

Impact of a commercial order entry system on prescribing errors amenable to computerised decision support in the hospital setting: a prospective pre–post study.

October 13, 2018

Pontefract SK, Hodson J, Slee A, et al. Impact of a commercial order entry system on prescribing errors amenable to computerised decision support in the hospital setting: a prospective pre-post study. *BMJ Qual Saf.* 2018;27(9):725-736. doi:10.1136/bmjqs-2017-007135.

<https://psnet.ahrq.gov/issue/impact-commercial-order-entry-system-prescribing-errors-amenable-computerised-decision>

Although [computerized provider order entry](#) (CPOE) reliably reduces [medication errors](#), clinical decision support has more varied impact on [safety outcomes](#). System complexity, insufficient emphasis on [human factors engineering](#), and [alert fatigue](#) limit utility of clinical decision support. This study rigorously examined medication error rates before and after implementation of CPOE with clinical decision support at three hospitals in England. In a sample of 2422 patients, the overall error rate decreased 20%. At one hospital, the error rate did not change because an increase in a specific insulin prescribing error counterbalanced all other error reduction. All three hospitals implemented clinical decision support, but the type, nature, and efficacy varied markedly, even between the two systems implementing the same CPOE. A [PSNet perspective](#) synthesized lessons for assessing electronic health record safety as a whole.