Managing and reviewing evidence-based changes

In this article...
- Managing a change in practice
- Reviewing and measuring the change in practice
- Hints and tips for undertaking a clinical audit or review

Author Helen Carter is an independent healthcare advisor; Lynda Price is a clinical governance and infection control facilitator, Helen & Douglas House, Oxford.


Nurses lead many projects to manage change aimed at improving patient safety and care. This two-part series offers practical guidance on how to bring about an evidence-based change in practice, and how to demonstrate the success, or otherwise, of that change. Part 2 is concerned with discovering why the practice is failing short, how to implement improvements and measure the effect of the changes. It also highlights ways in which nurses can use their work as part of the revalidation process.

Nurses have a duty to ensure patients receive the best care available, and the cornerstone of high-quality care is evidence-based practice.

As Gordon and Watts (2011) stated: “The ability to apply a combination of technical expertise, clinical reasoning and evidence appropriate to a range of healthcare settings develops over time and as a result of formal teaching, experiential learning, effective mentorship and reflective practice.” This means that, when a gap in practice has been noticed, nurses are duty-bound to instigate evidence-based changes. The processes involved in implementing changes can also be helpful in guiding reflective practice, which is an important aspect of nurse revalidation.

The first article in this series described how to identify when there is a need for a change in practice and how to set about changing it (Carter and Price, 2016). Current practice must first be monitored, measured and assessed against established national and local guidelines. When gaps have been clearly identified, the next step is to determine the causes and then to implement the change, based on supportive evidence from many sources.

Box 1 shows the five stages involved when implementing a change in practice. The first two stages were discussed in part 1 of the series; both articles use the case study example – of an audit of medicines management undertaken in a hospice – to illustrate the process.

FIG 1. AREAS OF RISK IN THE HOSPICE
The causes of poor practice

After identifying hazards and risks in a service, the next step is to work out why it is not meeting the required standard and how far it differs from the expected standard. This enables causative factors to be revealed and addressed, resulting in safe, high-quality care. It is, in fact, a nurse’s duty to act on such information in order to reduce the potential for harm (Nursing and Midwifery Council, 2015).

While the primary aim of practice change is to respond to the need to ensure patients receive the best care possible, projects leading to small or larger changes in practice can offer a wealth of experience for nurses to demonstrate their competence in practice. This can include the wider aspects of the NMC Code, such as communicating openly and candidly with patients about care and treatment. Nurses can also demonstrate ways to reduce risk, potential or actual harm in clinical practice.

Our case study (Box 2) follows how a nurse tackled medication errors in a hospice. In this case, the main causative factors leading to repeated medication errors appeared to be systematic. Other factors appeared to be linked to the availability of staff, the procedures in place, and the paperwork available for nurses to check and administer medicines. The fishbone diagram (Fig 1) provides an overview of the risks and potential effects if these risks were not managed; it highlights key areas that required further investigation.

After creating and analysing the diagram, the nurse used Reason’s (2000) systems-failure model to underline flaws in the systems and processes that were causative factors in repeated medication errors. In this case the audit results showed that transcribing accounted for a third of the reported errors. The solution was straightforward: nurses stopped transcribing onto medicine charts, and the process for checking and administering medications in line with NMC requirements was reinforced (NMC, 2007) through mandatory training sessions. These reiterated the duty of a registant to safely administer medications by ensuring they administer the right drugs to the right patient, in the right dose, via the right route at the right time.

Gantt charts

If an audit covers a wide geographical area or is likely to take a few months to research and complete, a Gantt chart can be helpful. This is a method of project management that can be used to delegate tasks, and involve other members of the team with communication and change management. The chart provides a clear overview of anticipated timescales for completion of the project (Fig 2).

The Gantt chart created for the hospice audit shows that the workload became heavier from the point that clinical practice was being observed and interviews were being undertaken to triangulate the emerging findings. At this stage in a project it is vital to anticipate the number of people available to undertake the project, and to plan and delegate tasks. Ongoing meetings will involve referring to the Gantt chart, reporting on progress and emerging issues, as well as discussing delays and their reasons. Communication with key people is important at this stage, and should demonstrate that the project group is holding itself to account and progressing with the identified audit process. When referring to the NMC Code (2015) and evidence for revalidation, this is a rich area to spend time reflecting upon.

Making improvements

Feedback is usually presented in written format, which may consist of a full report with an executive summary, or a briefing report with the final recommendations. It is important that the relevant boards, groups or individuals are offered a copy once it has been signed off as factually accurate. This is the time where the strong links made with stakeholders and relevant organisational managers come to fruition.

Report writing and sharing practice developments are key to the NMC’s code of practice, and while its standards and principles are not negotiable or discretionary, they can be interpreted across a range of clinical settings (NMC, 2015). Nurses who can show evidence in their revalidation of changes in clinical practice provide assurance to the NMC that they are working in line with the Code, and providing safe, high standards and professional care that puts patients first (NMC, 2015).

Making recommendations to change practice brings together the skills highlighted in the Code to “practise effectively”. This is an opportunity to work collaboratively, and share skills and

**BOX 2. INVESTIGATING MEDICATION ERRORS**

As discussed in part 1 of this series, a nurse working in a hospice decided to investigate the steady influx of incident reports concerning medication errors. The aim was to determine whether a change in practice was warranted and how the number of errors could be reduced. The nurse made use of the following tools:

- An organisational SWOT (strengths, weaknesses, opportunities and threats) analysis;
- A cause-and-effect fishbone diagram;
- Reason’s (2000) system-failure model;
- Lewin’s (1951) Field theory.

The SWOT analysis reflected a culture that promoted learning, communication and collaboration between all levels of the organisation. The hospice was also committed to the improvement of healthcare services and valued diversity. This, according to McSherry and Pearce (2007), is the ideal culture in which clinical governance can succeed.

Causative factors were identified using the fishbone, or cause-and-effect, diagram (Fig 1). The nurse then analysed the effectiveness of existing systems with Reason’s (2000) systems-failure model and recommended:

- Regular audit;
- Staff training;
- Close monitoring of medication errors;
- Identification of trends;
- Changes in processes or practice in response to identified trends.

All recommendations were carried out, taking account of the effect of change using Lewin’s (1951) Field theory. The nurse found that the process of change was unsettling but necessary for the hospice to improve its quality of care. In the hospice, robust clinical governance remains key to continuous improvement.
knowledge with other professionals. Communicating clearly with others and maintaining accountability for decisions promotes permanent changes that are underpinned by the best available evidence (NMC, 2015).

Nurses must ensure that the recommendations in the final report on proposed changes can be understood by the audience they are intended for and are specific, measurable, achievable and timely (SMART). Recommendations should be accompanied by measurable outcomes (and percentage compliance, where relevant), risk rating (RAG: red, amber, green rating) and formalised actions.

Have things been improved?
Once evidence has been gathered, the project completed and necessary changes discussed, there may still be many barriers to overcome before worthwhile changes actually happen (Chambers et al, 2006). This stage gives the project leader or a key contributor the opportunity to reflect and write clear records on how the project complies with the NMC Code and the revalidation process.

Knowing what, or who, could help implement the change and what, or who, may resist its implementation is crucial to maintaining the momentum in changing practice. At this stage, clear recommendations, timescales and the appointment of effective leaders ensure efficient implementation and monitoring. This is when skills of leadership, teamworking and delegation can be demonstrated, alongside an ability to communicate effectively using the best available evidence.
review and can usefully be shared with others. The way you dealt with the situation and the learning you can share with others helps to improve future clinical practice. This approach demonstrates the type of professionalism of the committed type of professionalism of the committed practitioner that the NMC wishes to have on its register.

**Using the project in revalidation**

There are various ways in which work on service change can be used in revalidation. You may wish to consider how the project related to your practice and the professional standards of practice noted in the Code (NMC, 2015). You may have earlier identified the need to prevent harm to patients and to protect vulnerable people using safe and evidence-based practice. As the project progressed, you may have noticed a shift in your confidence, gained greater clarity about your role in the audit and a greater working knowledge of the area of focus.

These additional factors are key to demonstrating your competence against the Code and offer an opportunity to consider the role you played in leading or contributing towards the process. A written reflection provides evidence for the reflective discussion with another NMC registrant required as part of revalidation. This discussion may be part of an appraisal, significant-event analysis or clinical supervision, or at the same time as the revalidation confirmation.

This offers further evidence to demonstrate your competence against the Code and can be submitted as part of your revalidation evidence. **NT**

**References**


---

**TABLE 1. COLLECTING EVIDENCE FOR A CHANGE IN PRACTICE**

<table>
<thead>
<tr>
<th>Stages</th>
<th>What activities have you undertaken to improve quality?</th>
<th>What evidence or examples have you collated?</th>
<th>Relevance to the NMC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are we trying to achieve?</td>
<td>● Clinical audit ● Service review ● Development and implementation of evidence-based practice development guidelines ● Review of clinical outcomes</td>
<td>● National and local standards and guidance ● Patient-safety incidents ● Complaints ● Stakeholder feedback</td>
<td>● Paragraph 6, page 7 Always practise with the best available evidence ● Paragraph 14, page 11 Be open and candid with all service users about all aspects of care and treatment, including when any mistakes or harm have taken place</td>
</tr>
<tr>
<td>Are we achieving it?</td>
<td>● Outcome measurement (local and national) ● Benchmarking</td>
<td>● Similar organisations ● National standards ● Local standards ● Professional standards ● Pre-determined criteria and standards of the audit programme</td>
<td>● Paragraph 8, page 8 Work with colleagues to evaluate the quality of your work. Share information to identify and reduce risk</td>
</tr>
<tr>
<td>Why are we not achieving it?</td>
<td>● Review of current systems and processes (causative factors) ● Cause-effect analysis ● SWOT analysis ● Policy/procedure review ● Observation of clinical practice (nursing, medical, and non-medical staff) ● Stakeholder interviews ● Analysis of all info</td>
<td>● SWOT analysis ● Cause-and-effect diagram ● Reason's (2000) systems-failure model ● Gantt chart ● Regular meetings (minutes) ● Stakeholder feedback ● Initial findings ● Emerging themes</td>
<td>● Paragraph 7, page 7 Communicate clearly ● Paragraph 8, page 8 Work cooperatively ● Paragraph 10, page 9 Keep clear and accurate records relevant to your practice ● Paragraph 16, page 12 Act without delay if you believe that there is a risk to patient safety or public protection</td>
</tr>
<tr>
<td>What can be done to improve things?</td>
<td>● Final report and executive summary with recommendations ● Action plan and timescales for implementation ● Support from senior management team</td>
<td>● Implementation programme to change practice ● Minutes from staff/stakeholder meetings during implementation programme ● Monitoring plan</td>
<td>● Paragraph 9, page 8 Share your skills, knowledge and experience for the benefit of people receiving care and your colleagues ● Paragraph 11, page 10 Be accountable for your decisions to delegate tasks and duties to other people</td>
</tr>
<tr>
<td>Have things been improved?</td>
<td>● Re-audit</td>
<td>● Results meet pre-determined criteria and standards of the audit programme</td>
<td>● Paragraph 25, page 18 Deal with risk to make sure that the quality of care or service you deliver is maintained and improved, putting the needs of those receiving care or services first</td>
</tr>
</tbody>
</table>