

# A Voice-Enabled Clinical Assistant for Bedside Assessment

**Vedansh Mehra**

vmehrajhs@gmail.com

## Abstract

**Introduction:** The importance of bedside assessment in clinical decision making cannot be ignored, but the volume of documentation and information that is unnoticed and sporadic may slow down timely interventions. Digital tools which are **voice-enabled provide hands-free support** and enable the real-time capture of data, which may increase efficiency and accuracy. This paper will consider the practicality and effectiveness of a voice-based clinical assistant system to aid bedside evaluation in general medicine wards.

## Methods

- Pilot study conducted in two general medicine units over 8 weeks.
- Voice-activated tablet system used to record vitals, access EHR, and set reminders.
- Pre-implementation vs. Post-implementation analysis.

## Results

**32%**  
Reduction in  
Documentation  
Time

**28%**  
Increase in  
Note Completeness

**21%**  
Decrease in  
Task Omissions

User Satisfaction:

★ **4.4 / 5**  
★★★★★

## Conclusions

- Voice-based clinical assistant improved bedside assessment efficiency and accuracy.
- Enhanced documentation quality and reduced missed tasks.
- Further multicentre studies needed to assess scalability and long term impact.

