Concurrent Session # 2

Human Factors Improvement Series *Update*

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Outline

- Human factors improvement series
- Human factors and labels
- Case Studies: Trillium and Guelph
- Discussion

Goals of HFIS

- To apply human factors principles to make changes *and* guide the acquisition and design of new equipment, materials and processes.
- To share discoveries and implemented changes among the participants.

Measures of Success

Number of changes made to system features based on human factors principles.

Level of awareness of human factors science.

Shift in safety culture so that system design is considered using human factors science as a guide for change and decision making.

OTHERS?

Expectations for Participants

- Commit to joining the collaborative and participating
- Apply self-assessment tools and principles in situations that suit local needs
- Conduct a small test on their findings prior to Spring Forum May 2004
- Provide feedback on use of tools and principles and the changes made.
- Share specific opportunities for improvement and action taken to address them.
- Provide input on the next project series topic based on opportunity and local needs.

Labels

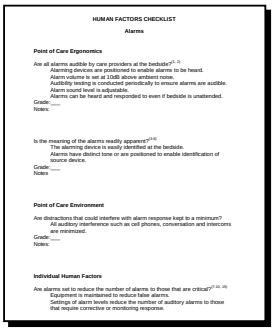
Human Factors Principles and Self Assessment

Labels and Displays

Human Factors Principles

- Design of Message
  - legibility and readability
- Message Transmission
  - environmental factors
- Message Receipt
  - personal and perception factors

Human Factors Self Assessment



HUMAN FACTORS CHECKLIST

Alarms

Point of Care Ergonomics

Are all alarms audible by care providers at the bedside?[21, 3]
Alarming devices are positioned to enable alarms to be heard.
Alarm volume is set at 10dB above ambient noise.
Audibility testing is conducted periodically to ensure alarms are audible.
Alarm sound level is adjustable.
Alarms can be heard and responded to even if bedside is unattended.
Grade:____
Notes:

Is the meaning of the alarms readily apparent?[21, 3]
The alarming device is easily identified at the bedside.
Alarms have distinct tone or are positioned to enable identification of source device.
Grade:____
Notes

Point of Care Environment

Are distractions that could interfere with alarm response kept to a minimum?
All auditory interference such as cell phones, conversation and intercoms are minimized.
Grade:____
Notes:

Individual Human Factors

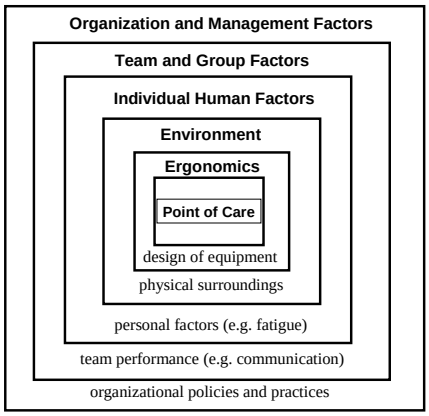
Are alarms set to reduce the number of alarms to those that are critical?[3, 21, 15]
Equipment is maintained to reduce false alarms.
Settings of alarm levels reduce the number of auditory alarms to those that require corrective or monitoring response.

- Model used in other fields
- Collaborative development
- Shared experience
- Build a series of tools

Purpose and Scope

- Purpose:
  - Direct attention to human factors elements
  - Guide for change
  - Improve SYSTEM reliability
  - Educate about Human Factors
  - Build a culture that focuses on systems
- Scope
  - Limited to Human Factors
  - Assumptions (e.g. evidence-based care)

Framework for the Human Factors Self-Assessment Tool



Adapted from Moray[3]

Case Studies