

## Blueprint

# Trust Board leadership enablers for successful EPR implementation

The implementation of an integrated electronic patient record using a big-bang approach was a complex innovation achievement at UHCW, involving the synchronous replacement of all legacy digital systems and Board leadership was the key enabler for this innovation success. A whole system change approach and a detailed lessons learned analysis empowered transformation at user-design stage, through to digital safety and digital capability building to power the EPR's optimisation phase.



# University Hospitals Coventry and Warwickshire NHS Trust

**Last updated** Divya Dinesh 14 May 2025

## Background and Context

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### Organisation Description

University Hospitals Coventry and Warwickshire NHS Trust is one of the UK's largest teaching Trusts responsible for managing two major hospitals in Coventry and Rugby (1250 beds), which between them serve a population of over a million people. Every year we provide more than 800,000 episodes of care to patients from across Coventry, Warwickshire and beyond and we currently employ around 12,000 staff, including community service staff from the 1st of July 2024. UHCW provides all acute services including paediatric and adult emergency care, has a neonatal intensive care unit, an adult intensive care unit as well as HDU and CCU. UHCW also

owns the City of Coventry Urgent Treatment Centre.

## Blueprint Description

The new UHCW EPR interfaces with other specialist digital systems including the ICS's shared care record to ensure interoperability, clinical access to healthcare records anywhere in the system and a single true source of data.

From a quality benefit perspective, our integrated EPR system has immediately empowered seamless and visible pathways from emergency care to in-patient and outpatient care, as well as safer medication management from day 1 of launching, the latter due to the closed loop medication delivery and its electronic prescribing (ePMA) capability which completely replaced paper prescribing. The EPR deployment will further promote the up-levelling of UHCW to HIMMS 6 due to its ePMA capability and thereby laying the foundations for continued digital maturity growth and its associated benefits. Improved data quality and accuracy across the Trust, supported by a single place of access and format, makes the data accessible, easily and timely for staff in the Trust and external requests. We have already had staff testimonies about management and clinical audits becoming quicker, easier and more comprehensive, as soon as 5 weeks after launching. As the amount of structured clinical data stored within the EPR increases, these benefits will be more widespread.

A few of the biggest financial benefits we have associated with our EPR implementation include the reduction in preprinted forms and paper, reduction in medical record transfer in an out of hospital (including storage costs), reduction in transcribing and note/letter duplication. There are immediate benefits being realised from launch day 1 in June 2024 in all those aspects which will be tracked over the lifetime of the project (10 years). Another immediately realisable financial benefit since launch has been the savings from the removal of legacy systems. Some long-term financial benefits which we will start tracking from 12 months post launch onwards, is the reduction of medical consumables spent through improved stock control and management, reduction in the administrative and labour costs associated with subject access requests and the reduction of duplicate/unnecessary test orders through the use of care plans and bundled orders. The expected return on investment is 24% over the lifetime of the programme.

We also have an ambitious plan to realise 12 quality benefits, inclusive of medication management and errors related to medicines as described above which we have already started to realise. Those include: the timely discharge of patients, the improved recording of diagnosis and comorbidities for coding accuracy, the increased time to care for nurses, the reduction of admin time for doctors working in direct access pathways, the more timely escalation of sepsis, the improved theatre and surgical efficiencies, the improved completeness of patient documentation and the reduced time to screen patients for clinical trials. In order to achieve those quality benefits sooner rather than later, we have established four stabilisation groups at week 6 post go live, chaired by chief officers, led and delivered by a team of corporate directors, clinical staff and EPR programme leads. Those groups aim at improving inpatient discharge timeliness, outpatient outcoming and patient history recording, endoscopy and

theatre efficiency, data quality. We have also established a new digital governance structure, whereby the stabilisation groups report to the digital design authority chaired by the CCIO, the change Board chaired by the CIO and the digital clinical safety group chaired by the Clinical Safety Officer. Final design and change decisions, once prioritised for clinical and operational safety, are approved by the EPR steering group and ultimately by the EPR Board, which is chaired by the Trust's Chief Executive Officer. Moving forward from the stabilisation phase, a similar governance structure will serve the EPR optimisation phase whereby workflow optimisation will further deliver and sustain the EPR financial and quality benefits.

### **Why the Blueprint is important?**

Our EPR programme vision was to transform the way we work through the EPR, enabling healthcare professionals to seamlessly access all available patient information digitally, in order to provide clinically effective and joined up care. Our EPR vision aligns well with our refreshed organisational strategy as 'digital' represents the biggest enabler of our strategy, to become a national and international leader in healthcare rooted in our communities. Our values as an organisation also align well with the programme, particularly the value of 'collaboration' across the ICS with plans to have a single EPR instance, the value of 'learn' and 'improve' during the design stage of the programme, the value of being a learning organisation which partnered with other providers during the implementation in order to learn from them.

We set up an ambitious target to go 'big-bang' and move away from multiple legacy systems into a single integrated EPR. The critical success factor for this programme has been the strong leadership from Board to ward level. As an organisation which has heavily invested into a quality improvement methodology for its day-to-day business operations, well-embedded into its culture, we aimed for this programme to represent the biggest transformation programme UHCW has ever delivered. Executive sponsorship, governance structures, people management, digital safety and the clinical leadership structures with autonomy and ownership of the changes, made the programme a success from the beginning to the end. Even when the decision to delay the programme's go live in October 2023 was made, this was an opportunity for the whole organisation to learn from innovation failure, regroup, reset and improve at next round.

Our UHCW strategy 'better never stops' was reflected on the journey to go-live (June 2024) following the initial failure to go live in October 2023; A post-mortem examination of the factors that led to the delay was done involving representatives from all organisational functions, from corporate, to clinical, to executive levels. As a result of the learning activities, workforce engagement was heightened, people felt they were listened to and we improved on all critical functions including testing, training, communication and go live readiness planning. Our supplier quoted us as the most successful go-live case for the organisational size and scope of the programme.

UHCW's curiosity and ambition to improve further, saw digital projects flourishing at the same time as the EPR implementation, which were supported by the agile leadership and governance

structures we have managed to build within 'digital'. For example, we embarked on process mining and generative AI projects at same time as the EPR implementation, which utilised existing resources to develop prototype innovations within a very short space of time. This demonstrated the capability that we have built as an organisation to support complex innovation implementations concurrently and moving forward, those skills and resources will be essential for EPR optimisation.

The most interesting aspect of our EPR transformation programme is the number of changes we led in order to improve clinical workflows, using end-user design principles as well as our lean methodology. More than 700 changes were made to the system which were tested, were incorporated into the EPR training, they were implemented and adopted. In addition, we have been the first organisation to go live with a patient portal at the same time as the EPR. Moreover, we optimised our virtual ward solution during EPR implementation and we used robotic process automation to support complex activities such as data migration. All of those innovations occurred whilst upgrading our WiFi system, strengthening cybersecurity and building the digital clinical teams of the future.

Our big-bang EPR journey is a story of failure and success; failure in the sense that the approach was risky, involved significant change and it failed first, the failure spearheaded a strong organisational response and strong internal leadership as an anchor to continuing the journey stronger. The big-bang approach required investment in human resource, who needed to devote time to make change happen, whilst tackling other operational challenges concurrently, such as the elective backlog. Our EPR journey is also a story of success from a Board to ward leadership perspective, who used the organisational values and vision to win the heart and minds of people. Such leadership enablers, balancing a transactional and transformational approach at different stages of the programme, need to be shared with others as best practice for future EPR implementations. This blueprint serves that purpose.

### **Technical Pre-Requisites**

- Interfacing between specialist systems (eg. Oncology Mosaik, Cardiology Solus, Renal Clinical Vision) and EPR.
- Robotic Process Automation (RPA) for data migration purposes: a pre-requisite for going live with EPR.
- Electronic Document Management system (EDMS) deployment for the transfer of letters, reports, results from the main legacy system (CRRS): A pre-requisite for going live with EPR.
- Outpatient reporting outcome tool (OPROC) which was built within the EPR system.
- Digital dictation system with voice recognition which was built into the EPR system.
- ICS wide shared care record for accessing GP results and for GPs to access hospital results through EPR.

-Patient portal to replace the legacy maternity portal: a pre-requisite for going live with EPR.

-Patient portal will be accessed by all patients for appointment management, communication with clinical teams and for medical record access purposes.

### Other Pre-Requisites / Additional Information

There was a requirement for external staff with a legitimate need to access the system in order to care for patients (e.g. Hospice teams, community care teams) to be trained to use the system. Their generic roles already existed in the system and we had to ensure that those staff had honorary status with UHCW to be able to gain access to the EPR system.

#### Artefacts

- [EPR DPIA\\_v1](#)
- [EPR DCB0160 Clinical Hazard Log v1.6\\_23052024](#)
- [EDM Clinical Risk Register](#)

### Digital Inclusion and Greener NHS

UHCW works closely with deprived communities, through collaboration with the city council and through the integrated care GP network at the Coventry City Centre Urgent Treatment Centre. We appreciate that we cannot rely on digital communication for some patients who do not have access to a mobile phone or computer to access their data and appointments for care.

We have engaged with patients and the public throughout the EPR implementation to understand individual patient communication needs and we cater for everyone regardless of whether they have access to digital technology. At the same time, we want to maximise the use of digital tech to access information about care so as to minimise paper and ensure no duplication of journeys to the hospital (Greener NHS). We have therefore implemented a new SMS solution that encourages patients to cancel and rebook an alternative clinic appointment, hence reducing do not attendance rates in the outpatients from 10% to 4%. Patients without a telephone number are picked up and alternative means of communication are utilised, which includes letters sent to their registered address, informing next of kin or their place of residence (if in residential care). We have therefore reduced unnecessary car or bus journeys to the hospital and have significantly reduced the use of paper through EPR implementation.

A reduction in CO emissions is expected as a result of the EPR deployment, aligned with the NHS NetZero agenda. Finally, we have been mindful of the different staff digital literacy

capabilities and have provided digital training for healthcare professionals at UHCW and across the ICS who need to use the new EPR to deliver care. By doing so, we are serving our purpose of maximising EPR adoption across the workforce and effecting our EPR benefit realisation plan.

## Project Team

### Development Lead:

- Dr Penny Kechagioglou, Chief Clinical Information Officer, Deputy Chief Medical Officer and Consultant Clinical Oncologist - [penny.kechagioglou@uhcw.nhs.uk](mailto:penny.kechagioglou@uhcw.nhs.uk)

### Subject Matter Experts:

- Isla Colclasure, Digital Clinical Fellow - [isla.colclasure2@uhcw.nhs.uk](mailto:isla.colclasure2@uhcw.nhs.uk)

### Executive Sponsor:

- Susan Rollason, Chief Finance Officer and Deputy Chief Executive Officer, SRO for Digital and EPR

## Project Timeline

PLANNING & PREPARING			IMPLEMENTING			SUSTAINING		
Activity No	Start date / End date (MM,YY)	Activity name	Activity No	Start date / End date (MM,YY)	Activity name	Activity No	Start date / End date (MM,YY)	Activity name
1	Before programme launch/ Jan22	Benefit identification and realisation plan	5	Feb22/April22	Current State Assessment	10	Jan22/ongoing	Digital Informatics Teams of the future & EPR optimisation
2	Before programme launch/Jan22	Subject Matter Expert recruitment	6	June22/Aug22	Future State Validation	11	Oct23/ongoing	Training sustainability plan
3	Before programme launch/ Jan22	Cyber security strategic plan implementation	7	Aug22/Aug23	Electronic Document Management (EDM) system launch	12	Oct23/ongoing	Comms and Engagement plan
4	Before programme launch/ Jan22	Data Migration strategy	8	Jan22/go live Jun24	Digital Clinical Safety			
			9	March24/June24	Clinical, Operational and Technical Leadership Meetings			

## Planning & Preparing

### Activity 1: Benefit identification and realisation plan

#### Why was this activity important?

The EPR business case was based on a robust benefit identification and realisation plan which had to be accurate, realistic and measurable. Identifying financial and non-financial benefits was a multidisciplinary exercise led by the Trust Board and its chief officers and involving all the triumvirate groups. A reminder of those benefits when devising the overall vision, Trust

engagement and communication plan was essential in keeping people enthusiastic and engaged with the programme.

The ability to articulate benefits from Board to ward meant that the Trust had the buy-in of its stakeholders and worked together towards common goals, which started with the successful implementation of the EPR system. Now that we are 9 weeks post launch, the benefits strategy acts as an anchor to encourage good system adoption and engagement of people, which is further reinforced through the digital governance structures as we move from stabilisation to optimisation.

### **Who completed this activity?**

The activity started with a Trust Board and executive alignment session with the vendor to establish the vision and purpose of the programme as well as work through the long list of benefits which were devised with the help of an external consultancy team.

Various workshops followed this session in order to narrow down on the benefits which could be realistically and accurately measured post go live. Timelines for realisation were also agreed, as well as the specific chief officer and operational owners of the benefits who will be respectively accountable and responsible for their realisation.

### **How was this step completed?**

A detailed baselining of the agreed benefits followed the above activities which were led by clinical and operational teams. The teams also worked through the EPR impact for each benefit, key enablers to ensure benefit is realised, methodology and assumptions (incl. baseline data source, calculation method and a full annual realisation plan).

The detailed benefit analysis was approved by the Trust Board chaired by the chief executive. An example of such benefit being worked through in a systematic way is the reduction in duplicate or inappropriate pathology tests as a result of introducing EPR due to its bundles tests and care plans.

### **Key Learnings & Advice**

- The key learning from the benefit identification and realisation planning activity is the ability to narrow down on key benefits and not widen the benefit scope too much. We recognised early on that having fewer benefits to realise is more realistic and achievable within the timeframe of the programme and it is more likely to have people engaged from across the organisation to support baselining and realisation if we had fewer key benefits agreed. In addition, we learned that it was important to break down the benefits by role and communicate to people what the benefits meant for them.

## Key Decisions

- From the long list of benefits, we prioritised and narrowed down the list through including senior executives, middle management as well front-line teams. It was very important that all roles in the organisation appreciated the value of the new EPR, owned and shaped the benefit strategy as we moved from planning to implementation.
- The role of the Trust Board was key in setting the tone and direction of this activity, which was then led by the EPR team throughout the implementation phase. We are now at post launch phase and we use this original activity to anchor people back into the purpose of the EPR and need for clinical engagement as we move into the optimisation and benefit realisation phase.

## Artefacts & References

- [20211027 - EPR Key Engagements](#)
- [Benefits for Board\\_20.12.22](#)
- [Benefits of shared domain](#)
- [Benefits\\_Corporate, System, Societal](#)
- [EPR Benefits Group Engagement](#)
- [Financial Benefits - Summary Slide](#)
- [UHCW Benefits Realisation TSG](#)
- [Transformation Strategy](#)

## Activity 2: Subject Matter Expert recruitment

### Why was this activity important?

The successful implementation of EPR relies on strong clinical leadership from within the organisation to be involved throughout the different programme stages. We were determined as an organisation that we will make our biggest transformation programme (the EPR) a clinically-led programme. We therefore led engagement workshops with all clinical groups, drafted the clinical roles needed to support the implementation of a big-bang EPR programme, based on previous implementations, published expressions of interest for roles, engaged with line managers and arranged to backfill positions, all with the support of the Trust Board.

## Who completed this activity?

The CCIO, CNIO and the Head of EPR programme led the subject matter expert recruitment strategy and delivered all required roles and more by the time the programme was launched in January 2022.

## How was this step completed?

All roles had an 18-month secondment duration.

Advert for EOI was placed on 7th June 2021 via dedicated EPR link on TrustNav. This remained open for 3 weeks – closing date 27<sup>th</sup> June.

Staff had to speak to their Line Manager before submitting EOI to confirm support for secondment.

Candidates applied online via Trac (UHCW digital recruitment system).

For senior medical clinicians, each speciality from the 44 was asked to identify/fund 1 SPA for digital work. This resulted in a total of 44 Digital SPAs across the Trust which contributed towards the EPR implementation. EPR PAs and Digital SPAs were agreed by specialty leads to ensure service delivery is maintained.

Candidates were interviewed, and roles were in place by September 2021, well ahead of the EPR implementation launch in January 2022.

### Key Learnings & Advice

- Early recruitment of subject matter experts enables clinical departments to arrange workload, find resource to backfill the SMEs and train the resource to cover roles. Consultant SMEs need to incorporate the digital SME role within their job plan. What worked well with us is the incorporation of one to two digital SPAs into the job plan for those SMEs working in the programme. It is important that SMEs are given space and time to perform this role, which cannot be done on top of clinical activities. This requires good leadership at departmental, division and Board level to enable such investment to work well. Other SMEs joined the programme full-time or as a secondment.

### Key Decisions

- As an organisation and as CCIO/CNIO teams, we had to make strategic decisions about individual SME recruitment not just for the delivery of the EPR programme but also for the

future of 'digital' at UHCW.

- The recruitment of medics, nurses and AHPs in the programme gave us an opportunity to try a hybrid clinician model of care which we now want to promote to ensure that digital, innovation and research continue to flourish in our organisation.
- Having worked with clinicians at all levels within the programme, they loved the fact that they were valued members of the programme and Trust governance and they were given the space and remuneration to perform a digital role outside their clinical commitments. This model led to our digital informatics team of the future creation.

### Artefacts & References

- [CCIO JD PREP 2021 JD](#)
- [CPIO PREP 2021](#)
- [EPR Board JUL21 - EPR SME Roles](#)
- [EPR CIT recruitment 2021](#)
- [EPR Clinical Recruitment - PREP](#)
- [EPR recruitment Aug21 PREP](#)
- [JD CRIO PREP 2021](#)
- [Job Description CSO](#)
- [Job Description JD](#)
- [Job Planning and EPR PREP 2021](#)

### Activity 3: Cyber security strategic plan implementation

#### Why was this activity important?

The risk of a cyber-attack is always present in the Trust from a range of targeted and random cyber threats to our system, staff, suppliers and partners. We were mindful that embarking into an EPR implementation programme would make such threat higher and we therefore put measures in place to mitigate those risks.

#### Who completed this activity?

The Director of ICT has oversight of the Cybersecurity strategy for the Trust and commissioned a number of changes to maximise security in our ICT systems.

### How was this step completed?

-New Cisco Web filtering tool including all laptops outside of the Trust which helped improve performance, control, security and monitoring of all staff web access.

-Repeated NHS Digital Cyber Assessment.

-Establishment of ICS Cyber Security group with NHSX to support knowledge sharing and address risks.

-Office 2010 to Office 365 change.

-Backup enhancements including Office 365 backups, cloud backups and efficiency improvements.

-Multi-Factor Authentication (MFA) for all external users of Office 365.

-Windows Server 2008 upgrades to newer operating systems.

-Moving medical devices and uncontrolled devices behind our Medical Firewall. This helped reduce the risk of cyber-attack and spread of an attack if one of these devices was compromised.

-Improvements to patching processes and timeliness.

-Upgrade of Wi-Fi network at University Hospital.

-Windows 10 upgrade from 1803 to 2020H2 build.

-Active Directory Upgrade.

-Removal of legacy firewall used for Worcester cancer services.

### Key Learnings & Advice

- The biggest gap in training with the current mandatory training schedule, is Data Awareness, covering limited areas of security awareness, with most staff attempting to complete the training as quickly as possible. A new approach to cyber awareness training was needed, leading to the launch of new cyber security training for all staff.
- The other main gap is in the starters, leavers and change process particularly for

temporary staff, bank staff, students and volunteers which can leave accounts active or with additional permissions longer than required.

- The importance of good governance, DPIAs and security assessments of suppliers particularly around insources, outsourcing and AI projects is key to ensuring ongoing cyber security in relation to partners and suppliers.

### Key Decisions

- We improved end user training, phishing email testing and additional cyber communications to improve awareness. We also introduced Board level Cyber Security training.

### Artefacts & References

- [Digital Strategy 2021-2025](#)

## Activity 4: Data Migration strategy

### Why was this activity important?

Data migration is an essential activity when moving to a new EPR system from other legacy systems. A preparatory piece of work is needed prior to implementation, to agree what needs to be migrated and what is not needed, where the information from legacy systems will be stored and how clinical and operational people will have access to patient data when required.

The Trust will want to ensure that: people have access to the data that they need in the future state solution to continue treating patients, the data that is migrated into EPR is useable, that there is no loss of data as a result of the migration, that any data items not migrated into the target domain but still required by the Trust can be accessed through an archive solution.

All data gaps are identified and accounted for before go-live and not after. If the above are not achieved, then the repercussions for the Trust are the following:

- Potential data losses, the possibility for data loss to go unnoticed at the point of go live and only becoming known when an end user needs the data after go live
- Project overruns and delays to the Trust go live, clinical risk, compromised patient safety, financial loss and inability to report and monitor on Trust activity
- Poor data quality in the target system for example duplicate patients, missing data items

and records.

### **Who completed this activity?**

The data migration team completed the strategy document in collaboration with the EPR clinical leads (CCIO, CNIO, CIO and CSO teams) and after engaging with departmental leads and subject matter experts. The implementation of the strategy came later in the EPR implementation phase, but the preparation was essential beforehand.

### **How was this step completed?**

Careful planning and extensive engagement with stakeholders across the Trust ensured that clinical, operational and financial risks associated with deployment of the new EPR were minimised. Effective data migration was delivered through detailed planning and scoping, clear management of dependencies across integrated workstreams and thorough testing of the migrated data.

### **Key Learnings & Advice**

- The key principle for Data Migration is that there is no loss of patient data as a result of the move to a new EPR. All valid patient data which is currently available must continue to be available either in the new EPR, through a legacy data viewer or in an offline data repository.
- Understanding what data matters to people in order to care for patients after go live will determine what is migrated (e.g. Flags, alerts). Data migrated to the EPR system can only be useable if it aligns with future state workflows. Trial loads provide an opportunity for EPR workstreams to test migrated data.

### **Key Decisions**

- Not all data from legacy systems could be migrated to the new EPR system, therefore we had to make a decision about archiving legacy system data. For example, a detailed archiving strategy was devised for the homegrown results and reporting system (CRRS) which contained all clinic letters, test results, MDT and other reports. Our EDM (e-document management system) now hosts the majority of those records.

## Artefacts & References

- [UHCW - Data Migration Strategy v1.1](#)

## Implementing

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### Activity 5: Current State Assessment

#### Why was this activity important?

Understanding current state of the clinical and operational workflows at the start of the EPR programme, enabled us to process map and identify waste within those workflows that we wanted to remove when EPR goes live. The current state led to the redesign of the workflows to determine what the future state should be when we have the EPR. EPR benefits were outlined through this exercise.

#### Who completed this activity?

The current state exercise was led by senior digital, clinical and corporate leaders in the organisation. The digital Senior Responsible Officer and Chief Quality Officer in the Trust had the oversight of this activity.

#### How was this step completed?

Multiple workshops took place that covered nine patient pathways, including young adult major trauma, oncology neutropenic sepsis pathway, complex frailty pathway, maternity pre-eclampsia pathway, sepsis, elective surgery, breathing difficulty (paediatrics), chronic kidney disease and stroke. The approach was aligned to the Trust's KPO / Lean improvement methodology and fitted well in the wider transformation and benefits work. Process mapping and waste identification helped us redesign those workflows and the designs were used during the future state reviews. The work was done at pace and required the subject matter experts to be present in all the workshops, good project management support and robust analytics support with design thinking capabilities so as to end up with 9 illustrated and refreshed pathways.

## Key Learnings & Advice

- Through interviews, workshops and clinical walkthroughs, the high-level current state of nine patient journeys was being captured, identifying people, processes and tools, associated benefits, transformational changes and challenges. These activities required excellent engagement with clinical leaders across the Trust, and executive support for the

Trust leaders to be released to be immersed into the work.

- Investment with time and backfilling those SME was essential for this important piece of work to be completed. Without the clinical engagement of multidisciplinary teams in the current state activities, the EPR design stage that followed would not have been possible.

### Key Decisions

- The choice to focus on the 9 pathways was strategic and was preceded by extensive consultation with stakeholder leaders across the organisation and the wider ICS.
- The space to run those workshops was chosen to be the Trust's innovation hub to inspire change and innovation along the lines of our Trust's vision and improvement culture.

### Artefacts & References

- [Current State Assessment Overview April 2022](#)
- [Current State Leadership Debrief Presentation\\_Final\\_300322](#)
- [EXEC ALIGNMENT IMPLEMENT 2022](#)
- [Oncology Pathway Assessments](#)
- [UHCW Vision Statement Planning.2022](#)

## Activity 6: Future State Validation (FSV)

### Why was this activity important?

The FSV provided better understanding of future workflow design and patient journeys. It was used to demonstrate future state workflow design that supported Trust's strategic objectives. It was also used to describe points of workflow integration with other departments and roles.

### Who completed this activity?

The FSV was led by digital leaders (CCIO and CNIO) with the help of subject matter experts who participated in the design of the future state work workflows. Those demonstrations took place in the lecture theatre of the Trust or the innovation hub, both areas where people could

easily attend from across the Trust. Acute partners and representatives from the ICS also attended the FSV sessions and there were break out rooms for specialist workflows.

### How was this step completed?

The FSV was completed over 5 intense days, with 65+ individual sessions and 120+ hours of work. More than 200 workflows were demonstrated and there were more than 200 participants in those meetings. Adequate breakout rooms were essential and had to be booked well in advance.

#### Key Learnings & Advice

- FSV allowed people to start understanding the transformation of patient care delivery, it referenced current state and enabled change rather than replicating current state in the new EPR. The importance of communicating any gaps in the workflows was emphasized in addition to looking for opportunities to make the most of the new capabilities.

#### Key Decisions

- Communication with colleagues to validate and share the vision.
- Understanding how you will create and tell the story of patient care delivery.
- Address feedback, good and bad and bring people together with the programme and along the journey.

#### Artefacts & References

- [Future state review Intro Session](#)

### Activity 7: Electronic Document Management (EDM) system launch

#### Why was this activity important?

The EDM system was a pre-requisite to going live with the new EPR system, as it enabled all historical records to be digitised. A clinical safety case was thoroughly prepared for EMDS and there were two residual risks with acceptable mitigations. The process of preparing documents for scanning is critical to the usability of EDMS. The presence of an EDMS aligns with the Net Zero strategy of the Trust, as we no longer need to transfer and store medical records moving

forward. It also ensures that we remain paper-lite at first and once all assessments are digitised, we become paperless in the next few months.

### **Who completed this activity?**

The implementation of the EMDS took place at same time as the EPR implementation. The EPR Board and executive digital sponsor (SRO) had oversight of the project alongside EPR and decision-making went through similar governance structures to the EPR ones, namely digital design authority, EPR Board, Trust's Patient Safety and Effectiveness Committee. Its clinical safety case was led by the Clinical Safety Officer with oversight from the CCIO and CNIO.

### **How was this step completed?**

A separate EMDS Board ensured there was oversight of the project by the clinical and ICT teams. A clinical risk workshop and assessment was completed on the 31st January 2023, with attendees reviewing each Clinical Risk/Hazard individually and scoring the risk (Consequence x Likelihood). Each clinical risk was mitigated as far as possible and reassessed.

### **Key Learnings & Advice**

- Significant financial savings are to be derived from the EDMS implementation (going paperless, no transfer of medical records), as well as quality benefits (all historical information in one place for the purpose of audits, mortality reviews, subject access requests, complaints, claims), saving time for teams.
- An EDMS is a comprehensive solution that accompanies an EPR implementation, needs equal attention and the project needs clinical and executive oversight through the EPR governance structure.

### **Key Decisions**

- The timing of the EDMS going live had to be before EPR and training of the workforce had to be timely as well, to ensure it did not coincide with EPR and that all staff were confident in using the EDMS for day-to-day functions such as audits etc. before EPR went live.
- It was important that EDMS was not side-lined when it came to the clinical safety case, being done separately to the EPR clinical safety case. Clinical leadership enabled robust oversight of the project.

## Artefacts & References

- [EDMS PSEC March 2024](#)
- [EDM Board Presentation 20220916](#)
- [EDMS clinical safety case](#)
- [EDMS-overview of risks presented at Chief Officer Group](#)
- [Overview of the issues arising after EDM implementation](#)

## Activity 8: Digital Clinical Safety

### Why was this activity important?

The EPR clinical safety case is part of the mandatory submission of documents for the safe and effective deployment of the EPR under DCB0160 regulation. It contains all clinical hazards identified by the clinical and operational teams in the organisation, led by the clinical safety officer, in conjunction with the EPR system hazards identified by the vendor, under DCB0129 regulation.

The clinical safety case has been a live document since the beginning of the EPR implementation, regularly updated with clinical hazards, following workshops with the relevant EPR workstreams. The final clinical safety case was signed off by the EPR Board and the executive team prior to go live with the EPR system in June 2024.

All hazards were mitigated with appropriate actions, standard operating procedures and workarounds that were tested and communicated to the relevant areas. The clinical safety case is the single most important place to begin optimising the EPR system at this stage of the programme.

### Who completed this activity?

Digital safety was everyone's business throughout the programme and we had clear governance processes of clinical hazard submission, risk assessment workshops, escalations to Trust Board of significant risks.

The clinical safety case led by the digital clinical safety team, CSO, CCIO and CNIO, recommended delaying the programme in October 2023 until risks were sufficiently mitigated and that was a brave and appropriate decision to make to ensure patient safety comes first. In June 2024, the digital clinical safety team recommended proceeding to go live with the new EPR.

## How was this step completed?

The safe go live of the EPR system was a key priority so that no significant clinical incidents happened as a result of the EPR leading to complaints and claims. Since the beginning of the programme and especially moving from current state to future state, workflow design and testing, the involvement of the digital clinical safety team (CSO, CCIO and CNIO teams) became more and more intense. They led EPR safety events and workshops with the divisional groups and departments to work through risks and mitigations, conduct risk assessments of design decisions which were then presented for approval to digital design authority and ultimately the programme Board, chaired by the Trust chief executive officer, NHS England frontline digitisation team had oversight of the clinical safety case and the methodology used to ensure robust documentation of risks and training of the workforce to manage those.

At this phase of the programme (optimisation), we are referring to the clinical safety case, as new hazards are added and prioritising change requests that would solve those clinical hazards. Again, clinical and Trust leadership plays a key role in managing discussions around digital safety and working closely with the quality team to manage patient incidents and prioritise optimisation changes related to patient safety.

### Key Learnings & Advice

- The goal of the EPR programme should be to go live with a system which is safe, clinically, operationally and technically. The clinical safety case provides that assurance. All staff need to be aware of the key hazards and their mitigations (SOP, Quick Reference Guides, EPR training) and should attend training of how to use the new EPR system.

### Key Decisions

- Key decisions throughout the programme were the classification of clinical hazards in terms of severity, decisions about mitigations, ownership of hazards, training material on mitigation, communication methods for the organisation working closely with the communication and engagement team. At this phase of the programme (optimisation), key decisions are around the logging of new hazards and the prioritisation of change requests to close new and existing hazards related to patient safety.

### Artefacts & References

- [EPR DCB0160 Clinical Hazard Log v1.6\\_23052024](#)

- [EPR DCB160 FINAL MAY24](#)
- [Training Approach](#)

## **Activity 9: Clinical, Operational and Technical Leadership Meetings**

### **Why was this activity important?**

In the run-up to go live, an in-person EPR Programme Leadership meeting was established to facilitate communication and collaboration between Trust teams. This meeting enabled open discussion of issues and decisions to be made around the impending cutover and go live with representation from the relevant teams. It was a centralised way to disseminate information and cascade it out.

One outcome of the EPR Programme Leadership meeting, was the decision to add 'Clinical Voice' as an agenda item to the EPR Board. This provided clinical staff from the EPR team (medical, nursing and allied health professionals) with an opportunity to report directly to the Board on how staff in the wider Trust were feeling ahead of Go Live. An issue was raised regarding nursing staff not being able to attend supplementary EPR training sessions due to clinical commitments. This led to a requirement of ward managers reviewing rotas to factor in protected time for nursing staff to attend the additional training and familiarise themselves more with EPR ahead of go live.

### **Who completed this activity?**

Members of the EPR senior management team chaired the meeting with representatives from clinical, operational, reporting, IT, Communications teams in addition to EPR workstream leads. The meetings had project management support to document the decisions made and action points and their owners.

Clinical members of the EPR team (doctors, nurses and allied health professionals) represented their colleagues from the wider Trust in the 'Clinical Voice' agenda item at EPR Board.

### **How was this step completed?**

Weekly meetings were arranged with an emphasis to join in-person. Meeting in-person facilitated relationship building between members of different teams. This was essential to an effective Command Centre structure ahead of increased collaborative working between teams at go live and beyond. The Trust's commitment to hearing from clinical staff led to time being dedicated to this as part of EPR Board, with 'Clinical Voice' being added as an agenda item.

## Key Learnings & Advice

- Clinical staff felt their opinions mattered, their voices heard and that the Trust would act based upon this feedback. Having support at Board level meant that any action agreed upon had full backing from executives to ensure that it would occur.

## Key Decisions

- The Governance structure for the Go Live Command Centre was first disseminated at the EPR Programme Leadership meeting, where feedback was encouraged prior to taking to EPR Board for final sign-off. The cutover and go live Communication and Engagement strategies were discussed. A decision was made to create a 'pocket card/EPR EVERY Card' for clinical staff listing the 5 highest scoring risks or workflows that the clinical team wanted to highlight to all staff as another means of increasing awareness and thus promoting patient safety.

## Artefacts & References

- [202312- Communications Strategy](#)
- [202312- Org Readiness Engagement Strategy - READ ONLY](#)
- [Cutover COG June24](#)
- [Digital and Design Authority Board Terms of Reference](#)
- [EPR BOARD lessons learned from deferral](#)
- [UHCW User Confidence and Capability Strategy - Training](#)
- [EPR EVERY card](#)

## Sustaining

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### Activity 10: Digital Informatics Teams of the future & EPR optimisation

#### Why was this activity important?

The role of the digital informatics teams, CCIO/CNIO/CSO/CIO teams, does not stop with the

EPR go live, their role in bridging the gap between clinical, operational, ICT and analytics is key to build on the successful go live and optimise the EPR system, hence realising its benefits. The role of the chief pharmacist and ePMA teams, as well as that of the Clinical Research Information Officer, Chief Registrar, Digital midwives and digital matrons is catalytical in the optimisation phase of the programme to keep momentum, enthusiasm, commitment and the vision of what can be achieved with the new system.

It is also about ensuring good adoption of the system and instilling a data-driven culture in the organisation, encouraging teams to look at the system reports on adoption and good practice and continuously work towards best practice. Our digital informatics team is the biggest asset that has come out of the EPR implementation which will ensure digital maturity and sustainability of safe digital systems across the organisation and wider, across the ICS, in collaboration with system partners.

### **Who completed this activity?**

The CCIO and CNIO led the development of the digital informatics team of the future, through engagement of clinical leaders and development of sustainable digital governance structures that link with Trust governance structures.

### **How was this step completed?**

Learning from other Trust models who had gone live before our Trust with an EPR system, what worked and what did not work, was very useful. As a learning organisation, we took those learnings away from previous implementations and we adapted team models around our improvement methodology, quality management system and performance structures.

We came up with a stabilisation and optimisation team structure that naturally follows the stage of the EPR programme and we are refreshing the membership of those structure to reflect the work that people have done throughout the programme. This is done so as to ensure we value the work of the people who devoted time to support the programme and whom we have upskilled to take forward the optimisation of the programme.

### **Key Learnings & Advice**

- A well-led EPR optimisation process can improve productivity due to workflow standardisation across the system. Maintaining a strong improvement culture reduces any unwarranted variation in practice as decision-making is well governed and supported across the organisation and healthcare system.

## Key Decisions

- Programme resource post go live, refreshed governance structures and membership model, change prioritisation strategy and tool for optimisation, implementation of new processes and reports, continuous Board to ward leadership and ownership of the digital agenda.

## Artefacts & References

- [Clinical Informatics Team\\_SUSTAIN](#)
- [EPR and Digital Governance](#)

## Activity 11: Training sustainability plan

### Why was this activity important?

EPR training has always been a critical success factor for the programme. Achieving >90% of people trained at go live was a huge success and involved a combination of e-learning, face to face training, practical training labs and on the elbow training for teams and small groups. We realised early that we needed to ensure a similar robust training of new starters after go-live, utilising existing superusers and expertise that has been built over the last 8 weeks since going live.

### Who completed this activity?

The Chief People Officer of the Trust is the Senior Responsible Officer for EPR training, owned at executive level. People and development teams have been instrumental in the design and delivery of the EPR training strategy and continuous working with the EPR and Digital teams at this stage (optimisation phase) ensures that digital/EPR training is updated, refined and reflects current challenges in the system.

In addition, training material is continuously updated with the help of the digital clinical teams, to ensure it reflects new clinical hazards, new SOPs and mitigation steps that staff need to know to continuously operate safe digital systems.

### How was this step completed?

An EPR handbook has been developed by our digital clinical fellow, with oversight from the CCIO, CNIO, CSO and training team.

This handbook highlights the higher-risk workflows which staff need to know about to operate a safe system, in addition to the workflows which caused issues at go live. It has links to step-by-step quick reference guides and videos embedded into it. The handbook has been circulated through the CMO and CNO Bulletins and as wider communication across the Trust, led by the Head of Communications and team.

The handbook has been the basis for the new induction programme for postgraduate doctors and other healthcare professionals joining the Trust and is a live document that will keep being updated as the EPR system continues to be refined.

### **Key Learnings & Advice**

- Training on EPR must be multifaceted to cater for all learning styles and for the 'hard to reach' specialties working in the community, nearby hospices and acute system partners. It is important that all staff who come and deliver care for our patients have access to the EPR training material to ensure safe handover and documentation of treatment plans in the EPR record. To do this, we had to offer new or update existing honorary contracts for professionals outside the organisation, so as for them to access EPR training. This was hugely appreciated.

### **Key Decisions**

- Updating training and lesson plans after going live with EPR can be daunting and requires investment in time and people to do a good job. This is an ongoing activity and therefore ensuring a strong and coherent training strategy plan, as EPR optimisation unfolds, is key. Having a regular training team taking responsibility for updating training plans is key. The ongoing digital clinical leader support in offering on the elbow training when required and supporting training labs, is a great asset.

### **Artefacts & References**

- [Digital research](#)
- [EPR Handbook for New Starters](#)

## **Activity 12: Comms and Engagement plan**

**Why was this activity important?**

Communication and engagement around EPR has always been a critical activity from preparation, through to implementation and sustainability. The comms and engagement strategy went hand in hand with the recruitment of the digital informatics team of the future, the engagement of people around the EPR clinical safety case and many other activities. It is interlinked with all the activities of the EPR programme, including current state identification, future state validation, digital design decisions, going live, stabilisation and optimisation phases.

### **Who completed this activity?**

Comms and engagement has been a standard agenda item in the EPR Board, chaired by the chief executive officer.

The Trust Head of Comms and Engagement works very closely with the digital clinical teams and the programme SRO to agree on weekly messages to the organisation and the best means to communicate those.

Apart from focusing on the diversity of message distribution, creativity and innovation plays a big role on the transmission of the message and deriving the desired outcome (adoption, change). Utilising our UHCWi improvement methodology such as using visual controls and other means, is a familiar and embedded approach in our organisational culture.

### **How was this step completed?**

Comms and engagement consist of ongoing activities that is shaped and refined throughout the stages of the EPR programme. It is own at chief executive and Trust Board level and consists not only of internal comms but also external comms (patients and the public, system partners).

There are daily and weekly activities that shape the comms and engagement strategy and implementation plan and the programme of comms and engagement events is continuously refined according to the needs of the organisation.

We listen to the voice of clinicians, internal and external staff to understand what matters to them and what they want to hear, how they want the message transmitted and how best to reach all levels of the organisation and the people external to it.

We have utilised the local radio for key messages, patient and public forums and specialist staff who engage with 'hard to reach' communities.

### **Key Learnings & Advice**

- The value of the EPR system and realising the financial and quality benefits rely on continuous and robust comms and people engagement.

- A minor change to the build may make a major difference to a workflow which needs to be communicated well, adopted and adoption compliance should be monitored.
- The challenge of reaching out to all functions of the organisation through comms is real and therefore, comms should be multifaceted, including written/digital/verbal/instructional/visual.

### Key Decisions

- The decision to communicate EPR messages to reach the right people and have the desired effect on people, is a continuous and challenging undertaking. Digital clinical leaders are working continuously with the Head of Communication and team to frame the messages of the week, engage people into the message and ensure ownership of the message.
- Different methods of communication are used including safety alerts, CMO and CNO Bulletins, CSO led workshops, postgraduate induction days, visual controls, laminated materials, production board messages and many more. The diversity of comms is what makes the difference in the message getting embedded or not.

### Artefacts & References

- [PSEC HeaderTemplate.11.4.24](#)
- [PSEC ReportTemplate.11.4.24](#)
- [UHCW Programme Closure Report v2\\_updated](#)

## Benefits and Outcome

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### Benefit 1: Digital Leadership Development

#### Benefit Description:

EPR implementation is a complex innovation that involves considerable change at organisation level and requires a whole-system approach to change. At organisational level, the transformation process is visible from the early stages of the EPR implementation. Whether it is IT infrastructures, digital governance structures or workflow redesign, there is considerable

organisational change happening at a fast pace which needs to be balanced by the continuous delivery of organisational targets. Such ambidextrous skills at organisational level, balancing delivery and continuous improvement with rapid change, requires robust leadership from the chief sponsor of the programme at Board level to the ward leaders and EPR champions.

Our leadership structures and culture from Board to Ward has been the catalyst for our digital transformation and has supported the training and development of our future digital leaders who will take digital innovation to the next level. Our EPR implementation has accelerated the development of our digital structures, with leaders who are able to implement our digital strategy and roadmap until 2030 and beyond. Such leadership development has opened up opportunities for our workforce to be promoted into diverse leadership roles across the organisation. In particular, a top-down sponsorship of the programme with the chief quality officer and later the chief financial officer and deputy CEO being the Senior Responsible Officer has helped set the vision for 'digital' across the organisation, working with the chief strategy officer and multiple stakeholders who were involved in the refreshed organisational strategy. EPR Boards were chaired by the CEO of the Trust with all chief officers present and EPR implementation has been a standard agenda item for the Trust Board.

At the same time, bottom-up leadership structures ensured clinical and operational subject matter expert engagement, autonomy and ownership of change. The middle management structure which included a CCIO and a CNIO team, alongside a CIO/Director of ICT and Digital acted as a triumvirate group with the purpose of engaging and bringing together the clinical triumvirate groups (SMEs, departmental leads) and the executive teams at Board level.

### **Benefits Measures:**

Investing in the right organisational and system infrastructures, which includes people, processes and platforms should increase the chances of a successful EPR implementation whose benefits are realised and sustained. Our digital leadership team are already evaluating the benefits of our newly launched electronic prescribing system through the new EPR system and we have a number of financial and quality benefits identified in the EPR business case that need to be evaluated and tracked in the next 10 years.

Our executive Board has supported the transition from stabilisation to optimisation structures which has resulted in the engagement of more digital leaders from across the organisation leading on workflow changes in the system in order to realise its benefits. For example, we have re-engaged our 610 digital champions since going live with EPR who are supporting with spread of themes and messages of the week to their teams to help with EPR adoption and good practice. They are also engaged with clinical workflow redesign, pooling them into workshops when appropriate and relevant. Such optimisation changes are governed through the Digital Design Authority, chaired by the CCIO and through Change Board, chaired by the CIO/Director of ICT and Digital.

Digital clinical safety continues to be of major importance and led by our Clinical Safety Officer.

Small projects that come out of stabilisation and optimisation groups are led by a combination of clinicians, digital architects, change agents and trainers to ensure the proper implementation and evaluation of change. We have bigger projects as part of our digital roadmap which will need those tight and well-connected structures in order to be implemented effectively.

### **Benefit Value:**

The development of sustained digital leadership within the organisation for the purpose of digital deployments and digital innovation, should offer immense value for the organisation and the ICS which will be measured through the benefits of individual projects. We have a digital roadmap that spans from immediate project completion to major project implementation until 2030.

In addition, our organisational leadership capability will support the EPR implementation of our system partners who are starting their EPR journey next year and for the next 18 months. For example, we are sharing artefacts, all lessons learned activities and we are adopting shared governance structures such as design authority, change board and delivery group. Digital leadership, digital literacy and capability will theoretically result in more effective and faster digital project implementation as we continue to mature digitally as an organisation and healthcare system.

A well led organisation from a digital perspective has been one of our desired outcomes from our EPR implementation so that we are able to implement our digital roadmap. Further research on the aspect of organisational leadership in effecting digital change and realising the benefits of EPR is something we are looking to do in collaboration with the University of Warwick Business School.

### **Artefacts**

[Digital Champion Launch](#)

## **Benefit 2: Operational and Clinical Reporting**

### **Benefit Description:**

Our new EPR system has enabled operational and clinical teams to have access to dynamic reports to support decision-making. For example, staff have access to the Lights on Network so that they can monitor utilisation of the system daily or weekly, as well as access to Discern reports which can be customised to serve a particular function or area. For example, the medical director report contains information around VTE completion compliance per area. The chief operating officer report provides a breakdown of clinics outcomes per area and per consultant. This is very helpful when it comes to group accountability and board meetings.

Previously, we had no access to such a variety of reports and in particular, we had no way to check how clinicians are adopting our digital solutions. Our operational leadership teams are monitoring daily the outpatient clinic outcome completion to ensure compliance, targeting areas that need more support. In addition, the medical and nursing leaders are monitoring compliance with clerking, medication management, risk assessment completion, comorbidity recording and discharge letter completion.

This ensures accurate medical and nursing documentation for coding and handover purposes as well as accurate care continuity in the community following patient discharge. Areas whose compliance is suboptimal are targeted with training and education from the digital clinical teams. The culture of evidence-based care is being embedded as a result of the EPR implementation, driven by the digital and Trust's leadership. More reports are currently being built that serve as guidance for clinical and operational teams to make decisions about care and/or allocate resources effectively.

### **Benefits Measures:**

The reporting benefit is helping us with the EPR system stabilisation phase, by understanding how people are using the system and where we need to allocate more resources to help with adoption, education and training. Once EPR reports are fully developed, they will help us track the benefits of EPR during the optimisation phase. We expect that more sophisticated and comprehensive operational and clinical dashboards will be created by our performance and informatics teams based on those reports derived from EPR. Such dashboards will help us embed a data-drive culture throughout the organisation.

Up until the writing of this Blueprint, we have created and using on a weekly basis, 4 different dashboards to reflect the 4 stabilisation groups we have put in place (theatres, outpatients, diagnostics, inpatients).The learnings from our reporting experience will be shared with acute system partners in our ICS when they implement their EPR in the next 18 months.

### **Benefit Value:**

The value of having personalised operational and clinical dashboards to track practices within the EPR, will help us achieve better patient flow in outpatients, theatres and inpatients and will ultimately improve patient outcomes. This requires simultaneous endorsement of those by Trust leaders and advocacy for a data-driven approach to care. This is currently cultivated through our Trust digital governance structures, our executive leaders and middle management structures as described in previous benefit (Benefit 1).

We are already using our UHCWi improvement methodology to make efficiency improvements in the utilisation of theatres, using other technologies such as a virtual theatre room platform. EPR reporting dashboards are enablers to those efficiency driving activities.

### **Benefit 3: Electronic Document Management System (EDMS) replacing paper medical**

## records and contributing to Net Zero strategy

### Benefit Description:

The EDMS was launched at UHCW just prior to the new EPR going live in June 2024 and it was a pre-requisite for the success of EPR implementation. The EDM purpose is to be used as an archive of all the legacy digital medical records prior to EPR going live. In addition, any paper records following admissions or clinic appointments are scanned onto EDM. With time, the EDM and the EPR systems together will enable us to go paperless at UHCW, supporting our Net Zero strategy.

Since EPR go live, we have managed to eliminate paper in outpatients and we have been paperlite on the wards, due to some nursing assessments and the Respect form awaiting to be digitised with the next EPR code upgrade. Those will be digitised with the next code upgrade in January 2025. The EDM is accessed in patient context within EPR.

### Benefits Measures:

Significant financial savings are expected from having an EDMS with £1.1m recurrent savings, due to not needing to transfer medical records and the elimination of paper. Having an EDMS offers quality benefits in terms of reduction in delays obtaining medical records in clinic or theatres, in lost notes, in unreadable notes. Better experience for staff having all electronic medical records in one place (EPR/EDMS) is expected, as well as workflow efficiencies.

Financial and quality benefits are currently being tracked through our Trust's waste reduction board. The reduction in paper use associated with the implementation of EDMS, in addition to the reduced need for paper records to be transferred between the Trust and external storage sites will also contribute towards the Trust's Green Plan to reduce emissions and its reliance on paper.

### Benefit Value:

As above, significant financial savings are expected from having an EDMS with £1.1m recurrent savings and we are currently tracking those benefits through our Trust's waste reduction board.

#### Artefacts

[Legacy System Contracts](#)

[Strategic Programme WRP Identification - Digital](#)

## Benefit 4: Patient Engagement Portal (PEP) enables patient access to their appointments

## for self-management, information sharing and communication with clinical teams

### **Benefit Description:**

UHCW has implemented a patient engagement portal (PEP) at the time of its EPR launch in June 2024. Phase 1 of the project has gone live with the PEP in maternity and phase 2 will see the PEP extended across all patient groups (early 2025). The purpose and benefits of the PEP are multifaceted and include access for patients to: Test results, clinical documents, including appointment letters, educational material, bi-directional messaging via email, dedicated SMS, access to appointment information, questionnaires and surveys (patient reported outcomes and patient reported experience measures).

The PEP also gives the capability for patients to add data to their medical record, including physiological parameters (e.g. vital signs for virtual ward patients) and to receive communication from their clinical teams regarding their care management plan. This is a huge shift in the way we care for our patients, enabling care closer to home, utilising more effectively our community-based care resources and improving patient satisfaction and care experiences.

### **Benefits Measures:**

Up to 80% of our maternity patients have used the PEP since its launch to communicate with their clinical teams, receive results/letters and manage appointments. Utilisation and adoption of the PEP will continue to be measured when the PEP goes live for all our patients. We will target patient cohorts who are not utilising the PEP to understand the barriers to utilisation and put the right enablers so that everyone gets the benefit out of the system.

Once the portal is accessed by the majority of patients, we will evaluate the value of the portal in preventing unnecessary patient admissions to hospital and its value in preventing outpatient non-attendances. We will also measure the % completion of PROMs and PREMs and we will measure patient satisfaction as well as staff satisfaction with services. As a digital team, we have engaged with patients and staff within primary and secondary care, to understand what results patients would want to see immediately within the PEP and which ones need to be hidden.

The feedback from all stakeholders was useful for the shaping of the scope of the phase 1 of the PEP and we will continue to engage all those stakeholders for the phase 2 of the project.

### **Benefit Value:**

We will continue to engage with our patient forums to ensure we get continuous feedback to improve the service.

## **Benefit 5: Population Health Management platform enabling the risk stratification of patients and addressing patient needs in an equitable way**

### **Benefit Description:**

The implementation of EPR included access to a population health management platform which enables real-time view of the characteristics of a population including demographics, behavioral risk factors and key long-term conditions. In addition, it can inform about socio-demographic aspects of care, enables us to investigate potential sources of health inequalities and can help us track the effects of interventions and outcomes on specific patient cohorts.

Such platform deployment across UHCW and our ICS can empower new preventative and therapeutic measures, identify gaps in care and lead to service change and transformation. When EPR data begin to mature, the platform will provide us with dashboards for our population healthcare access and outcomes and it will help us target care where it is needed most, including applying preventative measures against hypertension and other chronic illnesses.

### **Benefits Measures:**

We will embed the use of the platform to identify populations in need for care intervention and/or preventative measures and we will maximise adoption of the platform in the day-to-day clinical practice. By consistently assessing our population data through our monthly PHM Board, we will deploy teams in the community to address population needs, working together with primary care, community and social care, secondary care and public health. We will measure outcomes of care at 6 months, 12 months, 18 months, 24 months and we will document improvements in care and access to care.

### **Benefit Value:**

The platform will add particular value in two underserved segments of the population. There are specific cohorts of patients who are at risk of hypertension and data for these cohorts can be visualised for the first time based on risk, geography and other socio-economic factors. This will help with the planning and delivery of targeted preventative and/or therapeutic interventions.

Similarly, in the care of frail populations, the platform will support the provision of proactive care within older adults (aged 65+), help predict falls in the community, advice on admission prevention measures and enable investigation into health and care inequalities in frail populations. Population Health Management will also enable the Trust to provide more personalised care for these at-risk patients in line with the NHS Long Term plan.



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