

# 建立AI語音辨識系統於護理紀錄之基模初探

護理部

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## 摘要

**目的:**本研究目的在建置護理紀錄語料庫及開發語音模型,並評估語音辨識導入護理紀錄之可行性。  
**研究方法:**第一階段為建置護理紀錄語彙庫,通過本院倫理審查申請2019年8月至12月,一般外科病房及胃腸肝膽科病房去病人辨識之護理紀錄,招募40位護理師唸稿列入語彙庫;第二階段運用產學合作委託台灣人工智慧實驗室建立語音辨識模型,以護理紀錄文字檔為本,分析語音轉為文字紀錄之準確率。成果發現:共得到3,920筆之護理紀錄語彙庫,語音辨識模型之準確率為87.7%。  
**結論:**本研究建置之護理紀錄語音辨識模型具有足夠的準確性,適於臨床應用。建議:未來能產學合作導入醫院臨床實務,利用AI語音辨識系統提昇護理紀錄書寫品質與效能,並有利於護理活動數據之收集與分析。

**關鍵詞:**護理紀錄、語言模型、人工智慧、護理語音辨識。

## Abstract

**Aims:** The aim of this study is to build a corpus of nursing records and develop an automatic speech recognition model, and evaluate the feasibility of importing nursing records into automatic speech recognition. **Method:** The first stage is to build a vocabulary database of nursing records. From August to December 2019, apply for nursing records for patient identification in general surgery wards and gastrointestinal hepatobiliary wards through the ethical review of this hospital, and recruit 40 nurses to read the manuscripts included in the vocabulary; the second stage uses industry-academic cooperation to commission Taiwan's artificial intelligence laboratory to establish a voice recognition model, based on the text files of nursing records, and analyze the accuracy of voice conversion to text records. The results found that a total of 3,920 nursing record vocabularies were obtained, and the accuracy rate of the voice recognition model was 87.7%. **Conclusion:** The nursing record voice recognition model built in this study has sufficient accuracy and is suitable for clinical application. **Discussion:** In the future, industry-university cooperation can introduce hospital clinical practice, and use AI voice recognition system to improve the quality and efficiency

**Key words:** nursing record, language model, artificial intelligence, nursing speech recognition.