



Significant Event Analysis Guide 2020-21

Every patient, every time



Adapted with permission



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Glossary & Abbreviations

5 Whys	A simple tool for determining the root cause of safety incident
ACC	Accident Compensation Corporation
Cause & Effect	A structured tool for determining the cause of an event, also known as a Fishbone or Ishikawa diagram
Fishbone diagram	A structured tool for determining the cause of an event, also known as a Cause & effect or Ishikawa diagram
HDC	Health & Disability Commission
HQSC	Health, Quality & Safety Commission
MAS	Medical Assurance Society
IHD	Ischaemic heart disease
Ishikawa diagram	A structured tool for determining the cause of an event, also known as a Cause & effect or Fishbone diagram
MPS	Medical Protection Society
NZNO	New Zealand Nurses Organisation
PMS	Patient management system e.g. MedTech, MyPractice, ToniQ
PHO	Primary health Organisation eg Auckland, Alliance Health Plus, Comprehensive Care, East Health Trust, Total Healthcare, National Hauora Coalition, Procure
SIP	Safety in Practice

Section 1: Introduction

1.1 Background

Significant Event Analysis (SEA) is a technique to reflect on and learn from, individual cases to improve the quality of the care that you provide.

It is important to remember that a significant event offers an important opportunity for reflection and learning. A significant event will, more often than not highlight a negative experience for patients, relatives, clinicians and others involved. We can also learn as much from good practice as from negative outcomes or near misses. SEA offers an important opportunity to reflect on our systems, learn from events, and reduce the likelihood of negative things happening again.

Examples could range from a serious patient safety incident (e.g. a medication error leading to hospitalisation), to a moderate level error (eg failure to act on laboratory findings resulting in a four-week delay in a diagnosis), to an event which demonstrates excellent care provision (e.g. management of a patients who presented to the clinic with anaphylaxis), to one of a seemingly trivial nature which could have serious administrative consequences (e.g. failing to change a recorded message on a long weekend).

In healthcare we commonly use words such as critical incident, error, near miss and adverse event, interchangeably. In reality they all describe a significant event, which we can use as an important learning opportunity for individuals and about our systems.

Definition

“A significant event is any unintended or unexpected event, which could or did lead to harm. This includes events or circumstances which did not cause harm but could have done so, or where the circumstances should have been prevented.”

Royal College of General Practitioners, UK¹

Whether the event is clinical, administrative or organisational, the significant event analysis process should enable the practice to answer the following questions:

- What happened and why?
- How could things have been different?
- What can we learn from what happened?
- What needs to change?

SEA team discussions should be a routine part of your practice’s quality improvement and clinical governance and is an opportunity for the team to:

- Discuss each stage in detail
- Identify any learning needs
- Identify actions to be taken and changes to be made and agree how these will be processed.

There are multiple different tools and approaches that can be used to analyse significant events, for example a root cause analysis, the London protocol, or human factors review. Here we present a simplified approach adapted for use in primary care. If you'd like to discuss other approaches further please contact the Safety in Practice team or your PHO facilitator.

1.2 Patients & whānau

“Nothing about me without me”ⁱⁱ

The process of examining the circumstances that led to a significant event or near miss has historically focused on the contributions from health care staff. However evidence supports involving patients and whānau as active participants in the disclosure process and the event analysisⁱⁱⁱ. It is important to recognise that often those closest to the process have the clearest and simplest solutions, and a perspective which we may not have thought of (including for events which we believe went well).

There are many ways you can potentially involve patients and whānau in your SEA process, for example:

- Exploring communication techniques available online specifically for this process
- Consider linguistic and cultural needs, seek advice and support on this in advance if considered to be helpful
- Invite patient and whānau to be involved in gathering information for the SEA
- Assign two practice representatives to attend meetings with whānau
- Allocate a single point of contact within the practice to update patient and whānau periodically
- Provide a leaflet explaining the process
- Decide how to communicate outcomes of meetings to patients and whānau eg sending letters
- Ask whānau if they would like their family member referred to anonymously by acronym or by name in reports
- Ask if whānau would like a copy of final report and recommendations.

The degree to which patients and whānau are involved in your SEA process may be determined by many factors such as practicality, the nature of the event and the wishes of the patients and whānau.

1.3 Equity

Those facing inequity are more likely to be subject to adverse events; yet those who regularly experience inequity in healthcare may have lower expectations of care and may be less likely to complain. The SEA process provides another opportunity to maximise our organisational learning in a way that contributes to reducing inequity.

1.4 Supporting staff

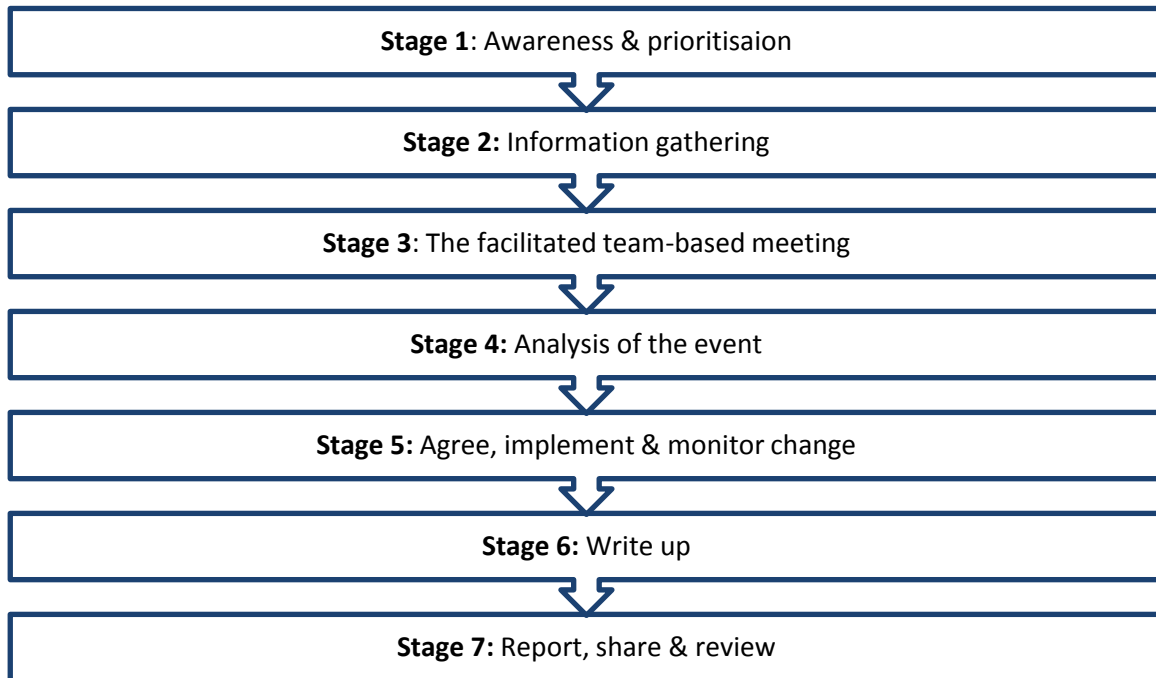
We have a duty of care to our staff, particularly those who are junior or in training, although even those with a great deal of experience are also impacted by significant events. A single event may have profound effects on multiple members of staff. A variety of factors such as age of the patient,

caring for a patient for a number of years, a clinician experiencing their first adverse event or a significant poor outcome for the patient, can all impact on the degree to which those involved are affected.

For the individuals most closely involved, guilt, blame and self-isolation are common responses. An effective, well timed debriefing, in a supportive environment that focuses on the error itself rather than individual blame, and a comprehensive learning process, can help minimise this ‘second-victim’ response.

There is a variety of support and resources available to help staff through this process. Linking with your PHO and/or professional body may provide information and access to helpful resources. There are some recommended resources available in Section 3.4.

Section 2: Conducting your SEA



Stage 1 – Awareness & prioritisation

Before you start this process, it is suggested to have a practice meeting to introduce the concept, discuss what is involved and how you plan to approach it. In particular it's important to reassure team members that the tool is for system improvement and learning, not blame.

Questions to consider:

- Who will be involved?
This team should be representative of all staff groups within the practice and meet regularly to discuss, investigate and analyse events. The team should appoint a facilitator who will structure the meetings, maintain basic ground rules and help with the analysis of each event. Rotating members within the team enables a variety of staff members to learn from conducting the review process. These meetings are a key function in coordinating the SEA process and they should be held in a fair, open, honest and non-threatening atmosphere.
- How will you share the findings?
Agree on a process for reflecting on results, prioritising events, planning and implementing improvement.
- How will you prioritise and plan any improvements as a result of the review?

Selecting your event

When selecting your event it doesn't necessarily need to have resulted in actual patient harm e.g. a significant near miss may be a good focus. If the case is likely to go to the HDC or the coroner this shouldn't necessarily prevent your own investigation, although case by case discussion with your PHO (for GP teams) is advised.

The tables below give some ideas as to the types of events that may prompt you to consider an SEA.

It goes without saying that most asthmatic patient’s won’t prompt an SEA, however repeated presentations to tertiary care may, prompting you to question how you manage your asthma review process, education and issuing of repeats. In many cases, for example meningitis or suicide, you may have no initial concerns around how the case was managed, but you may wish to undergo an SEA process to ask yourselves, could we have done anything differently? Can we learn anything from this?

Examples of incidents that could trigger an SEA

Diagnoses	Events	Screening
New diagnoses of cancer, IHD or stroke with possible delay in diagnosis	Unplanned pregnancies (for contraceptive advice)	Positive cervical smears not followed up
Prevention: Meningitis, measles, mumps, rubella, pertussis, bacteria gastro-enteritis	Unexpected deaths	Positive mammography not followed up
Prior care: Acute asthma, epileptic seizure, suicide	ACC treatment injury forms	
Low impact fractures	Complaints	
	Review of an emergency situation – including ones which have gone well.	

Prescribing or dispensing errors	Communication	Investigations and results
Wrong medicine or dose prescribed	Appointment letter sent to wrong address	Urgent referral not done
Wrong medicine or dose dispensed	Wrong information provided	Result incorrectly filed
Medicine interaction	Important message not acted on	Result not acted upon
Inadequate monitoring	Unclear prescription	Investigation request not sent

Table 1 & 2: Ideas or possible triggers for an SEA process

Stage 2 – Information gathering

In advance of the first meeting the team leader collects and collates as much factual information on the event as possible from personal testimonies from patients and whānau, accounts from all staff involved, written records including medicine charts, prescriptions and clinical records as well as other healthcare documentation eg discharge summaries, medicine charts.

Questions to consider:

- Is there any information you would like to know but don't have access to?
- Do you need to approach others to get this information such as hospital specialists, pharmacy/GP, district nursing, ambulance service, radiology?
- Do you need to gather additional reference information such as local policies, literature or expert opinion?

The leader forms a chain of events or timeline and continues to update this while information gathering is ongoing.^{iv}

Tip: While this process may raise many vital questions to discuss at the team meeting, the team leader should be careful to avoid the common trap of jumping to conclusions and deciding on improvements at this stage.

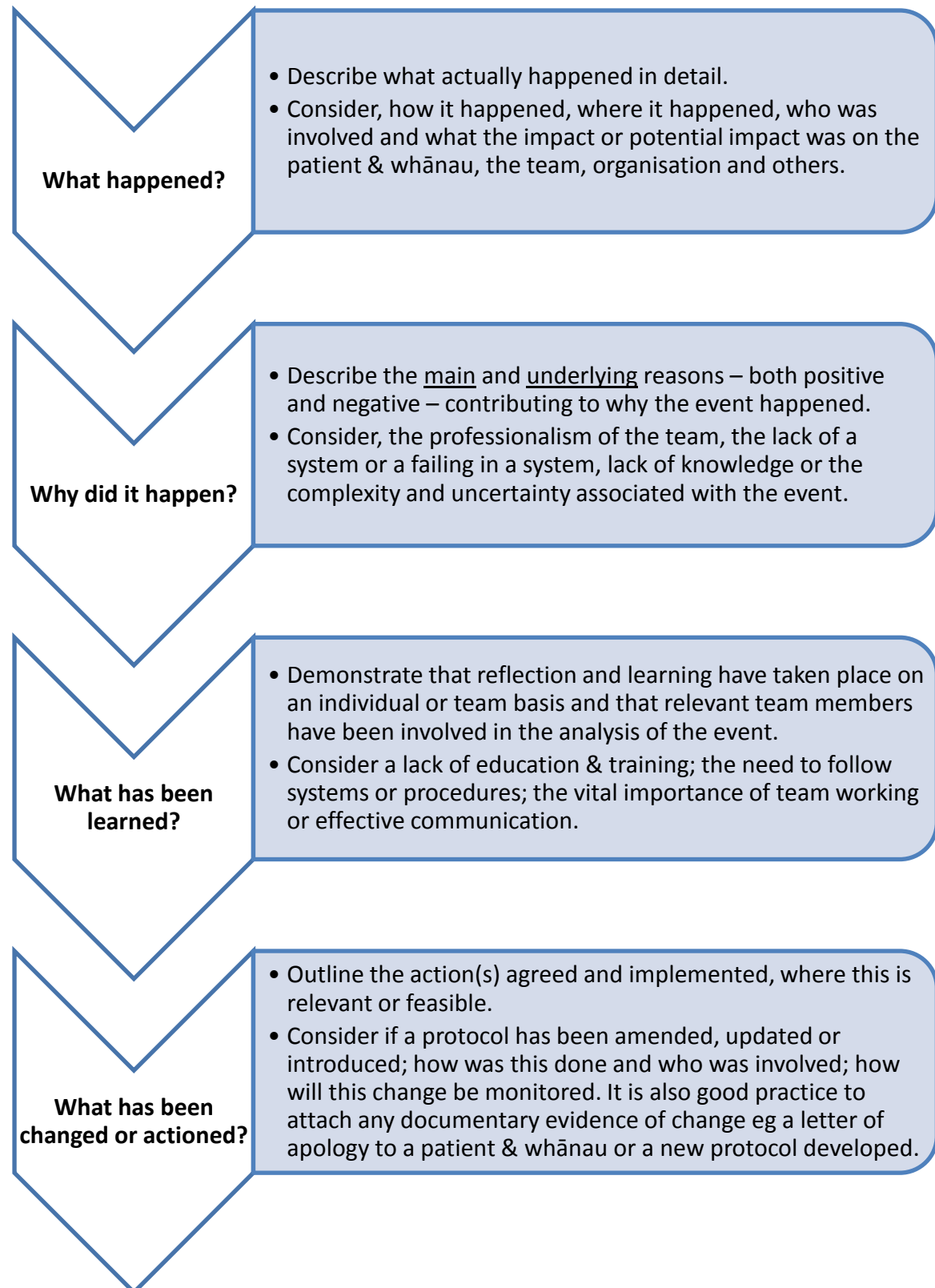
Stage 3 – The facilitated team-based meeting

Agree ground rules before the meeting starts to reinforce the educational spirit of the SEA and ensure opinions are respected and individuals are not blamed. An effective SEA should involve detailed discussion of each event, demonstration of insightful analysis, the identification of learning needs and agreement on any action to be taken.

Minutes of the meeting should be taken and action points noted. These should be sent to all staff, including those unable to attend the meeting.

Stage 4 – Analysis of the significant event

The analysis of a significant event can be guided by answering four questions:



There are a number of quality improvement tools available to help teams analyse the potential causes of an incident in a structure and methodical way. The 'Five Whys' and 'Cause & Effect diagrams' are commonly used and require very little training to use effectively and easily. These tools are discussed in more detail in the Resources Section.

Stage 5 – Agree, implement and monitor change

Questions to consider:

What will prevent or reduce the likelihood of recurrence of the event?

What will reduce the level of harm to the patient?

What will empower and engage the clinicians and managers in solutions?

Possible outcomes from your SEA may include:

- No action required
- Identification of learning needs eg implementation of an education policy
- A conventional audit is required
- Specific action required eg developing a practice policy, reviewing an existing policy, reviewing specific patients
- A further investigation or support is needed eg from your PHO or other external body.
- Sharing the learning.
- Consolidating the aspects of care that were undertaken well

Any agreed action should be implemented by staff designated to co-ordinate and monitor change. Progress with the implementation of necessary change should always be monitored by placing it on the agenda for future team or significant event meetings. To test how well the SEA process has gone, practices should ask themselves, *'What is the chance of this event happening again?'*

Stage 6 – Write up

It is important to keep a comprehensive, anonymised, written record of every SEA, as external bodies will require evidence that the SEA was undertaken to a satisfactory standard. The SEA report is also a written record of how effectively the significant event was analysed. See Report Template in Section 3.1. Ensure all SEA review team members have signed off on the report. Consider sharing with patient & whānau and write the report with this in mind. If appropriate, include condolences & acknowledgements in the conclusion.

Stage 7 – Report, share & review

Reporting to external organisations when things go wrong is essential in primary care, but rarely happens. Where appropriate the practice should look to formally report and notify via their PHO or governing body, those events where patient safety has, or could have been, compromised.

Section 3: Resources

3.1 Significant Event Analysis Report Form

For step by step guidance on completing this form please see Section 2, Step 4: "Analysis of the significant event"

Date of significant event:

Date of significant event meeting:

Date report compiled:

Author:

What happened?

Describe what actually happened in detail. Consider, how it happened, where it happened, who was involved and what the impact or potential impact was on the patient and whānau, the team, organisation and/or others.

Why did it happen?

Describe the main and underlying reasons – positive and negative – contributing to why the event happened. Consider 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.

What have you learned?

Demonstrate that reflection and learning have taken place on an individual or team basis and that relevant team members have been involved in the analysis of the event. Consider a lack of education & training; the need to follow systems or procedures; the vital importance of team working or effective communication.

What have you changed or plan to change?

Outline the action(s) agreed and implemented, where this is relevant or feasible. Consider if a protocol has been amended, updated or introduced; how this was done and who was involved; how will this change be monitored. It is also good practice to attach any documentary evidence of change eg a letter of apology to patient & whānau or the development of a new protocol.

Review date for actions:

Please complete and please email a copy of completed form to audit@safetyinpractice.co.nz

3.2 Tools

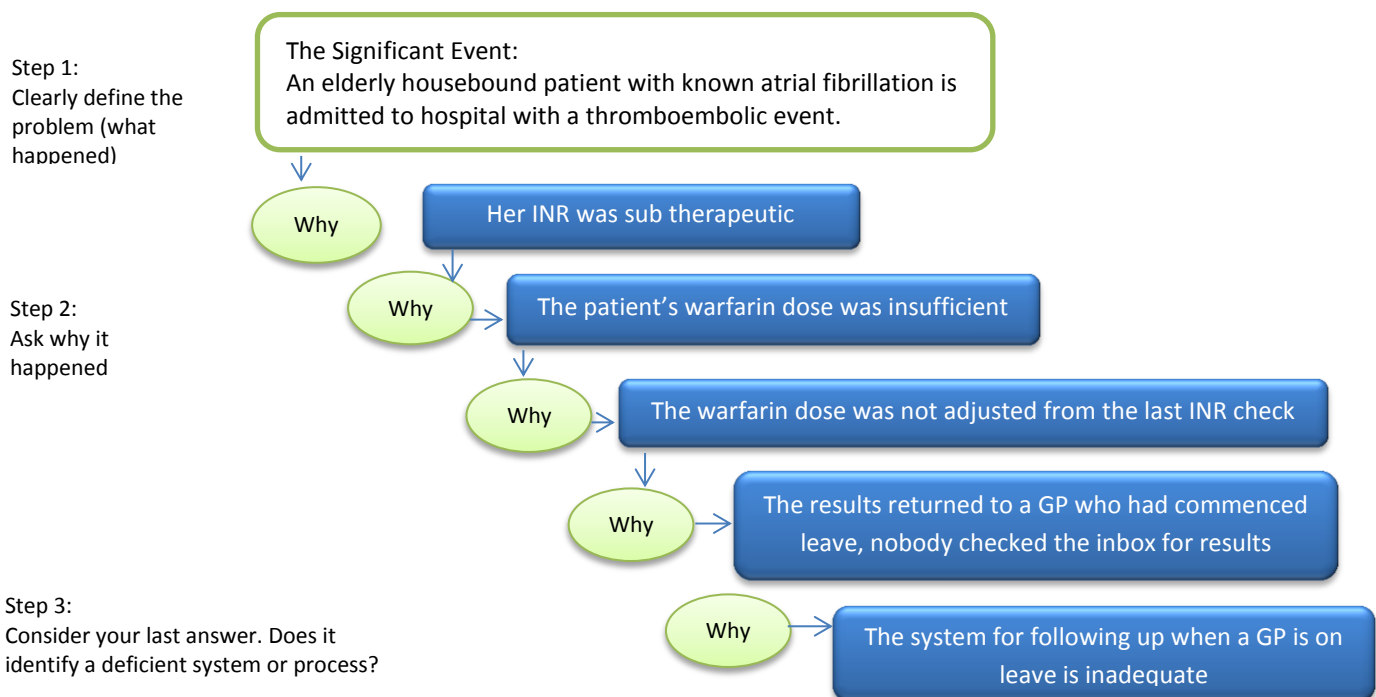
The '5 Whys' and 'Cause & Effect diagram' (also known as Fishbone or Ishikawa diagram) are quality improvement tools that can be used to help you analyse significant events.

3.2.1 The 5 Whys

The key to solving a problem is in understanding it first. It is tempting to go straight to a solution, often because it feels logical to fix it in a particular way; you may have seen the problem before and this solution worked last time, or it could be simply that solution is obvious so you 'just put it in place'. However, what we think is the cause is sometimes only a symptom.

The '5 Whys' helps to identify the root cause without making assumptions by asking 'Why ...' after each answer until you have asked 'why' five times in a row. This tool is simple and quick to do, it helps individuals and teams recognise that there may be multiple root causes for problem, and that different people who see different parts of the system may answer the questions differently. Sometimes by the fifth 'why' the answer is very different from the original event and therefore requires a different solution.

Here is a clinical example of using 5 Whys:



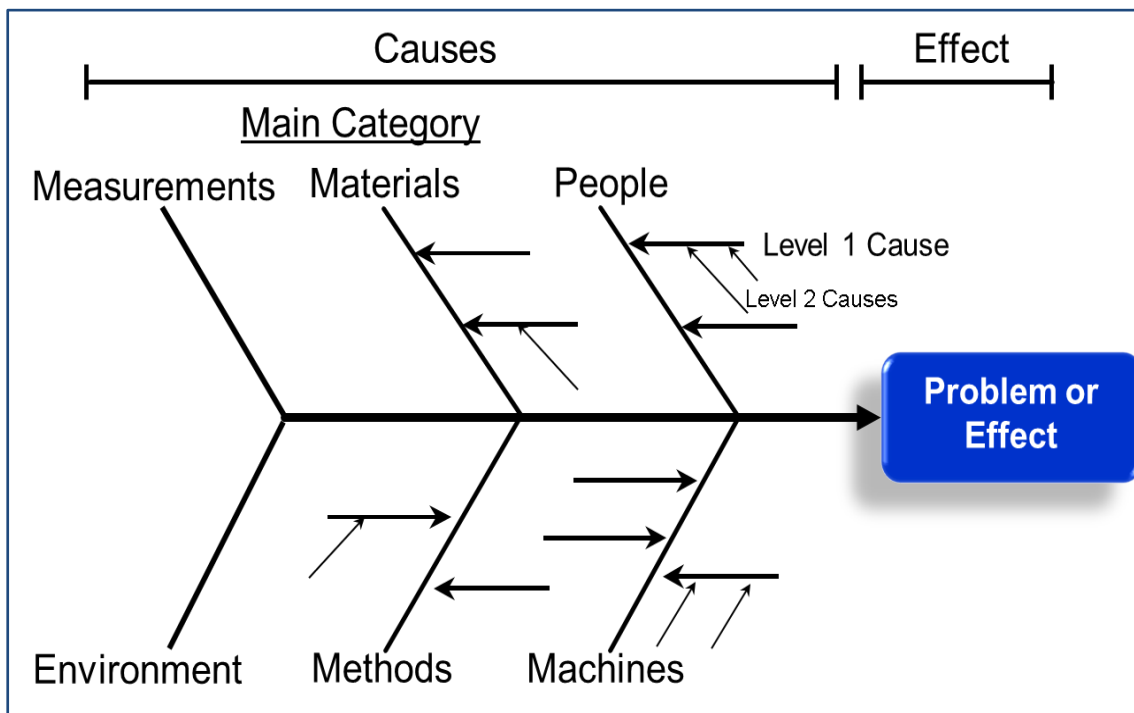
Action: What are the implications for action? What can you do to change this result?

3.2.2 Cause & Effect Diagram

The Cause & Effect Diagram is a tool commonly used by teams and organisations to help them determine what changes they can test to improve a process. This tool helps teams explore and display the many causes that contribute to a certain effect or outcome. The Cause & Effect displays the relationship of the *cause* to the *effect*, highlighting areas for improvement.

How to start a cause & effect:

1. Write the effect you wish to influence in a box on the right hand side of the page
2. Draw a horizontal line across the page, starting from the effect box
3. Decide on 5 or 6 categories of causes for the effect, this can be achieved by using brainstorming with your team. Those who have used a Cause & Effect model before may know the commonly used categories as Measurement, Material, People, Environment, Methods and Machines
4. Draw diagonal lines above and below the horizontal line to create a fishbone, label each line at the end with the categories you have chosen
5. For each category, generate a list of causes that contributed to the effect. List the causes by drawing 'branch bones'. As necessary, draw additional branch bones from the cause to show sub-causes.



Tip: Develop the causes by asking the '5 whys' until you have reached a useful level of detail – i.e. when the cause is specific enough to be able to test a change and measure its effects.

For examples of what the '5' Whys' and a corresponding Cause & Effect diagram will look like for clinical events see the NHS Education for Scotland publication in Section 3.4

3.3 Additional Resources

3.3.1 Resources for conducting your SEA

- HQSC Open Book Case Study “Wrong acronym” www.hqsc.govt.nz/our-programmes/adverse-events/projects/open-book/
- HQSC National Policy on Reporting www.hqsc.govt.nz/our-programmes/adverse-events/national-adverse-events-policy/
- IHI Video: Cause & effect diagram: www.youtube.com/watch?v=387chd8p54c
- NHS Education for Scotland. Significant Event Analysis; Guidance for Primary Care Teams [www.nes.scot.nhs.uk/media/346578/sea - full guide - 2011.pdf](http://www.nes.scot.nhs.uk/media/346578/sea_-_full_guide_-_2011.pdf)

3.3.2 Working with patients and whānau

- Heather Gunter (Matt’s story) – www.hqsc.govt.nz
- HQSC, Engaging Consumers Following an Adverse Event [www.hqsc.govt.nz/assets/Reportable-Events/Resources/How to engage with consumers following an adverse event.pdf](http://www.hqsc.govt.nz/assets/Reportable-Events/Resources/How_to_engage_with_consumers_following_an_adverse_event.pdf)
- WHO Patients for Patient Safety

3.3.3 Supporting staff

- Albert Wu, Second victims. Impact on clinicians in BMJ.
- Supporting staff - MPS/MAS/NZNO

3.3.4 RNZCGP Foundation and Cornerstone

This module aligns to RNZCGP Quality Structure - Foundation Section 3: Clinical effectiveness Indicator28: There is an effective Incident Management System.
It can also be used as a quality improvement activity for Cornerstone.

3.4 References

ⁱ www.rcgp.org.uk/training-exams/practice/revalidation/mythbusters-appraisal-and-revalidation/significant-events.aspx

ⁱⁱ Billingham, V. (May, 1998). Through the Patient's Eyes: Collaboration between Patients and Health Care Professionals. Paper presented at the Salzberg Global Seminar. Session 356. Retrieved from www.salzburgglobal.org/multi-year-series/general/pageId/session-356.html

ⁱⁱⁱ Vincent CA , Coulter A . Patient safety: what about the patient? Quality Safe Health Care. 2002; 11 (1): 76 – 80 . [Crossref](#), [Medline](#), [Google Scholar](#)