SHOT Bite No. 25
Safety-I and Safety-II

SHOT Serious Hazards of Transfusion

October 2023

Background: Safety is the backbone of any healthcare service. How safety is defined affects its application in the workplace and provides an opportunity to influence positive outcomes for patients, staff and organisation. Safety is usually measured by the absence of incidents, errors and failures. But a different approach can be used to determine safety; looking at things that go well and understand why they go well and how that can be applied to the things that go wrong. Everyday events are free lessons, mostly discarded, because things go as expected. In this document it will be discussed different safety approaches and how they combined can improve patient safety. There is a need to transition from seeing safety as an absence of negatives, such as no serious incidents, to seeing it as the presence of a positive capacity to make work proceed properly.

What does 'SAFETY' mean in healthcare?

'*The prevention of errors and adverse effects to patients associated with health care*' (WHO)
'*Avoidance of unintended or unexpected harm to people during the provision of health care*' (NHS)
'*Prevention of harm to patients*' (Institute of Medicine US)
'*The presence of capabilities, capacities and competencies that make things go right' (*Dekker, 2015)

Safety-I — 'As few things as possible go wrong' – Safety-I definition
'As many things as possible go right' – Safety-II definition — **Safety-II**

Safety-I & Safety-II approaches

Safety-I

- Assumption: **Identifiable causes** e.g., failures, errors and malfunctions can always be attributed to the 'things that go wrong'
- Purpose: Identify **contributory factors/potential risks** to **eliminate** or **decrease** the likelihood of occurrence.
- Focus: **Unacceptable outcomes** –'things that go wrong' – with no consideration on why 'things go right' as this is the expected/acceptable outcome – a **passive/reactive approach** - if things go as expected there is no benefit of analysing them

Safety-II

- Assumption: There is an **inherent variability** to the **everyday events** in complex and dynamic systems as the healthcare system. It is the ability to adapt to a variable system, where the optimal process and processes cannot be devised every time, that makes the healthcare system **resilient** and why **often** 'things go **right**'
- Purpose**:** Identify and understand how **work is done** and how 'things go right' especially in conditions where the **unpredictability** makes difficult to monitor and control the **outcome** in the **every day** actions
- Focus: Understand how 'things go right' and identify areas of learning and improvement in patient safety – Safety-II is a **proactive approach**

Safety-I + Safety-II

- **Safety-I is not sufficient** to understand complex systems as the healthcare system. However, **Safety-II is not enough** by itself either as incidents, errors and adverse events occur and their investigation is crucial to improve services. Look at things that go right but remain alert for possible failure
- The application of **both approaches** together allow identifying, learning and improving from the conditions and factors where **things went right,** and **things went wrong**.
- The focus is **diverted** from a **small number of events** where things went wrong. Instead, it adds **learning from everyday events**. The combined focus will define safety based on their frequency rather than severity. We needs to transition from seeing safety as an absence of negatives, such as no serious incidents, to seeing it as the presence of a positive capacity to make work proceed properly

Diagram based on: From Safety I to Safety II: A White Paper' (EUROCONTROL, 2013)

Benefits of learning from everyday work (Sharrock 2020)

- Improves all aspects of performance and wellbeing
- Helps to see slow changes
- Everyone can be involved
- Helps to see and build on what's strong

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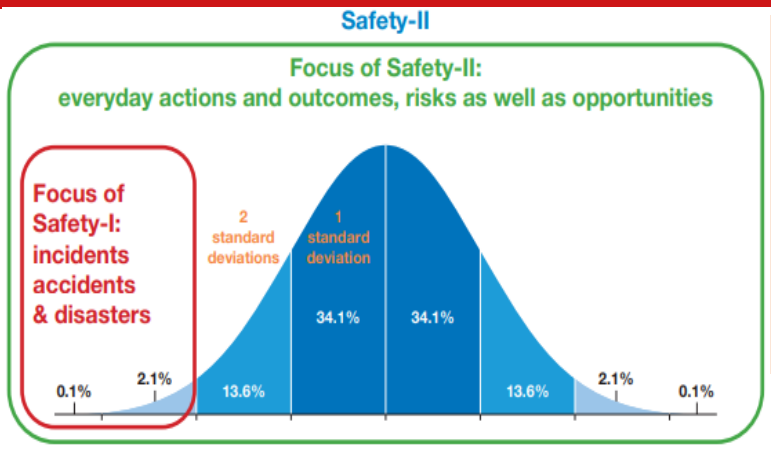

Figure from: James Christie's Blog, adapted from the Safety-I and Safety-II diagrams from the document 'From Safety-I to Safety-II: A White Paper (EUROCONTROL, 2013) and 'A White Paper on Resilience Engineering for ATM (EUROCONTROL, 2009)

TOP TIP: Don't overlook everyday events – they reflect and represent the quality and safety status of the service. Combine Safety-II (proactive) with Safety-I (reactive) approaches to address the gap between 'work-as-imagined' to 'work-as-done'. Promote a safer culture by looking at both instances of 'what went wrong' and 'what went right'. Safety-II does not replace Safety-I, they complement each other and provide a different and valuable perspective.

Challenges for implementing Safety-II in healthcare

Diagram based on: https://q.health.org.uk/blog-post/turning-safety-ii-thinking-into-action/

Safety-I culture
Focus on error, unfamiliarity with Safety-II concepts resulting in prioritisation of Safety-I approach

→

Cultural barriers
Change-resistant culture and lack of NHS frameworks to use to adopt Safety-II

→

Lack of capacity and resources
Staff fatigue, short staff levels, lack of motivation and engagement

→

Challenge in measurement
Difficult to measure non-events besides satisfaction

How to introduce Safety II in healthcare? Where to start?

- ✓ Introduce **Appreciative Inquiry** in incident investigations, meetings and debriefs
- ✓ **Safety huddles, proactive safety observations, simulations involving multidisciplinary teams, observational audits such as the vein-to-vein audit-** important to ensure appropriate actions with any safety tools and have feedback loops in place
- ✓ **Educate** staff in **Safety-II** concepts; combining **Safety-I and Safety-II** approaches
- ✓ Add **Safety-II** concepts as part of the organisational and departmental **improvement plan**
- ✓ **Implement** a **resilience model** as the CARE model
- ✓ **Measure** staff **acceptance/rejection** to Safety II and the **impact** in organisational **resilience**

Available resources about Safety I and Safety II approaches

Debrief it all: a tool for inclusion of Safety-II: https://doi.org/10.1186/s41077-021-00163-3
From Safety I to Safety II: A white paper: Normal (england.nhs.uk)
Learning from excellence: https://learningfromexcellence.com/
Patient Safety Incident Response Framework: https://www.england.nhs.uk/patient-safety/incident-response-framework/
Proactive approaches to safety management: https://www.health.org.uk/publications/proactive-approaches-to-safety-management
Using Safety II and resilient healthcare principles to learn from Never Events: https://doi.org/10.1093/intqhc/mzaa009
The Health Foundation: https://q.health.org.uk/
Webinar 'Organisational Resilience & Safety II': Safety II: A critical look at its promise and potential for health care – YouTube
Case-study 'Work-as-imagined' vs 'Work-as- done' https://www.hsib.org.uk/investigations-and-reports/wrong-patient-details-on-blood-sample/

Available resources about Appreciative Inquiry

Acosta, Anne & Douthwaite, Boru. (2005). Appreciative Inquiry: An approach for learning and change based on our own best practices. Institutional Learning and Change (ILAC) Initiative, ILAC Briefs. 6.
Introduction to Appreciate Inquiry: Appendix-7.2-AI-training.pdf (england.nhs.uk)