Analysis
Making the most of near misses in general practice:
an analysis

INTRODUCTION

There has long been calls for the NHS to improve its learning from patient safety events.[1] These events include incidents and near misses, with a preference to learn from near misses before harm occurs. Near misses are *'prevented patient safety incidents'*[1] and the authors of this analysis see them as events that, if left to progress, could result in harm to a patient. That progression is interrupted or recovered by something, or somebody (Figure 1).

Near misses are 'free lessons' because they generally do not result in harm and do not have the same moral burden as incidents. The academic literature provides evidence of where near misses have been identified, analysed, and learnt from in health care. For example, Adelman *et al*[2] reviewed 'retraction and reorder' near misses in digital ordering systems and implemented technological changes resulting in a significant reduction in the odds of wrong patient orders.

Despite calls for the NHS to improve learning from near misses, including in general practice,[1] there has been slow progress in the past 20 years.[3] It is unclear whether and how general practices learn from near misses. This analysis therefore seeks to summarise the current state of near misses in general practice in the NHS in England. This analysis is informed by the experiences of practices, and provides reflections supported by the safety science literature on how best to harness the valuable learning from near misses.

HOW IS GENERAL PRACTICE DOING WITH NEAR MISSES?

In 2006 guidance was published for primary care that included calls to learn from near misses.[1] Since 2006 there has been little academic evidence of progress, with the authors finding one relevant article in MEDLINE Ovid® (Near Miss, Healthcare/ AND (General Practice/ OR Primary Health Care/) searched August 2022). Crane *et al*[5] implemented an anonymous near-miss reporting system in practices in North
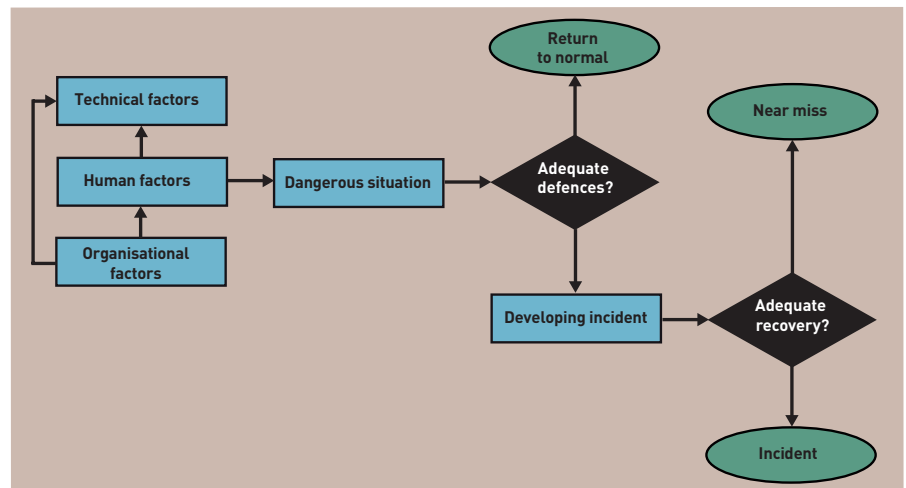

Figure 1. The 'Eindhoven Model' of near misses, adapted from van der Schaaf.[4]

America, collecting 632 near misses and launching 32 improvement projects.

The lack of progress to improve learning from near misses is not specific to general practice, nor England.[3] Progress has been impeded by barriers to reporting including variation in definitions, and perceptions that near misses have limited value.[6] The available health care-wide literature around near misses mostly focuses on improving reporting and there are potential opportunities to support reporting through automation, such as when electronic orders are entered and retracted.[2]

The academic literature will not account for any local efforts occurring in general practices in the NHS to learn from safety events. It would therefore be remiss to not seek the views of practices. The authors, as part of a larger study on near-miss management,[7] spoke with six general practices and their commissioning bodies.

Interviews showed that near misses are reported, and attempts are made to learn from them through significant event analysis (SEA). However, SEA was described as 'archaic' and not designed to extract key learning from near misses. Practices also described limited opportunities to share learning because of incompatible local and

national learning systems, and an absence of forums to allow discussion of events.

General practices described confusion about what a near miss is and their value, and limited time to investigate them with their other demands. It was heard during interviews that *'... we have shed loads ...'* and *'... what's the point ... they did no harm'*. Practices also receive conflicting national directions with some told that near misses are only needed for appraisals, and others told not to report these *'... trivial events'*.

These findings suggest outdated views and fundamental misunderstandings about the value of near misses. There are opportunities for general practice to better extract and share learning from near misses to enhance their value.

WHAT CAN BE LEARNT FROM SAFETY SCIENCE?

Traditional approaches to safety are rooted in beliefs that with harm comes learning. While this will be true for some situations, it is not for all. Catastrophic events may be inevitable in complex systems such as health care. The constant variability that occurs in the delivery of care, while rarely enough to cause a safety event, can align unexpectedly with the emergence of events.[8] There may therefore be more value in trying to understand the everyday adaptations staff make to ensure things turn out as intended, to increase reliability and develop system resilience.[8] These adaptations are those recoveries that make a series of events a near miss.

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Near misses therefore have value because they provide learning about 1) the contributory factors to dangerous situations, and 2) defences/recoveries that make events a near miss rather than an incident. Defences/recoveries (Figure 1) can be humans, or designed elements of a system, such as forcing functions in electronic prescribing systems. Where a near miss occurs by design, that is a system designed to account for human fallibility.[7] The authors of this analysis therefore suggest that, to get best value from near misses, the focus should be on those that relied on a human recovering the situation, because next time they might not recover it. There has been some limited work to date in primary care attempting to characterise those human recoveries.[9]

Near-miss investigations should therefore identify 1) recommendations to address contributory factors to dangerous situations, and 2) where there is a need to develop defences/recoveries that do not rely on humans. 'Contributory' and 'recovery' taxonomies are suggested to support investigations to help meet the above aims.[10] Taxonomies also standardise the recording of findings to support aggregation and the creation of large near-miss data sets. These data sets can help regional and national bodies identify safety themes across an area, for action.[11]

The authors acknowledge that sometimes the development of effective defences/recoveries may be outside of the ability of individual general practices because they may require engineered solutions. However, the identification of the need is valuable if shared with regional and national bodies that have the ability to enact change. Learning forums in other industries with input from national and regional bodies have shown the benefits of sharing experiences and developing defences.[12]

THE BOTTOM LINE

General practices are under intense pressure to deliver care and meet governance expectations. Any attempt to learn from safety events needs to extract maximal learning. This requires a rethink around near misses in general practice and their investigation.

The authors of this analysis advocate for a focus on near misses. Near-miss investigations should focus on factors that lead to the events occurring, and the defences needed to prevent incidents. Prevention is the goal, but it must be accepted that humans are fallible, and the system needs to be designed to catch inadvertent actions.

Future opportunities may include aggregating learning from near misses across multiple general practices, and greater sharing of learning through appropriate forums to support regional and national involvement in the design of defences. To do this, GPs require capacity to undertake investigations and attend sharing events, and practices require digital systems with the capability of sharing learning. In the future, NHS Integrated Care Systems will be well placed to support this aggregation and sharing of learning across their regions.

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