Implementing national patient safety alerts

Keywords: Patient safety/Alert/Compliance/NPSA/Rapid response

This article has been double-blind peer reviewed

In this article...

- The importance of national patient safety alerts
- Recognising barriers to implementation of an alert
- How trusts can ensure patient safety alerts are implemented

Author Sally Moore is patient safety research nurse at Bradford Institute for Health Research; Natalie Taylor is a senior research fellow at the Australian Institute of Health Innovation, Macquarie University, Sydney, Australia; Rebecca Lawton is professor of psychology of healthcare, University of Leeds, and director of the Yorkshire Quality and Safety research group; Beverley Slater is director of the Improvement Academy, Yorkshire and Humber Academic Health Science Network.


National patient safety alerts are sometimes difficult to implement in an effective way. All trusts have to declare compliance with alerts as part of a three-step process to improve patient safety. This article discusses an alternative way of implementing national patient safety alerts and describes how behaviour-change methods can be used to successfully implement lasting changes in practice at ward or departmental level.

Human factors are all the factors that can influence people and their behaviour. In a work context, environmental, organisational and job factors, as well as individual characteristics, influence behaviour (Carthey and Clarke, 2010). Sometimes the human factors involved in designing and implementing guidance into healthcare practice – such as education, notices, audits and emails – can result in less than 50% of staff following clinical guidelines (Michie et al, 2005).

The psychology of human error can account for some non-compliance, but it can often be staff doing what they know to be the “wrong thing” for the “right reasons” that leads to non-compliance and, on occasion, error (Carthey and Clarke, 2010). For example, if a nurse knows that a patient has run out of prescribed intravenous fluid and no one is available to prescribe more, they might commence another bag of fluid and ask a doctor to write the prescription later, leading to non-compliance with protocol and increasing the risk of the wrong type or dose of intravenous fluid.

Last year (2014/15), the Clinical Negligence Scheme for Trusts, managed by the National Health Service Litigation Authority, managed 588 claims linked directly to nursing care; this was at a cost to the NHS of just under £500,000 (NHSLA, 2015).

So how can we support staff to do the “right thing” for the “right reasons”, thereby preventing untoward incidents, harm and cost to patients, staff and the health service?

Box 1 describes the reflections of one nurse’s experience of trying to do the right thing for the right reasons.

Barriers to compliance with the NPSA’s 2011 nasogastric tubes alert were analysed.
A new approach

The Yorkshire Quality and Safety research group recently worked with trusts in West Yorkshire on a service improvement project aimed at challenging current ways of implementing patient safety alerts and guidelines. This new approach moves away from imposing guidelines on staff (that is, top-down change); instead, it uses an evidence-based approach to identify issues locally and develop interventions that target identified barriers to behaviour change (bottom-up change) (Taylor et al, 2014).

The method requires a dedicated team to spend time working through the implementation process, but it has been shown to deliver measurable and sustainable change if the correct process is followed and the right people are involved (Taylor et al, 2013a; 2013b). The implementation process will not work unless there is support and willingness to make change happen from both senior management and frontline staff.

Good practice

Method

Frontline staff, including junior doctors and nurses, collaborated with behaviour change and patient safety specialists in a trust to support the implementation of the 2011 National Patient Safety Agency (NPSA) nasogastric tubes alert; this was issued when it became clear that several trusts had not fully implemented a safety alert issued in 2005, and that subsequent alerts and a rapid response report were also not being implemented (Box 2). An evidence-based framework of behaviour change – the Theoretical Domains Framework implementation approach (Taylor et al, 2013b) – was used to:

- Identify key behaviours of concern within the trust;
- Examine individual-level barriers to change that were preventing the desired behaviours;
- Devise locally tailored strategies with staff to overcome these barriers.

A full description of the study and methods is discussed elsewhere (Taylor et al, 2014; 2013a; 2013b).

Barriers to compliance with the NPSA’s 2011 nasogastric tubes alert were assessed by a multidisciplinary group of 99 hospital staff members, who agreed to complete a patient-safety-practices questionnaire. This was designed using a theoretical framework of behaviour change (Taylor et al 2019; Michie et al, 2005) comprising the following domains:

- Knowledge;
- Skills;
- Social and professional identity;
- Beliefs about capabilities;
- Beliefs about consequences;
- Motivation and goals;
- Cognitive processes;
- Memory and decision-making;
- Environmental context and resources;
- Social influences;
- Emotion;
- Action planning.

Two multidisciplinary focus groups were held with staff to elicit more detailed information about those barriers reported most frequently by questionnaire respondents. These groups, guided by the expert knowledge of the project team, were then used to identify intervention strategies.

Pre-intervention audit

To be able to assess the extent of the problem and to measure current practice, an audit was undertaken of staff behaviour when checking the placement of nasogastric tubes against the NPSA’s 2011 alert. It was clear from this initial audit that X-ray was mainly used as the first-line method for checking tube position (49% of cases); pH testing was used as the first-line method in 18% of the time. As the alert requires pH testing to be the first-line check, the team decided to focus on identifying the barriers to using pH as the first-line method for checking tube position.

The four strongest barriers to using pH as a first-line method for checking tube position were identified as:

- Frequency of use.
- Staff confidence.
- Competence.
- Time.

To address these barriers, a targeted education and training programme was implemented.
position were found to be:

» Social influences (influence of peers, seniors);
» Belief about capabilities (necessary understanding and skills to check pH first line);
» Environmental context and resources (equipment, systems, communication levels);
» Emotion (fears and anxieties associated with performing the desired behaviour).

Intervention

Having identified the key barriers to using pH testing as the first-line check, information from the focus groups allowed us to begin to design tailored interventions in partnership with staff, who would address them. These included:

» The development of a nasogastric tube e-learning package and provision of practical training to equip staff with the necessary knowledge and skills to comply with the alert;
» The development of posters and screensavers, which explicitly targeted the identified barriers of social influence and emotion through key pictures and messages;
» Presentations given at clinical governance meetings for senior staff, which aimed to address knowledge and social influences;
» Implementing radiology system change and designing documentation to address environmental context and resource barriers.

All of these interventions were used as part of a strategy to target and address the specific barriers that had been identified for those staff in that specific hospital context.

Post-intervention audit

A post-intervention audit demonstrated that pH was the predominant first-line method for checking position (62.5% of cases), with X-ray being used as the first-line check in only 23% of cases. This represents a clear improvement in practice, moving in the direction of the alert’s recommendation.

Fig 1 shows the results of the 18-month retrospective casenote review, highlighting the points at which the following interventions were used to increase the use of pH testing as the first-line method for checking tube position:

» March 2011; revised NPSA (NPSA/2011/PSA002) alert released;
» June 2011; new trust documentation launched;
» September and October 2011; the project was presented at four clinical audit meetings;
» Junior doctor rotation
» Screensaver launched with an awareness day and changes introduced in radiology

FYI = foundation year one; NPSA = National Patient Safety Agency; PSA = patient safety alert
Adapted from Taylor et al (2013a)
October 2011: foundation year 1 doctors attend mandatory nasogastric tube placement training;
February 2012: screensaver launched with an awareness day; radiology system change introduced.

Discussion
By using a behaviour-change approach, we were able to:
» Identify specific behaviours that were in need of change;
» Identify the root of the problem by assessing barriers;
» Tackle specific barriers using behaviour-change methods and work with staff to design and implement interventions;
» Demonstrate improvement.

The post-intervention audit and the annotated run chart derived from the retrospective casenote review demonstrated the impact of the interventions on behaviour.

The collaborative nature of this work has enabled shared learning between health practitioners and behaviour change/patient safety specialists. The project supported multidisciplinary teamwork, and improved understanding and communication between the professional groups; this can only strengthen patient safety across an organisation (Thomas, 2011). It also highlighted the need for a strong facilitator to drive the process forward to success.

Changes to the alerting system
In January 2014, NHS England (2014a) launched the National Patient Safety Alerting System (NPSAS), which has now taken over from the NPSA. This launch was part of the government’s response to the Francis report (2013), aimed at providing a clearer framework to support organisations to respond and act on patient safety issues.

The new NPSAS uses a three-stage system (Box 3), which has been developed to allow a more rapid response to incidents that could be potentially harmful to patients. It is managed through a central alerting system sign-off process, in which trusts are expected to confirm, usually at board level, that all actions presented in the alert have been addressed.

NHS England has already started making data publicly available via its website, naming trusts that do not declare compliance with any stage of an alert by site, naming trusts that do not declare making data publicly available via its web.

» The completion deadline date. The data is compliance with any stage of an alert by site, naming trusts that do not declare making data publicly available via its web.

» The alert have been addressed.

» All actions presented in the alerting system sign-off process, in which patients. It is managed through a central

» That could be potentially harmful to patients. It is managed through a central

» To allow a more rapid response to incidents that could be potentially harmful to patients. It is managed through a central

» System (Box 3), which has been developed to respond and act on patient safety issues.

» A clearer framework to support organisations

» That they have taken action to implement solutions minimising the risk

» Source: NHS England (2014a)