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NHS at Home: 21st Century Clinician's Bag



East Riding of Yorkshire

Summary

Patient healthcare is migrating out of hospitals and into the community. New multi-disciplinary neighbourhood care teams (NCTs) are enabling patients with long-term conditions to be treated in the comfort of their own home. Clinicians delivering planned care in patient's homes face many challenges: environmental, spatial and the use of inappropriately designed products. This poster presents the activities that have shaped the development of a 21st Century clinician's bag. The project is supported by NHS East Riding of Yorkshire.

Introduction

The primary aim of the project is deliver service consistency in an inconsistent setting, a high quality patient experience and enhanced patient safety through design.

Objectives

The project's objectives are:

To understand how treatment spaces are created in the home.

To identify the contextual drivers that influence service quality, delivery and patient safety.

To identify the tenets of world-class services delivered in confined spaces.

To design a dedicated clinician's bag.

To address issues of service quality, patient safety and sustainability through design.

To validate the effectiveness of a 'proof of concept' demonstrator.

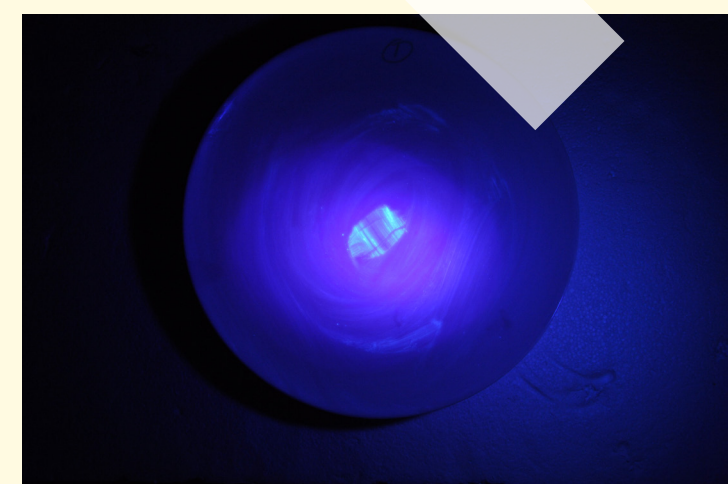
Methods & Results

Service Evaluations:

A series of service evaluations involving two NHS East Riding NCTs observed:

- Community matrons transporting clinical kit and equipment in the boot of their cars.
- Community matrons treating up to 17 patients in one day.
- Domestic environments and patient location leading to an inconsistent service experience in the home.
- The most frequent procedures delivered were ulcer dressings and catheterization.
- Patients collecting their own drugs from pharmacies for matrons to use.
- Work practices exposing community matrons to excessive bending, kneeling and carrying.
- Clinical waste being deposited in the patient's domestic waste stream.

ANALYSIS OF BAGS



Whilst new intermediate care tiers are emerging no dedicated bag exists to support healthcare professionals working in this challenging setting. The need for improvisation raises doubts on the suitability of the bags for this purpose. To ascertain levels of cleanliness three bags were tested, inside and out, to determine levels of bacteria load: aerobic plate count, enterobacteriaceae, E-Coli and Staphylococcus Aureus. To ensure efficacy of the findings a control test was performed on a brand new bag.

Key findings:

- Use of bags designed for non-healthcare applications: camera cases, tool boxes and accountant cases.
- Inconsistency in design features, materials and weight.
- Similarity of design and colour lead to identification issues.
- Design features can harbour bacteria and inhibit effective cleaning.
- Presence of Staphylococcus Aureus found inside one bag.
- No cleaning regimes in place.
- No NPSA guidelines relating to cleaning of community matron's bags.

Analogous Case Studies: Determining World-Class Service & Products

The government has a strategic aim to deliver world-class public services through transformational change. Analogous case studies were conducted to identify the attributes of world-class services delivered in confined spaces and the design characteristics of world-class travel products:

- Virgin Atlantic's Upper Class Service.
- Claridges' In-Room Dining Experience.
- Aspreys
- Apple

Key Findings:

- High quality product design is a crucial ingredient of a world-class service experience.
- Speed and efficiency is vital when establishing/deconstructing a work zone
- Personalisation empowers users and increases satisfaction
- Minimisation and simplicity of design could aid patient safety.

Lego Serious Play Workshop

A Lego Serious Play (LSP) workshop was organised to gain a deeper insight to the challenges of delivering healthcare in the home. Individual and collective models were built by participants to



communicate their service narratives, as well as envisioning abstract 'products' to support a world-class service experience. One model highlighted the need for a 'product' that exuded a corporate image and provided an organised and uniformed work environment. This model steered a design concept phase.

'With any environment we go in, I think we should be having a uninformed approach to give the patient a sense of quality and standards.'

NHS East Riding of Yorkshire Community Matron

Design Process

The design of the bag has been informed by workshops and external peer reviews to ensure issues of functionality, usability and patient safety are optimised. A flexible drawer system widens its market appeal to other healthcare professionals: GPs and midwives. A proof of concept prototype is planned and will be evaluated through a comparative study to demonstrate the effectiveness of the new design.

- Reduced the number of parts.
- Product weight optimised.
- Simplification of design to reduce bacterial traps: split lines, clips and 'loop & hook' fastenings



- Wipeable plastic mouldings incorporating an antibacterial additive proven to kill 99.9% of MRSA bugs.
- Ergonomic improvements

Relevance to Practice:

The NHS at Home project is timely. To support this paradigm shift, a 21st Century clinician's bag is required to meet the rising expectations of patients and to support healthcare professionals working in this challenging environment.



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