

Executive Summary

Background

During 2021/2022, nearly 7.5 million outpatient appointments were missed (NHS England 2022). These missed appointments are often termed 'Did not Attends' (DNAs). In 2023, NHS England highlighted the need to reduce DNAs, in order to improve patient experience and tackle the elective care backlog and suggested that implementation of digital solutions could potentially be a solution. DrDoctor is a digital technology that helps healthcare providers schedule appointments and provide remote care. The specific DrDoctor technology being evaluated here aims to further improve appointment utilisation and attendance through artificial intelligence (AI) modelling. Phase 1 technology predicts patients at high risk of DNA and uses the results to call patients and/or send additional SMS messages to them before their appointments. Phase 2 technology focuses on linked appointments.

Methods

The Phase 1 evaluation explored accuracy, safety, effectiveness, value and person-centredness, using a real world, mixed-method evaluation. Process evaluation was undertaken for Phase 2a/2b technology.

Results

The Phase 1 technology appeared to be accurate in terms of DNA prediction and was safe and mostly acceptable to patients. Phase 1 technology did not adversely affect patients' mental health and physical wellbeing (including self-reported adverse events) yet did not improve patients' satisfaction of appointment management. The use of Phase 1 technology did not result in a detectable positive change in DNA rates in three specialities in two NHS Trusts, which challenges the key value proposition. Leaving a message and/or sending an additional SMS to those likely to DNA was not effective. Talking to people directly did not have a statistically significant impact but had more encouraging results in a very small sample. Evaluation of Phase 2 technology was limited due to recent deployment.

Conclusion

Although Phase 1 technology is accurate in predicting who might not attend their appointment, there was no positive change in DNA rates following implementation. Those likely to DNA were either called and/or sent an additional SMS. There was little calling of patients at intervention Trusts making it difficult to evaluate their impact on DNA rates. Further evaluation by the DrDoctor team on understanding the impact of manual calls is in progress. On the basis of the current evaluation, we cannot recommend the Phase 1 technology in the Trusts who had the Phase 1

technology. However, as this evaluation was carried out in three specialties in two intervention and two comparison Trusts, results are not generalisable across a wider range of specialities and Trusts. Phase 2 technology could be useful and effective but requires outcome evaluation.