NHS
Buckinghamshire Healthcare
NHS Trust

Digital Strategy 2030

Revised September 2025

OUTSTANDING CARE
HEALTHY COMMUNITIES
AND A GREAT PLACE TO WORK

Introduction

Buckinghamshire Health NHS Trust's (BHT) vision is to deliver **outstanding care**, create **healthy communities** and make the Trust a **great place to work**. BHT is working with place partners to design and deliver healthcare that is more integrated, preventative, and designed around the person. The Digital Strategy will support the delivery of this Place strategy through ensuring that all teams have the right technology, systems and skills to deliver safer care. With better access to information to enable a focus on preventative, proactive and personalised care focusing more on supporting people in their homes and focusing on those that are most vulnerable, have the greatest needs and greatest challenges in accessing services.

The vision of the Digital Strategy is to: ***transform clinical practice, processes and culture to reflect a modern approach to using digital systems, data and technology to provide high quality, preventative, proactive and personalised care.***

To achieve this, we need to:

- **Getting the basics right**- including developing the foundations of the Trust's IT infrastructure.
- **Digitising the Trust** – implementing a new acute Electronic Patient Record (EPR), modernising a range of related clinical applications and implementing data infrastructure that gives us a single source of the truth across Buckinghamshire.
- **Building new capabilities -** implementing AI and Automation, population health management and empowering our colleagues to develop their digital and data skills.

To deliver against these priority areas the Trust will need to work differently – the Digital Strategy sets out how the approach to working differently will be **clinically led, operationally driven, digitally enabled and patient empowered.**

Digital Journey – so far

Significant progress has been made in stabilizing BHT's digital infrastructure and increasing digital maturity within the Trust over the last three years. There have also been examples of best practice including using the shared care record to support the pre-operative process and the roll out of Careflow Vitals across numerous settings.

The Digital Strategy aims to build upon this foundation, continuing to implement best practices and innovative solutions to further enhance patient care and operational efficiency. Here are some examples of progress developed in the last few years.

Basics

- Improved cyber security
- Implemented modern, secure and resilient data centre
- Windows 10/11 and new device roll out

Digitised

- Digitised critical areas of BHT including CareFlow vitals, pre-op pathways and ICU (Intensive Care Unit) EPR (electronic Patient Record)*

Building

- Identified use cases for AI and automation
- Implemented SCR (shared care record) and using it to support waiting list management and secondary prevention*

* Case studies in appendices

Current Context

Our colleagues have told us the areas we need to improve are:

- Provide the equipment needed to deliver high quality service, including laptops, particularly within community settings
- Improve wi-fi and network connectivity
- More responsive, customer centred support for digital issues and queries

Our partners through the ICS and Place have identified:

- We need more joined up and connected data to support all care professionals to make the best decision about the person they are caring for
- We need to develop a population health management approach across Buckinghamshire
- We need to become more digitally mature including the update and optimisation of digital health systems
- We need to work in collaboration to enable people to have more control over their data and empower them to manage their own health and wellbeing

The Digital Strategy has been developed from listening to this feedback and will form a key part of the BHT delivery plan for our Place Strategy to ensure we are adding value by being data led and digitally enabled.

Aims

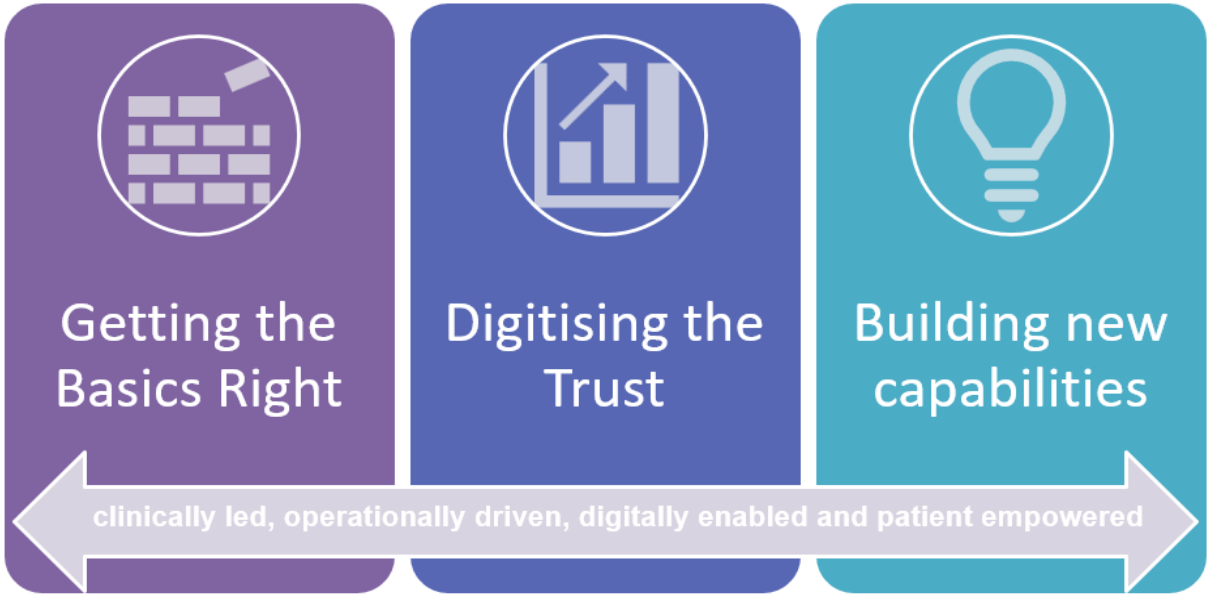
This Digital strategy sets out the approach BHT wants to take for the next five years. Developing and delivering a Digital strategy will support BHT to deliver the following aims:

- Develop proactive and personalised models of care which will be integrated across our acute and community services and with primary care, social care, mental health and the voluntary sector
- Support those who are most vulnerable, have the greatest need and greatest challenge in accessing health care
- Provide our colleagues with the equipment and support they need to effectively and efficiently carry out their role

Delivery of those aims will be measured through:

- Achieving Minimum Digital Foundations (MDF) as outlined by NHS England
- Achieving digital maturity in an affordable, achievable and sustainable way
- Improved data quality, performance, productivity and efficiency
- Improved patient experience and outcomes
- Improved quality, safety and efficiency of care

How will we achieve this



Our ambition	Develop the foundations of digital infrastructure	Implement EPR and update clinical applications	Implement tools to improve efficiency, target resources and empower patients
What this means for you	High functioning and secure IT	Teams have the right systems and skills to provide safe, efficient and high quality care	Good access to data, improved outcomes and freeing up time to focus on direct care
How we get there	Build resilience Device update and replacement	Support colleagues to develop the right digital skills Implement EPR and update clinical systems	Roll out automation and scope out AI. Develop PHM approach across Buckinghamshire. Implement remote monitoring for LTC

Ambition 1 - Getting the basics right

Ensuring that our teams have the right technology is fundamental to delivering safer, efficient, and productive care. Much of this work has been delivered in the last 2 years, but ongoing investment and focus are essential to maintain and enhance our capabilities. Here's how we can achieve this:

- **Invest in robust infrastructure**: maintain and upgrade devices to support seamless operations.
- **Focus on data security**: ensure all systems comply with the latest security protocols to protect patient data.
- **Enable shared and robust governance process**: encourage and support all teams to develop and follow robust governance process to maintain capability and security of our systems.
- **Provide a customer centric and responsive approach**: continually improving service responsiveness and customer satisfaction through redesigning the service offer and increase self service options

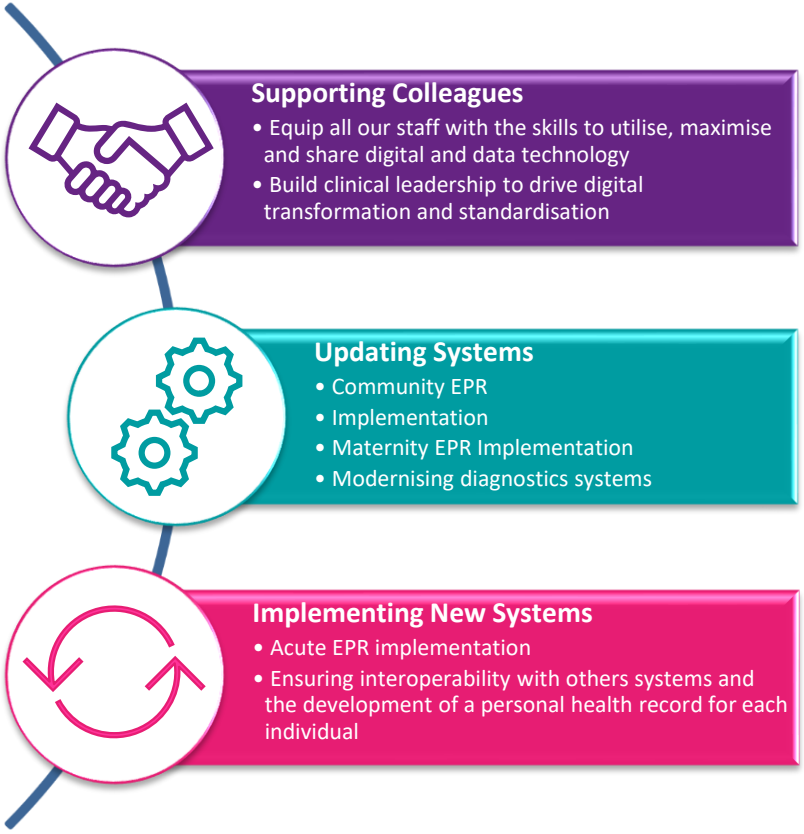
By focusing on these areas, we can ensure BHT continues to deliver high-quality care safely, efficiently and productively.

Ambition 2 - Digitising the Trust

Our ambition is to digitise to enhance delivery, streamline operations, and improve patient outcomes. This will be achieved through the following key initiatives:

- **Digital Health Programme:** Optimising clinical applications to ensure we have access to up-to-date advancements in digital health.
- **Electronic Patient Records (EPR) Implementation:** rolling out a comprehensive EPR system to provide a cohesive and efficient working environment.
- **Developing colleagues:** facilitate the development of digital literacy skills across all teams to ensure teams can be data led and digitally enabled support proactive and personalized care models.
- **Integration with key partners:** ensuring seamless collaboration with our key partners to enhance care delivery across our place and system.
- **Standardised processes:** embedding standardised clinical and administrative processes within our IT systems to enhance efficiency and consistency.
- **Paperless :** transitioning towards a paperless environment to streamline operations and reduce administrative burdens.
- **Joined-up clinical records:** ensuring comprehensive and integrated clinical records for improved data accuracy and accessibility.
- **Data improvement:** continuously improving data quality and structure to support informed decision-making and better patient outcomes.

Through these initiatives, we aim to create a digitally advanced organisation that delivers safe, efficient, and productive care, setting a benchmark for excellence in healthcare.



Ambition 3 - Building new capabilities

Developing these new capabilities will support BHT to develop a culture where technology and innovation drive excellence in care delivery. These initiatives will enhance our productivity and improve outcomes for our communities, through having improved access to digital tools to empower populations and tools for our colleagues to spend more time with patients and enable proactive and personalised care.

AI & Automation

Aim

Enhance efficiency, reduce manual errors and free up valuable resources to improve outcomes and productivity.

What

Roll out of automation through tried and tested technologies.*

Understand possibilities of AI and develop capabilities and skills within BHT.

Develop governance structures, prioritisation methodology and roll out plan.

Population Health Management (PHM)

Aim

Better understand and address the health needs of our population. Enabling a personalised and proactive approach to supporting the health and wellbeing of our communities.

What

Develop a Buckinghamshire approach to PHM with our partners

Roll out segmentation (categorising population according to their health status) to support direct patient care.

Further develop the SCR.*

Digital Empowerment

Aim

Support our colleagues to develop data and digital skills to ensure usage and maximise opportunities provided through our digital transformation

What

Embedding digital skills into our Organisation Development Offer.

Developing core competencies for different professionals and a support offer to achieve them.

Bespoke digital and data training offer for those that need to have a great competency.

* Further information in appendices

Changing the way we work

To deliver digital transformation the Trust will need to embrace different ways of working being **clinically led, operationally driven, digitally enabled and patient empowered**.

Clinically Led

Digital transformation will be based on a clear clinical vision, integrated into wider plans and be standardised. This will be supported by cultivating clinical leadership and strengthening the CCIO function.

Operationally Driven

This will mean equipping our colleagues with the skills to utilise, maximise and shape digital technology and data.

This will be incorporated into the OD programme

Digitally Enabled

This will mean ensuring that we have the skills and culture in the digital team to focus on user needs. Alongside sharing digital support functions with other trusts where our digital and data functions are shared.

Patient Empowered

Patients will have access to tools to support them to take more control over their own healthcare, remaining at home for longer and living healthier for longer.

What will this mean?

For our patients

- I will have improved access through digital tools which will simplify processes e.g. booking and changing appointments
- I will have greater control of my care through having digital tools to empower me to manage my own health and wellbeing, including virtual bots to access advice, apps and wearable technology to manage my long term conditions
- I will receive personalised and proactive care
- My patient record will be joined up, meaning I need to repeat my story less and I will be able to identify my communication needs

For our colleagues

- I will be able to focus more on patient care through having administrative time freed up e.g. letter content auto populated
- I will be able to access real time and improved data to aid decision making and deliver improved quality of care for my patients
- I will have the technology, equipment and digital skills I need to effectively and efficiently do my job
- I will be able to carry out clinical audit in a more timely and efficient manner
- Processes and systems will be standardised across the Trust as much as possible to enable integration between teams

For our partners

- We will have improved and more timely real-time information to aid more personalised and proactive care
- We will have a consistent population health management approach across Buckinghamshire enabling proactive and integrated care
- We will be able to identify those people most at risk for poor health outcomes and develop targeted approaches to reducing health inequalities

Achievement in 2024/25

In the first year of this Digital Strategy, we have made significant strides in delivering digital transformation, some of our key achievements include:

- Approval of the EPR business case which will see a £71.2 million investment in digital infrastructure over the next ten years
- Multiple digital system updates including:
  - Phase 1 of Clinical Narrative System which enables the digitisation of clinical forms
  - BadgerNet Maternity leading to reduced duplication improved patient safety
  - Community Rio updates which has included improve visibility of patient's clinical information, digitisation of forms and assessments and reduce duplicate data entry
- Led the development of a comprehensive data warehouse and reporting solutions, integrating FDP (Federated Data Platform) to enhance data accessibility, streamline analytics, and support data-driven decision-making across the organisation.
- Improved achievement of DSPT (Data Security and Protection Toolkit)
- Used population health management to develop clinical services for example our lipid optimisation programme where we use data in the Shared Care Record to identify people with high cholesterol that are at risk of a cardiac event and invite them in to reduce this risk, to data this service will lead to saving 140 lives over the next 5 years.

What does this mean for our patients and colleagues?

- Improved safety of the care we provide through having more data available at the right time and greater standardisation
- Patients having to repeat their 'story' less frequently
- Reduced cyber security risk, leading to deduced down time of clinical system leading to improved patient safety and freeing up more time to care
- Better and earlier data to support operational decision making i.e. through SHREWD providing real time information of the Urgent and Emergency Care system to enable system co-ordination and planning

2025/26 Plan

Digital Capability	Date	What will this deliver
Getting the basics right		
Meet or exceed all areas of DSPT	June 2025	Reduced cyber security risk and reduced down time.
Redesign the digital support offer including the development of more self-service options	March 2026	Empower colleagues to manage their own digital needs and increased customer satisfaction
Digitising the Trust		
ePMA (electronic prescribing) implemented across the whole Trust	March 2026	Improved patient safety through reduced medication errors and increased efficiency
Reduce paper-based processes (forms, assessments etc) with digital processes	March 2026	Improved data capture for downstream efficiencies (eg Clinical Coding and Costing) and reduced print and printer costs
Completion of Community Digital Health Programme	March 2026	Our Community records are digitised and integrated with internal and external social and healthcare systems to assist us in delivering safer, clinically informed quality care to all patients
Deliver the first wave of 'Smarter Working' which will "design and implement a planned care system that uses digital capabilities to put patients in control, improve productivity and support clinical decision-making	March 2026	Evaluation of Patient Portal options across Acute and Community, completion of the Ambient Voice Technology evaluation, digitisation of outpatient outcomes
Delivery an equitable BI offer across the whole Trust (including Data Warehouse and use of Federated Data Platform)	March 2026	Ensure we are evidence led and operational decisions are driven by data
Working with other Providers to ensure a shared EPR Strategy for 2030 to 2035 and beyond	March 2026	A strategic view of EPR solutions across the wider Provider system supporting effective procurement, cost efficiencies and patient journeys
Building New Capabilities		
Develop and implement Digital Empowerment Programme to help develop digital & data skills	March 2026	Ensure that our colleagues use and maximise the benefits of new and existing digital and data technology to improve patient safety, reduce duplication and inform decision making
Develop AI Framework	September 2025	Develop a governance framework to support the roll out, development and evaluation of AI across the trust to improve patient safety and maximise efficiency
Operationalise AI Framework	October 2025 - March 2026	Implement an AI programme to ensure a safe and co-ordinated development and roll out of AI across the trust to improve patient safety and maximise efficiency.
Roll out of segmentation in UEC pathway	December 2025	Support clinical decision making with holistic understanding of patient to improve outcomes and target resources most effectively

Appendices

- Appendix 1 – Using SCR for waiting list management Case Study
- Appendix 2 – Care Flow Vitals Case Study
- Appendix 3 – Overview of AI and automation technologies
- Appendix 4 – Population Health Management

Working With: Graphnet Transforming Care

Using the Shared Care Record for waiting list management

BHT collaborated with Graphnet to develop a population health dashboard that brings together the hospital waiting list data (surgical and OPD) with their shared care record (containing GP records).
The teams have developed a cost-effective use case scenarios, which are able to transform clinical pathways in ways previously unimagined. By identifying groups of patients in need, by deprivation, or co morbidity etc we are able for the first time to move to a more proactive medical approach, providing support early in clinical pathways to these groups of patients in most need, and who most benefit. This focusses our limited resources in a very cost-effective way:

- Identification of Poorly controlled diabetes patients on the surgical pathway enabled us to work with current community diabetes teams, plan targeted educational support to help improve blood sugar control whilst patients are on waiting lists. We have increased the monitoring of HbA1c in this group to 98%
- Identifying groups of low and high-risk patients, surgical pathways can be streamlined, bringing operational efficiencies by this co-horting process.
- Low risk patients (20% of current waiting list) can be triaged directly into clinic, with a reduction in appointment times from 45 to 12 minutes and reduced time from pre-op to surgery

Getting ready for surgery

- A getting ready for surgery pilot started in August 2024 and to March 2025 has support 179 patients.
- It uses PHM dashboard to prioritise patients with inequalities risk factors such as, smoking, alcohol, obesity and poorly controlled Long Term Conditions.
- The pilot utilise Health Coaches to support patients to support patients to get fit for surgery, prepare for appointments and understand waiting times and expectations. With the aim of reducing delays due to people being unit and complications from surgery
- The pilot initially ran with patients from two Primary Care Networks (PCNs) that are within Opportunity Bucks Wards.
- Next steps are to evaluate the service which is underway.

Electronic observations (CareFlow Vitals)

2019

- **February –** Implementation of Vitals version 3.6 across adult non-obstetric inpatient areas

2021

- **March** – Upgrade to Vitals version 4.2 to enable further functionality and implementation into ED
- **June** – Vitals go live in our Emergency Department
- **May** – Go live of the adult sepsis module
- **August** – Go live of the adult nutrition module

2023

- **July** – Vitals upgrade to version 4.3 enabling go live of eMEOWS (Modified Early Obstetric Warning Score) and Fluid Management pilot in Maternity
- **September** – Go live of ePaediatric Early Warning Score on Paediatric wards and in Children's ED
- **October** – Fluid Management module pilot in two wards at Wycombe Hospital
- **December** – Fluid Management deployed across Wycombe Hospital

2024

- Fluid Management deployment in progress at Stoke Mandeville Hospital

Currently in use in 41 departments by more than 3000 members of staff

CareFlow VITALS

CareFlow Vitals (eObs) is a mobile electronic observation and decision support system, first introduced in BHT in 2019.
The initial rollout was across adult non-obstetric inpatient areas following the National Early Warning Score (NEWS2) model. Vitals integrates to the Trusts' Patient Administration System, CareFlow EPR and CareFlow Connect (for handovers, task management and referrals). All patient observation details and comments completed within Vitals form part of a patient's clinical record. The system enables the Trust to:

- Ensure medical record integrity, with all administrative and clinical activity recorded in a consistent and timely manner
- Maintain its reporting responsibilities and comply with clinical governance guidelines
- Ensure that deteriorating patients are detected early and given the appropriate care in a safe and timely manner

Each upgrade and rollout of new observation models and modules has been supported by a digital project team working with the supplier and clinical stakeholders to thoroughly test, train staff and support implementation at go live, ensuring clinically safe deployment.

Benefits:

For our patients

- Safer care
- Deteriorating patients identified earlier including for sepsis

For our colleagues

- Quick, easy and intuitive to use
- Automatic risk scores with appropriate escalation message
- Releasing time to care
- Integrated with key systems including CareFlow Connect

For the Trust

- Reduction in cardiac arrests
- Targeted and prioritised care on wards and by Critical Care Outreach Team
- Auditable
- Remote visibility of acuity
- Reporting on compliance against obs standards
- Paperless
- Potential for deployment of additional modules and functionality

AI and automation

What are the different technologies?

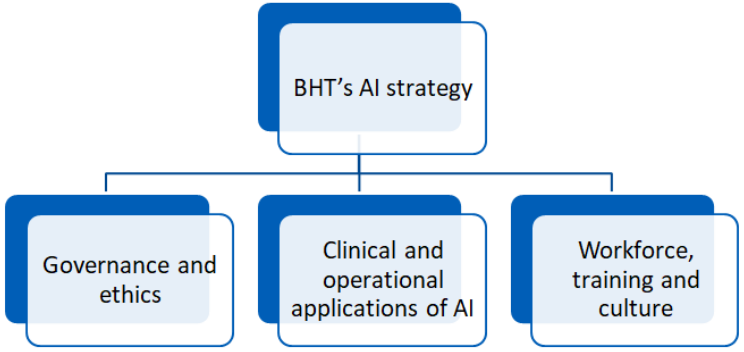
- At their core, AI technologies process large amounts of data to find correlations and patterns. Common applications such as chat GPT draw from large text repositories to generate text.
- Automation technologies break large digital workflows in smaller steps, which are then replicated in a computer program. Software can replicate these steps at a fraction of the time of humans.

What is their purpose?

- Enhance efficiency, reduce manual errors and free up valuable resources to improve outcomes and productivity.
- While manual errors are reduced, they might introduce other errors and biases which need careful control and mitigation.
- They are costly in terms of deployment, so are best deployed in high-volume, repetitive human activities.
- Like any service or software, they require maintenance, monitoring and improvement by humans, leading to some transfer of human resources from clinical to non-clinical services.

Some applications:

- **Digital dictation:** Uses Voice (Ambient) AI models to 'understand' human instructions to develop reports/letters.
- **Diagnostics/Genomics:** Uses AI pattern analytics to provide diagnostic decision support.
- **Automated referrals and other workflows:** Rapidly clear backlogs and clear up administrative resources for other tasks.



Next steps

- We have now established a virtual working group to support the AI governance development with AI governance in place from October 2025
- Developing frameworks and principles for AI deployment following the latest regulations and principles with Voice (Ambient) AI evaluation completed by December 2025
- Business cases for Automation including dedicated project management and service support
- AI and analytics roadmaps in diagnostics, genomics and other priority areas for NHSE

AI and automation: our approach

AI solutions at BHT

Off-the-shelf generic LLM AI tools

What are they? Generic AI tools to support our workforce day-by-day

Use cases: Clinical note taking • discharge summary automation • support with administrative tasks such as report writing • support predicting patients at risk and segmenting patients • streamlining and decision support for MDTs • diagnosis and decision support tools in the 'ologies

Examples: Examples include Heidi and Tortus AI scribe tools • Copilot AI assistant • Cera AI patient risk stratification tool • 33N CLEARnotes • LLMs • Dragon Copilot

Where are we already using these?*
Copilot trial • Dore AI assistant for ophthalmology clinical phone calls • • 33N CLEARnotes

Image recognition AI tools

What are they? AI tools that speed up clinical diagnosis of images

Use cases: Radiology and the 'olgies, CT scans, X-rays, MRIs

Where are we already using these?*
Skin Analytics for tele dermatology • IBEX AI digital pathology support tool • Brainomix stroke decision support tool • Aidence lung cancer detection tool

EPR integrated AI tools

What are they? AI tools that integrate with our EPRs which enhance clinical administration

Use cases: Clinical note taking that is automatically embedded in the EPR upon appointment completion • Research

Examples: Careflow Ambient AI which integrates and embeds ambient voice technology with the patient record • Access Life Sciences which enables data to be used for AI based research purposes

Where are we already using these?
Exploring Careflow Ambient AI • Exploring Access Life Sciences with EPR suppliers

Other considerations
Working with EPR suppliers to guide future development roadmaps

Bespoke AI tools

What are they? AI tools which are built for bespoke use cases at BHT

Use cases: Any area which identifies a potential use case

Examples: We are already building several of these with our AI strategic partner Quantium. Examples include • AI patient experience tool • AI clinical excellence tool • AI clinical audit tool • AI quality audit tool • HR chatbot

Other considerations
In-house vs strategic partner • return on investment for development • commercial elements • effort and time required to build tools that are used as medical devices • national grants for start-up initiatives

Robust governance and prioritisation

Generating use cases with clinicians and corporate teams

AI training: Specialist levy-funded accredited training and trust-wide all-staff training modules

Aligning with programme delivery, namely Smarter Working

* Some of these are in trials

Population Health Management

CONNECTED CARE

To leverage the latest technologies and work towards federating capabilities with our partners to improve delivery of care at reduced unit cost, we are currently participating in the Connected care Programme

- Across Buckinghamshire, Oxfordshire and Berkshire west ICB Connected Care is being used as the primary population health management tool.
- Connected Care, pulls information from the shared care record and enables population insight and intelligence at a population and individual level to enable proactive care. This can be used to develop tools to support direct patient care and transformation.
- Currently in BHT this is being used to support targeting of our resources for example:

    - Identifying people on the waiting who are at high risk of surgical complications due to deprivation and lifestyle risk factors, to provide health coaching to change lifestyle behaviours and improve outcomes
    - Identifying inpatients who are registered as a smoker with their GP to offer them smoking cessation support
    - Identifying people with at risk of cardiovascular events due to high cholesterol and inviting them in to review how their cholesterol can be optimised and reduce their risk
    - Providing community outreach to those with more complex conditions
    - Risk stratification of patients in primary care and looking to roll out in Emergency Department
    - To support development of priorities within neighbourhoods