

Safety Procedures in Invasive Procedures: A Case Study in Endoscopy

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SUMMARY

This project investigates the use and usability of clinical documentation in support and delivery of patient safety in invasive procedures, in line with recent national strategy. This research aimed to understand how well recent National Safety Standards for Invasive Procedures 2 (NatSSIPs 2) is embedded in the endoscopy unit at an acute hospital. Investigating both the sequential steps and the organisational standards, including documentation use and design. Documentation includes policies, Standard Operating Procedures (SOPs), and Clinical Practice Guidelines (CPGs).

A case study approach in an endoscopy department combined observation data, expert HFE review and heuristic usability analysis of clinical documentation with data from clinician interviews to elicit understanding about patient safety in this work environment. Findings were analysed against the Systems Initiative Engineering Initiative for Patient Safety 2.0 (SEIPS 2.0) framework.

Clinical documentation supporting the safety strategy was largely usable however use and implementation was limited. The steps within the national strategy have to a large extent been integrated into processes and documentation, however qualitative accounts from clinicians disclosed that they are not fully embedded into daily clinical practice. Organisational challenges associated with staff resource and time, engagement and attitudes towards safety procedures/checklists were a significant barrier to the embedding of the recommended steps from the national strategy.

The analysis of experiential staff data coupled with heuristic analysis using a systems model, has resulted in recommendations that can be mapped to organisational structures as well as local work systems to support learning and implementation of patient safety.

KEYWORDS

Patient Safety, Invasive Procedures, Usability, Clinical Documentation, Clinician Interviews,

Background

In 2023/24, there were 600 million patient interactions with NHS services; this is the equivalent of 1.7 million interactions a day (Kings Fund 2024). The NHS has to manage these interactions while meeting one of its key values: 'commitment to quality of care' (Dept of Health and Social Care 2023). Patient safety is a key priority for the NHS; for the benefit of the patients but also to prevent unnecessary financial losses. Due to higher risk of patient harm, invasive procedures are a focus area for patient safety. In 2023, National Safety Standards for Invasive Procedures 2 (NatSSIPs 2) has been published to provide national standards to improve safety in invasive procedures. It provides both sequential steps to be followed during procedures and organisational standards that should be in place to support the performance of these steps (CPOC 2023). However, due to the

recency of NatSSIPs 2 publication there is limited research exploring how well these have been embedded into practice.

Aim

This research aimed to understand how well NatSSIPs 2 is embedded in clinical practice. The project investigated both the sequential steps and the organisational standards, with a specific focus on documentation use and design. The documentation includes policies, Standard Operating Procedures (SOPs), and Clinical Practice Guidelines (CPGs).

The research used qualitative and user-centred research methods to achieve the following objectives:

- Understand the processes that are followed by clinical staff to improve patient safety.
- Investigate whether the design of guidance documents supports user needs.
- Explore the organisational factors that impact the use of documents and performance of safety processes.

Due to the breadth of these aims, the project focussed solely on a case study of an endoscopy department.

Method

Firstly, the researcher observed activities within the endoscopy department to understand the patient pathway and associated procedures. A desk-based evaluation was then undertaken, examining the documentation based on usability heuristics. Usability heuristics are general principles that should be followed for good design. These are commonly used to evaluate the usability of systems. Secondly, eight interviews with nursing staff and endoscopists were conducted to understand their experiences with safety procedures. The interview design utilised the SEIPs 2.0 model (Holden et al 2013) to ensure a systems approach was applied to the qualitative data collection and analysis. Ethical approval was obtained from the higher education institution delivering the research project.

Findings

It was found that although the sequential steps from NatSSIPs 2 have been inputted in to processes and documentation, they are not fully embedded into daily practice. This is largely due to organisational challenges, such as time pressure on clinicians, a lack of engagement with procedures, negative attitudes towards safety procedures, and underuse of the documentation. Limited usability issues were found with guidance documents that are used; however, it did emerge that SOPs and policies are rarely referred to by staff.

Recommendations

Several recommendations have been made to help resolve these issues. Firstly, a review into the scheduling system should be conducted to improve the time pressure with the potential to use dynamic scheduling systems. Safety champions should be introduced to take the responsibility for ensuring safety procedures are conducted correctly. Training and education should be completed with endoscopists to demonstrate the importance of safety procedures, correct any misconceptions they may have about efficiency, and therefore improve attitudes. Finally, documentation usage should be reviewed since SOPs and policies are not regularly being referred to. This may involve creating an electronic checklist.

References

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