Inclusive Design in Healthcare

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Who we are

Why Design Matters

Design Framework

Case studies of Inclusive Design

Conclusions
25-year History
Business Driven
Community Facing
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Keep out of reach of children

MERCILON TABS

EVERY NIGHT BEFORE FOOD ONCE DAILY TO BE TAKEN FOUR TIMES A DAY THREE TIMES A DAY EVERY THREE TIMES DAILY TAKE ONE TAKE TWO TAKE THREE ONE OR TWO

Warning: follow the printed instructions you have been given with this medicine.

31 May 11

Pat 33967 P
DESIGN FOR PATIENT SAFETY

A SYSTEM-WIDE DESIGN-LED APPROACH TO TACKLING PATIENT SAFETY IN THE NHS

This report sets out a perspective from the world of design – based on a scoping study carried out by a research team from the Universities of Cambridge and Surrey and the Royal College of Art – to identify previously unrecognized opportunities for improved patient safety in the NHS.
HUMAN BEINGS make MISTAKES
because the SYSTEMS, TASKS and PROCESSES they work in are poorly designed.

PROF. LUCIAN LEAPE,
Harvard School of Public Health

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There is no systematic Feedback between

Users
Purchasers
Designers and
Manufacturers of equipment

Therefore opportunities
To reduce risk through better Design are being lost

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Dopey Dick Returns to the River

Dopey the donkey returns to the river as part of the Bristol Festival. Come, watch and help as the herd builds a boat for Bristol's future.

www.festivalbath.org
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Conclusions
Violence & Aggression in A&E
clinical care

patient needs
Your journey through A&E

This map shows the 4 different stages of your progress through the A&E Department: Check-in, Assessment, Treatment and Outcome.

You can expect some waiting time between each stage. Please use this map to keep track of your progress.

You will find information points throughout the A&E Department. These explain what happens in each area of the department.
88% of patients felt the Guidance project clarified the A&E process.

75% of patients said the improved signage reduced their frustration during waiting times.

50% Threatening body language and aggressive behaviour fell by 50% post-implementation.

3:1 For every £1 spent on the design solutions, £3 was generated in benefits.

Patients' complaints relating to information and communication fell dramatically post-implementation.

All data from ESRO surveys 2013-15: Frontier Economics analysis
1. Patient medication locker
2. Nowhere to put sharps bin
3. Gloves and apron out of bedspace
4. No flat surface for writing
Simulation study: link analysis
Clinical trial

Hand hygiene compliance increase \( \times 3 \)

Correct use of gloves increase \( \times 3 \)

Correct use of aprons was \( 67\% \) with the CareCentre and \( 0\% \) without

CareCentre implementation will help reduce healthcare associated infections.
Flomark™
THE DRIP REDESIGNED
Less than 15% of infusions were within +/- 10% of desired rates, while only 21% of observations fell within +/- 20% of desired rates.¹

Approximately wastage of US$ 3.98 per patient per 24-hours infused.²

Staff time wasted on calculations & inefficiencies

Extended patient stay

¹. In vivo accuracy of gravity-flow i.v. infusion systems, RE Crass and Vance JR, American Journal of Health-System Pharmacy February 1, 1985 vol. 42 no. 2 328-331
Design for manufacture
Trials
Regulatory
Licensing
Links with procurement
Who we are
Why Design Matters
Design Framework
Case studies of Inclusive Design

Conclusions
<table>
<thead>
<tr>
<th>Subjects</th>
<th>Truth</th>
<th>Inspiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Market Research</td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Empathic Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SCIENTIFIC METHOD – NEEDS GATHERING

SCIENTIFIC METHOD – TRIAL & IMPLEMENTATION
Design research is bespoke
Insights into human element
Different design disciplines, collaborations and outputs
In parallel with scientific method
Thank you

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The Challenge

Sickness bug forces over 50 hospital wards to be closed

SICKNESS BUG TOLL TO HIT 200,000 A WEEK

FLAWED TESTS

SUPERBUG CRISIS: HOW YOUR HOSPITAL IS HIT

ENGLAND GLORY

HELL OF YOUNGEST IRAQ HERO

EVENING STANDARD

TUESDAY
Exploration, Shadowing, Observation, Interviews
Brief Generation

Ground Research, Desk Research, Workshop

= Briefs
Our Six Design Briefs

Blood Pressure Cuff
Pulse Oximeter
Curtains
Patient Hygiene
Invasive Procedures
Mattress
Blood Pressure Cuff

Problem
Blood Pressure Cuff

Problem

Solution
Invasive Procedures

Problem
Invasive Procedures

Problem

Solution
National Showcase and Feedback
gameChange
Improving lives through VR therapy
6 SCENARIOS
5 LEVELS
30 MINUTE TREATMENT
VIRTUAL COACH
Allows people to evaluate their expectations and learn that they are ‘safe enough’ in everyday situations.
Design workshops around the UK
Smaller weekly workshops
Meetings with developers
Internal workshops
Building prototypes
PROTOTYPE DEVELOPMENT

LEVEL DESIGN
- Creating friendly and stress relief spaces

REALISTIC DIMENSIONS
- Getting the right measurements for each level
THERAPIST PRESENTATION

FLOATING TABLET
- Therapist being placed as a video

FULL BODY FORM
- Therapist standing in front of the user