The Tool is structured in 3 phases:

**Phase 1**
Addressing the Personal Impact of the event

**Phase 2**
Applying a ‘Human Factors’ framework

**Phase 3**
Define the Action Plan - including learning from the event
Introduction

Being involved in a significant event is an opportunity for healthcare professionals to learn, and enhance patient and client safety.

A simple way to view the discipline of ‘Human Factors’ is to think about the interactions between three work-related factors: People, Activity and the Environment - and how they combine to impact on people’s health and safety-related behaviour.

Evidence suggests that the application of ‘Human Factors’ knowledge enhances performance in the workplace and improves understanding of the complex interactions which contribute to significant events.
However

- It is important to think about how you feel about your involvement in a significant event, which may make effective analysis of the event potentially difficult.

- Examples of responses may include anxiety, guilt, stress, anger or indifference, all are known to affect healthcare professionals involved in significant events.

- The Tool takes account of your responses to an event by encouraging you to reflect on them.

- The aim is for you to achieve a better readiness to analyse and learn from the significant event more effectively by using the systems-based Human Factors approach outlined in the Tool.
Phase 1  Addressing the Personal Impact

How you feel about the significant event influences how you think and what you do.

Now, consider how you are feeling about the event.

- you may be upset
- you may be lacking in confidence
- you may feel ‘strangely neutral’ - why is this?
- you may think this is an opportunity to improve patient care

Take a few moments to reflect on why you may be feeling this way.
Phase 1  Addressing the Personal Impact

After being involved in a significant event, it is normal to feel some degree of personal responsibility for the event.

However, Human Factors theory suggests that significant events are rarely fully related to the actions of a single healthcare professional.

SEA Research shows that there are often other work-based ‘contributory factors’ such as People (e.g. patients with complex illness), Activity (e.g. workload issues) and Environment (e.g. poor communication systems) that often combine to cause the significant event.
Phase 1

Addressing the Personal Impact

- Having explored your personal feelings about the event, it is now time to reflect more objectively.

- At this point, you may also feel it is useful to discuss what happened with a trusted colleague or someone close to you.
Phase 2

Applying a Human Factors Framework

Take a moment to read over examples of the possible contributory factors that can combine to cause significant events.

**PEOPLE**
- Individual e.g. physical, psychological issues, social and domestic issues, personality issues, cognitive factors, competence skills, attitudes, risk perception, education and training.
- Team e.g. role congruence, leadership, support and cultural factors, communication.
- Patients e.g. clinical condition, physical factors, social factors, mental/psychological factors, interpersonal relationships.
- Other e.g. hospital policy, social services.

**ACTIVITY**
- Complexity of Process or Work.
- Guidelines, Policies and Procedures e.g. not up-to-date, unavailable, unclear/unusable, not followed.
- Procedural/Task Design e.g. level of complexity, workload, poorly designed.
- Equipment e.g. displays, integrity, positioning, usability lacking.

**ENVIRONMENT**
- Work Setting e.g. administrative factors, design of physical environment, environment, staffing, workload and hours of work, time.
- Organisational e.g. organisational structure, priorities, externally imported risks, safety culture.
- Communications e.g. verbal, written, non verbal systems.
- Education and Training e.g. competence, supervision, availability/accessibility, appropriateness.
- Societal, Cultural and Regulatory Influences
Phase 2  Applying a Human Factors Framework

Take a moment to reflect on this brief summary of a significant event:

A GP surgery decided to have their health visitor trained to administer childhood immunisations to ease their practice nurse’s workload. The health visitor started working under the supervision of another qualified health visitor after completing her training. A three-month old girl attended one of the first ‘new’ immunisation clinics to receive her second booster. The clinic was very busy. The MMR and DTP/Hib vaccinations were placed on the same table. The health visitor picked up the ‘wrong’ vial while attempting to answer some of the mother’s general questions and accidentally administered the MMR rather than the required DTP/Hib vaccine. She realised her error when performing the ‘double check’ of the vial with her colleague AFTER administering the vaccine. The health visitor immediately informed the GP and parents, and apologised for ‘...my accident...’. The GP and health visitor contacted the local hospital paediatric department to check for likely complications and re-assessed the child on several further occasions. The child did not suffer any harm and received the appropriate vaccination a few days later.

Impacts: distressed parents and staff, potential (low) risk of harm to baby, need to access expert advice on risks, potential complaint and adverse media publicity, need to reassure and apologise verbally and in writing to parents.

The framework on the next page outlines the contributory “people”, “activity” and “environmental” factors that may have influenced the cause of this significant event.
Phase 2
Applying a Human Factors Framework
Contributory Factors and Interactions

PEOPLE FACTORS
The health visitor had just finished her training. She had adequate knowledge, but required additional experience and supervision.
She was distracted during the process by the parent’s questions.
The second health visitor had assumed the correct vaccine would be administered.
Staff felt under pressure because of the busy workload.
Staff go into ‘automatic pilot’ mode.

ACTIVITY FACTORS
There was only one table for all vaccines and the room was too small to accommodate health care workers, the patient and several family members.
The different vaccines were placed in close proximity.
The different vaccines looked very similar.
High volume of patients and vaccinations.

ENVIRONMENT FACTORS
Increased workload resulted in decision to create new roles and duties.
Efficiency savings resulted in different age groups attending a combined clinic for different types of vaccinations rather than vaccination-specific clinics.
Lack of a formal protocol outlining the system for safe management of the whole vaccination process, including double-checking with colleague and parent/carer.
The practice wrongly assumed that the local primary care organisation would have trained both health visitors to develop and follow a relevant protocol.
Phase 2  Applying a Human Factors Framework

MMR Significant Event

Reflect on some potential Learning Issues and the Action Plan for Improvement below. You may think of other system improvements that are needed to minimise the chances of the event happening again.

**LEARNING ISSUES**
*(Individual and Practice Level)*

- Existing immunisation system failed to properly protect the safety of a child – no formal, reliable system in place.
- Because of this system flaw, human error was inevitable.
- Staff administering vaccinations should be empowered to develop, implement and follow a systems-based protocol.
- There was a lack of communication between staff and between staff and parents.
- The combined clinics and volume of associated workload contributed to the error.
- Assumption made that the immunisation training body would have developed a protocol and would be responsible for this.
- Responsibility and liability is a practice issue.

**ACTION PLAN**
*(System Improvements)*

- The practice sent a written apology to the family and informed them that an investigation led to a new immunisation system being introduced.
- A system protocol was developed, laminated and placed in the room used for immunisation. It was added to the practice protocols folder and the new staff induction pack.
- In the fridge, one designated and clearly marked shelf would hold all the childhood vaccinations.
- A wall-mounted sign was introduced to remind staff to keep work surfaces uncluttered to provide a good overview of different vaccines, which should be clearly separated.
- Separate designated immunisation clinics were introduced to allow more time for vaccination and recording.
- The issue will be monitored at SEA meetings until the new system is embedded in routine practice.
Phase 2  Applying a Human Factors Framework

- Consider the Human Factors framework from the previous page.
- What were the People, Activity and Environment factors that combined to make your event more likely to happen.
- Use the three cards included with this tool to help you identify these contributory factors.
- Thinking about how some or all of the factors combined to influence your event, re-assess if your original judgement about your role in the event would now change.
Phase 2  Applying a Human Factors Framework

- You may now have a better understanding of some of the system-based factors that contributed to your event.
- For some of these issues you may be able to make immediate improvements, while for others you may need to include the wider team.
- Consider what changes you can potentially make to minimise the chances of this event happening again.
- Remember that to gain a fuller understanding of the contributory factors influencing the event, you may need to undertake a more in-depth analysis with the wider team.
Phase 3

Defining the Action Plan

You now have the following options:

- You decide that this event needs to be shared and analysed within your team – remember to apply the Desk Pad Tool for a team based significant event analysis and/or;

- Record the significant event using the recommended report format including an action plan making sure to include your learning from the event or state that no further action is necessary, but justify why this is the case.