Dragon Medical One (DMO) Voice to Text in the Emergency Department

Initiative Type

Service Improvement

Status

Deliver

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https://test.clinicalexcellence.qld.gov.au/improvement-exchange/dragon-medical-one-dmo-voice-text-emergency-department

Summary

Speeding up documentation allows clinicians to discharge Emergency Department (ED) patients more quickly. This may only be by five to 10 minutes (often more) but applied to more than 100

patients per day, the increased efficiency is enormous.
The bulk of patient complaints are generally around long wait times in the waiting room, so increasing patient turnover times will improve patient satisfaction and reduce patient complaints. To achieve faster documentation times, a Voice to Text Application called Dragon Medical One (DMO) was introduced as a pilot across the ED and four other clinical specialties at the Mackay Base Hospital for three months in 2021. The ED participants were four staff specialists and one nurse practitioner. Voice to text meant the use of dictation by these participants who had previously typed their notes into the Cerner electronic medical record (ieMR).
Baseline benefits were established, and the pilot results were measured against those benefits. For the Mackay ED, dictating notes meant that documentation times were reduced significantly as baseline typing speeds of 20-30 words per minutes changed to dictation speeds of 90-180 words per minute. The pilot was completed in August 2021, but the DMO licences are still being used to maintain the efficiencies they achieved. Other use beyond Voice-to-Text, such as ordering (pathology, imaging, medications, etc) is the next application of the technology that the hospital's emergency physicians believe can improve efficiency going forwards, and they plan to trial and measure that soon.

Key dates

May 2022

May 2022

Implementation sites

Mackay Base Hospital

Key Contacts

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Aim

To create efficiencies in the Emergency Department by reducing documentation time.

Benefits

When the documentation for time per patient - seen in ieMR - was compared with other Queensland Health physicians, the Mackay physician using Dragon One spent about two minutes for documentation per patient, compared to the average of 12 minutes per patient for other physicians in Queensland Health. Dragon Medical One contains different medical vocabularies which make an enormous difference to the accuracy and speed of dictation.

Background

Mackay Base Hospital ED treats about 62,000 patients per year. For an ED, it is essential that any possible improvement in efficiency is made. The capacity of ED specialists to see new incoming patients is often markedly reduced by admitted patients waiting for beds, however, the majority of patients each day are discharged from the ED.

Solutions Implemented

The use of the Dragon Medical One voice to text application allows for patient notes to be dictated into the ieMR instead of typing them. During the pilot, it reduced time spent doing documentation by 30 per cent and gave time back to the clinicians, improving patient turnover.
By doing documentation in real time, clinicians remember the finer detail better and in a structured way. The improvement in quality of notes also then improves the coding system.

Evaluation and Results

A staff satisfaction survey was done as well as DMO analytics to record difference in typing speed to dictation speed and to show any decrease in time spent documenting. Documentation Speed Results: The average typing speed in ED prior to the DMO pilot was measured at 28 words per minute. Using DMO, the average dictation speed has become 107 words / minute. This is 3.78 times faster than typing. One participant is now dictating 178 words / minute (5.9 times faster than typing). At the end of the day it amounts to a considerable amount of time. Clinicians responded that the reduction in time spent on documentation allowed them to use the time for the benefit of staff, where they connect to nursing staff to better understand their challenges. It also benefits patients because they get discharged from ED earlier. It also improves patient care because the possibility of wrong documentation is less. That obviously help with patient flow and patient safety.