

Enhancing Urgent Community Response for Frailty through technology: assessment, monitoring and AI medical scribes

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The integration of assessment, monitoring and AI medical scribing offers opportunities for service improvement and clinician efficiency. However, existing technological infrastructure presents barriers to implementation. Despite these challenges, advancing these technologies is essential for optimising Urgent Community Response (UCR) in frail populations.

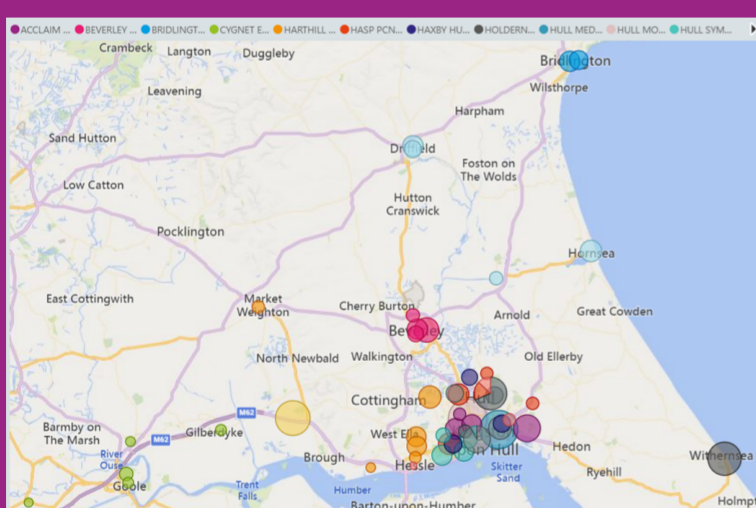
Assessment

The remote examination device (Tytocare) allows doctors to assess patients' heart, lung and bowel sounds without having to physically be with the patient. Tytocare was used by Clinical Support Workers (CSWs) for remote clinician assessment following the introduction of the devices to the service in April 2022.

Data from 74 remote examinations between April-September 2022 were analysed. Hospital admissions were avoided in 70.3% of cases, of which remote examination was part of a number of interventions.

Using CSWs meant that as an estimate, between £13 and £78 per hour was saved, equating to a potential yearly saving of up to £13,853.

Use of Tytocare in Hull and East Riding by GP practice



Monitoring

Wearable remote monitoring devices (Biobeat) are able to continuously measure vital signs wirelessly and in real time. Biobeat chest and wrist monitors were piloted with 20 patients within a Frailty Virtual Ward for four months. Data was collected to assess the impact on clinical decision-making, patient care and system efficiency. This data was externally evaluated and further recommendations were provided.

Though a small sample size, results could indicate that continuous monitoring improved clinical decision-making and facilitated safe discharge to the patient's usual residence (91% with monitoring vs 69% without).

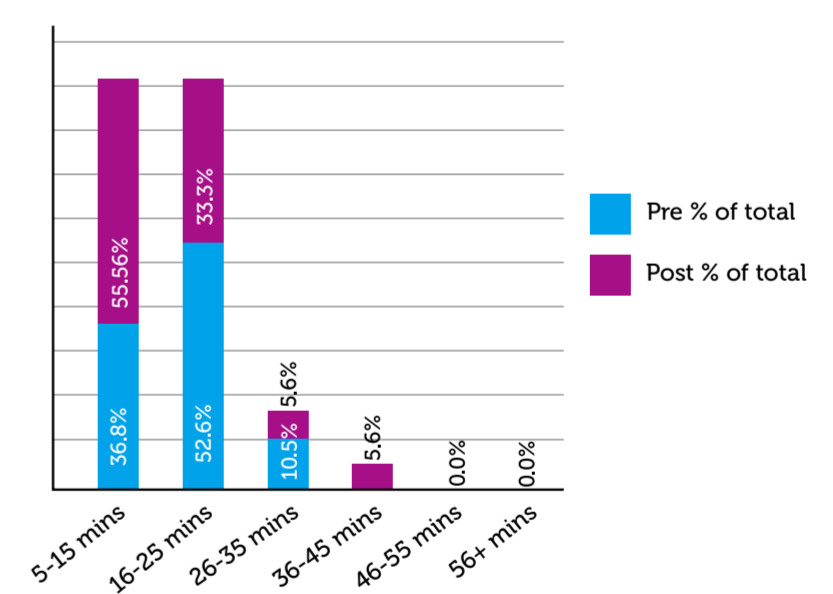


AI medical scribes

The AI scribe (Heidi) was introduced to the frailty team to evaluate its impact on note-taking efficiency and documentation quality. Usage data from 419 sessions were collected and analysed. Following its implementation, documentation clarity improved, with a 97.1% increase in recording who was present during consultations and an 11.1% rise in clearly documented follow-up plans.

The scribing tool also reduced documentation time, saving 15–20 minutes per patient in some areas, enabling staff to dedicate more time to direct patient care. Additionally, note quality improved, with spelling mistakes reduced by 50%. Further refinements to templates could minimise this further by avoiding clinician corrections. Overall, the AI scribing tool has the potential to increase productivity by 10%–20%, potentially allowing for additional patient capacity in the future.

Time creating notes pre & post AI scribe in the UCR



Barriers to implementation

- Technological difficulties, including poor WiFi connection (e.g. 8.1% of remote examinations encountered tech issues). Remote examination and monitoring devices require phone connection and SIMs which need frequent use to prevent timeout. Adjustments to the technological infrastructure take a lot of fine-tuning
- A lack of standardised operating procedures and checklists led to staff finding devices challenging to use e.g. remembering to charge devices
- For the wearable monitoring device, patient factors such as unfamiliarity with technology or distress had an impact on use.

Next steps

- Since the recommendations from external evaluation, a digital navigator has since been employed by CHCP to improve staff digital literacy and promote technological innovation within the service
- These service initiatives have helped transform UCR for frailty, leading to improved patient outcomes and documentation quality across the UCR workstream.