

The objective of this study was to assess the usability benefits of adding a bedside central control interface that controls all intravenous (IV) infusion pumps compared to the conventional individual control of multiple infusion pumps” Doesburg et al (2017).

Abstract:

The objective of this study was to assess the usability benefits of adding a bedside central control interface that controls all intravenous (IV) infusion pumps compared to the conventional individual control of multiple infusion pumps. Eighteen dedicated ICU nurses volunteered in a between-subjects task-based usability test. A newly developed central control interface was compared to conventional control of multiple infusion pumps in a simulated ICU setting.

ReTweet if useful... Centralized control interface for infusion pump management
[@ivteam #ivteam](https://ctt.ec/bt5es+)

Click To Tweet

Task execution time, clicks, errors and questionnaire responses were evaluated. Overall the central control interface outperformed the conventional control in terms of fewer user actions (40 ± 3 vs. 73 ± 20 clicks, $p < 0.001$) and fewer user errors (1 ± 1 vs. 3 ± 2 errors, $p < 0.05$), with no difference in task execution times (421 ± 108 vs. 406 ± 119 seconds, not significant). Questionnaires indicated a significant preference for the central control interface. Despite being novice users of the central control interface, ICU nurses displayed improved performance with the central control interface compared to the conventional interface they were familiar with. We conclude that the new user interface has an overall better usability than the conventional interface.

Full Text

Reference:

Doesburg, F., Cnossen, F., Dieperink, W., Bult, W., de Smet, A.M., Touw, D.J. and Nijsten,

M.W. (2017) Improved usability of a multi-infusion setup using a centralized control interface: A task-based usability test. PLoS One. 12(8), p.e0183104. eCollection 2017.

doi: 10.1371/journal.pone.0183104.

Thank you to our partners for supporting IVTEAM