Improving care, delivering quality

1000 LIVES O FywYdau

The Quality Improvement Guide
Pharmacy Edition

Helping pharmacists to deliver change and improve patient safety in Wales

supported by

ROYAL PHARMACEUTICAL SOCIETY
What they’re saying about The Quality Improvement Guide - Pharmacy Edition

“Pharmacists play a critical role in the 1000 Lives Plus programme. For the Royal Pharmaceutical Society, partnership with 1000 Lives Plus is vital if we are to achieve our ultimate aim of making Wales the safest place in the World to take medicines. This guide is an invaluable tool for pharmacists from all sectors of practice and will empower them to deliver change and improve medicines management across the whole country.”

Paul Gimson, Royal Pharmaceutical Society Director for Wales

“Using a common and consistent language for improvement will help all health professionals working together to introduce true innovation and improvement. As we embrace new approaches and adopt better practice, it is great to be engaging pharmacy colleagues in this work. As a pharmacist, myself, I know the tremendous potential for us to make a valuable difference in the lives of people who rely on our expertise.”

Dr Alan Wilson, Director 1000 Lives Plus

“The improvement methodology promoted by 1000 Lives Plus enables us to take research into practice. Pharmacy is an area where knowledge never stands still, so there is always scope for testing something new. 1000 Lives Plus has an excellent track record at engaging staff across clinical disciplines in improvement work - and it is important for pharmacy professionals to get involved.”

Professor Nick Barber, Director of Research and Evaluation for the Health Foundation & Professor of the Practice of Pharmacy, UCL School of Pharmacy, London
Foreword

Improving the safe and effective use of medicines is a guiding principle for the NHS in Wales. I welcome this special Pharmacy edition of ‘The 1000 Lives Plus Quality Improvement Guide’ as a practical information resource to help the pharmacy team play an even greater part in delivering this important principle.

The guide demonstrates how pharmacy can make a difference to the patient safety agenda. Using the 1000 Lives Plus methodology and a multi-disciplinary approach, small or large changes that are straightforward and measurable can be delivered. Practical examples from pharmacists who have used the methodology are showcased and serve as exemplars for others.

If we are to deliver meaningful change across Wales then all health professionals need to be involved in projects that are designed to improve outcomes. We need to disseminate details of those projects that deliver this and ensure changes that deliver positive results are embedded in normal daily practice. The 1000 Lives Plus methodology is an evidence-based and easy to follow approach that does just that.

I am proud of the invaluable contribution pharmacists, technicians and their support staff across Wales make to the health of the nation every day and this guide will help develop this role further.

However, we know harm still occurs as a result of medicine use. Up to 50 per cent of medicines are not taken as prescribed, and up to 1 in 20 hospital admissions are as a result of adverse drug reactions. We must improve on this. This guide can help every single member of the pharmacy profession to now play their part in reducing harm, waste and variability. Our patients expect it, and deserve it.

Professor Roger Walker, Chief Pharmaceutical Officer for Wales
The 1000 Lives Plus Quality Improvement Guide - Pharmacy Edition

Copyright © 2012, 1000 Lives Plus

All rights reserved.

These materials may be photocopied for educational, not-for-profit use, as long as the contents are not altered in any way and 1000 Lives Plus is named as the source of the content. These materials must not be reproduced for commercial use, or republished under any circumstances, without written permission from 1000 Lives Plus.

This guide is available on the Royal Pharmaceutical Society and 1000 Lives Plus websites in both Welsh and English.

We are grateful to the Health Foundation for their support in the production of this guide.
The 1000 Lives Plus Quality Improvement Guide - Pharmacy Edition

Contents

1. Introduction 7
2. The Model for Improvement 13
3. Measurement and Reliability 29
4. Delivering Improvement through Teamwork and Leadership 35
5. Engaging your Audience Developing a Communications Strategy 43
6. Common questions 47
7. Summary 53
8. Improving Healthcare across Wales 57
9. References 71

Published by 1000 Lives Plus, 14 Cathedral Road, Cardiff CF11 9LJ
Phone: (029) 2082 7653
Email: 1000livesplus@wales.nhs.uk
Web: www.1000livesplus.wales.nhs.uk
Introduction
Introduction

From the moment a decision is made to prescribe a medicine, to the point at which a patient elects to take it, or not, the opportunities for errors and patient harm are frequent. Improvements must be made to help tackle this situation and help improve medicine safety.

Medicines are the common thread throughout a patient’s healthcare journey, with pharmacists underpinning this journey as patients transfer through the various care settings. As the experts in medicines, pharmacists play a crucial part in the delivery of safe and effective pharmaceutical care to their patients.

This version of ‘The 1000 Lives Plus Quality Improvement Guide’ has been specially created to support the pharmacy profession in its role of enabling patients to get the best out of their medicines as they are cared for in NHS Wales.

The first question that needs to be asked is: “How should we set about making this improvement?” Scientific models which promote and support new knowledge, exciting innovations and best practice offer one-off solutions, but they’re not improvements. They can distract from the regular and often painstaking work of providing a reliable service and continuous improvement. The good news is that there are better ways to manage improvement, but we will need to learn them (Berwick 1992 I and Berwick 1992 II).

In Wales, the 1000 Lives Plus programme includes work focusing specifically on medicines management. The programme has indentified that harm can occur at any point in the medicines system and has taken a significant step forward in outlining improvement methodologies to help reduce harm from medicines.
Based on findings from the use of the Global Trigger Tool and other national and international experiences, the 1000 Lives Plus ‘How to Guide’ for Medicines Management focuses on six key groups which can cause the most harm; anticoagulants, opioids, insulins, thiazide diuretic, anti-psychotics in dementia, and non steroidal anti-inflammatory drugs.

However, the complexity of people’s healthcare needs requires the collective knowledge, skills and actions of many disciplines and professions. Each discipline shares some knowledge and skills with others, but each also makes its own unique contribution to the ‘collective’ pool.

The improvement work in Wales in recent years has shown that some simple principles and techniques can increase success. Even so, improvement will only be maintained and spread if those techniques are widely understood and shape the way that whole organisations work (Shortell, 1998).

For improvement to be maintained there must be:

**Will** - we must want to improve;

**Ideas** - we must know what to try; and

**Execution** - we must know how to change.

(Berwick, 2003 and Nolan, 2007)
Introduction

Over several years, NHS Wales has shown that it is often good at coming up with ideas, being innovative and drawing on good practice. The 1000 Lives Plus programme shows that those working within NHS Wales are committed to improving. However, the biggest challenge has been using the right techniques to achieve improvement. This has sometimes given the impression that there is a lack of commitment, but we know that nobody wants to cause harm or do a poor job for their patients.

The purpose of this guide is to describe a useful set of techniques that pharmacists can use in different settings, and to explore how they can use these techniques in their work. The aim is to create a shared understanding and language for the way the NHS takes improvement forward.

In the first section of this guide, three examples are used to illustrate the point being made.

1. Reducing the inappropriate prescribing of anti-psychotic drugs is a well acknowledged intervention. If this is further refined and focused on dementia patients then noticeable improved patient outcomes can be demonstrated. Ensuring that the medicine is only being prescribed appropriately ensures patient-centred care is put into practice.

2. Non-steroidal anti-inflammatory drugs (NSAIDs) are commonly used. They can be bought over the counter and can have the perception of being harmless. However, they are classed as high risk medicines, and even when used as intended, can cause severe harm to the patient. Supporting evidence demonstrates the risk factors and pharmacy can help prescribers to use these drugs effectively and safely, through promoting and auditing against
the recognised guidelines. Additionally, by educating people using these medicines, pharmacy can reinforce safety messages and provide better care.

3. **Warfarin** is a high risk medicine. When an error occurs in the prescribing of this drug, the impact on the patient can be significant at best or fatal at worst. It has a narrow therapeutic index, it interacts with other medicines including herbal medication, over the counter products and food making its prescribing and monitoring an issue for both primary and secondary care.

These examples demonstrate interventions that can be made to improve prescribing, and opportunities pharmacy has to reduce harm and variation in prescribing for these patients. These include checking a patient’s INR record before dispensing, and using the discharge medicine service to ensure a patient’s medicines are reconciled prior to prescribing in primary care.
Introduction

**GPhC Standards of Conduct, Ethics and Performance**

The principles set out the standards of conduct, ethics and performance that pharmacy professionals must follow.

These principles underpin the quality improvement work within this guide and the need for pharmacy to be actively involved with the quality improvement agenda of 1000 Lives Plus in improving patient care.

**The Seven Principles**

As a pharmacy professional, you must:

1. Make patients your first concern.
2. Use your professional judgment in the interests of patients and the public.
3. Show respect for others.
4. Encourage patients and the public to participate in decisions about their care.
5. Develop your professional knowledge and competence.
6. Be honest and trustworthy.
7. Take responsibility for your working practices.
2 The Model for Improvement
The Model for Improvement

The Model for Improvement provides a framework to structure improvement efforts. It was originally developed by Associates for Process Improvement (www.apiweb.org) to provide the best chance of achieving goals and adopting ideas (Langley et al, 1996). The model is based on three key questions, known as the thinking components:

1. **What are we trying to accomplish?**
2. **How will we know that a change is an improvement?**
3. **What change can we make that will result in improvement?**

These questions are then used in conjunction with small scale testing, the doing component known as Plan-Do-Study-Act cycles (PDSA) as outlined in figure 2.

---

**Figure 2: The Model for Improvement**
*(Institute for Healthcare 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?

For further details about the Plan-Do-Study-Act cycles, see page 26.
1. What are we trying to accomplish?

Improvement requires effort, so it is important to direct our efforts to the right problem. The first thing we have to do is be clear about what we aim to achieve. For example, is the aim to reduce death, avoid dependency or illness, or reduce risk?

This sounds obvious, but is often hard to answer precisely. Without this clarity, it is impossible to decide what action to take or to know whether the outcome is an improvement. So the vital question is: “What outcome do we want?”

The table below sets out the desire outcome of each of the three example cases:

<table>
<thead>
<tr>
<th>Example 1 Anti-psychotic drugs</th>
<th>Example 2 Non-steroidal anti-inflammatory drugs (NSAIDs)</th>
<th>Example 3 Warfarin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desired outcome</td>
<td>Reduce anti-psychotic-related harm in dementia patients</td>
<td>Reduce NSAID related harm</td>
</tr>
</tbody>
</table>
2. How will we know that a change is an improvement?

Once we are clear about the desired outcome, the next task is to choose a standard to measure the outcome against. At best, this measurement will be simple and easy to use, but it is often difficult to find a perfect measurement. We may need to accept some imperfection and collecting the necessary information may be difficult.

The principles to follow when selecting a measure are:

- Use a measure which:
  - is well defined;
  - allows comparison between sites and over a period of time; and
  - is already in use, if possible.

- Use a measure that is specific and sensitive enough to allow you to identify and monitor outcomes.

- Don’t reject a measure simply because other factors could affect the effectiveness of the measure. If those other factors are likely to stay constant, the measure may still be valuable.

- When choosing an outcome measure, favour one that can be applied to the whole community, population or system.
Whether using an existing measure or creating new ones, it is vital to be clear about how they are defined. If using an existing measure, it is likely to have been developed for a different purpose, so take time to understand how it was put together.

Make sure that everyone involved in collecting information for new measures knows why they are doing it.

Lastly, improvement work sometimes needs to go ahead without there being a good outcome measure, and often before monitoring is stable. This is because improvement work is not an experiment trying to prove the value of an action; it is about adopting and adapting practice, based on evidence. For this reason, and also because it can take a long time for any change in outcome to be recognised, we should also have at least one measure of process. Guidance on how to choose appropriate process measures is given on page 30.
Here are the outcome measures for our three examples:

<table>
<thead>
<tr>
<th>Outcome measures</th>
<th>Example 1: Reduce anti-psychotic related harm in dementia patients</th>
<th>Example 2: Reduce NSAID related harm</th>
<th>Example 3: Reduce warfarin related harm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of anti-psychotic prescriptions dispensed</td>
<td>Patients taking NSAIDs have a link to their prescribed indication on PMR record</td>
<td>Percentage of prescriptions for 28 prescribing</td>
<td></td>
</tr>
<tr>
<td>Care plans for patients taking anti-psychotic drugs have provision for medication monitoring and review of patients</td>
<td>Number of modified release products prescribed</td>
<td>Patients with recent INR result at point of dispensing</td>
<td></td>
</tr>
<tr>
<td>Patients with a diagnosis of dementia and taking anti-psychotic drugs have a medication review for appropriate prescribing of drugs</td>
<td>Patients on regular NSAID having an medicine use review with community pharmacists</td>
<td>Patients discharge from hospital offered DMR service</td>
<td></td>
</tr>
</tbody>
</table>
3. What changes can be made that will result in improvement?

It is essential to link outcome measures to ‘interventions’ - the systems and processes that will help us achieve the desired outcome. We will not make consistent progress towards improving outcomes by focusing on outcome measures alone.

There are two parts to this question - “What is wrong with the system now?” and “What works?”

What is wrong with the system now?

The experience of our staff, the evidence through our own eyes, and feedback from our patients and other service users will all help us identify what we need to focus and concentrate our efforts on.

We need to consider the following:

- What will deliver the biggest benefit? This is often addressing the things that are done most often or the area where most waste is incurred.

- What do typical cases tell us about the system?

- Are demand and need understood properly? How much demand is repeat work or work caused by another part of the service?

- What is the high-value part of the system (the part that delivers real benefit)? Is it the same as the part which has the highest costs?
The Model for Improvement

• What can simplify the process?
• How can we use the knowledge of service users and people in other parts of the process?

In other words, we need to make a conscious effort to do the following:

• Avoid making change for change’s sake.

• Avoid considering one interesting, seemingly urgent and personally fascinating topic at the expense of important mainstream work.

• Avoid focusing only on ‘special causes’ which are particularly serious or unusual as they will often give false information about how to improve the system in general. To improve, we need to focus on the things which regularly cause unreliability.

For example, in acute stroke services, some of the biggest causes of unreliability result from certain staff not being available outside ‘office hours’. Approaches to improve reliability have tackled the skill mix of the staff available at any one time and re-examined the segregation of duties to reduce the differences in care patients experience at different times.

• Avoid adding extra steps to ‘fix’ a system that isn’t working. Especially avoid adding a solution while allowing a problem to continue. This is what Davies Balestracci refers to as “scraping burnt toast” (Balestracci, 2005). Such steps will add handovers, bottlenecks and bureaucracy but will not improve efficiency.
• Avoid the ‘silo’ mentality where departments or groups do not want to share information with others. Do customers get what they want from parts of the service? Are we running a ‘great’ department while quietly blaming other departments for poor delivery?

• Avoid confusing information on performance (whether targets have been met) with information on improvement (how the system is working).

What works?

To find out what works we first need to gather evidence of how a good system should work. Don’t make this unnecessarily hard by going into too much detail. Greenhalgh (2004) has shown that successful change is most likely to be achieved using simple steps that can be applied in local situations (see page 50).

We use the evidence base gathered to produce driver diagrams to summarise desired outcomes and how they can be achieved. Pages 23, 24 and 25 give examples of driver diagrams based on the desired outcomes of:

• reducing anti-psychotic related harm in dementia patients;
• reducing non-steroidal anti-inflammatory drug (NSAID) related harm; and
• reducing warfarin related harm.

The first step to producing a driver diagram is to gather evidence of what works. The best evidence is published accounts of controlled experiments or, better still, systematic reviews of several publications. If that evidence is not available, professional guidelines, national service frameworks and evidence of good practice may be useful, but we need to be aware of their limitations.
When producing driver diagrams there are some basic rules which must be followed.

- The first column - ‘Aim’ - shows the desired outcome of the service (the simpler the better).
- The second column - ‘Drivers’ - shows the factors that affect the outcome.
- The third column - ‘Interventions’ - shows the actions that have been shown to make a difference and bring about improvements.

A panel of experts will have to agree the driver diagram. It should be brief and simple and contain only evidence-based and important interventions.

As far as possible, the interventions should state what happens to the patient and not specify where care takes place or the type of staff involved.
Reduce anti-psychotic related harm in dementia patients

**Aim**
- Reduce harm from anti-psychotic prescribing for dementia patients.

**Drivers**
- Appropriate use and prescribing of anti-psychotics in dementia.
- Appropriate dispensing of anti-psychotics in dementia.
- Education for nursing/care home staff.
- Provide person driven care.
- Improve communication.

**Interventions**
- Education, Guidelines and prompts (e.g. www.CKS.nhs.uk, NICE Dementia Guidelines, WCPPE, Alzheimer’s Society).
- Check and challenge anti-psychotic prescribing in dementia.
- Check the indication and precipitating cause.
- For repeats: check and document how long patient has been on medication, date of last assessment and plan for ongoing treatment and review.
- For acute prescriptions: check planned treatment, target symptoms and planned review date.
- Document and monitor patient progress.
- Educate on risks/benefits, evidence-based guidelines and alternative strategies for managing challenging behaviour.
- Signpost family/carers to sources of further information.
- Suggest non-pharmacological interventions, e.g. aromatherapy, multi-sensory stimulation, therapeutic use of music and/or dancing, animal assisted therapy, massage.
- Work with care home/carer to develop care plan.
- Ensure ongoing sharing of information between community pharmacy, GP, out of hours services, A & E, and hospitals where necessary.
Reduce non-steroidal anti-inflammatory drug (NSAID) related harm

Aim

Drivers

Interventions

Appropriate use and prescribing of NSAIDs.

• Guidelines prompts, and audits (e.g. www.CKS.nhs.uk, NICE Osteoarthritis and rheumatoid arthritis Guidelines, AWMSG NSAID audit).
• Exhibit care with choice, strength, formulation and duration of NSAID treatment.
• Acute prescriptions where possible.

Appropriate dispensing of NSAIDs.

• Check for contraindications and interactions with other medicines.
• Check for concurrent gastro-protection medication.
• Record interventions in patient record e.g. contact with prescriber regarding interactions/contraindications.
• Advise patients on side effects, when to take NSAIDs, avoidance of other over the counter NSAIDs and aspirin.

Provide person driven care.

Use MURs to reinforce safety messages:
• Use of regular simple analgesia e.g. paracetamol.
• Recommend use of NSAIDs intermittently for flare-ups only.
• Awareness of long term risks and warning signs of adverse effects.
• Check for medication review.
• Recommend topical NSAID if not previously considered.
• Offer lifestyle interventions e.g. smoking, weight loss.

Improve communication.

Ensure ongoing sharing of information between community pharmacy, GP, out of hours services, A & E, and hospital where necessary.
Reduce warfarin related harm

**Aim**

- Reduce warfarin related harm.

**Drivers**

- Appropriate Use of warfarin.
- Appropriate prescribing of warfarin.
- Appropriate dispensing of warfarin.
- Provide patient driven care.
- Improve communication.

**Interventions**

- **Drivers**
  - Education, Guidelines and prompts (e.g. BMA anticoagulant module, NICE Atrial Fibrillation Guidelines):
    - Documented risk/benefit assessment at initiation and annually for ongoing suitability.
    - Regular INR monitoring.
    - Minimum dataset to be recorded in patient records.
  - Check for interactions with other medication and alert prescriber
  - Use tablet strengths suitable for dose.
  - Avoid 5mg tablets unless absolutely necessary.
  - Issue quantities for 28 days supply.
  - GP to check INR result and interactions prior to signing the prescription.
  - Pharmacist to ensure INR is safe and recent (up to 12 weeks if stable) prior to dispensing.
  - Counsel new patients and family/carers.
  - Reinforce information for existing patients.
  - Inform on interactions with medicines/foods.
  - Use MURs to achieve concordance.
  - Advise patient and clinician on additional INR testing in relation to interacting medicines e.g. antibiotics and document in patient hand held record (e.g. yellow book).
  - Use DMS for medicines reconciliation.
  - Information shared between hospital, primary care and community pharmacy, Out of Hours, Accident & Emergency.
How do we introduce changes to processes?

In the 1000 Lives Plus improvement work, we have learnt that to try something new in a reliable way, it is best to start small - one person, one setting, one service provider.

Even if something has been shown to work in other settings, take the time to do a small-scale trial. There are almost no ‘plug and play’ solutions that work in all situations. Testing allows us to adapt actions to particular settings. To test a new procedure or technique, we need to ‘plan, do, study and act’ as explained below.

Plan
Plan what you are going to do differently - ‘who, what, where and when’.

Do
Carry out the plan and collect information on what worked well and what issues need tackling.

Study
Gather relevant team members as soon as possible after the test for a short informal meeting. Analyse the information gathered and review the aim of the new procedure or technique against what actually happened. Questions that need to be asked include the following:

• ‘What is the information telling us?’
• ‘What worked and what didn’t work?’
• ‘What should be adopted, adapted, or abandoned?’
Act
Use this new knowledge to plan the next test. Agree the changes and amend the outcome measures if necessary.

We should continue testing in this way, refining the new procedure or technique until it is ready to be fully introduced. But, do it quickly (think in days, not weeks). When the change has been reliable for 90 - 95% of patients, propagate to more sites.

Don’t assume that a change can simply be ‘rolled out’ once it has been successfully tested. The introduction needs to be managed at every stage. There is no hard and fast rule for how quickly to introduce the change. Once it has been introduced in a new area, test the change again.

We must remember to account for the organisation’s ability to make sure it can manage a larger number of new sites while continuing to maintain existing ones.
3 Measurement and Reliability
Measurement and Reliability

To summarise the last section, improvement cannot happen without measurement:

• We cannot try a solution until we understand the problem.
• We cannot test a solution unless we are measuring its effect.

Study the system to see which action offers the most potential value. Use a spreadsheet to count all critical parts in the process. Alternatively, use ‘process mapping’, which converts the process into a visual, step-by-step diagram, or existing audits or recent reports.

However, bear in mind that audits and reports are likely to study small fractions of the information available and may be inaccurate. For both these reasons, they can lead to false conclusions. There is no substitute for looking at the system personally, seeing where any measurements come from and how they are made.

How we measure

The diagram on the next page, ‘The seven steps to measurement’, illustrates the complete process. The first three steps have been covered in earlier sections of this guide (see page 14).

‘Decide aim’ (step 1) is covered in the ‘What are we trying to accomplish?’, and steps 2 and 3 are covered in ‘Finding an outcome measure.’

Steps 4 to 6 form the ‘Collect-Analyse-Review’ cycle. First collect some information (step 4), then analyse it and present it in an appropriate way to convert it into useful information (step 5). Finally review the information to see what decisions need to be made (step 6). The Collect-Analyse-Review (CAR) cycle then starts all over again (step 7).
**Figure 6: The Seven Steps to Measurement**

The seven steps to take are:

1. Decide your aim
2. Choose your measures
3. Define your measures
4. Collect your baseline data
5. Analyse and present your data
6. Meet to decide what it is telling you
7. Repeat steps 4 to 6 each month or more frequently

The first CAR cycle will provide a ‘baseline’ of current performance (the starting part). If you collect information about 20 to 25 times and plot the results on a chart, this will provide an ideal number of points to create a baseline or identify a trend. One way to get more points is to measure more frequently.

Often the information needed is not currently being collected. If so, start collecting your information straight away. But we do not have to wait to start making small changes. They will not affect the overall situation while creating the baseline.

Using ‘run charts’ is a simple way to help analyse information and a statistical process control chart will help you look at your information and understand any variation in the process you want to improve.
‘Plotting the dots’ is very effective because it helps us to spot trends and patterns displayed to us.

The frequency of measurement, often carried out weekly here, is a major difference between measurement for improvement and more traditional forms of measurement.

Traditionally, figures are smoothed out to get to ‘the real underlying trend’ by taking an average of the period. The problem comes when comparing the previous average with the current one to see if there’s been an improvement. Simply comparing two numbers and knowing that one will be bigger than the other gives a 50% chance of being better (or worse)! In contrast, run charts and statistical process control charts have rules which provide confidence that when a change has been spotted, it really is one.

Finally, step 6 reminds us that it is vital to set time aside to look at what the measures are telling us. How often the information is collected, analysed and reviewed sets the pace for change being introduced.

When we are aiming to improve, it is important that measurement is carried out fairly and openly. However, if people think that their measurement will be used to criticise them, then they will be reluctant to collect information. There are three main reasons for collecting information:

- improvement - to help discover ways to improve;
- accountability - to hold people accountable and make sure they are working to an acceptable standard; and
- research - to discover something new.

Figure 7 shows how the way things will be measured will change, depending on what the measurement is going to be used for.
### Figure 7: Solberg et al, 1997 adapted

<table>
<thead>
<tr>
<th></th>
<th>Improvement</th>
<th>Accountability</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aim</strong></td>
<td>Improvement of care</td>
<td>Comparison, choice, reassurance</td>
<td>New knowledge</td>
</tr>
<tr>
<td><strong>Method of testing</strong></td>
<td>Small sequential tests</td>
<td>No testing - simply evaluate</td>
<td>One large carefully designed test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>performance</td>
<td></td>
</tr>
<tr>
<td><strong>Bias</strong></td>
<td>Accept consistent bias</td>
<td>Adjust what you collect to</td>
<td>Design to eliminate bias</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reduce bias</td>
<td></td>
</tr>
<tr>
<td><strong>Sample size</strong></td>
<td>Small sequential samples</td>
<td>Potentially large - need to gather</td>
<td>Large - need information to cover all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>all relevant information</td>
<td>eventualities</td>
</tr>
<tr>
<td><strong>Flexibility of hypothesis</strong></td>
<td>Hypothesis changes with</td>
<td>No hypothesis</td>
<td>Fixed hypothesis</td>
</tr>
<tr>
<td></td>
<td>learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type of analysis and presentation</strong></td>
<td>Run charts or statistical</td>
<td>League tables, achievement of</td>
<td>Traditional statistical tests</td>
</tr>
<tr>
<td></td>
<td>process control charts</td>
<td>target</td>
<td></td>
</tr>
<tr>
<td><strong>Confidentiality of information</strong></td>
<td>Information used only by</td>
<td>Information available in the</td>
<td>Results widely available but research</td>
</tr>
<tr>
<td></td>
<td>those involved in</td>
<td>public domain</td>
<td>subjects’ identity protected</td>
</tr>
<tr>
<td></td>
<td>improvement project</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Measurement and Reliability**
Frequent measures also allow us to calculate reliability: how many times did we do what we intended as a proportion of the total number of tries? For example, if we have a protocol for screening all patients admitted to hospital, what proportion of the total actually were screened? When we try to do two things in a process, reliability gets harder. What proportion of those screened received the resulting intervention? If both steps have 80% reliability, the reliability of the process is 64% (80% of 80%).

Typically, when we measure reliability for the first time, the results are disappointing; 80% is typical for one step: less than 50% for bundles of steps where four or more steps are linked.

It is often possible to reach 95% reliability for single steps by supporting human operators with training, memory aids and in-built reminders. If greater levels of reliability are needed or if these simple changes do not deliver 95%, the system itself needs redesigning. Design is the best tool for achieving reliability.

For more information on measurement and reliability, the ‘How to Improve’ guide published by 1000 Lives Plus covers this in much more detail. The guide is available on the website at www.1000livesplus.wales.nhs.uk/publications
Delivering Improvement through Teamwork and Leadership
Delivering Improvement through Teamwork and Leadership

To achieve improvement across a whole organisation there needs to be teamwork and strong leadership. One person working alone, or groups of people working in an unco-ordinated way, will not achieve it.

Organisations can often point to specific examples of good quality improvement practice, but supporting staff to introduce and maintain co-ordinated improvements is far more challenging.

Once priorities have been agreed, setting up teams to lead on taking improvement actions will help build commitment, generate ideas and co-ordinate tasks, as well as help to review progress. We need to consider three different aspects when putting a team together:

- Leadership at an organisational level;
- Clinical or technical expertise;
- Frontline leadership.

There may be one or more people on the team working in each role, and one person may fill more than one role, but each role should be represented on the team in order to achieve long-term improvement. However, we need to avoid setting up a team that is too large to reach an agreement and to communicate quickly and effectively.
To attract and keep excellent team members, we can:

- Use information to define and solve the problem, and gather people who are enthusiastic about the issue.
- Appoint a local specialist or ‘process owner’ who:
  - is responsible for the processes which are to be changed; and
  - has the knowledge necessary to oversee the effective introduction of the improvement.
- Set up ‘sub-teams’ if there are several areas to be covered or specific areas of expertise are needed.

Building the will to make improvements as quickly as possible

Strong leadership is critical to building the will to change. Changing practice often requires a change in the organisation’s culture (the beliefs and assumptions people have about ‘the way things are done around here’).

The culture in an organisation, even at the level of an individual department or unit, develops through the messages staff receive from leaders. Surveys can be useful information on people’s attitudes and opinions, and can give leaders vital information about where to focus attention.

Setting clear improvement aims and monitoring progress against them is a primary task for leaders, but it is the practical actions of leaders that most strongly influence an organisation’s culture and the will to change.
Practical actions include sharing stories based on users’ experiences and highlighting the need for change. Being approachable to staff and communicating openly using a structured approach, such as leadership ‘WalkRounds’, can be valuable.

**Generating and spreading ideas**

Leaders at all levels need to encourage and spread ideas about alternative ways of doing things. Those ideas need to be good enough to form the basis of new working systems.

Teams should meet regularly to generate new ideas through:

- Spontaneous participation in discussion in order to gather information;
- Adapting strategies from other industries;
- Adopting ‘best practices’ from other services or conferences;
- Identifying trends by analysing patient stories, complaints, incidents and near misses; and
- Visiting the sites of other services.

Successful sites regularly involve new people in these meetings and make sure the group is open to new views. New members of the group help to generate some of the best ideas.

Asking frontline staff about the biggest challenges they face each day, then looking for ways to tackle them, quickly involves staff in finding solutions for issues they are most concerned about changing.

Patient stories have become a powerful means for bringing experiences to life. They present an individual’s own perspective on their care and help us build a picture of what it is like as a service-user.
The strength of patient stories is that the content of each interview is led by the individual patient/client. This means that it is unlike any other method used to elicit patient views. For instance, in patient satisfaction questionnaires, the questions are often decided by healthcare professionals and reflect the issues that they feel are important, rather than showing the things that really matter to patients.

1000 Lives Plus has been using patient stories as a means to identify areas of improvement. This is a very powerful way of ensuring patient involvement in the planning and improvement of healthcare services and to find out which aspects of their experience they value.

**Successfully introducing change**

Achieving change will require consistently applying a range of improvement initiatives into the daily work of the organisation. Using driver diagrams is an excellent way of demonstrating how local actions are in line with organisation-wide priorities, and so these diagrams should be developed and used at all levels.

A second essential component of successfully introducing change is clear accountability - all the way from the frontline team to the most senior level of the organisation. The role of executive lead for an improvement initiative is not a passive ‘figurehead’ role.
Delivering Improvement through Teamwork and Leadership

It requires positive action to support, challenge, allocate appropriate resources, and overcome barriers to change.

The third essential component for introducing change must be a commitment to develop staff at all levels in the skills needed to lead and deliver improvement initiatives.

The 1000 Lives Plus programme has developed a driver diagram to provide an overview of the actions leaders should consider to introduce change. This diagram is in the ‘Leading the Way to Quality and Safety’ guide, available on the website at www.1000livesplus.wales.nhs.uk/publications

The Royal Pharmaceutical Society and the National Leadership and Innovation Agency for Healthcare, in partnership with Welsh Government and the Welsh Centre for Pharmacy Professional Education run a pharmacy leadership programme every two years.

The programme aims to develop the leadership capability of pharmacists within Wales (including NHS employees, independent and multiple private sector practitioners).

The programme is designed to deliver the following outcomes:

- Improved understanding of leadership skills.
- Increased personal leadership skills.
- Leverage benefits from the pharmacy contract.
- Improved patient care by developing an integrated service change across a defined health community or within an area of practice.
- Improve collaboration between secondary and primary care settings.
Delivering Improvement through Teamwork and Leadership
5 Engaging your audience
Developing a communications strategy
Engaging your Audience

Good communication supports every part of an improvement programme as it aims to involve people, introduce new ideas, procedures and techniques, and change culture.

An effective communications strategy reinforces improvement work by:

- Developing language that wins ‘hearts and minds’;
- Communicating the improvements and the involvement of those delivering them;
- Developing tools which allow people - both frontline staff and leaders - to understand what needs to be done;
- Conveying involvement and success; and
- Creating a co-ordinated ‘joined up’ approach which gives energy, maintains momentum and makes sure new ways of working are spread throughout and across organisations.

To present information in ways which will be understood and encourage involvement we need to identify audiences and the perspectives they would bring. For example, taking the time to ask and understand what motivates frontline staff is essential for shaping all communications with them. (Welsh NHS Confederation, 2009)

Focus groups can be a useful way of uncovering issues that may encourage or detract from the improvement. The results can then be used to develop communication objectives and important messages.

A well-crafted key message conveys the focus of the work in a short but memorable statement, reflecting the values and hopes of those
who are involved. This is part of developing a ‘hearts and minds’ approach, which involves people on a practical and an emotional level.

A focus on frontline staff - their views, thoughts and successes with the improvement - will encourage others to get involved. Every attempt should be made to gather information on the progress and achievements of frontline staff, and to communicate this widely.

As part of the communications strategy, consider developing a brand. This is more than just designing a logo. The values, tone and emotional impact of a logo needs to be considered too. A positive ‘identity’ for the improvement work can lead to greater recognition of the work and create a real sense of ownership.

It is important to provide resources for others to spread the message. These could include template articles and press releases, logos and images, presentations and video material (along with advice on how to use them). Further details are available on the website: www.1000livesplus.wales.nhs.uk/communication-resources

When improvement continues over a significant period of time, the real challenge is how to maintain interest. Resist the temptation to change the messages and approach to ‘freshen things up’. The focus should stay on the aim of the work, those who are delivering the changes and the differences those changes are making.
6 Common questions
Common questions

**What is an audit?**

Many staff take part in clinical audits as part of professional practice. Audits are essentially about comparing what should be happening with what has actually happened. This means that it is useful for governance and assurance, for example, in whether service standards or expected practice has been followed.

However, audits only provide a ‘snapshot’, which usually relies on an interpretation of notes or records originally compiled for a different purpose. At its best, an audit gives detailed knowledge of a process and can be helpful in setting improvement priorities.

Even when an audit results in specific recommendations for improvement, and a commitment is given to carry out another audit at a later date, too often the necessary change does not follow.

**How does the Model for Improvement differ from traditional change methods?**

The Model for Improvement requires the ongoing gathering of information and feedback, rather than periodically assessing progress. Improvement science encourages teams to know their systems and work to achieve better outcomes. If we know our system, and know where it is failing, we can choose and adapt an improvement idea from elsewhere (see reference to Greenhalgh on page 54). Rolling out best practice reinforces the opposite - ‘top-down’ instructions which impose solutions that do not take account of the actual problem and which then cannot be assessed.

As Shortell (1998) said: “The overall system of caring for patients must be transformed into a culture that emphasises integration and
teamwork rather than individualism, measurement for improvement rather than judgement, and continuous learning from each other rather than identification of “best practices” which are treated as sacred cows”.

**Why focus on harm, waste and variation?**

**Harm**

Evidence suggests that harm and death which can be avoided are a common side effect of healthcare provided in NHS Wales and beyond. In the UK, Sari et al (2007) found that harm had been caused to patients in 8.7% of hospital admissions. The harm contributed to the person’s death in 10% of these cases, and to disability in 15% of the cases.

**Waste**

Once harm has happened, dealing with the consequences costs money and represents a large and avoidable cost. In 2001, harmful events were estimated to cost the UK NHS around £1 billion a year in extra bed days alone (Vincent et al, 2001).

In the US, it is estimated that $19.5 billion a year is wasted as a result of errors (avoidable mistakes). The three most expensive errors are post-operative shock ($93,682 per case), infection due to central venous catheter ($83,365 per case), and infection following infusion, injection, transfusion or vaccination ($78,083 per case) (Shreve et al, 2010).
Common questions

Variation

There is often a difference between what we do and what we think we do and there is now a lot of evidence that best practice is not being delivered reliably and consistently.

This variation is not normally the result of individual competence or practice, but a result of the systems and processes being used. Berwick frequently quotes that: “Every system is perfectly designed to achieve exactly the results it gets”. It is through improving reliability in the systems and processes we use every day that there is the greatest potential for improvement.

Do care pathways and national service frameworks drive change?

These are both useful devices for agreeing models of service and setting out expectations for service users. But on their own, they are unlikely to drive change. The reasons why were described by Greenhalgh (2004) who researched the characteristics of effective changes. They are as follows:

- ‘It must have clear relative advantage’ - the people or teams (users) who are asked to make the change part of their work must be able to see that the new method is likely to be better.

- ‘It must have compatibility with the users’ values and ways of working’ - if users find it hard to incorporate the new method, they are unlikely to do so.

- ‘Complexity must be minimised.’
Common questions

- ‘Users will adopt more readily if innovations allow trialability’ - can it be tested on a small scale to allow learning and familiarity before full commitment?

- ‘There must be observability, that is, it must be seen to deliver benefit’ - if the benefits are not obvious, or they take a long time coming, energy will be lost.

- ‘Reinvention is the propensity for local adaptation’ - this is the key to achieving sustainable improvement. A good improvement must be incorporated into the changing system and not preserved like a museum piece.
Summary
Summary

Experience has shown that when some simple principles and techniques are widely understood and shape the whole organisation’s culture, success can be maintained and spread.

The Model for Improvement provides a framework to structure improvement actions, but this is not enough by itself. Improvement work is about adopting and adapting evidence-based practice to the particular setting and a well-defined outcome measure allows improvement to be tracked between sites over time.

Examine the evidence to choose the most appropriate actions to achieve improvement and use a driver diagram to summarise the aim and actions. Make sure you consult an expert group to agree these. Use the ‘Plan-Do-Study-Act’ (PDSA) cycle as a way of trying a new technique, starting small and spreading to more sites only when the new technique is 90% to 95% reliable.

To improve you need to use measurements to understand the problem and to measure the effect of a change. Study your system to see which action offers the most potential value. Use the Collect-Analyse-Review (CAR) cycle to produce a baseline and use run charts or statistical process control charts to demonstrate how the process is performing. How often you collect, analyse and review information sets the pace for introducing change.

To achieve improvement across an organisation, teamwork is essential. Once you have agreed your high-level priorities, setting up teams to lead on improvement actions may help build ideas and co-ordinate execution, as well as help to review progress.
Summary

Strong leaders need to generate commitment, which often requires a change in the culture of the organisation. New ideas from frontline staff should be encouraged and spread, and leaders must incorporate the resulting improvement actions into the organisation’s daily work.

A ‘joined-up’ approach that gives energy, maintains momentum and spreads new ways of working requires an organisation-wide communications strategy. The strategy should focus on those who are delivering the changes and the differences they are making, and convey clearly defined key messages.
Improving Healthcare across Wales

The following pages outline improvement work taking place across Wales - illustrating how the methodology in this guide has been applied by pharmaceutical staff across the country.
Improving the management of Amiodarone

Amiodarone is a drug with severe and common side effects. After a significant event was flagged with Betsi Cadwaladr University Health Board medicines management team that a patient had died of a known side effect of Amiodarone, they decided to investigate the prescribing and medicine management of this drug.

“We know that Amiodarone is a drug with a recognised profile of side effects,” explains Louise Howard Baker, Clinical Director of Pharmacy and Medicines Management.

“We were concerned when we looked into this patient’s record to find that there was no documentation to show that he had been counselled about the drug and its side effects.”

The All Wales Medicines Strategy Group (AWMSG) provided the team with guidelines. With the agreement of the consultant cardiologists, the drug was removed completely in its tablet form from the formulary. The intravenous form remained available in Accident and Emergency.

“We advised everyone that Amiodarone should be treated with the same degree of caution as they would a controlled drug,” says Louise. “Pharmacists were encouraged to question its use each time it was prescribed.

“We went on to collect data on all patients who had been prescribed Amiodarone and looked into why they had been prescribed it. Following NICE guidance, we worked with GPs to discuss whether the patient still needed the drug and whether they would be suitable to switch to a different drug.
“The ultimate decision rested with the GP, but it allowed us to work together as a team to reduce the numbers of patients taking Amiodarone and the number of patients prescribed it in future.”

After the GP practices had reviewed all patients taking Amiodarone, half of the 440 patients across Wrexham and Flintshire could stop taking the drug.

Education and awareness amongst the health professionals and teams working together on this project was vital. “Our success really came from having dedicated champions in our consultant cardiologists and nurses who were on hand to give guidance, advice and support to GPs and pharmacists,” says Louise. The team also created patient information leaflets to educate and raise public awareness.

Current prescribing data shows that the prescribing of Amiodarone continues to fall, and the team is monitoring the situation to ensure prescribing rates stay low.

Top Tip!

Measurement is crucial to know whether your changes are having an effect. See pages 30-34.
Pharmacy-led services for nephrology patients

The provision of pharmaceutical care to nephrology patients is often complex and represents a significant challenge, both financially and clinically, with resources being carefully planned and targeted to achieve the best outcomes for patients and improve their quality of life.

The nephrology service within Abertawe Bro Morgannwg University Health Board is based at Morriston Hospital and has responsibility for the care of patients with kidney disease living anywhere in south west Wales.

Christopher Brown, Clinical Lead Pharmacist at Morriston’s renal unit, is an independent prescriber and once qualified was keen to ensure that his pharmacy skills and expertise were used fully within the unit.

“I believe that pharmaceutical care is an essential component to the multi-disciplinary approach of managing renal disease,” says Christopher. “I wanted to ensure that pharmaceutical care was the driver for renal services within the unit.

“I feel pharmacy should be more than the supply of medicines to patients with chronic kidney disease (CKD). It can benefit the health and wellbeing of CKD patients if it is established as the speciality leading the care for these patients.

“The team’s results have been published and presented at conferences in Wales, the UK and internationally”
“Pharmacy can benefit the health and wellbeing of patients with chronic kidney disease, if it is established as the speciality leading the care for these patients.”

“This change required us to work with our fellow clinicians to set the unit the goal of excelling within the field of renal services. The department was well placed within the bench markers of the renal network and we used this baseline to monitor our progress.”

The ability to demonstrate improvement outcomes for patients and cost savings at the same time has helped establish pharmacy as the leading specialty within the team.

“The team’s results have been published and presented at conferences in Wales, the UK and internationally,” says Christopher. “This has helped generate widespread interest in the development of this approach for the treatment of CKD patients.”

Top Tip!

To achieve improvement across a whole organisation there needs to be teamwork and strong leadership. See pages 36-41.
Improving the management of anticoagulants in primary care

Anticoagulation prescribing is a high risk process in terms of patient safety. Putting the principles of safer prescribing into practice was a priority for Aneurin Bevan Health Board, with the added incentive of linking it with the work of 1000 Lives Plus in this area.

Mike Curson, Prescribing Advisor for the health board, explains: “The initial work was to address variation in the prescribing, management and dispensing of anticoagulants and reduce the harm due to high INRs in the community and ultimately hospital admissions.”

“By focussing healthcare professionals on a high risk area of their daily work, systems can be improved which directly impact on the standard of care delivered to patients.”

The project started in the Newport area where there was a core of GPs and community pharmacists who were keen to take part in the work.

“We agreed our best approach would be to use the systems already in place,” says Mike. “We aligned two anticoagulant audits through the GMS and pharmacy contracts. We looked long term and set up a two year audit cycle with continuous monitoring in between, of INR results higher than 8.”

“We have reduced harm and variation in the management of anticoagulant medication in primary care.”
The GP audit was carried out in three parts:

1. A basic audit for patients established on oral anticoagulation drugs.
2. A more in depth audit for patients starting treatment in the previous 12 months.
3. For patients with poor control identified in section 1. These were patients with more than three INR’s greater than 5 or an INR greater than 8 within the previous 12 months.

Community pharmacists were then engaged with an audit of the dispensing process aspects of the National Patient Safety Agency alert about anticoagulants and surveyed patients taking anticoagulants.

“To keep the momentum going, we identified existing initiatives we could link in with,” says Mike. “The Prescribing Incentive Scheme was used to encourage participation with the GP audit and the community pharmacy contract enabled us to carry out an anticoagulant-related audit.”

Analysis of ongoing measurements shows improvement. The number of INR test results greater than 8 has been halved.

“After collecting two years worth of data, we have built up an almost complete picture of anticoagulation medicine management across Newport,” says Mike. “We can accurately say that we have reduced harm and variation in the management of anticoagulant medication in primary care.”

Top Tip!

We cannot be sure that improvement has happened unless we measure what we do. See ‘The Seven Steps to Measurement’ on pages 30-32.
Improving Healthcare across Wales

Reducing harm from insulin errors in hospitals

Insulin is a high-risk medicine where errors can result in significant harm to the patient. The National Patient Safety Agency (NPSA) has identified insulin as one of the medicines most frequently involved in patient safety incidents, but had yet to publish specific guidance on insulin safety when Lois Gwyn, Pharmacist at Cardiff and Vale University Health Board, decided to research this issue for her MSc in clinical pharmacy.

“I started by undertaking a Failure Mode and Effects Analysis (FMEA) for the insulin-dependent in-patients at Cardiff and Vale University Health Board” says Lois.

“This helped to identify systemic shortcomings, particularly relating to the timing of insulin dose-delivery, the prescribing and documentation of administration of insulin in carbohydrate counting regimens, and the management of hypoglycaemia and hyperglycaemia.”

Developing a supplementary insulin prescribing chart was identified as a way to reduce the risk associated with system failures. After checking that no drug charts could be adapted, Lois designed a chart for hospital staff to use with patients who needed insulin.

The development of the chart was overseen by a multi-disciplinary in-patient diabetes group led by a consultant diabetologist. PDSA cycles were used to test and implement changes.

“We had to publicise the change to all key personnel, including consultants, hospital at night co-ordinators, site practitioners, emergency unit staff and ‘frontline’ prescribers and ward staff.”
Ward pharmacists took supplies of the new chart to wards and ward managers were e-mailed copies of the chart, the implementation guide, and ordering details to replenish ward supplies of the chart. Ward pharmacists worked closely with junior doctors to ensure that all in-patients receiving insulin had a correctly written chart.

“In the PDSA cycle we audited against our prescribing standards before and after the change,” says Lois. “We found that successful implementation led to 100 per cent compliance in some areas, including not abbreviating the word ‘units’, which we know has led to very serious incidents in the past.”

“The feedback from nursing, medical and pharmacy staff has been overwhelmingly favourable. Ambiguity of doses is reduced, more patients are receiving insulin at appropriate times, there are fewer queries at the point of supply, and insulin-related delays at discharge are reduced.”

Top Tip!

PDSA cycles identify problems to be addressed before wider implementation. See pages 26-27
Improving Healthcare across Wales

Appropriate prescribing of anti-psychotics for people with dementia

The independent Bannerjee report into the use of anti-psychotic medication for people with dementia highlighted “increasing concerns about the use of these drugs in terms of quality of care and patient safety” and estimated that the rate of use of anti-psychotic medication could be reduced to a third of its current level.

The report prompted the Powys medicines management team to audit prescribing practices for anti-psychotics in dementia. The audit revealed it was not clear who was responsible for patients in each care setting, and especially when patients moved between their homes, hospitals and care homes.

“We used NICE and SCIE guidelines to audit the data, to understand the prescribing profile,” says Rhiannon Davies, Pharmaceutical Adviser, Powys Teaching Health Board Medicines Management team. “We contacted care homes in Powys to see who would be interested in getting involved in a pilot scheme to tackle the problem. We identified a nursing home which had begun to reduce anti-psychotic prescribing, working with the care home’s lead GP.

“We decided to continue this work and build on it. We planned to test the interventions using PDSA cycles and then adapt and adopt them for use in other nursing and residential homes in Powys.

“To date, for every three patients who were taking anti-psychotics for dementia, we have stopped two and reduced dosages for the remainder.”
“We acknowledged that to succeed we would need to take a multi-disciplinary approach and work closely with the care home staff, GPs and consultants. We needed to look at prescribing in our pilot site, and identify existing issues and barriers, but the changes had to be made on an individual level taking a holistic approach.

“A key improvement area we identified for success was communication and education. We started by informing all the care home staff about the importance of this pilot scheme, in order to get their interest and buy-in.

“We knew we had to make sure everybody felt part of the process. We spoke with families of the patients and we produced patient information leaflets and posters for all care homes in Powys. All parties involved were enthusiastic.

“To date, for every three patients who were taking anti-psychotics for dementia, we have stopped two and reduced dosages for the remainder.

“By empowering all those involved to speak up and educating them about the value of this pilot, we created a model of working that can be adapted and adopted elsewhere at any time.”

“We now plan to take this work further, sharing this pilot as best practice and continuing close liaison with other care homes, mental health teams, GPs and consultants within Powys.”

Top Tip!

Get the ‘buy in’ from all the health professionals involved, and work together to put the right procedures in place. See pages 44-45.
Improving the experiences of cancer patients

The pharmacy team at Velindre Cancer Centre in Cardiff has a strong ethos that improving the quality of life is paramount for all patients, but particularly for those who are terminally ill. They recognised that undue stress was being placed on patients, relatives and staff, by the increasing waiting times at some of the out-patient’s services due to inconsistency in the patient pathway.

“We decided to identify the sticking points in the system,” says Bethan Tranter, Chief Pharmacist at Velindre Cancer Centre. “After discussion with lead consultants, nurses, clinical directors and pharmacy we saw inconsistencies in the way we delivered some services, in particular chemotherapy education and review. Some patients were not getting an adequate review prior to attending for treatment on day 8.”

The chemotherapy agents now in use are better tolerated and supportive medicines make the treatment easier, so medical reviews before each dose of chemotherapy were not necessary and added an extra unnecessary process into the clinic visit.

“Many of the pharmacy and nursing staff were competent and better placed to undertake this review and assess their patient’s suitability to continue with their chemotherapy,” says Bethan.

“A new model of review and education means pharmacy technicians are now responsible for pre-treatment education and mid-chemotherapy cycle assessments.”
“This has led to the introduction of a new model of review and education, with pharmacy technicians now responsible for pre-treatment education and mid-chemotherapy cycle telephone assessments which incorporate a review of haematology results.

“We have reduced the frequency of hospital visits, thus improving the patient’s quality of life.”

“This has reduced the frequency of hospital visits, thus improving the patient’s quality of life and also releasing clinic capacity and reducing waiting times at out-patient clinics.

“We demonstrated that if patients used the pharmacy led service, pharmacy could save approximately 44 minutes dispensing time per patient and, more importantly, save the patient a three hour visit to the Centre every three weeks.”

**Top Tip!**

The experience of our staff, the evidence of our own eyes, and feedback from our patients and other service users will all help us identify what we need to focus and concentrate our efforts on. See pages 19-21.
References

Reference was made to the following documents when producing this guide.


References


Reinertsen JL, Bisognano M, and Pugh MD (2008), ‘Seven Leadership Leverage Points for Organization-Level Improvement in Health Care (Second Edition)’, Institute for Healthcare Improvement, Cambridge, Massachusetts (www.ihi.org)


Welsh NHS Confederation, ‘NHS Communications, What it means, how to do it, and why bother’ (2009), (www.welshconfed.org)

Improving the quality and safety of medicine use is a key priority for pharmacists and the pharmacy profession. Around Wales, pharmacists have been at the forefront of many of the successful new ways of working introduced by the 1000 Lives Plus programme.

This guide outlines the methodology which underpins 1000 Lives Plus and contains examples of innovations that have already been successfully implemented by pharmacy teams, using the consistent approach and practical steps promoted by the programme.

This guide will equip pharmacists to make changes in their working environment to improve patient safety, prevent harm, and wastage and ensure that people receive the very best care possible.

The main issues covered are:

- Identifying the problem
- Making sure the changes made are improvements
- Measuring the difference
- Introducing change
- Teamwork and leadership
- Communicating with and involving staff
- Spreading change

Published by 1000 Lives Plus, the national improvement programme supporting organisations and individuals to deliver the highest quality and safest healthcare for the people of Wales.