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Reporting and learning from harmful incidents

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If patient safety is truly to be a primary care priority, the current under-reporting of harmful incidents must be reversed. Some simple, audit-based tools can help to uncover previously undetected harm events

Patient safety in primary care is a major concern. The first article in this three-part series on building a safety and improvement culture (*Practice Nurse* 2010; 40(8): 38–40) considered the potential scale of the problem, and how systems fail and mistakes are made in even the most organised practices where staff are well trained.

Although our knowledge of risk is growing, we need to know much more about what can go wrong in primary care in order to gain a fuller understanding of the key threats to patient safety.

TABLE 1. COMMON PATIENT SAFETY-RELATED TERMS AND THEIR DEFINITIONS

Term	Definition
Significant event	Any incident thought by anyone in the healthcare team to be significant in the care of patients or the conduct of the organisation. This is a broad term that covers all others
Near miss	A situation in which an event or omission, or a sequence of events or omissions, arising during clinical care fails to develop further, whether or not as the result of compensating action, thus preventing injury to a patient
Adverse event	An event or omission arising during clinical care and causing physical or psychological injury to a patient
Patient safety incident	Any unintended or unexpected incident that could have or did lead to harm for one or more patients receiving NHS care. These are the incidents in which the National Patient Safety Agency is most interested
Hazard	Anything that can cause harm
Error	The failure to complete a planned action as intended, or the use of an incorrect plan of action to achieve a given aim
Risk	The likelihood, high or low, that somebody or something will be harmed by a hazard, multiplied by the severity of the potential harm

INCIDENT REPORTING SYSTEMS

Incident reporting systems are fundamental to learning about the risks in safety-critical workplace environments such as those found in the aviation and petrochemical industries. In 2004 a confidential and anonymous National Reporting and Learning System (NRLS) was introduced for NHS staff and patients in England and Wales.[1] The purpose of the NRLS is to collate patient safety incidents, issue hazard alerts, develop appropriate solutions, and share the learning around the country. The system has been designed to complement local NHS incident reporting mechanisms rather than replace them. In NHS Scotland, incident reporting is encouraged at regional health board level.

Engagement in the NRLS was initially slow, but has been rising steadily in recent years. One of many barriers to participation that is often reported has been the confusion felt by some healthcare staff over the abundant – and often arbitrary and interchangeable – use of terminology surrounding patient safety (Table 1).[2]

Between July 2000 and June 2008, almost 1 million incidents were reported by the healthcare workforce and collated by the NRLS.[3] Unfortunately, the reporting of incidents from primary care has been extremely poor, despite the greatest amount of patient contacts taking place here. For the same period, 3,417 reports were received from general practice in England, representing 0.4% of the total. Clearly, there is a major under-reporting issue and an urgent need to better engage the primary care workforce in local and national reporting systems. Only then can learning and improvement

TABLE 2. EXAMPLES OF 'TRIGGERS' IN ELECTRONIC PATIENT RECORDS THAT MAY LEAD TO HARM

Trigger	Rationale
Timing of consultation	Three contacts with the practice in any given period of one week (including telephone calls, consultations with the practice nurse or GP and home visits)
Place of consultation	Any home visit, whether by the GP or practice nurse from the practice serves as a trigger
Frequency of consultation	Ten consultations for the period of review (12 months)
Changes to medication	Has any 'repeat medication' been added or cancelled in the period under review?
Hospital admission/ discharge	Has the patient been admitted to hospital (minimum one overnight stay) for any intervention, management or procedure?
Adverse drug events/allergies	Has a new Read code for allergy/adverse drug event been added to the record in the 12-month period under review?
Abnormal blood results	Specific abnormalities in urea and electrolytes, liver function test, international normalised ratio and full blood count levels serve as triggers

Triggers are defined as easily identifiable flags, occurrences or prompts in patient records that alert reviewers to potentially harmful events that have been previously undetected

solutions be fully identified and shared nationally to benefit all primary care teams and, crucially, patient care.

But how do we start to do this? In the past decade many practice teams have become experienced in significant event analysis (SEA) and this is one method that can be aligned with the reporting of patient safety incidents. We know that many SEAs tackle incidents of unintentional harm to patients or near misses that are of interest to the NRLS.[4,5] The logical next step for primary care teams is to formally report relevant safety incidents that have already been subjected to SEA. If patient safety is truly to be a primary care priority, then teams can begin to improve internal safety cultures by developing a simple policy of encouraging and supporting staff to report appropriate significant events that are of interest.

FOCUS ON PREVENTABLE HARM

Trigger tool method

Arguably, the most proactive approach to patient safety is to actually search for problems. If your practice places a high premium on collective learning, safety and improvement then you may wish to consider redirecting your clinical audit efforts to where they may be needed most, ie for identifying those patients who have been unintentionally but avoidably harmed. We know from current safety initiatives in primary care that you will find these patients quickly using an audit approach known as the 'trigger tool' method.[6]

A trigger tool is a simple checklist containing a selected number of 'triggers', which a clinical reviewer seeks when screening samples of electronic medical records. Triggers are defined as easily identifiable flags, occurrences or prompts in patient records that alert reviewers to potentially harmful events that have been previously undetected (Table 2). For example, an international normalised ratio of 5.0 would be a 'trigger' for the reviewer to examine the electronic record for evidence of the patient suffering some type of related haemorrhage.

The trigger tool method involves randomly selecting a small sample of records (between 10 and 20) from a practice sub-population where harm events are more likely to occur (eg patients aged 75 years or over; or those taking high-risk medications). Speed is a key advantage of this process – the average time taken to review a record is 2min. If at the end of 20min you are unable to decide if harm occurred, you ignore the record and move on to the

TABLE 3. NATIONAL COORDINATION COUNCIL FOR MEDICATION ERROR REPORTING AND PREVENTION INDEX FOR CATEGORISING ERRORS

Category*	Description	Example
E	Temporary harm to the patient and required an intervention	Side-effects and abnormal LFTs after starting statin
F	Temporary harm to the patient and required hospitalisation of any length	Hyperkalaemia secondary to starting ACE inhibitor required hospitalisation
G	Permanent patient harm	Reduced mobility after spinal surgery
H	Intervention to sustain life	Anaphylactic reaction to administered drug required CPR
I	Patient death	Accidental administration of fatal dose of diamorphine

*Categories A–D are excluded as they are concerned with errors that did not result in harm
LFT, liver function test; CPR, cardiopulmonary resuscitation

TABLE 4. ELIGIBLE OR NON-EXEMPTED PATIENTS RECEIVING A CARE BUNDLE FOR SECONDARY PREVENTION OF CHD IN A FICTITIOUS PRACTICE

Chronic disease management criterion (ie care bundle)	Patients receiving care (n=100)	QOF target (%)	QOF compliant
The percentage of patients with CHD whose notes have a record of blood pressure in the previous 15 months	93	40–90	✔
The percentage of patients with CHD in whom the last blood pressure reading (measured in the previous 15 months) is 150/90mmHg or less	72	40–70	✔
The percentage of patients with CHD whose notes have a record of total cholesterol in the previous 15 months	90	40–90	✔
The percentage of patients with CHD whose last measured total cholesterol (measured in the previous 15 months) is 5mmol/l or less	72	40–70	✔
The percentage of patients with CHD with a record in the previous 15 months that aspirin, an alternative antiplatelet therapy, or an anticoagulant is being taken (unless a contraindication or side-effects are recorded)	90	40–90	✔

CHD, coronary heart disease; QOF, Quality and Outcomes Framework

next. Repeating this process about every 3 months may enable you to also measure the preventable harm rate in the chosen sub-population, which you can then monitor and reduce over time.

When examining a record, you should answer the following five questions:

- Can triggers be detected? If yes, examine the relevant section of the record in more detail to determine if the patient came to any harm. If no, move on to the next record.
- Did harm occur? If yes, move on to the next question. If no harm is detected, move on to the next record.
- What was the severity of harm detected? Grade the severity of every incidence of detected harm (Table 3).
- Was the detected harm incident preventable? Determine whether the detected harm was preventable, based on a combination of evidence and professional judgement.
- Where did the harm incident originate? The circumstances leading to the harm event may have originated in primary or secondary care, or a combination of both.

Evidence from on-going research suggests that most of the harm events uncovered by the trigger tool method would have remained undetected by other improvement methods such as incident reporting, SEA or audit. In addition, the trigger tool approach can facilitate immediate safety-related learning and improvement in 'real time' at both the individual clinician and team level. In the UK, innovative work and supporting guidance on trigger tools for primary care are being produced by NHS Education for Scotland[6] and the NHS Institute for Innovation and Improvement.[7]

IMPROVING SAFETY AND RELIABILITY

Quality and Outcomes Framework (QOF) targets and clinical audit are established methods for monitoring and improving adherence with evidence-based care. We would all accept that chronic disease management (CDM) is an important approach to delivering safer care to our patients, which was recommended based on robust research findings. But do all eligible patients receive the healthcare to which they are entitled? In a major study involving over 6,700 patients, only 55% received the entire preventive, acute or chronic care recommended by evidence-based practice, which has important ramifications for the general health of this population.[8]

POINTS FOR PRACTICE

- We need to improve the levels of engagement by primary care staff in reporting and learning systems
- Screening electronic patient records is a more effective method of identifying and learning from preventable incidences of patient harm
- The safety and reliability of chronic disease management can be improved using a 'bundle' audit approach, thereby ensuring more patients receive evidence-based care

Care bundles

One way that we can augment our traditional approach to audit and provide safer, more reliable care to potentially more patients is by using 'care bundles'. A care bundle is a structured way of improving processes of care to deliver enhanced patient safety and clinical outcomes. It is a small, straightforward set of evidence-based practices – generally three to five – which, when performed collectively, reliably and timeously, are highly likely to improve care processes and outcomes.

How reliable are the CDM care processes in your own practice? For instance, are those patients receiving treatment for secondary prevention of coronary heart disease getting all of the evidence-based care they are eligible for and entitled to? Would you be happy if an immediate family member or close friend received the same standard of care that some of your patients are receiving? Of course, you may be reaching or surpassing your QOF targets and maximising your practice income, but does that tell the full story?

Study the data for the fictitious practice in Table 4. On the surface all QOF targets are being met or bettered. The practice appears to be delivering a good standard of care to this patient group and, to an extent, it is. However, arguably there are key data missing from this specific bundle of care. How many patients received all five interventions during the previous 15-month period?

If the answer is 63 out of 100 then what does this indicate about care reliability? It tells us that 37% of eligible patients did not receive all of the evidence-based care interventions that they should have done. Additionally, the care system underpinning the CDM process in this fictitious practice has a large quality of care defect rate. The key quality indicator measure is, therefore, the 63% figure being achieved for the full bundle of care. It is this figure we need to monitor and increase if we wish to more accurately improve the safety and reliability of secondary prevention of CHD.

Thinking about CDM and other care processes in terms of 'bundles' and 'reliability' is not a particularly onerous step for most practices. It is arguably a more focused and effective method of applying clinical audit to measure, monitor and improve the quality and safety of disease management and other care processes in the practice.

CONCLUSION

A key patient safety challenge is to focus our existing learning and improvement efforts on reducing harmful incidents. We can start this process quickly without creating additional workloads. Relevant SEAs can be formally reported for others to learn from without much effort. Time allocated for improvement can be used more effectively to audit patient records for preventable harm cases. We can improve care reliability simply by tweaking how we interpret our audit results so they more accurately reflect our evidence-based practices. The tools exist to help us with these tasks, but this alone is not enough. To implement a safety culture, change attitudes and alter professional behaviours, strong practice leadership is needed. ●

The final article in this short series on safety in primary care will be on leadership and implementing a safety culture

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RESOURCES

- **National Coordinating Council for Medication Error Reporting and Prevention**
  www.nccmerp.org/medErrorCatIndex.html
- **National Patient Safety Agency**
  www.nrls.npsa.nhs.uk
- **NHS Education for Scotland**
  www.nes.scot.nhs.uk/initiatives/significant-event-analysis
- **NHS Institute for Innovation and Improvement**
  www.institute.nhs.uk