



Embedding Human Factors into Hospital Operations

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Description

Preventable medical errors are one of the leading causes of death in hospitals. Healthcare is a complex sociotechnical system, with multiple disciplines working together using an array of technologies and processes.

Human factors is the scientific discipline that is concerned with the interaction between users and systems, aiming to reduce use errors and improve safety; taking into account human strengths and limitations in the design of interactive systems.

Patients are at an increased risk of falling victim to a preventable adverse event when healthcare systems are difficult to interact with, medical devices have ineffective interfaces, and an unsafe culture persists.

Aim

Effectively embed human factors practice and principles into hospital improvement operations and incident investigations.

Actions Taken

- Embed two human factor professionals within the Quality and Patient Safety department.
- Share basic human factors principles through organization wide presentations and during new staff orientation events.
- Joint and support patient safety committees through out multiple units.
- Redesign the incident investigation process to include a systems approach.

Summary of Results

Human factors has gained acceptance at our institution as being an important element in the improvement of quality and delivery of safe care.

The human factors team is embedded into operational processes and has helped improve different areas such as: patient identification verification, incident investigation processes, and falls prevention strategies.



Figure 1. Human factors sample of available tools and techniques

Basic Human Factors Course Outline

What is human factors

- Human limitations
- Cognitive
- Physical

Methodologies

- User Centred Design (UCD)
- Usability testing
- Heuristic principles

Healthcare applications and examples

Figure 2. Human factor course content available to staff as a two-hour education session.