Design Led Innovation

creating safe environments for electronic sharing of prescriptions and medication charts in aged care homes

Gerard Stevens AM, Managing Director, Webstercare
What Design Led Innovation means to me

“Every innovation has a meaning starting with the why”
It is the core of what I do
How safe is safe?
Webstercare Pil-Bob®

WHAT ARE WE SOLVING?

WHAT IS THE PROBLEM?
Webster-pak® LV (Low Vision)

WHAT ARE WE SOLVING?

WHAT IS THE PROBLEM?
20-30% of all Australian hospital admissions over 65 years are due to medication use (1)

1. Roughead; Literature Review: Medication Safety in Australia ACQHC 2013
Insights in the safety of electronic MMS in ACHs

insight to the safety elements of electronic systems and the design-led innovation approach which offers solutions to the problems which challenge healthcare professionals in RACFs
It is the core of what I do.
Webstercare and University of Technology Sydney Collaborative Research Team
<table>
<thead>
<tr>
<th>Ref: Christine Veal BSc hons Masters by research candidate</th>
<th>Perceived impact on errors</th>
<th>Actual impact on errors</th>
<th>New source of errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic medication management system (e-MMS)</td>
<td>![Yellow down arrows]</td>
<td>![Blue down arrows]</td>
<td>![Red up arrows]</td>
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<tr>
<td>Systematic Literature Review</td>
<td>7 papers – Users think errors will decrease</td>
<td>2 papers - errors decreased 2 papers - no impact on errors</td>
<td>6 papers - new sources errors emerged</td>
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What is the primary motivating force behind the decision?
Australian setting has specific challenges

“There are many prescribing issues that are unique to the Australian Aged Care setting that may not be taken account of in the design of software”

✓ Legislation requirements (prescription vs charts)
✓ Clinical requirements (clinical decision support)
✓ User accessibility and experience
✓ Interoperability
✓ End to end solution
Balancing the project team

Include the managers, RNs, doctor and pharmacists, in the clinical decisions involved in selecting a medication management model.
Continual commitment of the vendor to the product is essential.
IT & hardware health-check

Drs may walk away from the system if it is too slow or challenging to access.

Key indicators of success:

• Data response speed
  • an important element of fully electronic systems

• Accessibility, relevance and familiarity
Ongoing improvements and support

The improvement/modification phase of the project is continuous and ongoing

To achieve value ask:

Can the system be customised and streamlined?
One can plan for implementation but.... what could possibly go wrong?

The actual process may take on a life of its own that calls for flexibility

- Training
- Onsite and offsite support
- Contingency planning
Design led innovation - planning for the future
Innovation in the monitoring of controlled dosage systems

Carers can check adherence remotely using a mobile phone app.
• Dr logs in to create eChart prescription
• Pharmacist dispenses from eChart prescription
• RN or carer reviews eChart, administers and records administration electronically
Predictive Analytics

Examples using Webstercare data:

• **Falls and Confusion:**
  Measuring the anticholinergic burden of a resident’s medications to predict risk of falls and confusion

• **Psychotropic usage:**
  Analysis of psychotropic use supports informed deprescribing

• **Antibiotic for UTS report:**
  Analysis of antibiotic use for UTIs supports Antibiotic Stewardship
If you are not embarrassed by the first version of your product, you’ve launched too late.

Reid Hoffman
Venture Capitalist/Co-founder LinkedIn