

POSTER ABSTRACTS

10th Annual HMO Research Network Conference

May 3-5, 2004 Dearborn, MI

Information Technology 42

Information Technology in Ambulatory Care: Use of the Automated Medical Record Over Time

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Background: There currently is little data on how often and extensively providers use Information Technology (IT) during individual visits. This study examines the frequency and level of use of an automated medical record (AMR) by adult primary care providers (PCP) during ambulatory care.

Methods: We conducted a longitudinal study on IT use by nine PCPs in a large, prepaid integrated delivery system (IDS), after the introduction of an AMR into exam-rooms. We video-recorded and coded 159 study visits during two periods (84 in the first month after introduction [immediate], and 75 six months later [experienced]). We assessed three categories of AMR use: viewing, documentation, and advanced care management (e.g. graphing laboratory results over time, reviewing online clinical guidelines.) We assessed the number and proportion of visits with any use, and with each category of use. Finally, we assessed whether use changed over time using a generalized estimating equation (GEE) model with adjustments for clustering by PCP and for patient and visit characteristics.

Results: The patient subjects had a mean age of 53 years, tended to be female (67%), reported incomes greater than \$35,000 (63%) and have poor health (67% not excellent or very good). PCP's were trained in family practice (56%) or internal medicine (44%) with three plus years experience practicing in the IDS (80%) and tended to be female (56%). In addition, 78% of the visits were for urgent problems (very important or important), and 15% were initial visits with the PCP. Overall, PCPs used the AMR in 82% of visits (131/159): 83% (70/84) immediately and 81% (61/75) with experience. PCPs used the AMR for viewing most frequently (81%), followed by documentation (62%), and care management (20%). In our multivariate model, there were no statistically significant differences in viewing, documentation, and care management between immediate and experienced use of the AMR.

Conclusion: PCPs appear to frequently use the AMR for basic functions such as viewing and documentation. In contrast, PCPs infrequently used care management features during the visit. Future research is needed to assess the perceived utility, usability, and predictors of AMR use in order to achieve potential quality benefits.