

## Study evaluates transcription accuracy in men and women

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There is a significantly higher rate of transcription error in women compared to men when using commercial voice recognition applications, according to a recent study.

"Our residency program and department recently made the transition to speech recognition from a digital dictation system," said Syed Ali, MD, lead author of the study. "This prompted us to ask research questions about how to increase our accuracy rates and what factors adversely impacted speech recognition," said Dr. Ali.

Ten radiology residents, five male and five female, were each trained on a commercial speech recognition application. Each resident was asked to dictate a standardized set of ten radiology reports containing a total of 2,123 words. Utilizing a commercial software solution, the generated reports were then compared with the original reports and error rates were calculated. The error rate was defined as the sum of the number of word insertions and deletions divided by the total word count for a given report.

According to the study, error rates in the male population ranged from 0.025 to 0.139 while the error rates in the females ranged from 0.015 to 0.206. The results show a higher rate of recognition error in the females compared to the males.

"The immediate impact of the study for radiologists is an increased level of awareness that women may need to spend more time training on the

system than their male counterparts and may have to work somewhat harder to make the system successful," said Dr. Ali. "This could include using macros or actually altering dictation style to increase recognition rates," he said.

"Any efforts to improve recognition rates will have a positive impact on physicians and patients of course by reducing error rates and improving productivity," said Dr. Ali.

The full results of this study will be presented on Monday, May 7, 2007 during the American Roentgen Ray Society's annual meeting in Orlando, FL.

Source: American Roentgen Ray Society

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