

EHR Products: Usability Testing Standards Ignored?



Researchers in the U.S. have discovered that vendors were not adhering to usability testing standards for electronic health record (EHR) products. This lack of adherence to usability testing may be a major factor contributing to the poor usability of many EHRs, leading to user frustration and safety risks, according to the research published in *JAMA*.

The U.S. Office of the National Coordinator for Health Information Technology (ONC) has established certification requirements to promote usability practices by EHR vendors as part of a meaningful use programme. To develop a certified EHR, vendors are required to attest to using user-centred design (UCD), a process that places the needs of the frontline user at the forefront of software development. In addition, vendors must conduct formal usability testing on eight different EHR capabilities to ensure the product meets performance objectives.

EHR vendors need to provide a written statement indicating the UCD process they used, and the results of their usability tests. According to the ONC requirements, usability testing should include at least 15 representative end-user participants. Reports must be made public once the product is certified.

For this study, Raj M. Ratwani, PhD, of MedStar Health, Washington, D.C., and colleagues analysed reports meeting the 2014 certification requirements for the 50 EHR vendors with the highest number of providers (hospitals and small private practices). From each report, the researchers extracted the stated UCD process and the number and clinical background of usability test participants.

Of the 50 certified vendor reports, 41 were available for review; the remaining nine were not publicly available. Of 41 vendors, 34 percent had not met the ONC certification requirement of stating their UCD process, 46 percent used an industry standard, and 15 percent used an internally developed UCD process.

Dr. Ratwani's team found variability in the number of participants enrolled in the usability tests.

- Of the 41 vendors, 63 percent used less than the standard of 15 participants and only 22 percent used at least 15 participants with clinical backgrounds.
- One of the 41 vendors used no clinical participants, 17 percent used no physician participants, and 5 percent used their own employees.
- Of the 41 vendor reports available, 12 percent lacked enough detail to determine whether physicians participated and 51 percent did not provide the required demographic details.

"The lack of adherence to usability testing may be a major factor contributing to the poor usability experienced by clinicians. Enforcement of existing standards, specific usability guidelines, and greater scrutiny of vendor UCD processes may be necessary to achieve the functional and safety goals for the next generation of EHRs," the study concludes.

Source: [JAMA](#)

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