## Title
The Ward Environment - Releasing Time to Care Though Design

## Category
Acute Flow and Capacity Management

## Background/ context
In August 2011, recommendations were made to the Chief Operating Officer of NHS Tayside regarding the development of a ward prototype that would support the delivery of care across the 7 C’s of care outlined in the *Healthcare Quality Strategy for NHS Scotland*, May 2010.

- Caring and Compassionate staff and services
- clear Communication and explanation about conditions and treatment options
- effective Collaboration between clinicians, patients and others involved in providing care and supporting the patient
- a Clean and safe care environment
- Continuity of care
- Clinical excellence

Releasing Time to Care (RTC) has been used as a framework to support practitioners to release time to enable them to do what they do best – deliver patient/service user care:

- more safely
- more effectively
- in a more person centred way and, as a result improve patient experience

## Problem
Using RTC methodology the percentage of time directly caring for a patient at the bedside in some wards was as little as 38 per cent in January 2012. Using RTC principles and environmental design we hoped to increase this considerably. Patient acuity is rising, as is the number of older people in the ward areas, particularly those with cognitive issues. Audit highlighted that more than 95 per cent of all...
wards have more than 50 per cent of patients aged over 65.

The environment of care has changed too. The traditional design for hospitals was a number of single sex, multi-bedded wards known as ‘Nightingale wards’. A nursing station usually situated at the top or middle of the ward, and the sickest or frailest patients identified in beds closest to the nursing station to ensure the nurses were able to observe them closely and frequently. Nurses could see, and be seen, by all the patients; however, hospitals are now designed with very different ward layouts (Ulrich 2004). Many modern day hospitals are often built with four/six bedded bays with central bathrooms and toilets, and a small amount of ‘side rooms’ (single en-suite rooms). Patients are no longer constantly visible to nursing staff.

Evidence clearly highlights that as the person with dementia or cognitive competence decreases, the importance of the environment in determining their wellbeing increases (Brawley, 1997) and so the design of the physical environment becomes a significant aspect of care.

No known map or ward prototype exists as a national template. A search of best practice has highlighted that although some NHS Boards have taken the opportunity through new builds to create patient positive environments no standard exists. However, the literature highlights dementia as a national priority for the Scottish Government who is working on a range of programmes to improve care for people with dementia and their carers.

A dementia design audit was undertaken. The audit report concluded that there are a number of changes that could be implemented and are detailed below:

- signage is reviewed throughout
- eye level signs
- pictorial representation where appropriate e.g. toilet areas
- distinguish one area from e.g. colour coordinate to differentiate
- toilet areas’ décor reviewed and updated to reflect dementia design with the addition of handrails (contrasting in colour to the walls) in at least one of the toilet spaces

**Aim**

The aim of the work was to develop recommendations for an environmental prototype for acute wards supporting RTC principles and enhancing flow by increasing the percentage of time in caring activities and reducing waste, variation and harm. The work will also enable the organisation to meet the needs of not only older people but those needs of the general population, visually and or hearing
impaired, people with learning disabilities.

**Action taken**

NHS Tayside is rolling out a 14 week programme to support wards to improve direct caring time and the ward prototype ward is central to this as process as RTC alone will not be enough. Significant constraints to care come from facilities and estate. A nursing team was spending 26.5 per cent of their time walking, looking, collecting equipment/supplies etc. around the ward, no wonder they were tired at the end of a shift! By reviewing, ward layout this was reduced to 15.1 per cent.

The project development was based of the principles of good environmental design as described by the University of Stirling dementia design guidelines and RTC principles and was based on two phases:

1. Proof of concept of a ‘ward prototype’ environment to support RTC and dementia design principles (refurbishing one ward, kitchen, sluice room, preparation area and shower/toilet blocks)
2. Improve patient experience for older people or those with cognitive impairment in all wards where over 50 per cent of its occupancy was from those over 65 years (excluded were intensive care and high dependency environments and maternity care) using ‘dementia’ design principles

**Results**

A detailed evaluation of work process to evidence the effect of ward layout on RTC has shown significant results. As an example, a healthcare assistant preparing for a bed bath demonstrated a reduction in mileage by 7.7 miles and staff time reduction 3.24 shifts per year which could be converted to direct patient care time of over 24 hours. Although this does not seem to be significant, when calculated over all staff and through similar reductions in other processes this represents a more productive environment with more time spent on actual patient care rather than wasteful unproductive processes.

In April 2013, patients and carers were approached for feedback. Patients generally thought that the environment was clean and bright and looked well organised with a calm atmosphere. Patients also commented more specifically on the bathrooms, bays and dementia design element as a follows:

- “Showers: plenty of room and they run at the right temperature. Felt safe and the use of a chair in the shower helped.”
- “Colours of the bays helped me remember where I was.”
- “Good bay signage and liked the clocks with date time and
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location. Commented that other patients also liked the clocks.”

- “Liked the mini nurse’s station at end of the bay. Helped identifying who was looking after her mother. ‘More personal’ and ‘Know who to turn to’ and made the nurses more available and approachable.”

Staff feedback

Staff feel that “after repetitive use, the message of the various locations, such as toilets and bathroom are beginning to sink in.”

“A major reduction on patients arriving at the nurses station asking the location of the toilet.”

The ward prototype has demonstrated strong caring behaviours as shown in the tables below and although this cannot be linked to the redesign itself, it is encouraging and further testing work will be required to confirm this.

The signage used in the dementia design is incorporated into the ‘getting to know me’ document profile developed by Alzheimer Scotland and The Scottish Government.

Efficiency savings and productive gains

The cost of producing a care environment that supports efficiency, productivity and therefore focuses nursing time on patient facing activities rather than waste is projected to yield a 20 per cent increase in nursing time directed at patient care (NHS Institute for Innovation and Improvement, 2010). The 20 per cent increase in nursing staff time is costed through ROI calculation to be as much as 285 per cent ROI.
**RESULTS**

10 per cent increase in RTC on prototype ward from baseline by October 2012 (that is the proportion of time spent on direct patient care).

Care at the bedside has increased from 48 per cent pre-prototype to 53 per cent post-prototype which is an encouraging sign.

The process steps for five key nursing processes have been reduced by more than 50 per cent.

75 per cent of the ward environment prototype is agreed for roll out one month post-evaluation of the ward prototype with the remaining 25 per cent agreed at three months – test of functional compatibility.

75% patients report ‘good standard’ as defined by ‘Better Together’ Programme.

**SUSTAINABILITY**

The ward prototype and dementia changes are being rolled out across NHS Tayside and will be embedded in the capital plan. The 14 week programme for RTC is continuing to roll out with good results. This work is part of our Steps to Better Healthcare (SBH) Programme which is our organisational programme of quality improvement. The breadth and ambition of the work being done establishes that by doing things better, we are also doing them more efficiently and the programme as a whole is generating increasing levels of savings. In 2012-13, £4.6 million savings were realised. In 2013-14, we will continue this success by supporting key programme of work such as ward prototype and RTC under the auspices of SBH that will deliver against the clinical priorities of flow, through improved access, throughput and better efficiency and productivity of service delivery.

**LESSONS LEARNED**

A full evaluation of both elements of the work has revealed that they have made a positive impact on the environment and patient care and have released time to care. Further evaluation will continue be conducted to monitor the impact over time and further testing through development on other ward sites, for example Perth Royal Infirmary, should be completed to establish if the work can be transferred to other care environments within NHS Tayside.

Some minor changes have already been made following staff and patient feedback. Further work will now be considered in the light of other developments that support effective and productive care environment for example: electronic whiteboards and bedside electronic patient records (EPR) that supports tracking of patient care, food fluid and nutrition improvements following the older people inspection reports that will transform how meals are delivered and prepared in the ward environments. No work has been conducted on
communal patient areas, clinical communal areas i.e. T junction further or ward entrances which the evidence is clear are important to care of the older person with cognitive difficulties.