

Voice Recognition Generated Report Accuracy Audit Template

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Descriptor

Errors in voice recognition software generated radiology reports.

Background

Many radiology departments have moved from human transcriptionists to voice recognition systems to transcribe clinical reports. While there are several reasons for the transition, expedited turn-around times are one of the biggest advantages. Errors in voice recognition generated reports can lead to negative clinical outcomes and harm patients; quantifying the frequency and types of errors for departments and individual users will identify problems early and facilitate potential solutions.

Audit Cycle

Standard

There are presently no national standards for acceptable error rates in radiology reports. Local standards were set as follows:

Major errors, defined as any error that can potentially harm to a patient; the error rate should be 0%.

Minor errors, defined as all other errors, are of less consequence; an error rate of 10% is reasonable, but individual departments may set different targets based on local practice.

Target

100% of radiologist within the department meet the standard.

Data Collection

Sample reports from the radiology information system for each radiologist in the department collected for a pre-determined time interval. Sample to reflect the relative frequency of types of reports (MRI, CT, plain films) for the department. The sample size will depend on the size of the department; a minimum of 10 reports per user for large departments is suggested, 30 reports for smaller departments.

Data Review

Quantify the type and frequency of errors. Reports that affect the understanding of the report or could potentially cause harm to a patient are considered *major*. All other errors are considered *minor*.

Suggestions for change if targets not met

Feedback the results to users. If the frequency of errors exceeds the target, examine potential solutions. Consider consulting the software vendor and local IT specialists, increasing use of macros, upgrading software and hardware, minimizing background noise and interruptions. Re-audit after changes are implemented.

Resources: Tips to complete the audit

- Enlist the help of an IT specialist to extract reports from the departmental RIS over a predetermined time interval. IT time commitment: 1-2 hours.

- Determine the ratio of each type of report from your department. Audit a representative sample based on this ratio e.g. 60% plain films, 40% cross sectional.
- Proofreading reports seems easier on hardcopy rather than digitally. Grammar and spelling tools such as Microsoft Word will not detect most errors; manually reading each report is currently the only effective method to detect errors.
- Proofread reports in batches to reduce fatigue. Proofreading time commitment: 5-15 minutes/10 reports, depending on report length and complexity.
- Double reading reports will incrementally increase error detection. Radiology transcriptionists are effective proofreaders.
- Categorizing errors is best performed by the auditing radiologist. Radiologist time commitment: 10-20 hours.

References

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