

## PP109 Use Of Speech Recognition In Medical Reports: A Systematic Review

### AUTHORS:

Thomas Poder ([thomas.poder.ciusse-chus@ssss.gouv.qc.ca](mailto:thomas.poder.ciusse-chus@ssss.gouv.qc.ca)), Véronique Déry, Jean-Francois Fisette

### INTRODUCTION:

Speech recognition is increasingly used in medical reporting. The aim of this article is to identify in the literature the advantages and weaknesses of this technology, as well as barriers and facilitators to its implementation.

### METHODS:

A systematic review of systematic reviews has been conducted in PubMed, Scopus, Cochrane Library and Center for Reviews and Dissemination up to August 2017. The grey literature has also been consulted. The quality of systematic reviews has been assessed with the AMSTAR checklist. Inclusion criteria were to use speech recognition for medical reporting (front or back-end). A Survey has also been conducted in Quebec, Canada, to identify the dissemination of this technology in this province, as well as the factors of success or failure in its implementation.

### RESULTS:

Five systematic reviews were identified. These reviews indicated a high level of heterogeneity across studies. The quality of the studies reported was generally poor. Speech recognition is not as accurate as human transcription but can dramatically reduce the turnaround times for reporting. In front-end use, medical doctors need to spend more time for dictation and correction than with human transcription. With speech recognition, major errors can be up to three times more frequent. In back-end use, a potential increase in the productivity of transcriptionist is noted.

### CONCLUSIONS:

Speech recognition offers some advantages for medical reporting, the main one being a reduction in turnaround times. However, these advantages are challenged by an increased burden for medical doctor and risks of additional errors in medical reports. It is also hard to identify for which medical specialties and which

clinical activities the use of speech recognition will be the most beneficial.

## PP110 The Prophylactic Removal Of Impacted Third Molars: A Systematic Review

### AUTHORS:

Gerlinde Pilkington ([gerlindepilkington@gmail.com](mailto:gerlindepilkington@gmail.com)), Juliet Hounsome, Tara Renton, Rumona Dickson

### INTRODUCTION:

Impacted third molars (I3Ms) are blocked from fully erupting; many I3Ms are asymptomatic, however there could be pain and pathological changes. Historically, I3Ms were removed prophylactically. Current options in the United Kingdom include either retention with standard care (watchful waiting), or removal due to pathological changes. We conducted a systematic review of the prophylactic removal of asymptomatic impacted mandibular third molars (IM3Ms) compared with standard care.

### METHODS:

We searched five electronic databases from 1999 onwards. Inclusion criteria: randomized and non-randomized trials, observational studies, and systematic reviews (SRs) comparing the prophylactic removal of IM3Ms with standard care or studies assessing the outcomes of either approach; outcomes included pathology associated with retention, postoperative complications, adverse effects of treatment and health-related quality of life. Two reviewers independently screened all titles and/or abstracts, applied inclusion criteria to potentially relevant publications, and quality assessed and data extracted the included studies. No meta-analysis or network meta-analyses were undertaken.

### RESULTS:

Following screening of 11,373 references, 13 studies (four cohort studies and nine SRs) were included. One cohort study investigated the prophylactic removal of asymptomatic IM3Ms in comparison with standard care and retention, two investigated the prophylactic removal of asymptomatic IM3Ms, and one studied the retention and standard care of asymptomatic IM3Ms. Two studies reporting surgical complications found no