The Use of Artificial Intelligence to Support Triage and Navigation in the NHS: a multi-method, rapid evaluation

Study Protocol

Version 1.4

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Chief Investigators: Sara Shaw[1] Sonja Marjanovic[2]

Evaluation team: Stephanie Stockwell[2], Nikki Newhouse[1], Anica Alvarez Nishio[3], Ruth Ajayi [3], Eleanor Barry[1], Natassia Brenman[1], Francesca Dakin[1]

1 University of Oxford, Nuffield Department of Primary Care Health Sciences

2 RAND Europe, Health and Care

3 Patients and communities representative

Summary

Background

Timely patient access to healthcare services, to the right care and in the right place, is a key policy priority. At first contact with the NHS, patient triage involves the collection and review of information to prioritise patients according to the urgency and nature of their needs, in order to direct them to the most appropriate service.[1, 2]

Triage can happen in diverse ways. For example, it can involve clinical assessment or support by non-clinical staff such as reception teams and care navigators who help route patient requests. It can happen via telephone services and 'walk-ins' in community pharmacy or via general practice reception teams, and it can be digitally assisted. In digitally-assisted triage, digital tools such as online forms, machine learning algorithms and artificial Intelligence (AI) can help collect data and direct patients to appropriate services. These range from deterministic algorithms following a largely linear approach to symptom assessment (as is the case with NHS 111 triage) to hybrid models used in much of general practice which combine digital, telephone and in-person assessment.[7–9] In more recent times, we have seen a growing interest in AI-enabled triage systems that draw on multiple data sources (e.g. patient requests, medical records, system capacity) and combine machine learning approaches with rule-based clinical logic to analyse incoming requests, assess urgency, and suggest potential care pathways. At present, final decisions remain subject to human review. An ambitious vision for fully automated triage AI systems that could function without human oversight is being discussed in policy and technology development contexts, but there are many uncertainties to resolve before this could potentially become used in practice.[1]

The growing recourse to digitally-assisted triage, including the use of AI, is driven by perceived benefits for some patients (e.g. convenience and speed of access, improved accessibility for some patients[16]), and for the NHS (e.g. supporting demand management, efficiency in triage decisions, reducing cognitive load for staff[21,24] and improving demand redistribution). There is also increasing policy interest in the development of large-scale digital "front door" models that integrate multiple access routes into a unified navigation system delivered through telephony or digital platforms like the NHS App.[14] Any such effort would need to consider the interaction of AI-enabled triage with other access, triage and navigation services. This is key for mitigating inequalities in access.

Fully capturing the benefits of digitally-assisted triage and managing risks and challenges is not straightforward. Triage decisions are shaped by interactions between digital tools, NHS staff and workflows, and patient abilities to navigate access and triage pathways. In terms of AI-enabled triage, literature and insights gained through scoping conversations during the development of this protocol flag variable tool accuracy[12,13] and diverse influences on implementation. These include patient and healthcare professional trust and confidence in engaging with AI-enabled tools;[20,21] unpredictability in how humans will engage;[9,22,23] digital and data infrastructure, interoperability and linkage challenges;[17,28] the need to manage risks of errors that can result in under or over triage;[29] and various requirements related to establishing clear technology standards, governance and accountability frameworks, ccommissioning criteria and processes, and good practice in evidence-generation, evaluation and monitoring. There are also important questions pertaining to how AI-enabled tools can interact with other existing triage services (e.g. NHS 111, other access and triage routes in general practice and potentially social care). Significant concerns about equity and inclusion also arise (both as it relates using the tools and related to data the tools are trained on).[17–19]

Any consideration of AI-enabled triage needs to build on evidence, recognising both the opportunities offered by digital systems and the continuing need to support inclusive, flexible and human-mediated access pathways. However, the existing evidence base on AI-enabled triage is limited, though rapidly developing (much like the tools themselves). Much of the existing literature focuses on hospital-based settings, such as emergency department triage or clinical decision support tools for diagnosis and referral. Evidence on the use of AI-enabled triage at the first point of contact with healthcare systems, and particularly in primary care contexts, remains limited.

Aims, objectives and research questions

This rapid evaluation will focus on AI-supported triage and navigation at the point of first contact with the NHS, particularly within primary care pathways and in an evolving technological and policy context. More specifically, the evaluation aims to (i) examine the current and potential role of AI in supporting triage and navigation in the NHS in the context of optimising AI and digitally-enabled triage pathways, and (ii) to provide practical and formative recommendations for policy and practice looking to design, embed, scale and sustain AI-enabled triage pathways.

Our focus is two-fold: (i) on the one hand considering the use of AI within current triage systems at first point of contact with the NHS (largely focusing on general practice and primary care), and on the other (ii) considering future design and implementation in light of rapidly evolving AI-enabled triage systems, the intersections with wider NHS data and platforms (e.g. relating to NHS 111, Single Patient Record) and triage via national portals like the NHS App.

Our objectives are to:

1) Understand the current and evolving landscape (drivers, what AI-enabled triage in primary constitutes, variety of supplier offers, functionalities and use cases);
2) Explore how and why AI is currently being used (and when and why it’s not) to support triage, how this shapes triage processes, access pathways and workflows;
3) Understand the future vision for AI-enabled triage in primary care (i.e. what good could look like) and how to achieve it;
4) Assess opportunities, challenges and risks associated with the integration of AI triage/navigation into the NHS App as planned key infrastructure (including risks of inequity, safety concerns, or unintended consequences), their mitigation and management; and
5) Develop evidence-based recommendations and resources for policy, practice and research, to help inform strategic and equitable development of AI-enabled triage in primary care.

Reflecting these aims, our core questions are:

1. What is AI-enabled triage (i.e. what does it constitute), how do different stakeholders understand and envision AI-enable triage, and why the growing interest in its use in the NHS?
2. What is the evolving landscape of technologies and suppliers like at present in the UK and what is it likely to look like in the near-term future?
3. How is AI-enabled triage being used in the NHS at present, how well is this working (including in relation to issues of equity and access), how is it being evaluated and monitored, and what influences effective implementation, use and impacts?
4. What would a vision for 'good AI-enabled triage' in primary care look and feel like across stakeholder groups (e.g. patients, providers/staff, suppliers, system leads/policy), and how can it be achieved in ways that meet the common and unique needs of different stakeholders, helps address and does exacerbate inequalities (considering issues of candidacy and equity)?
5. How can AI-enabled triage in primary care be integrated with AI triage into the NHS App, in a way that mitigates and manages risks of inequity, safety concerns, or unintended consequences?

Design and methods

The project will be carried out in the tradition of developmental, formative process evaluation. Data collection will take a theoretically-informed, multi-method approach guided by the NASSS (non-adoption, abandonment and challenges to scale up spread and sustainability) framework for technology-enabled care as an analytical tool, to surface and explain the challenges and complexities in technology-supported service change.[31] We will also be sensitised by digital candidacy theory[22] to help us consider issues of equity and inclusion; infrastructure theory to help draw out how AI-enabled systems operate within large, interdependent systems;[32,33] and sociotechnical systems perspectives in innovation studies to help us explore the dual roles of locally-driven experimentation and system level orchestration in influencing adoption, spread and scale.[34–36]

The project will be delivered through four core work packages:

- **Work package 1 will focus on understanding the current landscape and scoping opportunities for improved practice.** Following the set-up of project governance and inception activities, we will examine what AI-enabled triage constitutes; why the growing focus on it in the NHS and what it is hoped that AI-enabled triage will achieve; what the current landscape of technologies and suppliers is like; what influences implementation and impacts; and who benefits from or bears the burden of these impacts. We will also begin to understand what different stakeholders might see as good practice going forward, considering their perspectives on what is working well and what needs improvement in existing examples of primary care AI-enabled triage. This work package will entail a combination of literature review, desk-based analysis of the technology and supplier landscape, key informant interviews with patients, healthcare professionals and other experts, as well 'go along' interviews with primary care staff to understand the work associated with AI-enabled triage in situ;
- **Work package 2 will focus on establishing a vision (one or more) for what good practice for AI-enabled triage in the NHS could look like and identifying actions to achieve it, in a way that surfaces and helps reconcile the perspectives of different types of stakeholders.** This will be enabled through visioning and back-casting approaches. [38–40] Consideration of inequalities and

pragmatic and logistical barriers will be front and centre of enquires. Consistent with the overall project, the focus will be on first contact AI-enabled triage in primary care, but we will also consider how this relates to evolving plans for triage via the NHS App and interfaces with other first contact triage services (e.g. such as NHS 111). Through stakeholder workshops with patients/carers and the public; providers and healthcare professionals; regional and national policy and systems leads; and technology suppliers, we will establish what good practice might constitute and consider actions which relate, not only to the system as is, but also to the system as it may become in the next 3-5 years (e.g. in relation to the NHS App, the shift towards more regionally commissioned and delivered care, evolving regulation, data landscapes and technological capabilities);

- **Work package 3 will focus on engaging patient perspectives on AI-enabled triage, including co-design of practical and accessible resources that can support patients in accessing, using and navigating AI-enabled triage.** We will engage with patient voices, issues of equity, access, digital candidacy and pragmatic barriers, and learn from lived experiences of diverse people and communities. We will build on insights from prior work packages, collaborate with and attend community-based workshops (delivered under a parallel programme of work on equity and AI-enabled triage in primary care which one of our co-applicants is involved with), and work with our design partner to co-design resources for patients, including in light of developments in unified triage via the NHS app the evolution of AI-enabled triage technology;
- **Work package 4 will cross-analyse, synthesise and translate findings from the diverse data sources across the evaluation into a final set of outputs,** including an articulated vision(s) for good practice and recommendations for policymakers, providers, patients and suppliers involved in AI-mediated triage pathways.

Timelines for delivery

Project set-up is expected to complete in May 2026, with the evaluation lasting 9 months and expecting to complete by end January 2027.

Anticipated dissemination and impact

A range of outputs and activities will support ongoing as well as final dissemination and impact. In terms of final outputs, we will produce co-designed resources for patients to explain what AI-enabled triage is and what to consider when engaging with AI-enabled triage in primary care; a slide deck; webinar; policy brief and commentary. We will also produce an academic journal article (as contractually required by the funder). We will regularly feedback findings and share emerging insights with our policy customer (verbal and written updates). Ongoing interim working documents will help provide formative feedback. We may engage in other dissemination activities such as conferences, commentaries social-media related engagements.

Background and rationale

Patient triage in the NHS: diversity and an evolving context

At first contact with healthcare services, effective navigation and triage are critical to ensuring that patients receive the right care, at the right time and in the right place.[1] Across the NHS, triage typically involves the collection and review of information to prioritise patients according to the urgency and nature of their needs.[2] In primary care and other first-contact entry points to the NHS, triage is often concerned less with diagnosing conditions and more with identifying the nature of a patient's request and directing them to the most appropriate service. Terms such as 'care navigation', 'access triage' or 'demand management' are sometimes used interchangeably, and highlight this broader framing of routes into care, though triage specifically concerns prioritising requests according to urgency.

Triage operates within diverse organisational and technological arrangements. In some contexts, triage involves clinical assessment and decision-making, in others it is supported by non-clinical staff such as reception teams or care navigators who help sort and route patient requests. COVID-19 accelerated adoption of remote access routes, meaning patients can now initiate contact via national digital portals (such as the NHS App and NHS 111 online), telephone-based services, 'walk-ins' such as community pharmacy or general practice reception teams and online consultation platforms. This is largely assisted triage, in which digital forms/tools collect data (either patient input online or via a receptionist), and a human decides on the action required. These different entry points shape the ways in which patients are enabled to engage with, and access, services; and reflect the reality that first contact is shaped not only by clinical urgency, but also by how patients then also articulate their needs. For instance, digital symptom checkers used both nationally and in local systems have shown variable accuracy (approximately 48–90%), which can lead to under- or over-triage depending on how symptoms are reported and interpreted.[3–6]

Amid growing demand, workforce shortages, increasing complexity of patient needs and increasing forms of subtle digital exclusion, triage and navigation play a critical role in supporting patient access and ensuring appropriate use of NHS resources. This rapid evaluation will focus on AI-supported triage and navigation at the point of first contact with the NHS, particularly within primary care pathways and in an evolving technological and policy context. Understanding the context of existing first contact and triage pathways is important for situating AI-supported triage and navigation as new tools are introduced across the NHS, particularly within national portals and digital front-door initiatives, and for ensuring that they deliver effective savings and efficiencies rather than creating downstream risk and increased human and financial cost.

First contact and triage pathways in UK primary care

NHS 111, the largest national triage initiative in England, uses deterministic algorithms based on NHS Pathways and clinical safety standards that follow a structured, largely linear approach to symptom assessment. Much of this process is automated, though human call handlers and clinicians remain involved in some cases. To manage clinical risk, these systems may over-triage patients to higher levels of care as a precaution when information is limited, highlighting the need to evaluate, not only accuracy, but also the downstream effects of different triage patterns on service demand.

Alongside national services, substantial changes have occurred within general practice, which remains a major entry point into the NHS. During the COVID-19 pandemic, many practices adopted “total triage” models, initially handling all requests remotely. Practices now tend to use hybrid models blending digital, telephone and in-person assessment.[7–9] These approaches create opportunities (e.g. demand management, convenience), but also introduce new (and often hidden) work for staff in reviewing, prioritising and routing patient requests across different care pathways and (often hidden) barriers to patients inadvertently but effectively barring them from accessing services.

Research across these settings suggests that triage decisions rarely occur at a single moment or location but emerge through processes distributed across technologies, staff and organisational workflows. This has been described as ‘triage choreography’,[10] highlighting how patient requests must be actively organised as they move through digitally enabled systems of access and decision-making. This research is part of a growing evidence base that highlights the need to consider equity of access if digitally enabled triage systems are to become the new ‘front door’ to the NHS. Many hidden barriers are embedded within existing digital access tools, and we must proactively interrogate future digital solutions to ensure these are not repeated or expanded.

Equitable access and the realities of digitally mediated triage

Research on digital triage and remote access has raised significant concerns about digital inclusion and equitable access to NHS services. Digitally mediated triage can offer clear benefits for some patients (e.g. greater convenience, faster access for straightforward requests, reduced travel burden) and benefits to the system (support demand management and improve routing of patient requests). However, these benefits have not been evenly distributed, particularly for patients facing overlapping forms of disadvantage such as limited digital literacy, language barriers, disability, unstable internet access or complex social circumstances. The interaction of multiple structural and social factors shape patients’ ability to recognise need, articulate problems and successfully navigate digital access pathways.[11] Widening disparities between patients with and without confidence using digital technologies for healthcare have raised concerns about the emergence of a “digital inverse care law”.[7] Even patients with greater confidence and fewer complexities often face basic challenges, e.g. forms based on illogical or inappropriate decision trees, forms with ‘time out’ or basic impairments of manual dexterity or visual acuity. As such, many general practices continue to operate hybrid access models. Access to care is shaped, not only by whether digital tools are available, but also by how triage workflows are organised in practice. Decisions about urgency, modality and routing are distributed across multiple actors - including reception staff, clinicians and digital platforms - requiring ongoing coordination to ensure that patient requests move through the system effectively.[10]

This highlights that digital triage systems are sociotechnical arrangements that must accommodate multiple routes into care. Any consideration of AI-enabled triage needs to build on this evidence, recognising the opportunities offered by digital systems and the continuing need to support inclusive, flexible and human-mediated access pathways.

AI-enabled triage: emerging and future uses

Interest in AI-enabled triage is growing as part of wider developments in digital and remote access. AI-enabled triage systems draw on multiple data sources (e.g. patient requests, medical records, system capacity), use of algorithms - often combining machine learning approaches with rule-based clinical logic - to analyse incoming requests, assess urgency, and suggest potential care pathways. In these models, artificial intelligence structures and prioritises information, but final decisions remain subject to human review. Recent comparative analyses suggest that AI-driven self-triage tools and symptom-assessment applications demonstrate moderate but highly variable accuracy across clinical scenarios.[12,13] This suggests that the value of these systems depends heavily on the specific context in which they are used, the users' values, intersectional identities, and capabilities, the populations they serve, and how they interact with existing clinical workflows. Fully automated triage represents a more ambitious vision in which AI systems could independently route requests, allocate appointments or recommend services with minimal human oversight. While this vision is increasingly discussed within policy and technology development contexts, such systems are not currently widespread in NHS triage pathways and still face uncertainty about regulation, safety and liability.[1]

Beyond individual practices, there is also increasing policy interest in the development of large-scale digital "front door" models that integrate multiple access routes into a unified navigation system. Virtual front doors - delivered through telephony systems or digital platforms, like the NHS App - are envisioned as interfaces through which patients can access healthcare services and be directed to appropriate levels of care.[14] The vision is one where these systems incorporate AI capabilities to guide navigation across primary care, urgent care and community services at scale, particularly within a context of rising demand and workforce shortages. Such models are often framed as mechanisms to improve patient experience, enhance system efficiency, and optimise the use of healthcare resources.[15] However, to function as intended, these new technologies rely on patients' ability to understand and use them, integration into existing technological and clinical workflows, and regulation to ensure the safety of their use and integration within systems which hold sensitive patient data.

Evidence on the potential role and implementation of AI-enabled triage

Although large-scale implementation currently remains limited, a growing body of literature explores the potential roles that AI-enabled triage systems may play within healthcare systems, and considerations for implementation and scale. Whilst this literature requires structured searching, analysing and synthesising, some preliminary observations relate to:

- **Accessibility and equity**: potential for increased accessibility for some patients (through the ability to interact in multiple languages, perceived neutrality of technology when discussing sensitive issues),[16] potential for more consistent triage of patients across clinicians and locations, but also concerns over equity and inclusion (both in using the tool and related to data the tool is trained on);[17–19]
- **Trust**: patients' and professionals' trust and confidence in something unfamiliar may lead to scepticism or over-estimation of AI capabilities;[20,21]

- **Unpredictability of human behaviour**: AI systems function best with certainty (e.g. patient input data, clinical data input, and human decision making),[9,22,23] while AI-enabled triage is nested in a system of complexity and uncertainties, and human behaviour is inherently unpredictable, potentially impacting outputs;
- **Reduced administrative burden**: this can be an important value proposition for healthcare workers in supported clinical decision making, for improving efficiencies and reducing cognitive load,[21,24] however digital systems often offer false savings, delivering first-order efficiencies at the expense of second-order ones;[25]
- **Demand redistribution**: routing patients to most appropriate service for their need acuity leading to anticipated system efficiencies; [1,19,26,27]
- **Digital infrastructure and interoperability**: challenges flagged in the literature range from restricting inputs (e.g. drop downs/codes that do not match reality neatly) to data access limitations, heritage technology, cyber risk and health systems' inability to keep pace with rapidly evolving technical advances;[17,28]
- **Safety, accuracy and accountability**: there are risks of errors resulting in under- or over-triage with implications for patient safety and resource use,[29] although how this compares to triage done by humans merits further research.

Why is this evaluation important and needed now?

Primary care has long been the gatekeeper for access to the NHS. However, the NHS 10-year plan sets out a vision for the NHS App, with the use of AI, to potentially support navigation and triage for non-urgent care (e.g. via 24/7 advice, routing).[30] The concept of a unified navigation system aims to break down silos between NHS services and to produce a single, coherent pathway that better manages patient flow across the whole system. The intention here is to improve efficiency and patient experience and reduce pressure on parts of the NHS.

Despite the policy vision, the existing evidence base is limited, though rapidly developing (much like the tools themselves). Much of the existing literature focuses on hospital-based settings, such as emergency department triage or clinical decision support tools for diagnosis and referral. Evidence on the use of AI-enabled triage at the first point of contact with healthcare systems, particularly in primary care contexts, remains limited and often focuses on hypothesised (rather than evidenced) benefits.[20] In addition to the evidence set out above, insights from stakeholder scoping discussions (N = 20; roles included clinicians, policy makers, industry, those with experience in innovation in the NHS, NHS triage processes generally, AI-enabled triage, and those with technical expertise in digital and AI) conducted during the development of this proposal highlight several other themes of relevance for AI-enabled triage:

- **Technology performance and standards:** a range of tools and platforms that advertise themselves as AI-enabled are beginning to be used in practice (e.g. Klinik, Visita, Patchs AI), however it can be difficult to discern the robustness and comparative consistency of these tools beyond advertising. The landscape is also rapidly evolving. Clear standards pertaining to technology specifications could help mitigate against unwarranted variation in quality of technology offers and services (e.g. minimum functionalities and regulatory requirements)

- **Governance, standards and accountability**: concerns relate to liability and accountability; While current regulatory frameworks generally place liability for clinical decision-making within healthcare organisations, the introduction of autonomous AI systems could complicate these arrangements. Governance-wise, it also remains unclear how responsibility would be allocated between healthcare providers, technology developers and regulators if autonomous systems were introduced into triage pathways;
- **Regulation**: questions about the regulation and updating of AI systems persist. Some regulatory approaches (e.g. use of predetermined change control plans in the United States), allow software updates within defined boundaries without requiring full regulatory reapproval. However, continuous-learning AI devices are not currently implemented within UK healthcare settings;
- **Data infrastructure and linked datasets:** optimising the performance of AI-enabled triage relies on access to high quality linked data sets, extending beyond patient requests, medical records and system capacity to potentially include behavioral and lifestyle data, which entail concerns around privacy. Up to date directories of local services are also key to appropriate triage considering local capacities and contexts;
- **Interaction of AI-enabled triage with other access, triage and navigation services**: the policy ambition is to develop a unified access model for navigating health services, via the NHS App, i.e. acting as a central access point through which patients navigate and access NHS services. With AI-enabled triage embedded, important questions arise regarding how these tools interact with existing services, including NHS 111, general practice access routes and potentially social care systems;
- **Commissioning of technology and services:** there are important considerations around the level (national, regional, provider) at which triage tools/platforms are commissioned and any tensions across these; also related to establishing clear commissioning criteria to guide informed decision-making, including as it relates to minimal technology functionalities, APIs, modular architecture, and Electronic Patient Record (EPR) integration;
- **Good practice in evidence generation, evaluation and monitoring**: with challenges to generating the evidence that’s needed in a timely way, and in the context of both a rapidly evolving technology and supplier market, and diverse approaches to adoption and use. This is combined with development of local and national systems to support AI-enabled triage and navigation that require thinking about current and future evaluation and monitoring of both technologies and implementation processes and their outcomes and impacts. (While this evaluation does not focus on metrics and evaluation frameworks, it will draw out learning of relevance to future efforts to establish evaluation and monitoring frameworks, in particular as they relate to implementation pathways and processes).

Together, these complexities and uncertainties highlight the importance of independent evaluation of AI-enabled triage systems in real-world healthcare settings. The market for AI-enabled triage systems is rapidly expanding, and they are increasingly regarded as essential infrastructure to address some of the challenges facing the NHS. The NHS is a trusted body and maintaining that reputation is essential to its function. Therefore, as these technologies are already being implemented, there is an urgent need to better understand the evidence base on the current use and impact of AI-enabled triage in health care, what the future vision for its use and anticipated impacts might be (including any equity risks they may introduce or compound), and how this vision might be achieved.

Who is the evaluation aimed at?

This rapid evaluation is primarily aimed at informing Department of Health and Social Care (as the policy customer) and NHS England strategy in relation to the design, implementation and scaling of AI-enabled triage services in primary care, including in relation to the NHS App. The insights gained will also be of relevance of technology developers in the context of establishing offers that are aligned with NHS and patient needs, as well as regional system leaders and providers looking to commission and implement AI-enabled triage pathways. The evaluation will also produce resources of relevance to service users to help enable safe and effective engagement with AI-enabled triage interfaces.

Evaluation plan

This rapid evaluation seeks to provide novel insights about how AI-enabled triage pathways can be effectively designed and implemented to deliver benefits both for patients and the health and care system. Findings are intended to inform policy and practice related to the implementation, sustainability and scale of AI-enabled triage, and ensure that AI-enabled triage pathways (where the first point of contact is primary care, broadly conceived) are grounded in the perspectives of those who use, implement or are affected by them. It complements other NIHR-funded research in this space, including a 3 year HSDR funded study focusing on evaluation of PATCHS AI.

Our focus is specifically on AI-enabled triage at the first point of contact with the NHS. Our focus is two-fold: on the one hand considering current triage systems and the use of AI within them (largely focusing on general practice and primary care), and on the other considering future design and implementation in light of the rapidly evolving nature of AI-enabled triage systems, the intersections across wider NHS data, platforms and architecture (e.g. relating to NHS 111, Single Patient Record) and the design and implementation of AI-enabled navigation and triage via national portals like the NHS App.

Aim, objectives and questions

This rapid evaluation aims to: (i) examine the current and potential role of AI in supporting triage and navigation in the NHS in the context of optimising AI and digitally enabled triage pathways, and (ii) to provide practical and formative recommendations for policy and practice looking to design, embed, scale and sustain AI-enabled triage pathways.

Our objectives are to:

1. Understand the current landscape in terms of what drives the growing interest in and concern around AI-enabled triage in primary care, what AI-enabled triage constitutes (focus, scope and scale of uptake), and the evolving technology and supplier landscape in the UK in terms of the variety of offers, functionalities and use cases.
2. Explore how and why AI is currently being used (and when and why it’s not) to support triage, and how this is shaping triage processes, access pathways and workflows in primary care.

3. Understand the future vision for AI-enabled triage in primary care, ‘what good would look like’ and how to achieve it, from the perspective of diverse stakeholders, including identifying synergies and blockages/idiosyncrasies and means to address these.
4. Assess opportunities, risks and challenges associated with the integration of AI triage/navigation into the NHS App, as planned key infrastructure that can be deployed for triage use cases and how the risks of inequity, safety concerns, or unintended consequences can be mitigated/managed
5. Develop evidence-based recommendations and resources for policy, practice, and future research, including informing the strategic and equitable development of AI-enabled triage in primary care

The questions that this rapid evaluation addresses are:

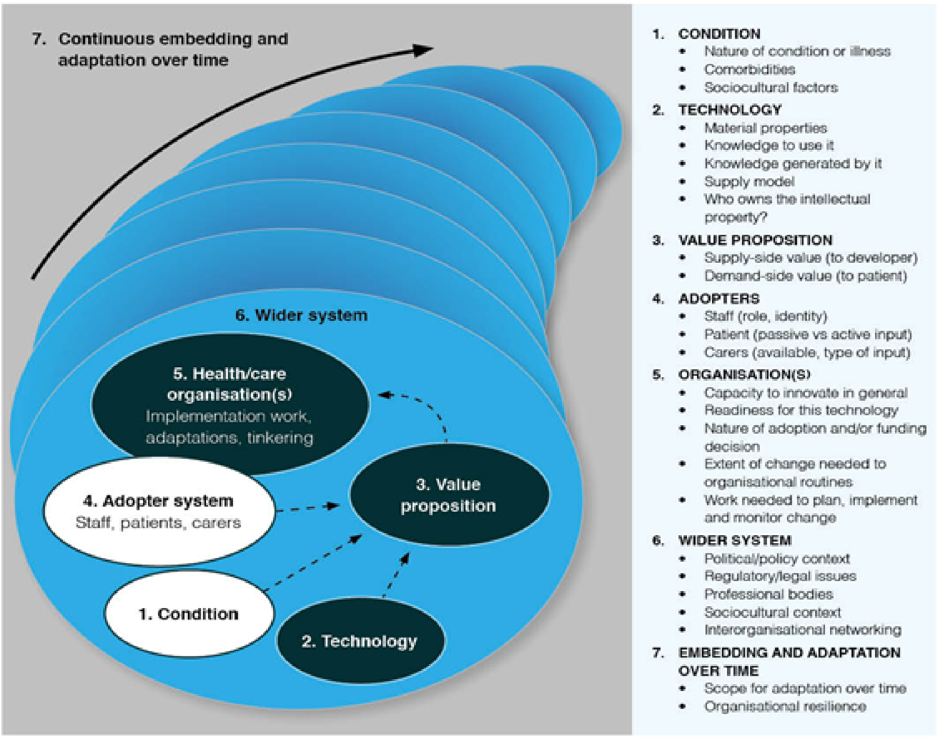
1. What is AI-enabled triage (i.e. what does it constitute), how do different stakeholders understand and envision AI-enable triage, and why the growing interest in its use in the NHS?
2. What is the evolving landscape of technologies and suppliers like at present in the UK? What is it likely to look like in the near-term future?
3. How is AI-enabled triage being used in the NHS at present, how well is this working (including in relation to issues of equity and access), how is it being evaluated and monitored, and what influences effective implementation, use and impacts?
4. What would a vision for ‘good AI-enabled triage’ in primary care look and feel like across stakeholder groups (e.g. patients, providers/staff, suppliers, system leads/policy), and how can it be achieved in ways that meet the common and unique needs of different stakeholders, and ensure it helps address and does not exacerbate inequalities (considering issues of candidacy and equity)?
5. How can AI-enabled triage in primary care be integrated with AI triage into the NHS App, in a way that mitigates and manages risks of inequity, safety concerns, or unintended consequences?

Design and methodology

Given AI-enabled triage is evolving and gradually being rolled-out, the project is being carried out in the tradition of developmental, formative process evaluation. Data collection will take a theoretically-informed, multi-method approach guided by the NASSS (non-adoption, abandonment and challenges to scale up spread and sustainability) framework for technology-enabled care.[31] In line with our attention to patient voices in AI-enabled triage and existing and potential access, equity, and inclusion challenges, we will additionally be sensitized by digital candidacy theory.[22] Infrastructure theory will guide us to draw out how AI-enabled systems operate within large, interdependent systems, and the ways in which it might be possible to build on the existing technologies, practices, and institutional arrangements.[32,33] Sociotechnical systems perspectives in innovation studies, and specifically the multilevel perspective on transitions, will help us explore what is needed for AI-enabled triage to scale from experimental innovation in ‘niches’ (settings with particularly favourable technological, social and policy conditions) to more widespread use. It will explore the roles of both locally-driven experimentation and system level orchestration of innovation in influencing adoption and scale efforts.[34–36]

The NASSS framework was developed by our team and serves as an analytical tool to surface and explain the challenges and complexities in technology-supported service change.[31] It includes seven interacting domains: the condition or illness, technology, value proposition, adopter system (intended users), organisation(s), wider system (e.g. regulatory, legal and policy issues) and emergence over time (see Figure 1 below). These domains will initially guide data collection (e.g. interviews, stakeholder workshops) and analysis. Based on learning from wider DECIDE work and scoping to date, we will consider adapting NASSS domains into four analytical constructs: technology and supplier, health and care system, provider organizations and workforce, and patients, carers and support networks, with adaptation and embedding being a cross-cutting theme.

Figure 1. NASSS framework



Note: Adapted from Greenhalgh T, et al. 'Beyond adoption: a new framework for theorizing and evaluating nonadoption, abandonment, and challenges to the scale-up, spread, and sustainability of health and care technologies'.[1]

The project will be delivered in four core work packages, with associated tasks. We provide an overview here, with full detail for each work package below.

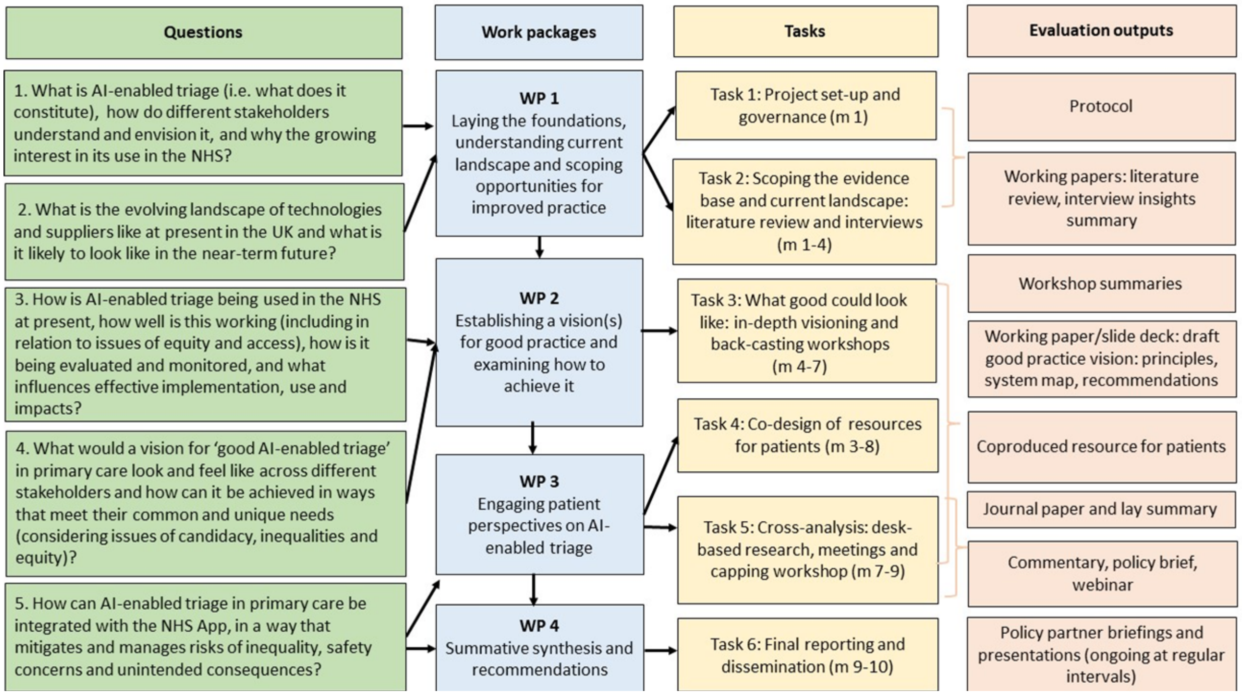
- **Work package 1 (Understanding the current landscape and scoping opportunities for improved practice):** This work package will focus on setting up project governance and inception activities and on taking stock of the current evidence base on AI-enabled triage and the landscape in the UK (Q 1, 2, 3) looking at what constitutes AI-enabled triage, why the growing focus on it in the NHS/what is hoped will be achieved by its use, what the current landscape of technologies and suppliers is like, and what influences implementation and impacts, and who benefits from or bears the burden of these impacts. We will also begin to understand what different stakeholders would see as good practice, considering their perspectives on what is working well and what is not and needs improvement in existing examples of primary care AI-enabled triage. This work package will surface themes related to shaping the future landscape, based on real-world needs and system pragmatism.

- **Work package 2 (Establishing a vision for good practice and examining how to achieve it):** This work package will focus on articulating a vision (one or more) for good practice in AI-enabled triage in the NHS and identifying actions to achieve it (Q4), in a way that surfaces and helps reconcile the perspectives of different types of stakeholders, with considerations of inequalities and pragmatic and logistical barriers at the front and centre of enquires. The approach will also consider the complex, dynamic and rapidly evolving technological, health systems and policy landscape around AI in healthcare and consider actions which relate not only to the system as is, but also to the system as it may become (e.g. in relation to the NHS App, the shift towards more regionally commissioned and delivered care, evolving regulation, data landscapes and technological capabilities). We will consider how the vision(s) for what good practice could look like relates to and can inform efforts for AI-enabled triage for primary care via the NHS App (Q5).
- **Work package 3 (Engaging patient perspectives on AI-enabled triage):**

  This work package deliberately focuses on patient voices, with a particular focus on equity, access, digital candidacy and pragmatic barriers. It will bring together a range of patient and community perspectives surfacing challenges, perceptions, concerns around the acceptability and limitations of using AI-enabled triage systems to access care. It will consider these in light of planned developments in unified access and navigation routes via the NHS app and the ongoing evolution of AI-enabled triage technology. Working with our design partner, we will then co-design a set of practical and accessible resources that can support patients in accessing, using and navigating AI-enabled triage.
- **Work package 4 (Summative synthesis and recommendations):** This work package will cross-analyse, synthesise and translate findings from the diverse data collected across the evaluation into a final set of outputs, including an articulated vision(s) for good practice and recommendations for policymakers, providers, patients and suppliers involved in AI-mediated triage pathways. It will include a slide deck, webinar and supportive co-designed resources for patients (see work package 3) to explain what AI-enabled triage is and what to consider when engaging with AI-enabled triage in primary care. It will also include a final journal paper (a contractual requirement o0f the funder).

The evaluation consists of 4 work packages and employs a diversity of methods (see Figure 2 for an overview) to support breadth and depth of enquiry and to consider the realities of how AI-enabled triage in primary care currently happens, and also to enable fresh thinking about a plausible future. The work packages are elaborated on in the contents that follow.

Figure 2: Project overview



Questions

1. What is AI-enabled triage (i.e. what does it constitute), how do different stakeholders understand and envision it, and why the growing interest in its use in the NHS?
2. What is the evolving landscape of technologies and suppliers like at present in the UK and what is it likely to look like in the near-term future?
3. How is AI-enabled triage being used in the NHS at present, how well is this working (including in relation to issues of equity and access), how is it being evaluated and monitored, and what influences effective implementation, use and impacts?
4. What would a vision for 'good AI-enabled triage' in primary care look and feel like across different stakeholders and how can it be achieved in ways that meet their common and unique needs (considering issues of candidacy, inequalities and equity)?
5. How can AI-enabled triage in primary care be integrated with the NHS App, in a way that mitigates and manages risks of inequality, safety concerns and unintended consequences?

Work packages

WP 1 Laying the foundations, understanding current landscape and scoping opportunities for improved practice

WP 2 Establishing a vision(s) for good practice and examining how to achieve it

WP 3 Engaging patient perspectives on AI-enabled triage

WP 4 Summative synthesis and recommendations

Tasks

Task 1: Project set-up and governance (m 1)

Task 2: Scoping the evidence base and current landscape: literature review and interviews (m 1-4)

Task 3: What good could look like: in-depth visioning and back-casting workshops (m 4-7)

Task 4: Co-design of resources for patients (m 3-8)

Task 5: Cross-analysis: desk-based research, meetings and capping workshop (m 7-9)

Task 6: Final reporting and dissemination (m 9-10)

Evaluation outputs

Protocol

Working papers: literature review, interview insights summary

Workshop summaries

Working paper/slide deck: draft good practice vision: principles, system map, recommendations

Coproduced resource for patients

Journal paper and lay summary

Commentary, policy brief, webinar

Policy partner briefings and presentations (ongoing at regular intervals)

Work package 1: Laying the foundations, understanding the current landscape and scoping opportunities for improved practice

Task 1: Project set-up and governance (month 1- preparatory work)

Aim: To set up the governance structures and processes and approvals for project delivery, including a project advisory group.

Approach: We will set up a project advisory group drawing on membership from the DECIDE steering committee and wider networks. Three meetings at regular intervals are expected to take place at key points in the project (e.g. one at inception and to inform design of data collection materials, one to share findings from literature review and interviews and inform workshop design and participants, one to share findings from the various work packages and discuss inferences and recommendations for final reporting). Meetings will be complemented with open lines of communication through email and phone. The advisory group will include Dr Rebecca Rosen (GP and DECIDE Steering Committee member), Jessica Morley (Health Data and AI academic, Yale University Digital Ethics Center), Dr Chrysanthi Papoutsi (DECIDE researcher), Alastair Denniston (Prof Regulatory Science and Innovation, University of Birmingham, Chair of the MHRA's new National Commission on the Regulation of AI in healthcare), Anica Alvarez Nishio (PPIE lead, DECIDE Steering committee) and Ruth Ajayi (PPIE representative). We will also confirm ethics and R&D governance arrangements for the service evaluation (see Ethical issues and approvals required section).

Task 2 Scoping the evidence base, current landscape and opportunities ahead: literature review, technology supplier landscape analysis and key informant interviews (months 1-4)

Aim: To take stock of the evidence base on AI-enabled triage and the landscape in England, to specify themes to explore and organisations and individuals with whom to engage in further detail in later work packages of the project. While the primary focus of this task is on current practice, we will begin to explore opportunities for improvement going forward to lay the groundwork for later work packages of work which will consider a vision for good practice and how to achieve it.

Approach: This task will utilise multiple methods (as detailed above) and will combine rapid and focused literature review (scholarly and grey), including analysis of the supplier and technology landscape, and key informant interviews.

The combination of methods will establish a robust foundation of learning and insights pertaining to what AI-enabled triage constitutes; its value proposition; what the technology and supplier landscape is like; how AI-enabled triage is currently being used in primary care in the NHS, (including early insights on how well this is working in relation to intended goals); what influences implementation, use (or non-use) and outcomes; and early insights on what needs to improve in relation to current efforts to shape an effective AI-enabled triage system. These insights will then be tested for wider applicability amongst a breadth of individuals and stakeholder groups in WP3, built on and refined in the context of establishing a vision for good practice in the future and recommendations about how to achieve it.

Literature review (months 1-4)

We will work with a specialist medical librarian to develop a comprehensive search strategy that balances breadth and depth of the literature on this topic, and to ensure we capture relevant articles within the scope of a rapid evaluation. The literature review will include a targeted search strategy using OVID (Medline and Embase) to identify key sources of academic literature and Overton, industry and professional/practice websites to identify recent grey documents pertaining to AI-use in triage in the NHS (in primary care, and relevance of approaches for primary care in relation to evolving NHS 111 and NHS App use cases to the extent applicable). The focus will be on the UK context (see Table 1 for a working draft of an inclusion/exclusion criteria). We will also seek input from key stakeholders (e.g. NHSE/DHSC, members of our project advisory group) to suggest pertinent documentation, particularly related to grey literature. Once the searches are complete, articles will be screened following a systematic process using pre-defined inclusion and exclusion criteria. Following this, data will be systematically extracted into a data extraction template, then analysed and synthesised.

We will additionally review up to 10 key papers on international use cases to identify potentially applicable learning and to situate UK efforts in the wider context of international efforts in a rapidly evolving landscape. The focus here will be on high income countries and we will prioritise the most recent papers and systematic reviews.

Table 1. Inclusion and exclusion criteria

	Include	Exclude
Population	Any adult population (aged ≥18 years old)	Paediatric populations
Setting	Any NHS healthcare setting	Private health care settings in the UK Community setting (non-primary care) Non-UK healthcare settings
Intervention	The use of AI-enabled triage during patient 'help-seeking' phases of care (e.g. through general practice / primary care, NHS App, NHS111) and including, where relevant, interpretation of symptoms (but not clinical diagnosis). It does not matter what the outcome of the triage is (e.g. GP appointment, secondary care referral, A&E, community services, social care), it is the point of entry into the healthcare system that is important.	Non-digital triage Non-AI-enabled digital triage AI-enabled Triage used exclusively in secondary care settings without patient input (e.g. for diagnosis, for triage based on diagnosis or test result) AI triage used in emergency care settings during 'help seeking' stage. AI used for clinical diagnosis
Comparison	Any or no comparison	N/A
Outcomes	Any outcomes, impacts or implementation considerations other than those specified in exclusion.	Scientific papers focused purely on the technical performance (e.g. sensitivity, specificity, accuracy) of a specific AI tool, and no other outcome, impact or implementation considerations
Study Type	Empirical studies, review articles, opinion pieces	Protocols, trial registrations, conference abstracts
Time period	Last 5 years (2021-2026)	Before 2021

Technology and supplier analysis (months 1-2)

Build on recent scoping work done in DHSC/NHSE on the technology and supplier landscape, we will identify key technologies and suppliers to examine in the landscape analysis. This will be complemented by a Google search, website analysis and identification of suppliers and technology offers during the literature review. We will consider the technology functionalities, use cases, intended influence on workflows, scope and scale of adoption, interoperability and potential for connection with existing technologies/infrastructure (e.g. clinical record systems), and regulatory status. Technology and supplier analysis will inform and guide sampling and content for interviews (see below), especially 'go along' interviews and ensuring observation of a spread of technologies currently available and in use.

Key informant interviews (months 2-4)

We will conduct interviews with a sample of patients, professionals and wider experts active in shaping AI-enabled triage at first contact in primary care. Our approach to interviewing is two-fold, including the following:

1. **In-depth interviews with patients, professionals and experts**: we will use in-depth interviews with a purposive, maximum variation sample of 25-30 patients/carers, professionals and experts, to explore the types of issues that matter for good practice in AI-enabled triage, and to begin to tease out what different stakeholders see as potential benefits and opportunities, tensions and trade-offs and simple barriers in the use of AI for triage at first contact. This will include exploring technology functionalities and supplier offers and engagement, workforce and workflows in AI-enabled system design and implementation, patient engagement and concerns of equity and access via AI-enabled triage systems; and wider system level issues related to policy, governance, regulation, risk management. We will explore different understandings of AI-enabled triage in relation to these key themes, and ensure a range of perspectives are captured, including:
    - 10-12 health care professional and providers, including a mix of patient-facing, managerial and care navigation staff, and from diverse settings and geographic locations; recruited via channels such as the Health Innovation Networks, AI Ambassadors Network/NHS Futures, Royal College of GPs, recommendations from the DECIDE steering committee and project advisory group, policy customer and staff at current AI-enabled NHS England triage pilot sites;
    - 6-8 senior policy/decision makers, ensuring we capture perspectives across the different teams involved in establishing the AI-enabled triage offer [e.g. transformation directorate, clinical safety, product and across NHS England, Department of Health and Social Care, regional system leads (ICBs)], the industrial strategy voice (e.g. Department for Science, Innovation and Technology), and insights on how the topic is being approached in the devolved nations. Access will be enabled through existing networks, the DECIDE Steering Committee and our policy customer;
    - 2 regulation experts, to be confirmed but likely to include MHRA and AI Commission on regulation;
    - up to 5 patient representatives, ensuring diversity of backgrounds and experiences (with triage and AI), drawn from existing networks (e.g. Ajayi and Alvarez Nishio are part of patient advisory groups and networks, including local hospital panels, NICE patient network; Brenman and Dakin have established links with a range of community organisation), PPIE panels of the Academy of Medical Sciences and/or NHS England networks
    - 3-5 industry representatives, ensuring a mix of suppliers (e.g. larger, SME) involved in developing AI-enabled platforms that are currently in use in pilot sites and wider primary care.

2. **'Go-along' interviews with primary care professionals:** go-along interviews with a purposive sample of 6-8 primary care staff (clinical and administrative, using different AI-enabled platforms and varied approaches to triaging) will enable a closer look at the experience of using AI-enabled triage in primary care, and the people, work and workflows that support it. Go along interviews blend observation with conversation,[37] allowing participants to both show the work of AI-enabled triage in situ, while at the same time talking about it, allowing us to capture contextualised accounts and observations of AI-enabled triage in practice. We will explore with interviewees the type of technology in use, what the AI adds, how this works in practice and challenges and opportunities faced. Where possible, interviews will take place in person in selected primary care sites (including, with consent, 2 x NHSE pilot sites for AI-enabled triage) identified via policy customer, existing networks and the DECIDE Steering Committee, and will allow for observation of practice organisation and workflows. Where in person visits are not possible, go-along interviews will be conducted online via MS Teams, and focus on participants demonstrating (e.g. via screen sharing) and talking through their engagement with the AI-enabled platform being used in that setting.

As discussed earlier, our core focus is specifically on AI-enabled triage at the first point of contact with the NHS, but as part of that we will seek to understand more than just the episodic nature of the first contact and seek to understand how service users come to approach first contact (e.g. how this relates to other sources of information they might consult prior to first contact, how it might relate to their wider circumstances and contexts).

In consideration of WP3 (see below), both sets of interviews will not only explore current practice and opportunities (especially relating to AI-assisted triage), but also futureproofing in an evolving science and technology and policy landscape, including in relation to the NHS App. Analysis will initially be guided by the NASSS framework, drawing in additional theoretical concepts (e.g. infrastructure, equity, innovation systems) to deepen understanding. We will focus on drawing out tensions and synergies across the different perspectives captured, including between triage as imagined and triage as currently done at first contact with the NHS. We will use narrative to synthesise interview findings and to develop a visualization of AI-enabled triage for patient journeys from first contact with the NHS into navigation beyond, and how different stakeholders relate to the pathway, the flow of patient requests and allied data. This visualization will be used in workshops in Work package 2.

Work package 2: Establishing a vision for good practice in AI-enabled triage and examining how to achieve it

Task 3: What good could look like: surfacing and reconciling commonalities and differences in perspectives though visioning and back-casting workshops (Months 4-7)

Aims: To establish a vision (one or more) for what good practice for AI-enabled triage in primary care could look like in England and consider how to achieve it, in ways that account for and reconcile commonalities and differences in the needs, experiences and perspectives of patients, carers, wider support networks and the public, providers and healthcare professionals, regional and national system leads (national policy, regulation) and industry/tech-suppliers. This will surface what works well at present as well as improvement opportunities pertaining to an AI-enabled triage in the evolving technology, health system and policy landscape.

Approach: We will carry out 5 stakeholder workshops (detailed below), using visioning and back-casting approaches to identify what good practice in AI-enabled triage in primary care could look and feel like over the next 3-5 years (and beyond if/where relevant) and what adjustments, adaptations and improvements need to be undertaken to help achieve it.

Visioning is a structured, participatory process that brings together stakeholders to collaboratively articulate and refine desirable future(s).[38,39] It can help to identify shared values, long-term goals, and strategic priorities as well as to expose contradictions and tensions between the views of different stakeholders. A resulting vision(s) can help inform policy development and strategic planning by providing a clear, co-produced direction for future action (including one that exposes tensions and uncertainties). While there are many options for how to do visioning (ideal end states, wild cards, plausible end states), for the purposes of this rapid evaluation we will prioritise a focus on both desirability and feasibility (i.e. a desirable vision that is also more likely to be feasible). Back-casting is a structured analytical approach that begins with the desired future state (vision) and then works backwards to determine the necessary interventions (e.g. policies, actions) that can help achieve it., highlighting key milestones, exposing potential barriers and exploring ways to mitigate them. Back-casting is particularly useful for addressing complex challenges and supporting long-term planning by providing a clear, goal-oriented framework for decision-making, including one that can articulate and engage with uncertainties.[38–40]

We plan an initial set of 4 separate workshops with: (1) patients and carers, (2) NHS providers and healthcare professionals, (3) industry/tech suppliers, (4) national and regional policy leads, and regulators and then a final (5) cross-stakeholder final workshop to share learning from the stakeholder specific workshops, discuss and debate differences and consider options for ways forward (i.e. what could happen, who needs to be involved).

The exact approach and content for the workshops will be informed by WP1 findings. The commonalities and unique experiences and perspectives that WP1 interviews reveal, as well as the visualization of AI-enabled triage patient journey(s), stakeholder roles in the pathway, communication and data flows will help inform the development of a preliminary draft of an overarching vision (reflecting also points of tension, trade-offs or distinct perspectives on what good might constitute based on stakeholder interviews). This will be used as an engagement tool for the stakeholder workshops to articulate what good practice in AI-enabled triage could look like in the future given the evolving landscape (one or more visions) and the types of actions that could support efforts to evolve AI-enabled triage in light of the vision(s), existing or potential opportunities to harness and barriers to address.

In each workshop we will (through the facilitation approach) add an element of challenge to the views of a specific stakeholder group, by flagging the types of considerations and issues that may matter to other stakeholder groups and prompting conversations to surface potential tensions and explore ways of reconciling them.

Developing the vision(s) in each stakeholder workshop will include discussion and debate about:

- the types of experiences, outcomes and impacts that are particularly pertinent (acknowledging that there may be variety even within a stakeholder group, with tensions and trade-offs at play);
- what good practice could feel and look like in an AI-enabled triage system in terms of principles (e.g. fairness, security etc), processes, practices and experiences that could define it, and in consideration of the evolving technology, policy and health system landscape;
- how a vision for good practice going forward relates to how things currently work with AI-enabled triage in primary care (within the wider context of triage – including digital, telephony, NHS 111, NHS App) and potential risks and unintended consequences associated with the vision(s), including in relation to inequalities;
- types of actions needed for adjustment, adaptation and improvement to support the articulated vision (e.g. strategic, operational, candidacy and equity related). While not every stakeholder group will be able to cover all aspects, this will include consideration across the groups of technological, workforce, patient related, financial, physical and data infrastructure, relational/interactional, collaboration and coordination related, and overarching policy, governance, legal and regulatory considerations;
- opportunities, risks and challenges associated with the anticipated integration of AI triage/navigation into the NHS App, as planned key infrastructure and how risks of inequity, safety concerns, or unintended consequences can be mitigated and managed;
- Key evidence gaps that need to be plugged to refine a vision(s) for good practice.

Following the stakeholder specific workshops, we will update the vision(s) for good practice in AI-enabled triage in primary care based on a thematic analysis of individual workshop insights and sensitised by our theory-driven perspectives and frameworks (NASSS, digital candidacy, infrastructure theory, science and innovation studies), and draw out an initial set of recommendations for achieving it.

Given the complexities and uncertainties related to AI-enabled triage, it is plausible that we will arrive at one or more visions. Any overarching high-level vision would highlight tensions and trade-offs related to unique considerations that matter for specific stakeholder groups. It is equally plausible that there will be nested stakeholder-specific visions, with commonalities and differences highlighted in relation to an overall vision. We will be guided by the findings from the workshops in arriving at a vision or visions, but with a view to all insights informing priority areas of action for policy and practice.

The updated vision(s) will need to consider not what is ideal only, but what is actually feasible and realistic given the wider health and care system context. These updated vision(s) will serve as a tool in a final cross-stakeholder workshop to:

- engage with the similarities and differences between different stakeholder groups pertaining to a vision for good practice and how to achieve it;
- flag areas where there is divergence of views and needs and explore potential for alignment (consensus) in a way that can land effectively with wider stakeholders and in the context of wider triage (extending beyond AI-enabled only);
- identify key types of adaptations, adjustments and improvement actions to support the evolution from the system as is to what the system might look like going forward;

- highlight key evidence gaps that need to be resolved, where further research is needed.

Each workshop will last approximately 2 hours.

Work package 3: Engaging patient and carer perspectives on AI-enabled triage

Task 4 Co-design of resources for patients (months 3-8)

Aim: The aim of this task is to extend patient- and carer-centred insights on AI-enabled triage at the point of first contact with the NHS, with a particular focus on service acceptability, equity and access, and to explore how these insights can be translated into meaningful forms for practice and dissemination.

Approach: This task will focus on co-design of a set of resources that can support patients and the public to engage with AI-enabled triage at first contact with the NHS. Co-design will be informed by patient-centred insights generated in earlier work packages of the evaluation. These data will provide an initial understanding of how patients, carers and wider support networks experience and navigate AI-enabled and digitally mediated triage systems, including points of friction, uncertainty and exclusion, and pragmatic barriers. To deepen and broaden this understanding, we will work in collaboration with an ongoing programme of community-based workshops led by Dakin (co-applicant, and leading parallel work on equity and AI-enabled triage in primary care), which engage groups who are most likely to experience barriers to accessing care (e.g. digital exclusion, language barriers, or complex social needs). Members of the team will attend two community-based workshops (in person, in Oxfordshire), introducing a small number of targeted prompts to elicit reflections relevant to AI-enabled triage and patient access, and seeking to understand lived experiences, challenges, perceptions, concerns and scenario-based benefits and limitations of using AI-enabled triage systems to access care when they need it. This engagement will enable us to gain ideas and inputs specifically from patients and carers on what a set of supportive resources might look like that can support understanding and engagement with AI-enabled triage systems. This approach allows us to 'piggyback' parallel work, making efficient use of resources and existing work in this rapidly evolving field; and include perspectives that are often underrepresented, while avoiding duplication of existing engagement activity. Data from earlier work packages (especially patient and carer interviews in WP1, patient/carer workshop in W2) and these additional engagements will be brought together to provide focused insights on how triage systems are encountered, accessed, understood and experienced by patients, carers and support networks across different contexts, and how these experiences relate to questions of equity, access and navigation.

This early work will enable us to understand the learning journey for patients, carers and support networks from 'knowing about' AI-enabled triage to 'knowing, using and making decisions about' when and how to engage with AI-enabled triage. We will then use these findings to inform the co-design of a set of resources that can be used to support patients and the public to engage with AI-enabled triage at first contact with the NHS. We will work in collaboration with a professional storyteller and/or design partner to develop a set of practical resources (likely using a combination of narrative and graphics/visual output) that can support understanding of AI-enabled triage at the point of first contact. The specific nature of these outputs will remain deliberately open and will be shaped by findings from the evaluation and patient/carer/support network input. We will begin by developing storyboards of patient journeys, informed by findings from WP1 and WP2, as an initial basis for resource development. As resources evolve, we will identify up to 20 patients, via our PPIE leads and existing networks and contacts (including from earlier work packages of this evaluation, and linked work), engaging them in a co-design workshop to continue to shape and refine outputs, ensure that they are grounded in lived experience and are meaningful and accessible to intended audiences.

We will involve ALVAREZ NISHIO and AJAYI (patient and public representatives, and part of our External Advisory Group) throughout this task to ensure patient and public voices are central in both designing, developing and refining resources.

Work package 4: Summative reporting and recommendations

Task 5: Cross-analysis and synthesis (7-9)

Aims: The aim of this task is to cross-analyse, triangulate and synthesise insights from the desk research (literature review and document analysis) and stakeholder interviews and workshops to arrive at a refined final vision for good practice with AI-enabled triage and final set of recommendations for policymakers, providers, patients and suppliers involved in AI-mediated triage pathways.

Approach: The qualitative data will be analysed thematically through desk-based synthesis and internal team meetings, guided by the NASSS domains, digital candidacy theory, infrastructure theory and the multilevel perspective on transitions (from science, technology and innovation studies) to help highlight key practical lessons for implementing and supporting AI-enabled triage, and triangulated against the literature. This will be complemented with discussion with our expert advisory group.

A 2 hour 'capping' workshop (online) will then be conducted to share and finalise recommendations with key policymakers in DHSC and NHSE working in different functions (e.g. Transformation Directorate, Digital, Product/App teams) in light of the fast-evolving policy landscape, to specify remaining evidence gaps and consider implications for a future research and evaluation agenda. A capping workshop is a facilitated session used to define, refine, and "cap" (set boundaries on) a problem, ambition, or scope of work before moving into delivery or detailed design in large scale transformation programmes.

We will use this approach to together with our policy customer DHSC and NHSE colleagues consider implications from our findings for what is in scope/out of scope for actioning by different actors in the policy landscape in the short, medium and long term, to begin to help with translating the vision into practical action. The capping workshop will reflect on the issues the recommendations are seeking to resolve and whether any seem particularly critical (indispensable critical links) for success in relation to short term efforts, vis a vis medium and longer-term futureproofing priorities. We will also consider how tractable different actions are likely to be considering political, resource, regulatory and technological realities.

This will result in draft final vision(s) for what good could look like for AI-enabled triage, consisting of:

- an updated patient journeys through AI-enabled triage pathways, including stakeholder roles, data and communication flows
- updated guiding principles, processes and practices supporting the vision(s), including in relation to the NHS App (with areas where differences in perspectives have not been reconciled and multiple options for potential ways forward flagged),
- recommendations for different stakeholder groups to optimise AI-enabled triage

WP6. Final reporting (months 9-10)

Aims: We will bring together final learning to produce the final outputs.

Approach: This will entail DECIDE team meetings, as well a consultation with our expert advisors to refine final recommendations. The recommendations would also consider the rapid evolution of AI and related products for triage, and on-going development/plans for the NHS App (and use of AI as part of that). The approach to reporting (key outlets, format) will be discussed with our policy customer.

Project timeline

This will be a 9 month project, with set up completed in May 2026, and project completion at the end January 2027.

Table 2. Project Gantt

		M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**	**M8**	**M9**
		May	June	July	Aug	Sept	Oct	Nov	Dec	Jan
WP 1: Laying the foundations, understanding the current landscape and scoping opportunities for improved practice	PREP	■	■	■						
Task 1. Project set-up and governance	PREP	▒								
Task 2. Scoping the evidence base and current landscape: literature review, technology and supplier landscape analysis and interviews	PREP	▒	▒	▒						
WP 2: Establishing a vision(s) for good practice in AI-enabled triage and examining how to achieve it					■	■	■			
Task 3. What good could look like: surfacing and reconciling commonalities and differences in perspectives (visioning and back-casting workshops)					▒	▒	▒			
WP 3: Engaging patient and carer perspectives on AI-enabled triage			■	■	■	■	■	■	■	
Task 4: Co-design of resources for patients			▒	▒	▒	▒	▒	▒	▒	
WP 4: Summative reporting and recommendations								■	■	■
Task 5: Cross analysis and synthesis								▒	▒	
Task 6: Final reporting									▒	▒
Ongoing quality assurance, policy customer engagement and updates to share emerging learning, management and administration	■	■	■	■	■	■	■	■	■	■

Project management and quality assurance

We aim to ensure effective project management and administration, timely sharing of learning, open lines of communication with the policy customer and quality assured final outputs.

We see project management as an important and continuous effort in delivery, and have established both staff roles (research, management, admin, communications support), processes and tools (e.g. inception, regular team meetings, budget management systems) to support this.

We will also establish an expert and patient and public voice advisory group (as described in WP1), complementing our internal advisory group for the DECIDE centre with a project specific advisory group

Throughout the evaluation, we will maintain open lines of communication with NIHR HSDR and DHSC as the policy customer. We will hold monthly or quarterly (to be discussed with policy customer) online progress meetings and share emerging learning at the end of key work packages. Regular updates should help ensure timely insights to feed into policy cycles and planning in relation to AI and triage, inform ongoing efforts to design, embed and sustain it at scale.

The project co-PIs (MARJANOVIC and SHAW) have a proven history of successful collaboration and complementary skills in tech-enabled care, health services and innovation policy, academic and policy focused research. Co-PI’ing will ensure both timely delivery on a substantial body of work in a relatively short timeframe and the added value of complementary approaches to evaluation and disciplinary perspectives feeding into a complex and politicised topic area nested in both health policy and innovation and industrial strategy considerations. They will work with project dedicated researchers across both organisations (STOCKWELL and NEWHOUSE as key senior researchers) to undertake the work proposed (see Table 2 below). The team will be supported by designated project management and administration support at University of Oxford (Ms Gemma Webb, Mrs Charlotte Thompson-Grant with support from Bethany Badcock Merry at RAND Europe).

Colleagues across RAND Europe and Oxford will meet at regular intervals and hold internal workshops to discuss learning emerging from across work-packages and ensure shared understandings across the project team.

Clear project plans, designated staff roles and supportive management and operational processes will ensure effective delivery. Quality Assurance (QA) will take place throughout the project, as well as through review of final deliverables. The evaluation may be monitored or audited by the university or funder to ensure that it runs in accordance with the approved protocol, relevant regulations and standard operating procedures, and in line with funder requirements.

Plans for service user and public involvement

We have, via the DECIDE user advisory group, received inputs that will inform topics the evaluation will explore, and those related to understanding the service users and carer perspectives, ethical implications and unintended consequences of AI use for triage and navigation in the NHS (e.g. privacy, consent).

As outlined in WP1, we will form a project specific Expert Advisory Group (EAG) which will also include PPIE representatives (Alvarez Nishio and Ruth Ajayi). Members will contribute up to three days each over the course of the evaluation. ALVAREZ NISHIO and AJAYI have already fed into the theoretical underpinnings of the work and into this protocol and will continue to be substantively involved in continuing to frame the work as it evolves.

We will draw on the PPIE advisors on activities such as: informing the design of materials to use in interviews and/or workshops to ensure relevance and accessibility, design of the workshop with patients and the public, informing design of other stakeholder workshops to ensure concerns for patients, carers, wider support networks and the public remain front and centre, assistance with facilitation of the workshop with patients and the public and with feedback and co-design of patient-facing resources.

The PPIE advisors will also lead on identifying and recruiting participants for the workshop with patients, carers, support networks and the public, raise items as a rolling agenda for ongoing discussion in the wider Expert Advisory Group meetings, including for example, in relation to ethical implications, candidacy, inequalities and practical barriers in relation to AI-enabled triage. Both ALVAREZ NISHIO and AJAYI have reviewed and substantially contributed to this project protocol.

Dissemination and outputs

Throughout the evaluation, we will develop a range of outputs and engage in dissemination activities that may result from individual tasks or syntheses across work packages. At a minimum, we will produce:

- co-produced patient facing resource
- key insights slide deck
- webinar, policy brief and commentary
- an academic journal article for the evaluation (contractual requirement on the part of NIHR)

As is usual in rapid evaluation, we will also produce ongoing interim ‘working document outputs’ which may include summaries of the literature review, interviews, workshops - including visions for what good practice may constitute, draft visualizations of AI-enabled triage pathways and system (roles of stakeholders, communication and data flows) and illustrative vignettes. We will regularly feedback findings to our policy customer through verbal and written updates and sharing emerging insights in meetings. We may also produce other outputs or engage in other dissemination activities, which may include (but are not limited to) conferences, infographics, blogs or articles in key professional outlets for staff (e.g. Health Services Journal) and social-media related engagements.

Research Team

DECIDE is a rapid evaluation team focused on technology-enabled health and social care. A partnership across University of Oxford and RAND Europe, we are uniquely positioned to conduct evaluation in this space. We are an interdisciplinary team with diverse backgrounds including (but not limited to) clinical medicine, health services research, sociology, anthropology, human-computer interaction, and with significant experience researching the multiple interacting influences on the trajectories of tech-enabled care over the past >20 years. We bring expertise around technology-enabled care, including recent work on digitalisation and triage in primary care, remote-by default general practice, tech-enabled remote monitoring of blood pressure and COPD and implementation of online health checks (to be delivered through the NHS App). Table 3 presents the team members and their corresponding roles and expertise.

Table 3. Project team

Team member	Role and contribution in research team	Relevant expertise
Prof. Sara Shaw (University of Oxford)	Project Co-PI providing topic, method, and team leadership. Project conception, design, analysis and synthesis, writing of reports/dissemination, project management. With oversight across work packages, and co-leading WP1 (with Newhouse).	Highly regarded senior academic bringing expertise on technology-enabled health care, qualitative and mixed methods design and delivery, and knowledge exchange. Experienced in rapid evaluation and oversight of large research projects and evaluations; overall oversight of all projects under NIHR DECIDE centre.
Dr Sonja Marjanovic (RAND Europe)	Project Co-PI providing topic, method, and team leadership. Co-leading on WP2 (with Stockwell) and co-leading on WP1 and WP3. Project conception, design, analysis and synthesis, writing of reports/dissemination, project management	Well established policy research director in health services and innovation research and evaluation of complex interventions; led multiple studies on tech-enabled care in health service delivery and industrial strategy; experienced in leading large and rapid projects and collaborative partnerships.
Dr Stephanie Stockwell (RAND Europe)	Senior DECIDE researcher, bringing qualitative expertise and contributing to design, conduct, analysis and reporting. Leading on WP1 evidence review and co-leading on WP2.	Senior researcher with an established portfolio of work and experience in tech-enabled care and behavioural science; bringing qualitative and mixed methods expertise in the context of multiple (and often rapid) projects involving NHS, social care, third sector and industry stakeholders.
Dr Nikki Newhouse (University of Oxford)	Senior DECIDE researcher, bringing qualitative and co-production expertise. Contributing to design, conduct, analysis and reporting. Co-leading WP1 (with Shaw), contributing to WP1 review, and co-leading WP3 (with Brenman).	Established researcher with significant experience in patient and public engagement and use of qualitative methods.
Dr Eleanor Barry (University of Oxford)	Clinical academic and active GP, contributing to conduct, analysis and reporting/dissemination.	Postdoctoral clinical researcher bringing expertise and experience in the use of AI in primary care, including through a clinical lens.

Dr Francesca Dakin (University of Oxford)	Senior researcher bringing expertise on technology-enabled care; leading parallel work on Equity, AI and primary care which will inform this evaluation. Contributing to WP1 interviews, and WP3 co-design of resources, as well as conduct, analysis, reporting and dissemination.	Postdoctoral social science researcher, bringing current knowledge and expertise on the use of AI in primary care settings, NHS access and triage, and digital candidacy. Significant experience engaging patient, public and community voices in research, and in working with seldom heard voices (including in co-designing patient facing resources).
Dr Natassia Brenman (University of Oxford)	Senior researcher, bringing expertise in qualitative, co-design and engagement. Contributing to qualitative data collection and analysis in WP1 (especially, but not only, go-along interviews), and co-leading WP3 (with Newhouse).	Established social science researcher, bringing current knowledge and expertise on the social science of technology and innovation, digital and hybrid triage systems, ethics of technology and equity. Significant experience engaging patient, public and community voices in research, and in working with seldom heard voices (including in co-designing patient facing resources).
Mr Pranav Gurusankar (University of Oxford)	Research Assistant, contributing to literature review and technology and supplier analysis.	Bringing technical and computer science expertise (including in relation to AI), along with knowledge relating to intersections of AI with policy, systems, and ethics.
Mx Anica Alvarez Nishio	PPIE Representative, bringing a patient and community perspective and providing support across Work Packages, especially WP3.	Wide ranging expertise in the ethics of digital technology, with a special interest in clarifying technology risk for non-technologists; extensive PPIE experience and community networks.
Ms Ruth Ajayi	PPIE Representative who will bring a patient and community perspective and provide support across work packages, including experience with supporting policymakers with AI efforts	An experienced patient voice contributor to policy efforts and research. Amongst other roles, she is a lay member of the NICE prioritisation board and the patient and public voice partner for the responsible AI adoption committee for NHS England.
Ms Gemma Webb (University of Oxford)	DECIDE Programme Manager, supporting project planning, coordination and financial management.	Established member of the DECIDE team, bringing expertise in project and programme management, including research governance requirements and processes.

Ms Charlotte Thompson-Grant (University of Oxford)	DECIDE Administrator, supporting project administration across work packages (especially 1 and 3).	Established member of the DECIDE team, bringing foundational administrative skills and support, along with coordination of staffing, meetings and finances.
Ms Bethany Badcock-Merry (RAND Europe)	RAND Administrator, supporting project administration across work packages (especially 2).	Established member of the DECIDE team, with established administrative skills and support teams and coordination of research.

Ethical and regulatory considerations

1. Risks and their management

See Table 4 below for our assessment of potential risks and mitigation strategies.

Table 4 Potential risks and mitigation strategies

Risk	Impact	Likelihood	Mitigation
Demand pressures on NHS staff and health system decisionmakers and associated challenge to capacity to engage in timely ways	High	Medium	We are investing in establishing early relationships with stakeholders we need to engage with the evaluation. This is a very topical issue of relevance for staff/providers, patients, carers and the public, industry and policy which should help with engagement, given the opportunity to reflect their perspectives. We have considered diverse recruitment routes as per work package descriptions. We will seek to ensure 'back-up' participants for interviews and workshops where possible (i.e. ask of study leads to suggest more than the number of individuals we hope to interview, to provide options and support contingency plans). We will maintain open lines of communication throughout and offer flexible times for study participants to contribute. Should there be challenges to timely engagement, we will maintain open lines of communication with the policy customer (DHSC) and NIHR HSDR to ensure discussion around contingency planning.

Tension between need for Rapidity and depth/rigour, with speed not allowing the team to fully surface potential downstream risks of the technology	High	Medium	We have carefully considered focus, questions and depth of the study and deliberately kept a more limited scope (co-produced with policy customer, wider DECIDE team and patient/public voices) to enable both breadth and depth in the context of rapid evaluation. A range of methods will be used (e.g. go-along interviews) to enable breadth alongside other methods (traditional interviews); and we are building on several years of research and learning in relation to primary care, access and triage systems, digital inclusion/equity and technology (non-adoption) that brings depth of understanding and has already shaped the protocol/project.
Tensions in reconciling vision of good practice and ways of achieving it	High	Medium	This topic is nested in health policy and industrial policy considerations, as well as wider technology development and economic stressors. We will expose complexity, tensions and consider trade-offs. We will expose each core stakeholder group to the views of others
Loss of key staff on project	High	Low	Oxford and RAND Europe's staffing model allows for flexibility such that in the event of project staff turnover, we can tap into wider expertise in the team at RAND. Senior staff at both Oxford and RAND have extensive experience needed to deliver on the evaluations.
Loss of data	High	Low	This is unlikely but both Oxford University and RAND Europe have robust, secure and well tested data and IT systems with data backed up in multiple locations to support recovery efforts in the event of data loss. Both The University and RAND Europe have robust policies in place to safeguard data. We will put data transfer agreements in place with any third party (e.g. evaluation sites) to ensure safe and secure transfer of information. Any transfer of data between researchers at RAND and Oxford University will be in accordance with GDPR.

Ethical issues and approvals required

We will submit this protocol to the Research Governance Ethics and Assurance (RGEA) team at the University of Oxford (sponsor) to confirm the appropriate approval process. This will either be classified as (a) service evaluation that does not require research ethics approval, (b) research not requiring NHS HRA ethical approval, or (c) research requiring NHS HRA approval.

(a) Service evaluations are within the remit of the organisation commissioning the evaluation. In this situation we would expect to put agreements in place at each site participating in this piece of work. These agreements will cover expectations with regards to site and DECIDE team activities, responsibilities, and data access and use.
(b) Research projects that do not require NHS HRA approval will be submitted for review by the Central University Research Ethics Committee (CUREC) in Oxford. Individual site agreements will also be required.
(c) Research projects that require NHS HRA approval require an Integrated Research Application System (IRAS) application, and subsequent NHS R&D review/approval.

Information Governance: The University of Oxford requires all projects to register project data sets as 'information assets'. The DECIDE programme reference is IAR 561. This register supports obligations under General Data Protection Regulation (GDPR) and links to 'data protection by design' policies which include initial screening to confirm the level of data protection documentation required. Results of the screening will indicate that either a Data Protection Assessment (DPA) or, for data sets that include special category data, or where activity is likely to result in high risk to those individuals whose personal data are being processed, a Data Protection Impact Assessment (DPIA) form needs to be completed.

Any data generated from this piece of work will be processed in line with this protocol and stored in secure environments at the University of Oxford and RAND Europe. These secure environments are hosted within each institution and are accessible through a dual-authentication password process. As the primary award holder, the University of Oxford will act as the data controller for DECIDE. The University of Oxford data storage servers will therefore be the primary repository for all data. Members of the team who are employed by RAND Europe will be granted remote access to these files. As per any data storage clauses in the individual site agreements, RAND Europe may also store data files pertaining to this piece of work.

During go-along interviews to observe triage in real-time, we will make sure that no patient identifiable data related to clinical conditions and medical records is accessed, seen or collected.

R&D Governance: We will contact the relevant local research and development (R&D) offices for advice regarding the local requirements for approval and/or registration of service evaluations, should this be needed. As required, we will put agreements in place with individual sites participating in this piece of work. These agreements will include clauses that cover activities to be undertaken at the site, including (but not limited to) recruitment of participants, transfer of funds, physical access to the site, and access (and use and subsequent storage of) data required to support outcome findings.

Participant informed consent: All participants will have capacity to provide informed consent. The participant must personally sign and date the latest approved version of the Informed Consent form before any study specific activities are undertaken.

Written and verbal versions of the Participant Information and Informed Consent will be presented to the participants detailing the nature of the study, what it will involve for the participant, the implications and constraints of the protocol, and any risks involved in taking part. It will be clearly stated that the participant is free to withdraw from the study at any time for any reason without prejudice to future care, and with no obligation to give the reason for withdrawal. ALVAREZ and AJAYI will be involved in developing PPIE consent materials.

The participant will be allowed as much time as wished to consider the information, and the opportunity to question the study evaluation team or other independent parties to decide whether they will participate in the study. Written Informed Consent will then be obtained by means of participant dated signature and dated signature of the person who presented and obtained the Informed Consent. The person who obtained the consent must be suitably qualified and experienced and have been authorised to do so by the Chief/Principal Investigator. A copy of the signed Informed Consent form will be given to the participant. The original signed form will be retained at the study site. PPIE participants will be given assistance and extra time/explanation in completing these materials, if requested.

During the course of the study a participant may choose to withdraw early at any time. This may happen for several reasons, including but not limited to:

- The occurrence of significant distress during study interviews
- Inability to comply with study procedures
- Participant decision

Discontinuation/withdrawal

Participants may withdraw their consent at any time. Options for participants wishing to withdraw will be explained in the information sheet.

1) Participants may withdraw from all study communication but allow the study team to continue to access their medical records and any relevant data that has been recorded as part of routine standard of care and is held by the study team; i.e., disease progression data, routine patient reported outcome data and quality of life questionnaire data etc.
2) Participants can withdraw from the study but permit data obtained up until the point of withdrawal to be retained for use in the study analysis. No further data would be collected after withdrawal.
3) Participants can withdraw completely from the study and withdraw the data collected up until the point of withdrawal. The data already collected would not be used in the final study analysis*.

*In cases where data have already been incorporated into analysis it will not be possible to exclude these data. It is also not possible to exclude data collected from any group discussions as an individual's data will likely be directly related to that of other participants.

The reason for withdrawal by researcher (and by participant, if this information is volunteered) will be recorded in a study file.

Data management and storage

The University of Oxford has taken responsibility as data controller for the DECIDE programme. RAND Europe will therefore be a data processor.

Data collected for evaluations will be anonymised at the earliest opportunity and stored in secure locations as per policy and guidance at each individual institution (see below). All data files will be stored for a minimum of three years according to the host institution data management policy.

- In Oxford data will be stored on a secure project folder in accordance with the University of Oxford Data Protection policy. This system is ISO 27001 compliant, and the Nuffield Department of Primary Care Health Sciences (NDPCHS) meets the standards of the Data Security and Protection Toolkit administered by NHS Digital. Access is provided by an encrypted remote desktop application. No individual-level data will leave the Oxford servers. Access is restricted by strong individual passwords and to staff that have undertaken appropriate training.
- RAND Europe maintains a strong security governance framework aligned with ISO 27001. All research projects are required to comply with internal quality management systems, in line with RAND's ISO 9001:2008 certification. RAND Europe adopts good industry practices regarding the protection of personal data as part of its obligations as a Data Controller under the DPA1998. Data will be held on a server located in RAND Europe's Cambridge, UK office. Backups taken for disaster recovery purposes will be encrypted and stored in a secure offline site. All records will be kept in compliance with the UK General Data Protection Regulation (GDPR) 2018. Further information about RAND Europe's overarching privacy policy can be found here: https://www.rand.org/randeurope/privacy.html.

The University of Oxford has a robust integrated data management and information governance policy to safeguard data. All electronic files relating to DECIDE evaluation topics will be saved on password-accessible areas of the University of Oxford network and remote access will be granted to members of the DECIDE centre team as required for analysis and reporting purposes. This will include employees of RAND Europe.

Both the University of Oxford and RAND Europe operate in compliance with GDPR.

- The University of Oxford data protection policy can be found here. The Department of Primary Health Care Sciences also has a suite of policies relating to information governance, data management, and data security.
- RAND Europe has a company wide Information Security Management System (ISMS) and a senior management team that supports the continuous review and improvement of the company ISMS.

Governance of patient and public involvement, engagement (PPIE) and participation

Evaluation specific PPIE involvement activities will include advising on approaches to engage service users in interviews and workshops, advice on design and delivery of participant activities and materials, advice related to the co-design of patient focused resources, and assistance with interpretation of findings to maximise dissemination across the whole community.

DECIDE has well established processes for the safety and fair compensation of patient representatives through PPIE and engagement as evaluation participants.

PPIE representative members of our advisory group (ALVAREZ NISHIO, AJAYI) will be contracted and compensated for their time, with formal contractual agreements relating to time, role and contribution. Discussions about their roles, time, ways of engaging and compensation have been discussed in the preparation of the protocol.

Wider contributions of patient and public voice representation and participants will be according to the updated NIHR rates (£220/day,£27.50/hr) and in line with payment rates for specify types of activities in the updated NIHR guidance.

PPIE representatives and patient participants (e.g. in interviews, workshops) will be briefed with support offered to ensure they can engage in ways appropriate to their needs, and with informed consent, indemnity and insurance.

The University of Oxford holds the relevant insurance cover for this study, as confirmed via our DECIDE contract with NIHR.

Sponsor

The University of Oxford will act as the main sponsor and guarantor for this study.

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