Aggregated Data

Results for 3 units (lower is better)

Does the change result in improvement?

Change
Data over time - dynamic data

Where did the change likely result in improvement?
• **Outcome** – relates directly to outcome aim

• **Process** - how you will know how the parts of the system you need to change (to get you to your improvement aim) are performing and the impact of your changes on these.

• **Balancing** - unintended impact on other parts of the system or to see if something unrelated to your project is influencing project success?
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?

Act

Plan

Study

Do
TOP 6 REASONS WHY PEOPLE FALL

1. THINK ALREADY AT BOTTOM 21
2. SOMEONE ELSE’S HOUSE 12
3. CARRYING SOMETHING 11
4. LOOSE SLIPPERS 9
5. ALCOHOL 6
6. CHILDREN / PETS 5
Pareto Chart

Support Area

- No. of Errors
- Cumulative %

- Gaps
- Out of Stock
- Extra Doses given
- Medicine Stopped Early
- Not Given As No Directions
- Wrong Product
- Undefined Annotations for Other ...
- Delay in Administration

No. of Errors:
- Gaps: 44%
- Out of Stock: 86%

Cumulative %:
- 98%
- 99%
- 100%
- 100%
- 100%
- 100%
- 100%
- 100%
- 100%
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%
Driver diagrams

Aim

Primary drivers

Key factors that drive the outcome/aim

Secondary drivers

Secondary factors which will influence delivery of the primary drivers

Change ideas

Changes or interventions that can be tested out

Result

Drivers

Cause
Driver diagram

**Improvement focus: Reduction in medication incidents**

- **Aim**: 50% reduction in medicine incidents in the care home by 29 January 2018

- **Primary Drivers**
  - Staff performing at optimal level
  - Medicines available when needed
  - MAR information correct & only lists current medicines

- **Secondary Drivers**
  - Staff capacity
  - Staff ownership of practice
  - Efficient stock control process
  - Efficient stock ordering process
  - Effective links with GP practice
  - Efficient check of medicines & MAR
  - Effective links with pharmacy

- **Change Ideas**
  - Staff supernumerary when administering
  - Staff input into medication audits
  - Move from 3 units to 2 units
  - New receipt of medicine SoP – including use of CF at start of new cycle – with training.
  - New stock reconciliation audit
  - Request Form - synchronise midcycle items
  - New SoP for dropped tablets
  - Rx Tracking System – items supplied
  - Request Form - items to be removed from MAR
  - Tracking System - items removed
  - Move from 3 units to 2 units
  - New SoP for dropped tablets
PDSA tests the doing part
Prediction - If the Medicine Administration Recording (MAR) chart contain only current medication staff will find the MAR charts easier to manage and there will be a reduction in the recorded medicine incidents.

30-40%

Plan
Senior Carer to manually remove discontinued items from existing MAR Monday morning 9am
Removal of d/c items from MAR
Medicine Incidents in Care Home

Removal of d/c items from MAR

Number of medicine incidents per resident per week

MAR Chart W/C

Baseline Median
Target

Good
**Do** - The audit of outcome measures (medication incidents) showed the manual removal of discontinued items had no reduction in medicine incidents.

**Study** - Member of staff tasked with manually removing discontinued items from the MAR did not do this task due to competing care tasks.

**Act** - We are working to a weekly feedback cycle so can get feedback quickly. We want to test manual removal before moving to more fundamental process change. Re-run with time given to a senior carer to manually remove items from MAR for cycle 2.
Medicine Incidents in Care Home

Removal of d/c items from MAR

Number of medicine incidents per resident per week

MAR Chart W/C

Baseline Median
Target
Plan - Senior Carer to manually remove discontinued items from existing MAR Monday morning 9am

Do - The data showed a 60% reduction in overall number of medicine incidents.

Study
The removal of discontinued items from the MAR does help to reduce the number of medicine incidents in the home. There was a slightly greater reduction in number of medicine incidents that expected. The added effect may be due to some degree of hawthorn effect as staff are aware of the project, though it may also reflect original poor state of MAR charts.
PDSA Cycle 2

Act  The test result is encouraging. However this was a reactive change. If a more fundamental change is not implemented the number of medication incidents will return to baseline within a few weeks.

It was therefore decided to move to trying a change in process to ensure more permanent removal of discontinued items from the MAR. Analysing data over the longer term may also diminish hawthorn effect?
Removal of Prescription Items from MAR Chart

Number of prescription items

Cycle w/c 12 June
Cycle w/c 10 July

MAR Cycle

Removal Requested
Removal Achieved
Plan - Using a specific form to request formal removal of discontinued items from the MAR by pharmacy to sustain reduction in the number of medicine incidents in the home
Medicine Incidents in Care Home

Removal of d/c items from MAR

Baseline Median
Target

Number of medicine incidents per resident per week

MAR Chart W/C

Good
PDSA Cycle 3

**Do** - The data showed sustained reduction in overall number of medicine incidents.

**Study** - The removal of discontinued items from the MAR does help to reduce the number of medicine incidents in the home.

**Act** - Repeat/Continue with new process for removal of discontinued items from MAR
Medicine Incidents in Care Home

Number of medicine incidents per 10 residents per week

- Removal of d/c items from MAR
- New dropped tablet SoP
- Temporary increase in number of palliative care & assessment beds

MAR w/c

Rate

CL 11.1

Good
Midcycle Requests to GP for Synchronisation of Medicine Supply

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Prescriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>(02 Oct - 06 Nov, 2017)</td>
<td>25</td>
</tr>
<tr>
<td>(07 Nov - 04 Dec, 2017)</td>
<td>25</td>
</tr>
</tbody>
</table>

- **Synchronisation Requests**
- **Synchronisation Achieved**
Making Improvement Happen 1: Reduction in medicine incidents

1. Build will and conditions for change
2. Understand current system
3. Develop aim and change theory
4. Identify specific change ideas, test and refine in context
5. Implement locally, using PDSA cycles to build in sustainability
6. Scale up / spread where relevant

Leadership, project planning and management, communication and measurement
Degree of belief in a change is increased when tests confirm predictions under a wide range of conditions.
## PDSA Cycles: Deciding on Scale

<table>
<thead>
<tr>
<th>Low degree of belief that change idea will lead to improvement</th>
<th>NO COMMITMENT</th>
<th>SOME COMMITMENT</th>
<th>STRONG COMMITMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of failure large</td>
<td>Very small-scale test</td>
<td>Very small-scale test</td>
<td>Very small-scale test</td>
</tr>
<tr>
<td>Cost of failure small</td>
<td>Very small-scale test</td>
<td>Very small-scale test</td>
<td>Small-scale test</td>
</tr>
<tr>
<td>High degree of belief that change idea will lead to improvement</td>
<td>Cost of failure large</td>
<td>Small-scale test</td>
<td>Large-scale test</td>
</tr>
<tr>
<td>Cost of failure small</td>
<td>Small-scale test</td>
<td>Large-scale test</td>
<td>Implement</td>
</tr>
</tbody>
</table>
How to contact us

• visit: www.careinspectorate.com

• call our helpline: 0845 600 9527

david.marshall@careinspectorate.com
**Incident**

An incident is a serious **unplanned event that had the potential to cause harm or loss**, physical, financial or material. For example:

**a young person absconding from a care home for children and young people.**
Definition of error?

National Coordinating Council for Medication Error Reporting and Prevention: What is a Medication Error?

http://www.nccmerp.org/taxonomy-medication-errors-now-available

“any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer”
Category I – A medication error that may have contributed to or resulted in permanent harm, for example unexpected death, or that required emergency intervention to sustain life.

Subcategories:
I: A medication error that contributed to or resulted in the person’s death.
H: A medication error that required intervention necessary to sustain life.
G: A medication error that contributed to or resulted in permanent harm to the person.

Harm is defined as an outcome with a negative effect
**Category II** – A medication error that may have contributed to or resulted in temporary harm, for example requiring initial or prolonged treatment, intervention or monitoring required.

**Subcategories:**

**F:** A medication error that contributed to or resulted in temporary harm to the person and that required them to be hospitalised.

**E:** A medication error that contributed to or resulted in temporary harm to the person and required intervention by a health professional.
Category III – A medication error that had the potential to cause harm but no harm occurred, for example near miss events where an error occurred, but no harm resulted.

Subcategories:

D: A medication error that required monitoring to confirm that it resulted in no harm to the person and/or required intervention from a health professional to preclude harm.

C: A medication error reached the person, but it did not cause them harm.

B: A medication error occurred but the error did not reach the person (An "error of omission" does reach the person)

A: Circumstances or events that have the capacity to cause a medication error.
4. Staff nurse informed at approx 16:30 that she had forgotten to do the lunchtime medication round... total of 11 residents missed their medications at this time.

The provider must have a procedure to instruct staff on what to do if there is a medication error including:

- Who the carer should notify – manager, GP? CI? (guidance)
- How to record the error
- **Root cause**
- Proportionate response!
Murray: A whole bottle of pills! My God, get an ambulance!

Oscar: Wait a minute, will ya?! We don’t even know what kind!

Murray: What difference does it make?! He took a whole bottle!

Oscar: Well, maybe they were vitamins? He could be the healthiest one in the room!
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