

# NIST releases technical guidance for evaluating electronic health records

March 21 2012, By Jennifer Huergo

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An important aspect of any product is how easily someone can use it for its intended purpose, also known as usability. Electronic health records (EHR) that are usable have the potential to improve patient care, which is why the National Institute of Standards and Technology has outlined formal procedures for evaluating the usability of EHR systems.

The proposed usability protocol encourages a user-centered approach to the development of EHR systems. It provides methods to measure and address critical errors in user performance before those systems are deployed in a medical setting.

“This guidance can be a useful tool for EHR developers to demonstrate that their systems don’t lead to use errors or user errors,” said NIST researcher Matt Quinn. “It will provide a way for developers and evaluators to objectively assess how easy their EHR systems are to learn and operate, while maximizing efficiency.”

The protocol is a three-step process consisting of an analysis of how the application functions, expert review, and validation testing of the user interface to make sure it works as intended.

The [protocol](#) includes general steps and guidance for evaluating an EHR user interface from a clinical perspective—does it contain, collect and display the information it needs to—and human factors perspectives—can the user understand it and easily find needed information. The interface is then tested by representative user groups

performing realistic tasks.

“We hope this encourages system developers to apply human factors best practices and incorporate user-centered design processes,” said Quinn.

“These practices and processes have proven records in industries such as aviation, military systems, transportation, nuclear power, and others where safety is a concern.”

**More information:** The EHR Usability Evaluation Protocol (EUP), [Technical Evaluation, Testing and Validation of the Usability of Electronic Health Records](#) (NIST Interagency Report 7804), is available at [www.nist.gov/healthcare/usability/index.cfm](http://www.nist.gov/healthcare/usability/index.cfm) . A draft version of the document was released for public comment in September 2011. The current version incorporates feedback received.

Provided by National Institute of Standards and Technology

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