**Improving Cardiovascular Risk Documentation: A Computer Decision Support Study**

Background: Current guidelines recommend routine calculation of a patient’s absolute cardiovascular risk however, clinicians infrequently document this step. Computer decision support tools (CDSTs) may increase the frequency of absolute cardiovascular risk assessment documentation.

Methods: The HeartDecision CDST was developed and integrated into the UW Health Link electronic medical record on 2-1-2010. Six physicians within the Wisconsin Research and Education Network volunteered to be a part of the pilot quality improvement evaluation and completed a login form. We identified patients in whom the CDST was used between 2-1-2010 through 3-11-2011, and who also had a visit with the same physician between 1-1-2009 and 1-31-2010 prior to CDST availability. We calculated the proportion of documented absolute risk assessment prior to and after the integration of the CDST. We used an exact McNemar's chi-squared test to compare the change in proportion of risk assessment documentation and a Fisher's exact to compare the differences in proportions between physicians.

Results: Sixty-two patients had at least one visit in each time period with the CDST being used in the later visit. The risk documentation rate prior to the intervention of the CDST was 3.2% (95% CI 0.4%-11.2%) and post intervention it was 50% (95% CI, 37%-63%, p <0.0001). The post-intervention rate documentation did not significantly differ vary by physician (p=.42 Fisher's exact test).

Discussion: Use of a CDST integrated into the electronic medical record increased the frequency of cardiovascular risk assessment documented in a selective subset of primary care visits. Results of clinic visit observations suggest that future prospective studies might demonstrate improvements in clinical care using integrated CDSTs.