Aneurin Bevan Health Board

1000 Lives Campaign Overview and Update Report

1.0 Introduction

All 6 predecessor organisation of the Aneurin Bevan Health Board (ABHB) signed up to be part of the 1000 lives Campaign at the end of 2007, with the Campaign officially launched in April 2008. The Trust was previously part of the Safer Patients Initiative, which was implemented in the Royal Gwent Hospital (RGH). The 1000 Lives Campaign has the same basic approach as Safer Patients Initiative, but the main drivers have been reviewed and additions made, based on data about the health of the Welsh population and the health service in Wales. The 1000 Lives Campaign is a national effort to reduce preventable harm in healthcare, including death, in Wales.

2.0 Overview of the 1000 Lives Campaign

The 1000 lives campaign has the overall aim of saving 1000 unnecessary deaths and preventing 50 000 episodes of harm in total across Wales in the 2 years of the campaign between April 2008 and April 2010. The Campaign focuses on 6 areas to do this:

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Goal</th>
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<tbody>
<tr>
<td>Improving Leadership for Quality</td>
<td>To ensure a leadership culture at Board level which promotes quality and patient safety and provides an environment where continuous improvement in harm reduction becomes routine throughout the organisation</td>
</tr>
<tr>
<td>Reducing Healthcare Associated Infections</td>
<td>Significantly reducing Healthcare Associated Infections (HCAI) by reliably implementing seven components of care: • Implementation of the HCAI Strategy for Wales • Standard precautions • Decontamination of the environment • Isolation precautions • Antimicrobial Stewardship • Management of Invasive Devices • Prevention of Surgical Site Infections</td>
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<tr>
<td>Improving Critical Care</td>
<td>• To reduce mortality and prevent harm to the hospital population through improving the recognition and response to acute illness</td>
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### Agenda Item: 4.1

- Reduce complications and mortality from severe sepsis
- Reduce mortality and harm from mechanical ventilation
- Reduce mortality and harm due to complications of using central line catheters
- Reduce mortality and harm due to the transmission of infection in critical care
- Reduce mortality and harm by the creation in critical care of an environment of collaboration and a culture of safety

### Improving Medicines Management

- Prevent adverse drug events (ADEs) by implementing medication reconciliation at all transitions in care – at admission, transfer and discharge
- Prevent harm from high-alert medications by implementing:
  - reliable medicines management
  - co-ordination of care
  - patient, family and carer involvement

### Reducing Surgical Complications

- Prevent 50% of post operative wound (surgical site) infections
- Create team culture
- Prevent peri-operative cardiovascular events

### Improving General Medical and Surgical Ward Care

- Reduce readmissions from Chronic Heart Failure by 30% (CHF bundle)
- Reduce crash calls by 30% (Early warning system and rapid response to acute illness)
- Observe structured communication through SBAR in 95% of appropriate situations

One of the great strengths of the 1000 Lives Campaign, and a feature that distinguishes it from most of the other National Campaigns now taking place across the world, is that it has a total health system approach, covering primary care and community care and ambulance services as well as acute hospital services. Not all 6 content areas are applicable to primary and community care, as Improving Critical Care and Reducing Surgical Complications are focused on acute hospital services.
Each content area has a front line team, made up of 6-8 key individuals. The front line teams then have a range of evidence-based interventions (drivers) to implement. Pilot areas for each of the front line teams (generally a ward or operating theatre) use the Institute for Healthcare Improvement (IHI) Model for Improvement to improve the reliability of the process for each driver to 95%. This involves deciding on a change that will improve the process, and testing the change using plan-do-study-act (pdsa) cycles. The changes are tested first on one patient by one member of staff to see whether it is effective, and improvements are made to what is done based on the learning from the test. Then the improved change is tested on 3 patients, and then on 5, and then 25, which allows rapid tests of change because they are small. This also means that the change that is being made is perfected through the implementation process. Each driver has both process and outcome measures that are monitored using run charts. As the interventions are evidence-based, improving the reliability of the process will improve patient safety and outcomes. This will be illustrated below in the section on progress.

Once a process has achieved 95% reliability in the pilot area, it is spread to other areas of the hospital or service. These then use the experience from the pilot areas and the IHI Model of Improvement to improve the reliability of the drivers in their own areas.

A key part of the 1000 Lives Campaign is measurement using run charts, so that improvement can be monitored over time. For each measure, data is usually collated for the pilot area and the pilot and spread areas together. Every area in the spread plan will also be fed back its own data as local data is the most meaningful for the staff involved. Seeing improvement in measures that relate specifically to their area of work motivates staff to continue to work to improve reliability. Meaningful measures for the work in primary care are still being developed and so it harder to demonstrate the outcomes of the campaign activity in this area, although it has been taken forward enthusiastically and with great initiative.

3.0 Progress to Date with the Campaign

Overall, ABHB is making excellent progress in implementing the drivers across the 6 content areas. Dr Jonathon Gray, Co-Director of the 1000 Lives Campaign, visited the organisation in September 2009 and in his letter following the visit he said “...my congratulations to all your teams for really leading the way on a number of significant issues.” Processes are reliable in most of the pilot areas and the changes that have been made are spreading across the organisation. The information below is intended to give a small snap shot of the work that is in progress and the achievements so far.
3.1 Primary and Community Care

3.1.1 Leadership

In Gwent the former 5 LHBs had been working in collaboration on the 1000 lives campaign since its launch with agreed terms of reference. The aim of the Gwent Campaign was:

- To ensure that the former Gwent LHBs contributed to the saving of a 1000 Lives
- To create a climate within Primary care in Gwent where patient safety always comes first
- To ensure the new integrated health body in Gwent continues to improve the quality of primary care for patients
- To offer guidance and support to the overall programme whilst promoting multi-disciplinary working.
- To support the programme to achieve its goals and objectives and assist the dissemination of good medical practice and lessons learnt across the primary care community throughout the life of the campaign.
- To raise awareness, communicate and engage with patients and the public in relation to the campaign and improving patient safety

In the Leadership area, the LHBs worked to pilot Leadership Patient Safety Walkarounds in Nursing Homes and in GP Practices, to pilot the Global Trigger Tool in Primary Care, which is a tool to measure adverse events that lead to harm, and to carry out a Patient Safety Culture Survey across GP Practices.

Leadership Patient Safety Walkarounds have been piloted in Nursing Homes. It was made clear that it was an informal visit not an inspection and that the emphasis of the visit was on patient safety. At the end of the discussion, at least one action was agreed to be carried out. The feedback from the pilot visits has been that they are useful for building the relationship between the Locality and the Nursing Home.

Similarly, Leadership Patient Safety Walkarounds have been piloted in GP Practices. There is a different contractual arrangement between the Localities and the General Practices and therefore the walkarounds were different in essence to the walkarounds in hospitals. They consisted of 3 meetings. The first was a briefing for the Leadership Team (a Medical Director, a Trust Consultant and a Non-Officer Member), the second was the walkaround in the GP Practice and the third was a follow up visit from the Medical Director to feed back to the Lead Clinician in the Practice and the Practice Manager. The initial feedback is that this could be a useful process for engaging Practices in the Patient safety agenda. The purpose of the visit and the expected outcomes need to be very clear, however, it is a model worth exploring further.
The primary care trigger tool has been independently developed between the former Gwent LHBs and Gwynedd LHB, but its foundation lies with the work of the Institute of Healthcare Improvement (IHI) in developing the Global Trigger Tool. The IHI Global Trigger Tool utilised in a hospital specifically focuses on harm caused by acts of commission, rather than omission. Clearly a key feature of primary care is the early recognition and management of acute illness and so harm caused by a failure to recognise or adequately manage a new presentation of acute illness would be counted as an adverse event in the Primary Care Trigger Tool. This tool does not replace conventional practices used to maintain safety in primary care such as audit, case review and significant case analysis. Rather it is a tool which sits in the background and, when used regularly, can demonstrate change in the amount of harm associated with medical interventions within a practice. The tool focuses on two areas of care:

- The management of patients presenting with a new problem
- The management of patients with a chronic medical condition

The tool has been tested in Gwent and Gwynedd and is due be trialled across all areas of Wales

The 1000 Lives Campaign includes a commitment to increase awareness of patient safety culture in organisations. As part of this, a safety culture survey for LHBs was launched in November and December 2008. The survey provided an excellent opportunity to get feedback on the perspectives of staff in the organisation on issues such as

- Learning and Innovation
- Communication and Reporting
- Senior Staff Engagement and Support
- Team Working and Individual Performance
- Individual Perception of Safety Culture

883 staff from 84% of the GP Practices across Gwent responded and demonstrated that there is already a strong culture of patient safety in General Practice.

3.1.2 Clinical Content Areas

The Local Health Boards have developed an audit tool about healthcare associated infections for Nursing Homes. The tool was launched at a study day for Nursing Homes on Healthcare Associated Infections, and 50% of Nursing Homes signed up to use it and have now completed it. All have been sent posters to display. The team is now focussing on hand hygiene particularly in general practice.

A test of change has also been carried out on specimen transfer from care homes to the laboratories, as there is limited dedicated transport. The outcomes are being spread across the community.
In Medicines Management, the Heads of Pharmacy have been reviewing high INR blood results for patients on warfarin. They have then worked with GP practices to ensure that patients are managed appropriately. This work is now being extended to review the discharge of patients on warfarin to ensure that all clinicians are aware of the correct dose and monitoring regime for patients.

As part of an enhanced service, patients with Chronic Heart failure are being invited to special clinics to optimise their medication and therefore their quality of life.

3.2 Acute Hospitals

3.2.1 Leadership

Leadership Patient Safety Walkarounds have been very successful. A programme of walkarounds across the 3 major hospitals has been undertaken, during which an Executive Director visits a ward or department to talk to staff about patient safety, with the agenda determined by the front line staff. Once established, the Non-Executive Directors were asked to join the walkarounds, which added greatly to their value.

Figure 1: The Number of Walkarounds completed in the Trust

The walkarounds demonstrate the commitment of the Leadership Team to patient safety to the front line staff, as well as supporting the Leadership’s first hand knowledge of the challenges faced by front line staff, and enabling the Leadership to unblock some of the difficulties faced by staff when trying to improve patient safety. The issues that are most often raised with the Leaders by the front line staff are: environmental issues, recruitment, bed management and communication.
3.2.2 Clinical Content Areas

All content areas have implemented a range of drivers that have been tested in pilot areas and the reliable changes are being spread across the organisation.

An example of the work that has been undertaken across all the content areas and drivers is hand hygiene. Anyone entering a ward area must clean their hands using the hand gel that is available and staff must clean their hands appropriately before caring for a patient. It is well known that in the past this has been difficult to achieve, despite many efforts and campaigns to improve compliance. The approach taken by the 1000 Lives Campaign is that a ward should decide on a change that they can make that will improve compliance with hand hygiene measures, and then introduce it using the pdsa cycles and small tests of change. Practice is made reliable through introducing a whole range of changes in this way. A good example of one of the pdsa cycles used is that the nurse accompanying the Consultant on a ward round will offer the Consultant hand gel in between every patient that is reviewed. This is tested first with one Consultant on one ward round. Depending upon the outcome, changes are made to the process used, and then it is tested again, and then extended to other ward rounds until the same practice is used on all ward rounds.

The initial pilot wards and the Infection Control Team developed together a whole range of changes to improve hand hygiene compliance that were then introduced using pdsa cycles and small tests of change. The wards also regularly measure hand hygiene compliance using a standard audit tool and the results are collated into a run chart. This is the process measure for the driver, and the aim is to reach 95% reliability. Once this has been done, the package of changes is spread to another ward, which also tests them to make sure that they work in the same way in the different environment, although the process is much faster in the spread wards. Every ward has their own results fed back to them in a timely way, and the results are all fed into a summary run chart. The outcomes of the work are also monitored. In the case of hand hygiene, the outcome measure is the MRSA infection rate. As rates are very low on the individual wards, this is not a very meaningful measure, and so every area counts the “days between” an MRSA infection, with the aim being to maximise the days between infections.

The run charts below show the process measure of percentage hand hygiene compliance for the pilot and spread wards at first the Royal Gwent Hospital, and then Nevill Hall Hospital, along with the outcome measure of “days between MRSA infections” at both hospitals.
Figure 2: % compliance with hand hygiene on the pilot and spread wards at the RGH

![Graph showing % compliance with hand hygiene on the pilot and spread wards at the RGH.](image)

Figure 3: Days between MRSA Infections at the RGH

![Graph showing days between MRSA infections at the RGH.](image)

Figure 4: % compliance with hand hygiene on the pilot and spread wards at NHH

![Graph showing % compliance with hand hygiene on the pilot and spread wards at NHH.](image)
At RGH, the driver has been spread to 28 wards. At NHH, where the work on this driver started later, the driver has been spread to 9 wards. When spread happens it is usual for the compliance in the run chart for all the spread wards to drop, as the new wards are working to reach 95% compliance. When a lot of wards are involved, some over time will drop below the 95% compliance and then work to improve the levels again. It is therefore normal for the graph to run at below 95% compliance. The run charts showing “days between” MRSA infections both show improvement, with the Nevill Hall run chart showing a particularly long spell between infections and the RGH run chart showing that the days between MRSA infections is getting longer, more frequently. This is not all due to the work on hand hygiene as there are a whole package of measures that have been put in place to reduce the MRSA infection rate. However, this demonstrates the principles of the approach of the campaign.

Using a similar methodology, the critical care units at RGH and NHH have virtually eliminated Central Line Catheter infections. They have introduced a Central Line Catheter Care Bundle using pdsa cycles and
small tests of change so that the process is reliable. The run charts showing what has been achieved are below.

Figure 6: Percentage compliance with Central Line Catheter Maintenance Care Bundle in the Critical Care Unit at RGH

![Compliance Chart RGH](image)

Figure 7: Percentage compliance with Central Line Catheter Maintenance Care Bundle in the Critical Care Unit at NHH

![Compliance Chart NHH](image)

Figure 8: Central Line Infection Rate in Critical Care at RGH

![Infection Rate Chart RGH](image)
In this example, the connection between achieving 95% reliability in the process and the improvement in the outcome measure is much more direct. The work using the Central Line Catheter Care Bundle has changed the attitude of critical care staff to central line infections. Before the work started, when a patient with a central line in place developed an infection, it was regretted, but felt that it was a complication of having a central line in place that would always happen in some cases. Now, if a patient with a central line in place develops an infection, it is seen as an adverse event and investigated as it is no longer felt to be “something that happens”.

4.0 Priorities for the Last 6 months of the Campaign

The priority for the National Campaign Team for the last 6 months is that the Health Boards should spread the practice that has been piloted and achieved reliability, to all appropriate parts of the organisation. In ABHB, the frontline teams will continue to spread across the appropriate parts of the organisation all the drivers that they have already piloted, so that they become embedded and “the way that we do things”. However, there were a number of new drivers that were agreed as priorities for ABHB in
the last 6 months of the campaign by the representatives at Learning Sets. These, where relevant, are areas that will benefit from the whole system approach that is facilitated by the formation of ABHB. These are as follows:

**Leadership** – to reassign Executive Leads for each frontline team/major content area and to put in place a schedule of Leadership Patient Safety Walkaround for the new Executive Team, that includes Nursing Homes, and to consider, building on the experience already gained, how the Patient Safety Leadership Walkaround concept can be used effectively in Primary Care. To roll out the primary care trigger tool and improve the global trigger tool used in the acute hospitals.

**HCAI** – to focus on Urinary Tract Infections across the health community, in secondary care and in Nursing Homes, developing pilot sites in both areas.

**Critical Care** – to pilot the SEPSIS 6 bundle on 2 wards at Nevill Hall Hospital, and review the SEPSIS resuscitation bundle in Accident and Emergency at Nevill Hall, ensuring that process measurement is a core part of the process.

**Medicines Management** – to ensure that one standard risk assessment form is in place and used at initiation of Warfarin treatment, and to improve communication at transfers of care between the sectors for patients on anticoagulants.

**Surgical Complications** – to introduce a standard DVT risk assessment form, using the National template if it is available in a reasonable timescale.

**Improving General Medical and Surgical Ward Care** – To understand the extent of the variation in the service provision for Chronic Heart Failure and to continue to improve the service provided across the ABHB

**Conclusion**

ABHB is making excellent progress across all the content areas of the 1000 Lives Campaign. In line with the National Campaign Team’s timeline, the key drivers are now being spread across the organisation.