use. Current storage areas are too small to store these essential bulky items and this has resulted in the inappropriate use of corridor space being used for storage.</p> <p>The cot space allocation within the 6 cot NICU is 5.3m² per cot which is well below the current recommended spatial standards of 15m² as detailed in HBN21 Draft 09-03 (2007). The insufficient space around cots impacts significantly on accessibility for staff and parents.</p>	<p>£500,000+ Final capital cost TBC</p>	<p>£40,083</p>

Meeting Infection Prevention and Control standards within the NICU is challenging due to limited space around cots with only 5.2m² per cot space. This also impacts on the family experience with insufficient space for 2 parents beside each cot.

Through the Right for Our Children Project, which is steering the Reform and Modernisation of paediatrics within the Northern Health and Social Care Trust's (NHSCT), the multi-professional team within the NNU had been exploring plans for an expanded NICU. Capital allocation of £230,000 had been secured from the Directorate budget to enable works to be carried out within the restrictions of finite financial resources and a physically 'landlocked unit'. However, these minor improvement plans would only result in the potential to achieve no more than approximately 7.3m² cot space; still well below current HBN21 recommendations of 15m², and would have made little impact on meeting infection prevention and control challenges as well as not improving parent and family experience to any great extent.

Statement of Need

The RQIA Independent Review of Incidents of Pseudomonas aeruginosa Infection in Neonatal Units in Northern Ireland, Interim Report, 31 March 2012 recommends that the intensive care accommodation in the NNU in AAH should be expanded to allow more circulation space around cots. Representatives from Health Facility Planning and HEIG met with Trust clinical and managerial staff in the NNU to discuss this recommendation and to explore the feasibility of delivering on the Trust's proposals for expansion of the cot space within the NICU without adversely impacting on existing clinical and support spaces and without compromising safety, functionality or the quality of service provided.

The current unit design layout, workflows and functionality of the clinical areas and support spaces were reviewed against the current floor plan:

- The 6 cot space NICU is 32m² which equates to approximately 5.3m² per cot resulting in the cots being extremely closely located.
- The mobile supplies base in the centre of the room further reduces this to 5m² per cot.
- Most of the equipment is stored on available corridor spaces due to storage areas being too small

<p>for their purpose.</p> <ul style="list-style-type: none"> • The utility room is used for other functions including baby clothes laundry and blood gas analysis. shortfall or capital for this more extensive <p>The outcome of these joint discussions resulted in the recommendation by the representatives from Health Facility Planning and HEIG to provide capital investment to increase the floor space by approximately 80m2 with an extension to the existing building and refurbishment of the current building, thereby providing:</p> <ul style="list-style-type: none"> ○ A new NICU for 6 cots with 13m2 per cot. ○ The current NICU to be made available for 4 cots. ○ The vacated 4 cot room to be used as a storage room. ○ The vacated small store room located behind the current NICU to be converted into an infant clothing laundry room. ○ Repositioning of the blood gas analyser from the utility room to another more suitable location within the footprint of the unit. ○ Refurbished parent and child room. ○ A counselling and family waiting room. <p>This proposal sets out to address the spatial shortfall by increasing the current cot space allocation in the NICU to 13m2 along with increased storage space for essential equipment thereby resulting in:</p> <ul style="list-style-type: none"> ○ More effectively managing infection, prevention and control challenges. ○ Improving flow throughout the unit. ○ An improved family and child experience. 		
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