NICE National Institute for Health and Care Excellence

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

HealthTech Programme

Digital front door technologies to pre-assess people before assessment for NHS Talking Therapies

Final scope

December 2024

1 Introduction

The topic has been identified by NICE for consideration for early value assessment (EVA). The objective of EVA for medical technologies is to identify the most promising technologies in health and social care where there is greatest need and where the evidence base is still emerging. It will provide an early indication to the system that they could be used while evidence is generated. The process will enable the technologies to be recommended for use only if further data is collected before NICE makes a final evaluation at a later date. NICE's topic selection oversight panel ratified digital front door technologies to pre-assess people before assessment for NHS Talking Therapies for anxiety and depression services (shortened to 'NHS Talking Therapies' in this document) as potentially suitable for an EVA by the HealthTech programme.

The technologies identified for this EVA are those used to digitally onboard people who need to be pre-assessed for NHS Talking Therapies. Technologies that make diagnoses or deliver talking therapies are not included in this assessment.

The purpose of this EVA is to map the evidence that is available on the technologies, assess their potential effectiveness, and identify evidence gaps to help direct data collection and further research. This EVA will inform Committee recommendations on the possible conditional use of these technologies in the NHS while further evidence is generated.

The final scope was informed by discussion at the scoping workshop on 11th November 2024. A glossary of terms and a list of abbreviations are provided in appendix A and B.

2 Description of the technologies

This section describes the properties of digital front door technologies to pre-assess people before assessment for NHS Talking Therapies. It is based on information provided to NICE from the manufacturers and information available in the public domain. NICE has not carried out an independent evaluation of this description.

2.1 Background to talking therapies services

In England, 1 in 6 people will experience a common mental health condition (like anxiety and depression) in any given week (McManus et al. 2016). NHS Talking Therapies for anxiety and depression (previously known as IAPT, Improving Access to Psychological Therapies) is a service in the UK that offers mental health support for mental health conditions specified in the NHS Talking Therapies for anxiety and depression manual (2024). In the 2022-2023 period, over 1.76 million people were referred to NHS Talking Therapies in England. The Five Year Forward View for Mental Health from 2016 set out that NHS England should increase access to evidence-based psychological therapies to reach 25% of need so that at least 600,000 more adults with common mental health conditions can access NHS Talking Therapies services each year by 2020/21 (1.5 million in total). The NHS Long Term Plan then increased this target to an additional 380,000 adults accessing NHS Talking Therapies services by 2023/24 (1.9 million in total).

2.2 Purpose of technologies

Once referred to NHS Talking Therapies, people will have a pre-assessment and then a clinical assessment to determine the most appropriate treatment. Digital front door technologies for NHS Talking Therapies are used at the pre-assessment stage. They collect information from the person referred about possible presenting concerns that will help inform and facilitate the assessment. It does not replace the assessment with a clinician but is intended to improve its efficiency and accuracy. Appointments for NHS Talking Therapies assessments are typically 30 to 45 minutes long. With manual onboarding processes, there is an administrative burden on the assessors having to manually copy and paste information either prior to, or during the assessment. The data collected during a manual pre-assessment can be of poor quality and inaccurate, leading to additional time being spent by NHS Talking Therapies clinical assessors having to recollect information during the assessment timeslot.

The potential benefit of a digital front door is improving the accuracy and quality of the data provided to the clinical assessor to reduce the

administrative burden, and decrease the need to recollect data. The clinical assessor can review the distilled information in preparation, highlighting particular areas for further discussions and freeing up appointment time for more personalised and tailored conversations.

In addition, digital front doors can potentially promote access to the service by enabling people to refer themselves for assessment at any time and capturing information at the point at which the person is seeking help. Removing the need for face-to-face interacting may promote access to those who find this a barrier (Habicht et al. 2024).

2.3 Product properties

This scope focuses on digital front door technologies defined in NHS Talking Therapies for anxiety and depression manual (2024) as, "Pre-assessment digital front doors, which can collect advance screening information about possible presenting problems that will help inform and facilitate the assessment." Digital front door technologies can range from online referral forms, to artificial intelligence (AI) informed chatbots collecting personal details, contact information, outcome measures and information about the person's presenting difficulties, to inform and facilitate assessment.

For this EVA, NICE will consider digital front door technologies that:

- are intended for use by people over the age of 16
- collect basic information and demographics through digital tools
- further collect data by actively analysing the initial information to ask additional questions, which can facilitate the clinician's decision-making for the initial Talking Therapies assessment appointment by presenting the collected data in an efficient way
- provide relevant information (such as what NHS Talking Therapies is and involves) to the service user to prepare them for the assessment
- do not make treatment decisions or assign problem descriptors – or these functions can be decoupled from the other functions a technology can provide – this will be carried out by the clinician in the Talking Therapies assessment
- meet the standards within the digital technology assessment criteria (DTAC), including the criteria to have a CE or UKCA mark where required. Products may also be considered if they are actively

working towards a required CE or UKCA mark and meet all other standards within the DTAC.

- are available for use in the NHS

Functions of technologies which go beyond that of a digital front door, such as providing diagnosis, treatment and remote monitoring will not be included in this EVA.

In total, 4 digital front door technologies for people being pre-assessed for NHS Talking Therapies are included in the final scope. The final list of included technologies may be subject to change.

AskFirst (Sensely)

AskFirst (Sensely) is an online consultation platform developed in partnership with the NHS. AskFirst is available to access at all times via an app on a smartphone or tablet, or a web version on a desktop computer or laptop. It provides a triage function with symptom checking and routing to pathways like Talking Therapies. Digital mental health assessments include Patient health questionnaire 9 item scale (PHQ-9) and Generalised anxiety disorder 7 item scale (GAD-7) questionnaires. AskFirst integrates with a number of GP IT systems, such as Egton Medical Information Systems, and 111 service providers across the country. It is free for people to use the service.

Censeo (Psyomics)

Censeo (Psyomics) is suitable for people aged 18 to 65 who are not in crisis. It is a UKCA class I web-based non-diagnostic mental health platform that supports clinician assessment. Censeo gathers pre-appointment information. Censeo guides users through a structured assessment process through an adaptive questionnaire. The gathered information helps identify potential underlying mental health concerns, such as depression and anxiety. The questions are based on:

- International Classification of Diseases 11th Revision (ICD-11) and Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) diagnostic criteria
- National Institute for Clinical Excellence guidance
- The UK Mental Health Triage Scale
- Psychological and social factors which impact on mental health
- Continuous feedback from users and clinicians

People are sent a link by their health care professional and can complete the questionnaire in their own time. The adaptive questionnaire creates a personalised question pathway. There are over 500,000 pathways with a bank of more than 1200 questions. Censeo assembles the information into a single report. The clinical report is generated on the completion of the questionnaire.

Limbic Access (Limbic)

Limbic Access is a UKCA class IIa medical device. It is an AI chatbot for conversational referral and clinical decision support in behavioural health services by streamlining the referral and triage process. Limbic Access can be embedded on a website as an always-on referral channel for new people. People begin the referral and assessment process through a personalised and interactive conversation with the Limbic Access chatbot. Limbic Access generates a clinical report, with disorder-specific measures to aid clinician's assessment. Limbic Access also captures all activity in a dashboard with visibility into engagement, demographics, referrals, conversion rates, and staff hours saved.

WYSA

WYSA is a UKCA class I web-based AI-supported e-triage tool that collects data based on questions from the referral form for NHS Talking Therapies services. People can access the chatbot on the WYSA website. People initially submit brief demographic details because WYSA includes a built-in address and GP finder, and signposting for ineligible referrals. Demographic data will be securely transferred into electronic health records (EHR). The local NHS Talking Therapies service then reviews self-referral details and either accepts or rejects the referral. The person then completes the pre-assessment, progressing at their own pace, engaging with self-care exercises along the way supported by WYSA's chatbot. Clinical contact is created directly within the EHR, where data fields exist. This includes risk flagging and a clinical summary. A summary is provided to the clinician for their review prior to appointment.

3 Target conditions

NHS Talking Therapies primarily focuses on treating mental health conditions specified in the NHS Talking Therapies for anxiety and depression manual (2024), with a major emphasis on depression and anxiety disorders. It is recognised that many people experience more than one of these conditions. Mental health conditions treated by NHS Talking Therapies services include but are not limited to:

- Agoraphobia
- Body dysmorphic disorder
- Chronic fatigue syndrome
- Chronic pain
- Depression
- Chronic Depression
- Generalised anxiety disorder
- Health anxiety (hypochondriasis)
- Irritable bowel syndrome
- Mixed depression and anxiety
- Obsessive-compulsive disorder
- Panic disorder
- Post-traumatic stress disorder
- Social anxiety disorder
- Specific phobias

4 Care pathway

There are a range of access routes available into NHS Talking Therapies services including via community care, voluntary care, primary care, secondary care and self-referral. Once the referral is received, the person will undergo a pre-assessment and then a person-centred clinical assessment. A person-centred assessment completed by a trained clinician is a significant part of the NHS Talking Therapies pathway. It should be as efficient as possible for clinicians and as accurate as possible for people who are referred to the service to identify the primary presenting problem and appropriate treatment options. (NHS Talking Therapies for anxiety and depression manual 2024). The appropriate treatment options should be discussed after the clinical assessment appointment has taken place. Therefore, it is important to collect the right information at the pre-assessment stage to inform and facilitate the following clinical assessment.

The pre-assessment process can be divided into two stages. Stage 1 is passive data collection, where basic information and demographics are gathered through triage tools and questionnaires with the data automatically integrated into the EHR. Stage 2 is active analysis and guidance. Using the data collected in Stage 1, further questions are posed for active analysis, supporting the next steps by signposting referred people to the appropriate care path. Demographic information collected in Stage 1 does not need to be repeated.

Potential place of digital front door technologies in the care pathway

Digital front door technologies for NHS Talking Therapies are only used during the pre-assessment stage. Digital front door technologies collect advance screening information about possible presenting concerns that will help inform and facilitate the assessment. This could include:

- routine outcome measures that are part of the NHS Talking Therapies minimum dataset
- screening questions that the NHS Talking Therapies for anxiety and depression manual recommends for signalling the possible presence of different clinical conditions
- administration of the relevant NHS Talking Therapies outcome measures collection in the light of the screening questions
- broader information about the person's presenting difficulties and circumstances that may be important for getting people to the right treatment first time.

This information is collected to facilitate people's subsequent one-to-one clinical assessment with an NHS Talking Therapies clinician to identify the primary presenting problem and appropriate treatment options. It is important that problem descriptors are not allocated until the assessment has taken place. It is therefore inappropriate to offer treatment based on information collected by digital front door technologies alone.

Digital front door technologies can also provide information about NHS Talking Therapies that people may not have received pre-assessment. While waiting for an assessment, some information can be provided to inform people of what to expect from the service and help prepare for their clinical assessment. It could be appropriate to signpost to local or national digital or non-digital resources for people to access, such as free debt counselling services or NHS advice webpages.

5 Considerations and preferences of people using NHS Talking Therapies services

Digital front door technologies could be offered as an option. Alternative pre-assessment options should always be available for those who would rather use them. It should be clear to people that the information gathered is used to help them and their clinicians prepare for the clinical assessment, and that no treatment decisions are made based on the information gathered alone. They should be able to choose to provide detailed information about their problems through the digital front door or, if they prefer, to wait until their clinical

assessment with a clinician. Additionally, the use of AI should be transparent to the service user.

The use of digital front door technologies could enhance people's engagement. People would be able to share information at a time that is convenient for them, and it may help to engage them at the moment when they are seeking help.

Collecting information through a digital front door may allow some people who are not eligible for NHS Talking Therapies to be identified and signposted to other more appropriate services before having the assessment.

User-friendly interfaces and clear guidance on how to use the technology could reduce service user frustration or anxiety, ensuring a positive experience. Additionally, a system for monitoring service user feedback is desirable, allowing for adjustments based on experiences and ensuring the technology continues to meet service users' needs effectively.

6 Comparator

The comparator for this EVA is pre-assessment for NHS Talking Therapies without a digital front door technology.

7 Scope of the assessment

Table 1 Scope of the assessment

Decision question	Does the use of digital front door technologies to pre-assess people before assessment for NHS Talking Therapies have the potential to be effective and value for money for the NHS?
Population	People over the age of 16 with suspected common mental health conditions specified in NHS Talking Therapies for anxiety and depression manual (2024)
Proposed technologies	Digital front door technologies to pre-assess people before assessment for NHS Talking Therapies, which may include: • AskFirst • Censeo • Limbic Access • WYSA
Comparator	Pre-assessment for NHS Talking Therapies without using a digital front door technology
Healthcare setting	Talking Therapies services, delivered in community care, home-based care, primary care or secondary care and virtual/remote

Outcomes	The outcome measures for consideration may include: **<u>Accuracy and acceptability</u>** • Quality and accuracy of the data collected by digital front door technologies • Accuracy of clinical assessment for NHS Talking Therapies • Completion rate of pre-assessment when using digital front door technologies • Inaccessibility to digital front door technology • Healthcare professional user acceptability of digital front door technologies **<u>Resource and system impact</u>** • Administrative resource impact • Time taken to review data collected by digital front door technologies • Time taken to complete clinical assessment • Time saved for the clinician during clinical assessment
	Service user reported outcomes for consideration may include: • Ease of access and usability • Information clarity and relevance • Comfort and privacy • Overall satisfaction with pre-assessment process
	Costs will be considered from an NHS and Personal Social Services perspective. Costs for consideration should include: • Costs of the technologies • Initial setup and integration costs • Operational costs (if falling on the NHS rather than the technology provider) such as IT support for healthcare professionals and service users and cybersecurity • Training costs • Cost of promotion • Costs of applying digital clinical safety assurance DCB0129 – Clinical Risk Management: its Application in the Manufacture of Health IT Systems
Time horizon	The time horizon for estimating the efficacy and value for money should be until the end of the NHS Talking Therapies assessment only.

8 Other issues for consideration

Characteristics of digital technologies

- The digital technologies included in the scope may differ in terms of mode of delivery and access (mobile applications, computer, website), type of information gathering (online forms or AI chatbots), and the integration of information produced into existing NHS systems.

Need for trained clinicians for assessment

- Appropriate treatment options should be discussed after the assessment appointment has taken place. It is understood that in some areas, digital tools are being used to circumnavigate assessment, enabling people to access digitally enabled therapy treatment directly before their assessment with an NHS Talking Therapies clinician has taken place. This is not compliant with the NHS Talking Therapies manual. Everyone requires an assessment with an appropriately trained clinician to identify appropriate treatment options.

Potentially offered to people aged 16 or 17

- Some NHS Talking Therapies services provide treatment for young people aged 16 or 17. Anyone working with a child or young person should:
    - Be trained to work with under 18s
    - Understand their developmental needs and the differences in presentation between children, young people and adults
    - Be aware of relevant legislation and safeguarding
    - Use outcome measures validated for this age group
- While local practice may vary, this EVA will only look at digital front door technologies in people aged 16 and over who are being pre-assessed for NHS Talking Therapies services. Any recommendations made will be in line with individual technologies' approved age ranges.

Risk management

- When implementing digital front door technologies, it is essential to manage potential unintended consequences and risks carefully. The technologies should ensure data privacy and security, and sensitive personal information must be protected with robust protocols and

regular security audits. Mental health services handle highly confidential data, and any breach could harm people's trust and compliance. There may be concerns regarding how people's data is stored, accessed, and protected, especially with third-party digital services. Digital front doors' adherence to GDPR and NHS digital security standards will be crucial. Improper handling of personal information could expose the system to legal risks. The technologies should ensure data privacy and security, and sensitive personal information must be protected with robust protocols and regular security audits.

- To maintain the accuracy of collected information, assessment tools in the technologies should be validated and updated when required, reducing the risk of misinterpretation that could lead to inappropriate referrals.

Ongoing studies

Limbic Access

Evaluate Treatment Outcomes For AI-Enabled Information Collection Tool For Clinical Assessments In Mental Healthcare (NCT05495126)

The proposed study aims to test an AI-prototype which adaptively collects information about a person's mental health symptoms at the time of referral in order to support and facilitate the clinical assessment. The AI-system consists of a machine learning model which produces a probabilistic prediction about a person's most likely presenting problems based on standard referral information collected through Limbic Access. For this trial, the AI-model will only function as a support tool for the clinical assessment by collecting additional data ahead of time. The investigators are evaluating if the AI supported information collection improves treatment outcomes, reliability of clinical assessment, reduces waiting and assessment times as well as reduces treatment dropout rates. The location of this study is in Gosforth, UK. The estimated study completion date is 10th December 2024.

9 Potential equality issues

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Age, sex, disability, race, and religion or belief are protected characteristics under the Equality Act 2010.

National data (NHS Talking Therapies for anxiety and depression manual) indicates that the following groups tend to be under-represented in NHS Talking Therapies for anxiety and depression services:

- People who have disabilities, including people with autism and people with hearing impairments
- Lesbian, gay, and bisexual people
- Transgender people
- Men
- Older people
- People from ethnically and culturally diverse communities
- People for whom English is not their first language
- People with caring commitments
- People from deprived communities, including those who are on low incomes, unemployed or homeless
- People with learning disabilities
- People in prison or in contact with the criminal justice system
- Refugees and asylum seekers
- Serving and ex-serving armed forces personnel
- People with specific anxiety disorders such as social anxiety, specific phobias, obsessive-compulsive disorder, and PTSD
- People with long-term physical health conditions
- People with addictions, including gambling and substance misuse.

The NHS Talking Therapies Review (2023) identifies barriers in access to care, particularly for people from Black and other minority ethnic backgrounds. Compared to people from White British backgrounds, they are less likely to access services, and experience longer waits. The data also showed that poorer outcomes were experienced by people from South Asian communities, in particular from Bangladeshi backgrounds. People of mixed ethnicity, mostly White and Black Caribbean, are the least likely to access these services. The comprehensive assessment review – 'Ethnic Inequalities in Improving Access

to Psychological Therapies (IAPT)' noted poor outcomes can be tackled and even disappear when access is improved, and culturally sensitive therapy is provided. People from Black African backgrounds using NHS Talking Therapies services were sometimes more likely to improve and recover in comparison with people from White British backgrounds.

Services using a digital solution had a higher referral rate, particularly among gender and minority ethnic backgrounds (Habicht et al. 2024). Personalised AI-enabled chatbots could increase self-referrals to mental health services without negatively impacting wait times or clinical assessments. -
A 39% increase was observed for Asian and Asian British individuals, alongside a 40% increase for Black and Black British individuals in services using the chatbot. Digital front door technologies may help close the accessibility gap to mental health treatment (Meadows, 2024).

NHS Talking Therapies Positive Practice Guide: Older People (2024) stated that mental health conditions such as anxiety disorders and depression significantly impact older people's quality of life, increase healthcare costs, and strain NHS services (Frost et al. 2019). Despite making up 20% of the population, older people accounted only for 5.6% of all referrals to NHS Talking Therapies in 2021/22, although this varies across the country (NHS Digital, 2022), far below the expected 12%. Barriers include limited access to age-friendly self-referral routes and potential exclusion due to technology. Technology can be a barrier and result in exclusion; however, assuming lack of IT skills or potential in older people can also be discriminatory (Health Education England, 2020). Services should better meet the needs of older people by recognising and challenging negative attitudes and stereotypes of ageing.

Digital front door technologies are used through a mobile phone, tablet, or computer. People will need access to a device with internet access to use the technologies. Additional support and resources may therefore be needed for people who are less comfortable or skilled at using digital technologies or may not have access to appropriate equipment or internet and may prefer another treatment option.

People's ethnic, religious, and cultural background may affect their views of mental health conditions and interventions. People from disadvantaged socio-economic backgrounds may be excluded from digital services. Some people may prefer to use digital technologies due to difficulties getting to in-person appointments, for example if they do not have access to a car and have poor public transport.

People with visual, hearing, or cognitive impairment; problems with manual dexterity, a learning disability, or who are unable to read or understand health-related information (including people who cannot read English) may need additional support to use digital technologies. Some people would benefit from digital front door technologies in languages other than English. The use of language in digital front door technologies should be considered. It is essential to use words that are inclusive, respectful, and free from bias. Avoiding jargon and complex language ensures that information is accessible to people with varying literacy levels. Additionally, being mindful of cultural sensitivities and using respectful, empathetic wording fosters inclusivity, especially when discussing sensitive topics like gender, mental health or socioeconomic status.

10 Potential implementation issues

Integration with existing systems

Integrating digital front door technologies with existing EHR systems or other clinical management systems can be complex and costly. Misalignments could lead to delays in service delivery or communication errors. Some systems may not support newer digital technologies without significant updates or adaptations. Costs need to be considered when integrating with the existing systems. Streamlining information flow is also vital to prevent overwhelming clinicians with irrelevant data, which could otherwise increase their administrative burden.

Staff training

Staff training is required to use digital front door technologies to ensure smooth adoption and utilisation. The staff should be informed of updates about new features, changes to validated measures used, or improvements in the technology. Time needs to be allocated for the completion of training and staff users need a good understanding of the content available in each technology in order to appropriately use them. Further training could be around how to integrate pre-collected information from digital front doors into clinical assessment appointments. This could include more flexible questioning in the pre-assessment, more flexibility in the delivery method, and appropriate time to undertake the clinical assessment. It is important to consider whether provided staff training will have a sustained impact and remain effective in the long term.

11 Authors

Ziqi Zhou

Health Technology Assessment Analyst (topic lead)

Amy Crossley, Evan Campbell

Health Technology Assessment Adviser

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Appendix A Glossary of terms

Artificial intelligence

Artificial intelligence is the ability of a computer system to perform human cognitive functions. In the context of this topic, artificial intelligence is used to streamline access, engagement, and initial assessment for mental health services like NHS Talking Therapies.

Egton Medical Information Systems

Egton Medical Information Systems supplies electronic patient record systems and software used in primary care, acute care and community pharmacy in the United Kingdom.

Electronic health records

Electronic health records are the systematised collection of patient and population electronically stored health information in a digital format. These records can be shared across different health care settings.

Appendix B Abbreviations

AI	Artificial intelligence
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
DTAC	Digital technology assessment criteria
EHR	Electronic health records
EVA	Early value assessment
GAD	Generalised anxiety disorder
GAD-7	Generalised anxiety disorder 7 item scale
GDPR	General Data Protection Regulation
IAPT	Improving Access to Psychological Therapies
ICD-11	International Classification of Diseases 11th Revision (ICD-11) and Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
PHQ-9	Patient health questionnaire 9 item scale
RCT	Randomised controlled trial
UKCA	UK Conformity Assessed

Appendix C References

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