

## **Nurses' views on the use, quality and user satisfaction with electronic medical records: questionnaire development.**

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### **Abstract**

**AIM:** This paper is a report of the development of an instrument to measure nurses' views on the use, quality and user satisfaction with electronic medical records systems.

**BACKGROUND:** Use of electronic medical records systems in hospitals is steadily increasing, yet no validated instruments have assessed the effectiveness of these systems from the viewpoint of nurses.

**METHOD:** Items were designed following a literature review based on three main constructs: use, quality and user satisfaction with electronic medical records. Reliability and validity were examined based on responses from 1,666 nurses from 42 hospitals in Japan in February 2006. Exploratory factor analysis was conducted to determine the degree to which each item within a construct was associated. The reliability of each resultant factor was computed using Cronbach's alpha coefficient. Content validity was addressed by basing the items on previous surveys and review of the instrument by a panel of nurses experienced in nursing informatics. Construct validity was examined through factor analysis and correlational analyses.

**FINDINGS:** Extent of 'use' of electronic medical records resulted into three factors with good factor loadings, but only two had acceptable reliability. 'Quality' of electronic medical records had two factors with good factor loadings and reliability. 'User satisfaction' with electronic medical records had three factors, but only one had acceptable reliability. 'Use' and 'quality' constructs were positively correlated with 'user satisfaction'.

**CONCLUSION:** The final instrument incorporates 34 items from the original 44-item pool. Initial validity results were positive and therefore the instrument can be used in evaluating electronic medical records in hospitals.