performed in an intensive care unit (ICU) of a Portuguese tertiary hospital. Nurses working on this ICU were engaged during, participating in several sessions during implementation.

Nurses enjoyed the concept and considered that it allows for a unique opportunity to receive feedback regarding their performance. Tests-performed on the indoor-location technology applied in the first-iteration regarding distances estimation presented an unacceptable lack of accuracy. Using a proximity-based technique, it was possible to identify the sequence of positions but with low precision. In the second work-iteration, a different indoor-location technology was explored with sucess, showing the importance of IoT technology to respond to the ward demands.

Combining automated-monitoring systems with gamification seems to be an innovative approach, based on the already achieved results. Involving nurses in the project since the beginning allowed to align the solution with their needs.

O12 Man-machine dialog: how to optimize results of intelligent IT tools in infection surveillance and in clinical decision support

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Introduction

In clinical IT solutions, use of coded data and involvement of clinical experts in the design are important, but insufficient prerequisites for full clinical acceptance, even if all inference steps can be tracked. Hence, human experts should also be involved during execution of such IT solutions, thus promoting a less automated, more interactive program design.

Aims

We report on our interactive approach to solving ambiguity and identification problems. As an example, we chose unidentified terms used by clinicians and by the microbiology lab in their daily routine, which caused reports not showing up in automated follow-up analyses.

Method

For data import and analysis, we used MOMO, a comprehensive tool for analysing and monitoring microbiology lab reports, which automatically checks incoming textual identifiers (e.g., microbes, senders, antibiotics) for compatibility with existing thesaurus entries. Reports flagged by MOMO because they contained incompatible texts were automatically submitted to verification by a human expert. This expert determined to which (if any) thesaurus element the so far unknown item belongs, or if it demands a new code entry. Consequentially, the thesaurus was "trained" to recognise synonyms, syntactic deviations and misspellings, and codes were consolidated by process-inherent human intervention.

Results

The implementation of this man-machine terminology interface reduced dropouts to zero with only 2h/week work input.

Conclusion

In our opinion, clinical IT solutions must focus on good balance between full automation and man-machine interactivity for successful clinician-lab dialogue, which in turn supports patient care and infection control.

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