COMPARATIVE ERRORS IN RADIOLOGY RETORTS

Reports that is. Accuracy of Radiology Voice Recognition Reports at a Tertiary South African Hospital

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INTRODUCTION

Voice Recognition (VR) technology - the process whereby spoken words are converted to digital text – has been used in radiology reporting since 1981. Despite the potential to dominate radiology reporting, with the latest software claiming up to 99% accuracy, reduced report turnaround times and significant cost savings, VR reports have been shown to contain notably higher levels of inaccuracy than traditional Dictation Transcription (DT) reports. The Radiology Department of the Tygerberg Academic Hospital (TAH) introduced limited use of English language VR software in January 2010.

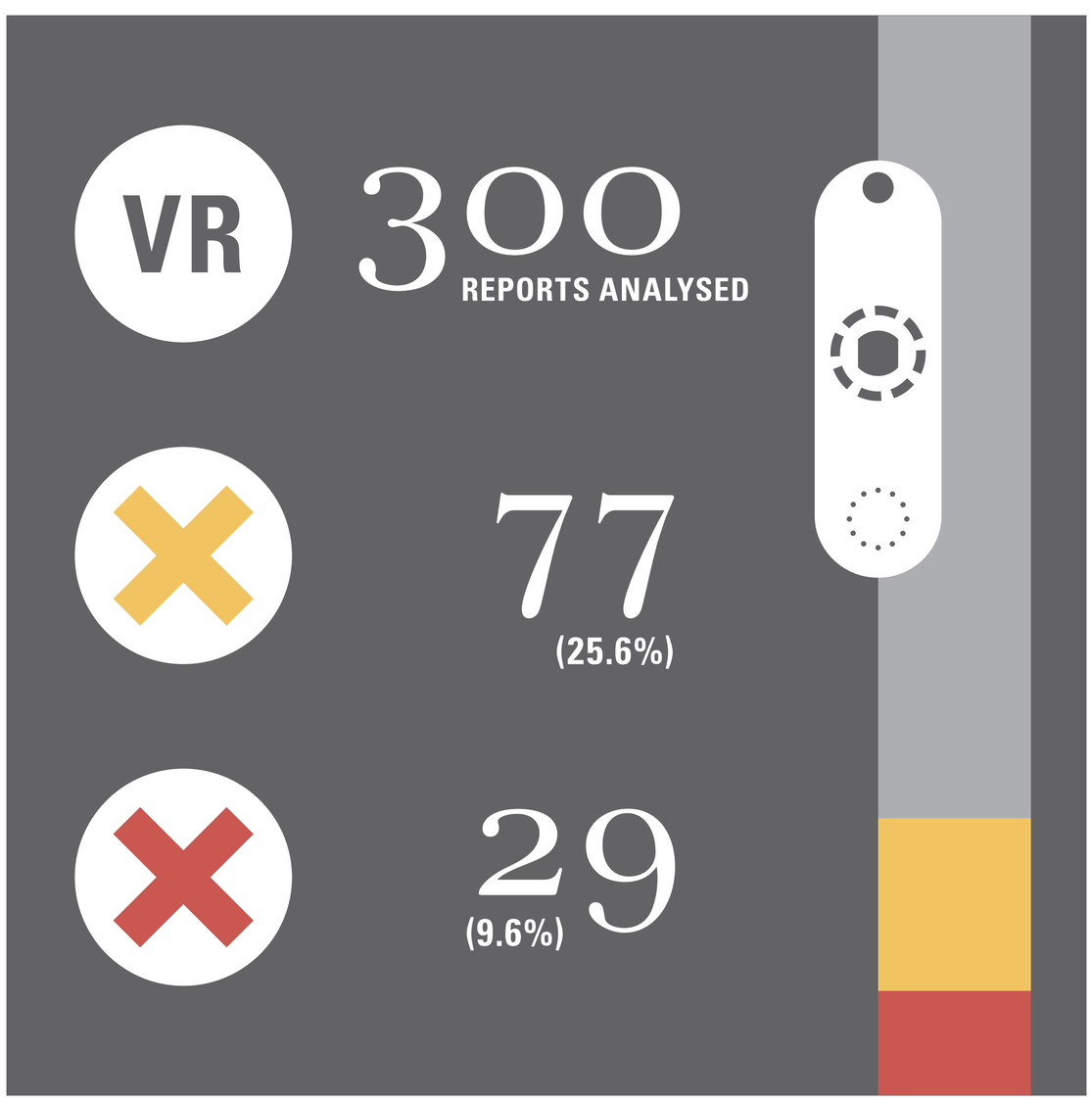
AIM

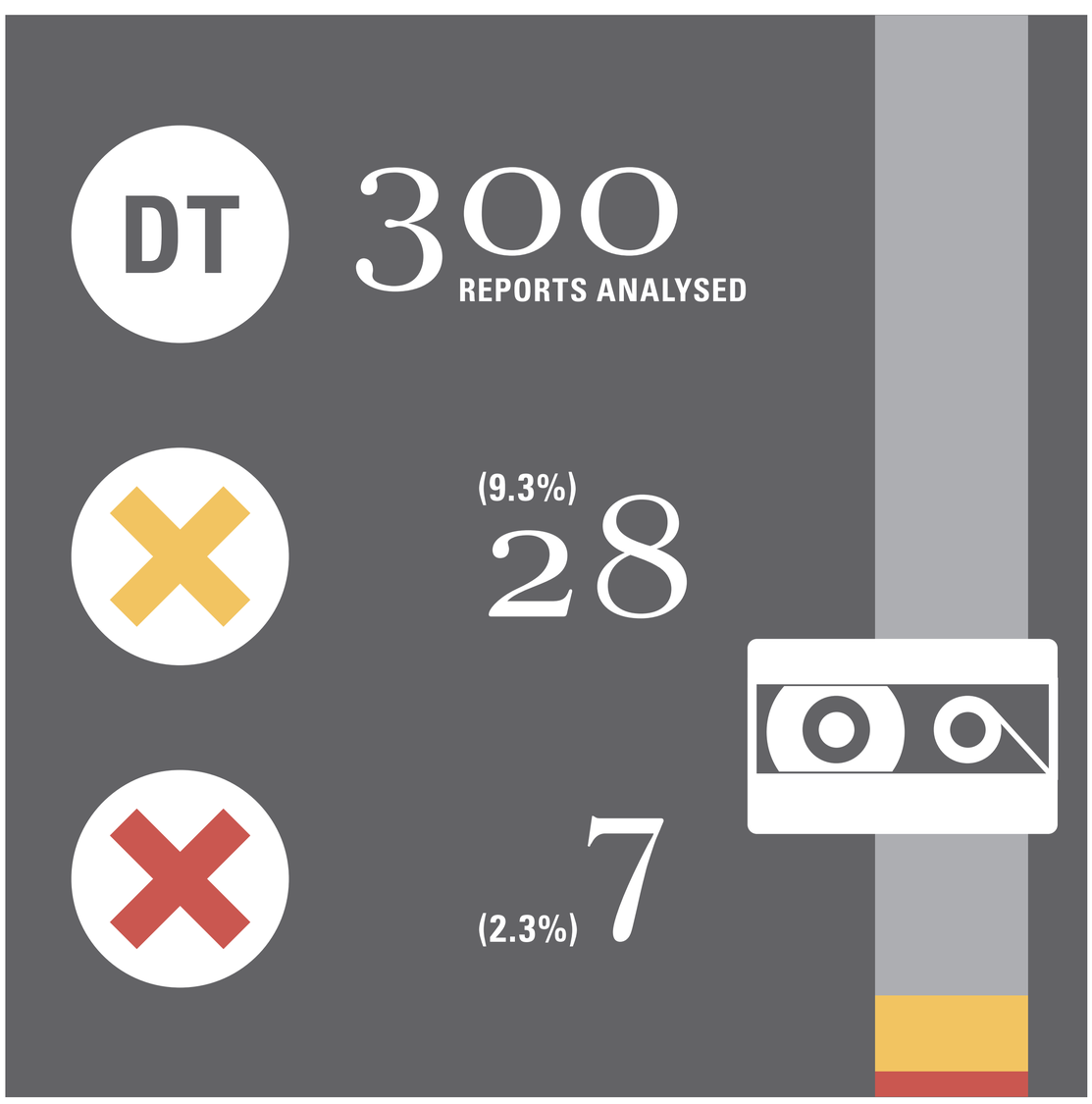
To compare the accuracy of VR and DT reports at TAH, and to establish the clinical significance of any errors

METHODOLOGY

The first 300 VR reports, and the first 300 DT reports generated at TAH during March 2010 were retrieved from the hospital's picture archive and communication system (PACS), and reviewed by a single observer. Text errors were identified and recorded on a study data sheet, and then classified as either clinically significant or insignificant, based on the potential impact on patient management.

RESULTS





ERRORS CLINICALLY SIGNIFICANT ERRORS

CONCLUSION

- The VR error rate was significantly greater than the DT error rate (p = 0.00000).
- The difference in clinically significant errors between the two groups (9.6% vs. 2.3%) was also statistically significant (p = 0.00016).

Voice Recognition technology significantly increases the clinically significant inaccuracies found in radiology reports.

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