Articles in this series are particularly for nurses new to general practice, to help them get to grips with their job, but are also updates for any reader on important basics in general practice nursing

Learning from significant events

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Bowie P. Learning from significant events. *Practice Nurse* 2010; 39(12): 11-5

Significant event analysis encourages a culture of honesty in the team as well as both team-based and individual reflection. Applied effectively, the technique provides many opportunities to improve the safety of patient care

The safety of patient care in many areas of the NHS is often inadequate.[1] We know that about one in 10 hospitalised patients is inadvertently harmed as a result of their care. One-half of these cases are thought to be preventable. Comparable knowledge of the scale of harm in primary care is limited, mainly because research is lacking.[2]

PATIENT SAFETY ISSUES

More than 300 million patients consult with primary care teams annually, mostly for minor, self-limiting illnesses. However, there is still a significant requirement to manage complex chronic disease, diagnose serious illness, provide preventive care and assist patients with critical conditions. It is highly unfortunate but currently inevitable that a proportion will routinely suffer some form of unintentional harm, mostly of low to moderate severity.

We know about the more serious cases from litigation claims and high-profile media reports. Some non-systematic studies[3,4] also hint at the extent of the safety problem in primary care. For example, 11% of prescriptions may include a mistake; 5% of hospital admissions are a result of medication issues; and one in 20 patients may suffer unintentional but avoidable harm. These studies are not generalisable, but they do point to important safety issues that expose deficiencies in practice systems and the professionalism of clinicians and staff.

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Consequently, in the past decade, improving patient safety has acquired top-priority status in the NHS. Many safer care programmes, new developments and policy initiatives have appeared during this time, all aimed at reducing harm and improving the patient experience.[5,6] The introduction of significant event analysis (or audit; SEA) to primary care is one such safety advancement.[7]

BOX 1. POLICY DRIVERS FOR SIGNIFICANT EVENT ANALYSIS IN PRIMARY CARE

- Quality and Outcomes Framework
- National patient safety initiatives
- Good nursing practice
- Appraisal and revalidation
- Reflective practice
- Continuing professional development
- Reporting of patient safety incidents

BOX 2. BROAD DEFINITION OF A SIGNIFICANT EVENT[7]

Any event that any member of the team considers to be significant in terms of the care of the patient and the conduct of the practice

Significant event analysis should now be a key part of mainstream learning and improvement activities in most GP surgeries. Its importance is reflected in the fact that evidence of participation is now required for a variety of clinical governance and educational reasons (Box 1), particularly as part of the Quality and Outcomes Framework (QOF) and GP appraisal. However, the evidence suggests that primary care teams may struggle to apply the SEA technique effectively.[8]

DEFINING A SIGNIFICANT EVENT

'What is a significant event?' is a commonly asked question. But determining this can sometimes be problematic, given the original broad definition (Box 2). Most events of 'significance' tend to have negative implications (eg when something goes wrong, such as giving the wrong vaccination to a patient).

The SEA technique also strongly encourages 'positive' events to be highlighted and shared for others to learn from them (eg when something goes particularly well, such as the successful care of a patient after an anaphylactic reaction).

To complicate matters, the 'significance' of other events can be more difficult to grasp, as there may not be any outstandingly positive or negative factors associated with them. For example, reflecting on the care provided to a terminally ill patient that you cared for (and the associated emotional experience), where everything went as well as it could have up until the moment of death. Typical examples of common significant healthcare events are outlined in Box 3.

BOX 3. EXAMPLES OF SIGNIFICANT EVENT CASE STUDIES

- The practice nurse did a cervical screening test on Mrs W and informed her that she will be notified if there are any problems with the results. The result was abnormal and the practice tried to contact Mrs W, but there was no record of a telephone number and she is ex-directory. A letter was sent, but this was returned and it became apparent that Mrs W had moved and not notified the surgery. Meanwhile, Mrs W assumed that, as she had not heard, the result must be normal. Six months later, Mrs W came to the surgery on a routine appointment and was informed of the result and referred.
- A patient complained about the practice vaccination policy. Part of the complaint was that she and her husband had attended the practice nurse on separate occasions for holiday vaccination. One patient had blood drawn off to check for hepatitis A titres before immunisation, while the other patient did not have any check for titres but was given immunisation straight away. There was no age difference between the patients.
- A child was in the routine immunisation clinic. The nurse assumed that he was there for all the injections and administered the diphtheria/tetanus/pertussis booster along with the measles/mumps/rubella (MMR). It was only when the mother asked about side-effects as she was leaving that she discovered the child had had the MMR; she did not want her child to have this vaccine.
- A patient arrived early for his appointment with the practice nurse. After waiting a short time, he started to complain to reception staff about the length of wait. He was finally seen by the nurse 10 minutes after the allocated time. The nurse apologised and this was initially accepted. However, the patient began to shout angrily at the nurse that he did not wish to be treated by her. He also demanded a complaint form. The nurse felt very threatened. The practice manager and GP quickly stepped in and consulted with the patient, who was subsequently suspended from the list.
- A 33-year-old woman developed an allergic reaction to penicillin prescribed for a sore throat. Her records were not available on the day she consulted. They showed that, at her new patient check 1 year earlier, the practice nurse had recorded that she was possibly allergic to penicillin.
- The surgery cleaner felt a jab on her finger while tying a domestic refuse sack in the practice nurse's room. When she looked in the bag she saw what she thought was a hypodermic needle. Her skin was not broken and she did not bleed. As a precaution, she washed her hand in warm, soapy water, filled in the relevant section in the practice accident book and informed the practice manager. There was a potential risk to health, which caused considerable distress and anxiety.
- A patient recently diagnosed with rheumatoid arthritis following a hospital admission was started on sulphasalazine in hospital and discharged with GP responsibility for blood monitoring. He attended the practice nurse on four occasions for blood monitoring without seeing a GP. He defaulted several appointments and was sent a letter to remind him of the importance of blood monitoring. He then re-attended the practice nurse and was found to be in constant pain and disillusioned with the sulphasalazine, which he had discontinued 2 weeks previously. Since hospital discharge, he had been taking only 1.5g of sulphasalazine daily. He had not received a medical review to increase the dose towards his target dose of 2.5–3g daily.

THE SEA TECHNIQUE

Traditionally, most primary care teams have not been good at learning effectively from when things go wrong or when suboptimal practices are highlighted. Taking part in SEA offers the care team a chance to hold regular structured meetings where they can prioritise and reflect on events that are identified as being 'significant' to them.

Importantly, the opportunity for reflection, discussion and analysis in a non-threatening environment helps the team (and individuals) to identify learning

BOX 4. SEVEN STEPS TO ANALYSING A SIGNIFICANT EVENT[9]

Step 1

Identify and prioritise a significant event for analysis. However, it would be impractical to analyse every event, so these should be selected in terms of importance to patient safety.

Step 2

Collect and collate as much factual information on the event as possible, including written records. Also gather the thoughts, opinions and impressions of those directly and indirectly involved, including, where relevant, patients/relatives or other health professionals.

Step 3

Convene a meeting to discuss and analyse the significant event; this involves all relevant members of the team. The meeting should be conducted in an open, fair, honest and non-threatening atmosphere. A minute of the meeting should be taken and circulated.

Step 4

Undertake a structured analysis of the significant event. The analysis should be investigative and in-depth rather than simply discursive and superficial. The evidence indicates that an informal, unstructured approach may lead to a poorer event analysis. An individual should be appointed to manage the change process.

Step 5

Monitor any changes agreed and implemented. Change progress should be monitored at future team/significant event meetings.

Step 6

Write it up. Keep a written record of every event analysis undertaken using the method outlined overleaf. Remember that significant event analysis is a retrospective technique. Any change or action described in a completed event analysis report should already have happened or be in progress, rather than simply being suggested.

Step 7

Report, share and review. Reporting when things go wrong is essential in general practice. The practice should formally report (either to the National Reporting and Learning Service, which is part of the National Patient Safety Agency, or via the primary care trust/healthcare organisation) those events where patient safety has, or could have been, compromised. Where a mechanism exists, practices should share knowledge of important significant events with local clinical governance leaders so that others may learn from these events.

needs and share good practices. Another major advantage of doing SEA well is that it can enhance team-working and morale, and improve communication between team members and others. All of which helps to build a more effective safety culture in GP surgeries.

Significant event analysis can be described as a 'qualitative' method of clinical audit. In this respect, it differs from the more conventional process of audit with which most primary care teams are familiar: for example, when reviewing and improving care in the management of diabetes, asthma, ischaemic heart disease or hypertension. These audits tend to deal with larger scale 'quantifiable' patient data sets and involve defining criteria and setting standards that can be measured, compared and improved.

By contrast, SEA should involve a systematic attempt by the healthcare team to investigate, review and learn from a single event. Often the types of significant event described in Box 3 will not be highlighted through 'normal' audit processes. However, they still offer the primary care team valuable – and often critical – learning and improvement opportunities, particularly from a safety perspective.

Recent joint guidance from the National Patient Safety Agency and NHS Education for Scotland helped to define the SEA process.[9] The guidance provides a seven-step framework that can guide the primary care team when discussing, investigating and analysing a chosen significant event (Box 4). It is important to note that good practice in moderating significant event meetings is critical for successful SEA (Box 5, overleaf).

ANALYSING A SIGNIFICANT EVENT

A key step in applying SEA is the analytical process. Taking a less than rigorous approach to analysing a significant event is the most common reason why the process fails to be productive. To improve success, the analytical process should be guided by in-depth consideration of the following key questions:

- What happened and how did it happen?
- Why did it happen?
- What has been learned?
- What has been changed or actioned?

What happened and how?

- Establish what happened and how in detailed, chronological order.
- Collect as much factual information as possible from: written and computer records; personal testimony from those directly and indirectly involved: patients, relatives and colleagues from NHS bodies.
- Determine what the impact was or could have been, eg clinically/emotionally for the patient, the professionalism of individuals or the team, or the liability of the organisation.

Why did it happen?

- Establish the main and underlying reasons contributing to why the event happened.
- Consider, for example, the professionalism of the team, the lack of a system or a failing in a system, lack of knowledge or the complexity and uncertainty associated with the event.
- Try to avoid simply focusing on superficial causes of events (for example, 'I forgot to pass on an

important message about the condition of an elderly diabetic patient to the practice nurse'). Use simple problem-solving techniques such as Toyoda's 'Five Whys' or the fishbone diagram (quality and service improvement tools section of the NHS Institute for Innovation and Improvement website; see Resources).
- Alternatively, if it is a positive event, what were the underlying factors that contributed to a successful outcome (Box 6)?

What has been learned?

- Outline the learning needs identified from the event.
- Demonstrate that reflection and learning have taken place on an individual or team basis.
- Consider, for example:
  - a lack of knowledge and training
  - the need to follow systems or procedures
  - the importance of team working or effective communication.

What has been changed or actioned?

- Outline the action(s) agreed and implemented (where this is relevant or feasible).
- Action is not always necessary – particularly for 'positive' and 'purely reflective' events – but should always be considered and justifiably ruled out if not required.
- If a protocol has been amended, updated or introduced, for example, consider how this was done, who was involved, and how this change will be monitored.
- Consider also how this SEA could be shared and if the event should be reported to the NPSA as a patient safety incident (see Resources).

BOX 5. GOOD PRACTICE IN SIGNIFICANT EVENT MEETINGS

- Ensure protected time at monthly meetings or as part of regular team-based meetings
- Rotate meetings so that part-time staff can also participate
- Ground rules for meetings should be agreed with team members beforehand – fear of being open and honest will lead to less effective significant event analysis
- Significant event analysis is about gaining a full, in-depth understanding of why events occur and learning from them – not allocating blame
- Keep focusing on resolving the inadequacy of practice systems and procedures – in most cases unfortunate individuals were caught up in the processes
- Success is reliant on a well-established, strong and cohesive team displaying a high degree of maturity, trust and openness
- Strong leadership/facilitation is important in running meetings to time, gaining co-operation and agreement, encouraging participation by all team members, exposing hidden agendas and managing medical dominance
- Be aware that employed staff may feel low in the hierarchy, find it difficult to act confidently as equals and feel vulnerable speaking out

BOX 6. POSSIBLE OUTCOMES OF A SIGNIFICANT EVENT MEETING

- **Celebration**
  Exemplary care, eg the team-based effort in successfully resuscitating a man who collapsed in the surgery waiting room
- **No action**
  Event is part of everyday practice or is so unlikely to happen again that it would not be an effective use of time and resources to put preventive measures in place
- **A learning need**
  A patient's sudden collapse in the surgery revealed that the nurse and doctor who attended needed refresher training in cardiopulmonary resuscitation
- **A learning point**
  A discharge summary was received in the practice, but the prescriptions on the practice computer were not changed
- **A conventional audit**
  A problem was revealed, but the team was unsure how common it was, eg a 49-year-old overweight patient and smoker was admitted to the local hospital with a myocardial infarction. Review of his records showed that he was at risk, but was not on appropriate medication
- **Immediate change**
  A child was given an out-of-date vaccination, prompting a complaint from the parents. A formal protocol was introduced immediately to ensure regular checking of vaccinations and refrigerator temperatures by designated staff
- **Further investigation**
  The team discussed an apparent missing blood test result, which had been ordered for an elderly man who was subsequently hospitalised with anaemia. It was unclear why this had happened. The GP who ordered the test and the practice manager would jointly undertake a significant event analysis to investigate fully

WRITING UP THE SEA REPORT

It is important to keep a written record of the event analysis, particularly for QOF and appraisal reasons. It is good practice to attach any additional evidence of action (eg a copy of a letter of apology or an amended protocol) to the report. The report should be written up by the individual who has the greatest knowledge of the event or who led on the event analysis. It is also good practice to keep the report anonymous so that individuals and other organisations cannot be identified. A report template is available on-line (see Resources).

The report should reflect an in-depth account of each of the four areas of analysis, rather than a superficial attempt to describe the event. Reviews by trained peers of large numbers of SEA reports[10] have highlighted specific areas where documentation could be greatly improved by:

- providing much more detail about what happened and how it happened, including dates and times
- outlining the actual or potential implications of the event for all concerned, eg patient, clinicians and the surgery

- where possible, establishing and documenting in detail exactly why the event happened – which may involve an in-depth investigation to uncover 'root causes'
- describing actions and improvements that have already been agreed and implemented, rather than stating a 'wish list' of things the team would like to happen in the future.

EVIDENCE OF BENEFITS AND BARRIERS

The research evidence for SEA is limited, but growing steadily. A recent literature review[8] highlighted many of the benefits and potential barriers to participation.

Benefits of SEA

- It provides opportunities for the wider team to contribute to problem resolutions, which may lead to staff feeling more valued.
- It leads to improved communication between professional groups, closer working relationships, and an enhanced appreciation of others' roles.
- There is improved team-working, breaking down of traditional barriers, higher levels of personal trust and an increase in personal support.
- The technique has an immediacy that leads to speedy decision-making for change and improvement.
- It may allow in-depth analysis of sensitive and complex cases, where there are related fears and anxieties among staff.
- Seeing positive change happen may make professional practice more satisfactory.
- For some, there is an element of personal catharsis, especially in writing up SEA reports.
- Multiple changes in practice and important improvements in service delivery are reported by participants.
- Linking complaints with SEA may provide complainants with credible evidence that the complaint is taken seriously.

Barriers blocking success

- Review of many SEA reports raised methodological issues in more than one-third, which may indicate training is necessary.
- Employed staff may feel low in the hierarchy, find it difficult to act confidently as equals and feel vulnerable in speaking out.
- Medical domination of meetings is possible without strong leadership and facilitation.
- The process may be destructive for poorly established teams – the team dynamic may militate against the critical appraisal of care delivered.
- Inadequate leadership may hinder the non-threatening environment, the appropriateness of topics and the uncovering of hidden agendas.
- Prioritisation may focus on 'safe' events rather than complex or serious ones to minimise embarrassment, conflict or concerns about confidentiality and litigation.
- 'Positive' events are rarely chosen because care teams perceive a greater challenge in resolving 'negative' events.
- Sensitive events may provoke a barrier of defensiveness and be too discomforting, threatening and emotionally demanding.

CONCLUSION

At its core, SEA is based on sound educational principles. It is one key element among a range of others in a 'learning organisation' and in developing an effective safety climate within the practice team. Importantly, SEA encourages a culture of honesty in the team as well as both team-based and individual reflection.

In a similar way to NHS doctors, other healthcare professionals will, in time, find that regular appraisal changes from being a voluntary, professional activity to being mandated. The link between SEA, personal reflection and the patient safety agenda is increasingly being made. However, the evidence shows that many SEA attempts can be superficial, leading to missed opportunities to improve the safety of patient care. The guidance outlined in this article should help practice nurses and colleagues take the first steps in raising the standard of event analyses.

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RESOURCES

- **BMJ Learning**
  http://learning.bmj.com/learning/main.html
- **National Patient Safety Agency**
  - Seven stages of significant event analysis
    www.nrls.npsa.nhs.uk/resources/?entryid45=61500
  - Reporting a patient safety incident (England and Wales)
    www.npsa.nhs.uk/nrls/reporting
- **NHS Education for Scotland**
  www.nes.scot.nhs.uk/sea
  Also includes an SEA report template
- **NHS Institute for Innovation and Improvement**
  Quality and service improvement tools
  www.institute.nhs.uk