



South West Healthcare



England

Ambient Voice Technology (AVT) in Primary Care

Findings To Date May 2025

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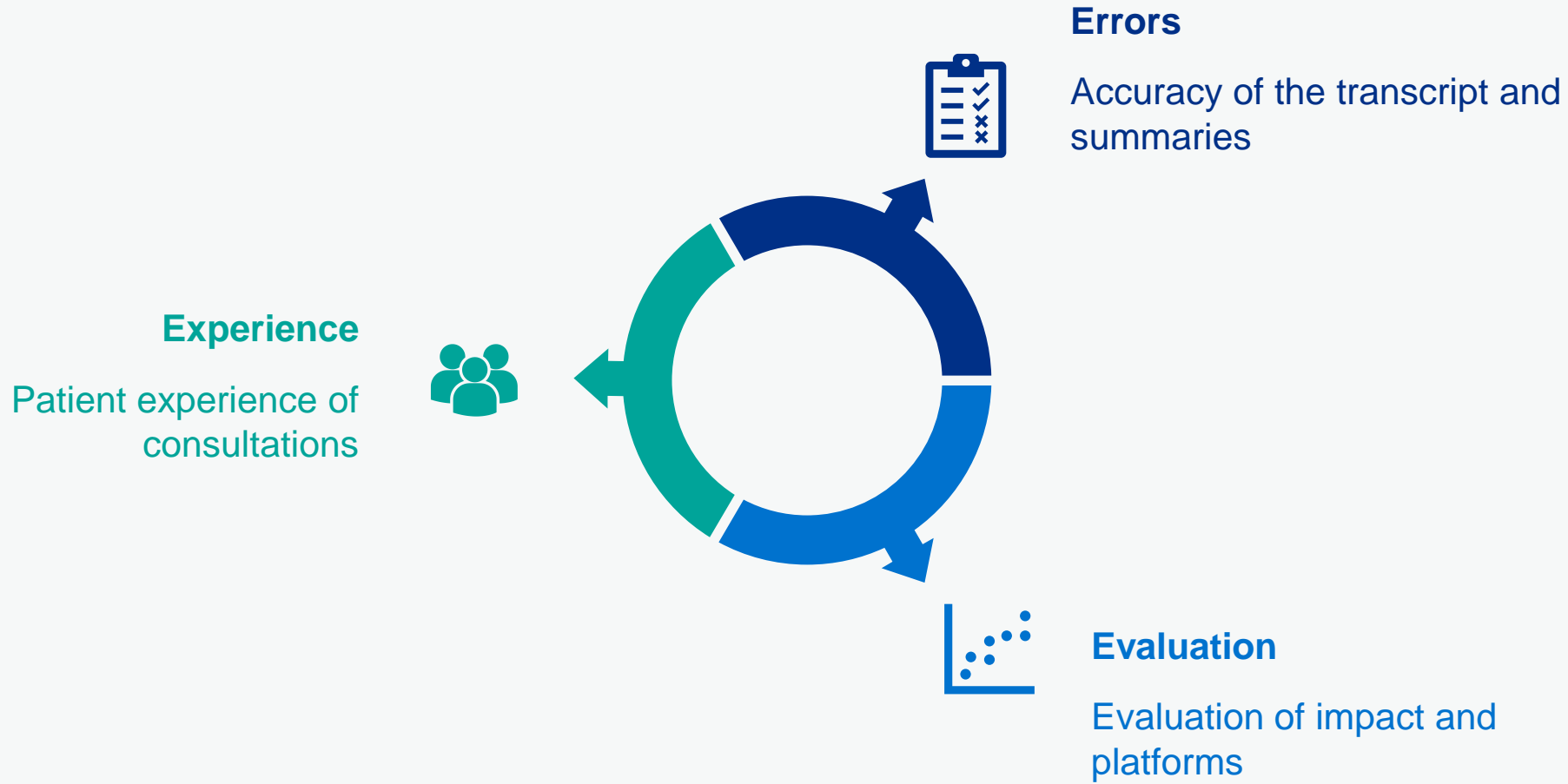
CoDE AVT Experiments

- Primary care scenarios of GP and Nurse practitioner consultations were prepared and acted-out by role players, both with (to assess the patient-clinician interaction) and without (to provide a baseline written summary for comparison) the use of AVT
- Each consultation was audio-recorded and used in each of the analyses to test different AVT platforms with the same standardised recordings
- Recordings were manipulated to add background noises at various levels to trial the AVT in a 'real-world' environment
- Clinically significant inaccuracies, omissions and hallucinations were noted in the summaries produced



CoDE AVT Experiments - Findings

Results can be broken down into three key areas:



CoDE AVT Experiments – Findings (Errors)

All platforms produced imperfect outputs – with median errors per consultation ranging from 1 to 6.5

The highest type of error was omissions (80%), followed by inaccuracies (12%) then hallucinations (8%)

Distance from the external microphone is a significant factor the risk of errors – 3.77 omissions at 0.5m, 12.1 omissions at 2.0m and 22 omissions at 4.5m (including an obstacle)

Misleading irrelevant information (e.g. a chat about tennis) led to a 16.7% median error rate for omissions and 7.2% for inclusions

Misleading medical information (e.g. patient proposing an incorrect diagnosis) led to a median error rate of 9.1% for omissions and 4.7% for inaccuracies

The number of errors increases as background noise volume increases – from 1.8 errors at the lowest volumes (~30% of speech volume) to up to 24 errors at +5dB (175% of speech volume)

Speech impediments have significant impact on the accuracy of the summary

The introduction of colloquial terms (e.g. 'ticker' referring to heart) resulted in an error rate of up to 22%

CoDE AVT Experiments – Findings (Experience)

Reduced Waiting Times

89% patients seen within 10 minutes, compared with just 7% without the use of AVT



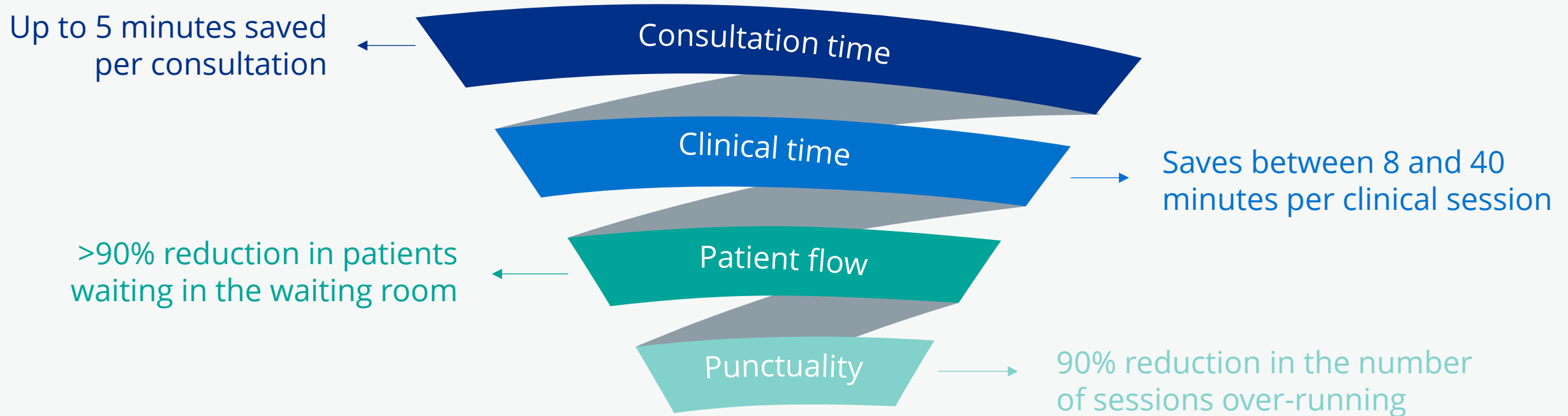
Engagement with Patient

Increased engagement between patient and health professional (e.g. eye contact)

Quality of Consultation

Improved fluidity of consultations

CoDE AVT Experiments – Findings (Evaluation)



CoDE AVT Experiments – Hazard Log (1 of 2)

Throughout testing, a number of hazards have been identified, with recommended control measures documented including:

AVT software may generate errors

Background sound interferes with recording; increasing risk of errors

Microphone placement is critical to the incidence of errors

Introduction of irrelevant statements by patient or chaperone introduces errors

Speech impediments increase the number of errors

Some broad accents increase the number of errors



HCP's must review summaries

Minimise background noise or consider manual note-taking

Check range and performance during set-up

HCP's must review summaries and exercise additional vigilance

HCP's must review summaries or consider manual note-taking

HCP's must review summaries or consider manual note-taking

CoDE AVT Experiments – Hazard Log (2 of 2)

Throughout testing, a number of hazards have been identified, with recommended control measures documented including:

Suppliers' changes to AI software may result in inconsistent recordings and/or impact error rate

The use of alternative templates or settings impact error rate

Patients may feel that they have an inferior experience in the consultation

Use of AI Scribe may be unsuitable with some patient groups

Patients may not give consent for the use of an AI Scribe



HCP's must review summaries. Consider quality assurance measures such as periodic testing of software

Control processes are necessary for information and clinical governance

Seek patient feedback and provide data to evidence improved efficiency

Ensure patient consent is sought and take appropriate action

Ensure patients are given the information and evidence to make an informed decision



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