Identifying and responding to Patient Deterioration in non-acute healthcare settings

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Why Change – Isn’t average ok?

Average Person

Some People

Most People

Some People
“Progress is impossible without change, and those who cannot change their minds cannot change anything.”

---George Bernard Shaw
On behalf of the whole class, we'd like to thank you for your underachievement. It improves the bell curve for all of us.
Small Tests of Change

British Results in the Tour de France 1955 - 2009

- 1965: 1st Yellow Jersey
- 1958: 1st Stage Win
- 1984: 1st Class Win (KoM)
- 2009: 1st Podium
3 keys to behavior change

Direct the rider
- give clear direction,
  reduce mental paralysis

Motivate the elephant
- find the emotional
  connection

Shape the path
- Reduce obstacles, tweak
  the environment, make
  the journey go downhill
Organizational culture eats strategy for breakfast, lunch and dinner

Culture             Strategy
PSC – Overarching Principles

• Local engagement through structured QI initiatives leading towards transformational change
• Building system-wide capability for both staff and patients in quality and safety improvement
• Local systematic spread of quality improvement outcomes across health and social care
• Networking … to ensure the optimal spread of locally developed solutions & interventions
• Active contribution to national sharing and learning
PSC – Overarching Principles

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The IHI Breakthrough Series Collaborative Model

**Model for Improvement**
- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvement?

**Actions**
- Act
- Plan
- Study
- Do

**Pre-Work**
Set improvement goals, collect baseline data and prepare for Learning Session 1

**Action Period 1**
Adapt and test improvement strategies

**Action Period 2**
Further refine improvement strategies, begin spreading successful changes throughout the organization

**Action Period 3**
Adopt successful changes throughout the organization

**Learning Session 1**

**Learning Session 2**

**Learning Session 3**
Document work, report on results and lessons learned

**Ongoing support:**
Phone conferences, monthly team reports, on-site peer-to-peer visits
When to lead and when to get out of the way!
INTERSERVE HEALTHCARE

Provides care to people in their own homes

Generally NHS funded (CHC and frameworks)

Client conditions include spinal injuries, MND, ABI/TBI, SWANs and Tracheostomy

Ventilation for over 100 clients

Care provided by highly trained staff

In 2016, 2.1 million hours of care to just over 4,000 people
The challenge of home care

• Data, data, data…or not!
• Incident rates for deterioration statistically minute
• Patients deserve clinical governance standards/expectations now common place in acute care
• Patients spread over a wide geographical area
• ‘Unqualified’ nature of the workforce
• Care supervision (in real time)
• Home environments that avoid ‘medicalisation’…but no Sphygs, Thermometers or Sats Monitors!!!
The ‘problem’ we are solving

• Patients can deteriorate slowly and it may not be recognised until reasonably advanced
• Not all healthcare professionals have the same clinical assessment skills as Registered Nurses
• Transfer to hospital can lead to lengthy admissions
• Transfer back home subsequently more complex
• If we can get care staff to flag simple changes in the client sooner we may avoid unnecessary transfers
The project aim

“
To improve the awareness of indicators of client deterioration amongst client care staff, in order to see an increase in engagement between client care staff and the branch, in order to improve the management of the deteriorating patient.
”
The process

• We ended up somewhere different to where we had expected!
• We had expected to create a variant of NEWS or a training package
• Grounded in good human factors thinking
• Every step was tiny, small changes, review the impact
• 15 PDSA cycles start-to-finish
• Bottom-up development, the team led the way
• Kept an eye on ‘the aim’ and checked the outcomes
• Stuck to the BTS methodology
• Two test sites, 10 clients
# Key PDSA cycle

## WORK SHEET FOR TESTING CHANGE

*Every aim will require multiple smaller tests of change*

<table>
<thead>
<tr>
<th>Aim</th>
<th>What is your overall aim, how much, by when</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To draft and test an “Early Warning Triggers” tool which we can move on to test on a small number of clients and Client Care Staff.</td>
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</table>

### PDSA cycle objective

<table>
<thead>
<tr>
<th>Describe your first (or next) step of change (test)</th>
<th>Person responsible</th>
<th>When to be done</th>
<th>Where to be done</th>
</tr>
</thead>
<tbody>
<tr>
<td>To test that the range of indicators are as comprehensive as we can make them</td>
<td>Tracey Jones &amp; Andy Cook</td>
<td>End Oct 2016</td>
<td>Test branches</td>
</tr>
</tbody>
</table>

### Plan

<table>
<thead>
<tr>
<th>List the tasks needed to set up this change</th>
<th>Person responsible</th>
<th>When to be done</th>
<th>Where to be done</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Interact with clients, CCS and staff</td>
<td>Tracey Jones</td>
<td>End Sept 2016</td>
<td>Test branches</td>
</tr>
<tr>
<td>-Draft initial tool</td>
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<tr>
<td>-Share with the GP team in collaborative</td>
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<tr>
<td>-Get feedback and refine tool</td>
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</tbody>
</table>

### Predict what will happen when the test is carried out

<table>
<thead>
<tr>
<th>What data will you collect during the test if predictions were correct</th>
<th>To determine if predictions were correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>What?</td>
<td>Who will collect?</td>
</tr>
<tr>
<td>Feedback</td>
<td>Team</td>
</tr>
</tbody>
</table>
What we created

• We ended up with a series of ‘soft signs’
• A suite of around 100 observable proxy measures against ADLs - no physiological measurements
• For each client between 5-10 soft signs were selected (relevant to them)
• Generic care plan that sets out the clients soft signs and how to respond
• Informal explanation to care staff
• Escalation pathway

So... very easy, very simple, very cost effective!
## PERSONAL CARE
- Lack of interest in personal care - change from normal
- Lack of interest/wanting to get out of bed and get dressed
- Change in presentation - unkempt/unshaven/hair unwashed/clothes not washed and clean - change for client
- Becoming more dependant on others for help with personal care - changes for client normal

## SLEEPING
- Change in sleep pattern - increase or decrease
- Increase in waking during the night which is not normal for the client
- Waking early hours of the morning
- Increase fatigue
- Change in sleeping arrangements - i.e. from bed to chair
- Change in sleeping positions to that of normal
- Change in level of consciousness
- Not responding to pain
- Cat napping during the day
What happened

- Increase in calls from care staff about changes in the soft signs
- Branch Registered Nurses reviewed patients more quickly and liaised with primary care or hospital teams
- Number of avoided admissions slowly increased
- Rolled out to our full network of 22 branches
- Without doubt the easiest and most trouble free clinical QI project we have completed nationally
So...

• A system that allows subtle changes in patient’s presentation, behaviour or ‘normal’ to be questioned
• Increased ‘permission’ for care staff to raise any concerns
• Outcomes based evidence that it is working
• Easy and simple to use with no complicated training or development beyond the basic ‘system’
• Transferability to other sectors?
Case Studies
Case Study 1

**Incident** - Client had a history of cellulitis and numerous long stay hospital admissions for IV antibiotics and treatment. CCS was assisting client with personal care in her bathroom on her shower chair. CCS noticed that client’s skin on leg had a superficial tear and split (soft flag).

**Soft signs identified** - Skin on leg cracked or sore.

**Action** - Ambulance called by CCS. Client dealt with at home by paramedics and reviewed by G.P. No requirement for hospitalisation. Prevented hospitalisation and also deterioration leading to further episode of cellulitis.
Case Study 2

Incident - Client presented with a life long history of mental health issues requiring a number of repeated non-voluntary admissions via Sectioning under the Mental Health Act and lengthy hospital stays. During a shift, client appeared more withdrawn than usual and refusing to engage and want the company of the CCS. Wanted to be left alone. Also attempted to leave their home on several occasions alone which was unusual (soft flags). CCS identified as a deterioration in client condition due to soft flags identified.

Soft signs identified - Client more withdrawn than normal, Wanting to leave home repeatedly, Did not engage with CCS.

Action - CCS called Paramedics, who spoke with client on phone. Mental health rapid response were also called and spoke to client. Client managed at home. Identifying early signs of deterioration prevented hospitalisation.
Case Study 3

**Incident** - Client presented with neuromuscular terminal condition requiring trachy/vent 24/7. Client has a history of recurrent chest infections historically requiring admission and lengthy hospital stays to manage. CCS on duty identified that client required more suction that usual on shift.

**Soft signs identified** - Required more suction than normal during the shift.

**Action** - Took client to hospital and chest infection diagnosed. Treatment at a much earlier stage prevented extended period of admission and discharged home on antibiotics.