Future Electronic Patient Record (EPR) for Dorset

Briefing note for the UHD Board of Directors Sep 2022

1. Situation

Across Dorset all NHS organisations are considering their future Electronic Patient Record and Patient Administration Systems (EPR, PAS) in light of the national strategy described in the recent White Paper[1] which expects local Integrated Care Systems to pursue managed convergence of EPRs[2]. The salient paragraph (4.28) from this White Paper is shown below:

We will take an 'ICS first' approach. This means encouraging organisations within an ICS to use the same digital systems, making it easier for them to interact and share information and providing care teams working across the same individual's pathway with accurate and timely data.

Approximately £40M of national capital funds has been "earmarked" for Dorset for the next 3 to 5 years to achieve a mature EPR solution (defined in section 3).

Within UHD, the need to consider a different set of core systems has become more acute because of our EPR supplier advising us that they do not intend to release any later versions of the product which essentially means that it has no future roadmap. The supplier's alternative is to suggest that we migrate to an alternative PAS and EPR solution set (from System C with whom they are in alliance) which would be a full-scale migration and would necessitate a full procurement (as per our Standing Financial Instructions).

This paper sets out the situation in more detail, describes a potential timeline for the change, the range of costs and benefits that might be reasonably expected and, importantly, considers what UHD might do in the intervening period between now and the enlivenment of these new solutions.

2. Background

Over the last 20 years all organisations in Dorset have pursued PAS and EPR functionality which is largely bounded by their own organisational requirements. It has long been recognised that this approach is suboptimal with respect to supporting patients' journeys which obviously cross organisational domains and the handoffs between organisations are often cited as the place where care breaks down. UHD has been pursuing an architecture known as **Best of Breed and Portal** which was the recommended architecture for acute hospitals following the failure of the National Programme for IT in 2013. Whilst this approach has achieved some notable successes in the deployment of software solutions to support electronic record capture and retrieval within many (possibly all) clinical departments at UHD, this approach has achieved mixed results in terms of optimising clinical workflow. This can mean that clinicians are expected to navigate multiple systems to undertake their core processes of preparing for the patient event (gathering upstream records, results, correspondence etc), undertaking the clinical contact, processing the necessary transactions following contact (e.g. referring for tests, investigations, adding to waiting lists, gaining peer advice, discharging etc).

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[1] Health and social care integration: joining up care for people, places and populations - GOV.UK (www.gov.uk)

[2] A useful exposition of the options and the maturity of the market: Video: David Kwo on EPR strategies for ICSs - htn

2.1. Digital Maturity

Nationally the benchmark for Digital Maturity is the American Electronic Medical Records Adoption Model (EMRAM). DCH, DHC and UHD are all assessing themselves as level 3 of 7. The NHS interpretation of this US model is described as the Minimum Digital Foundations (MDF). Figure 1 shows a summary of the functionality expected within the MDF

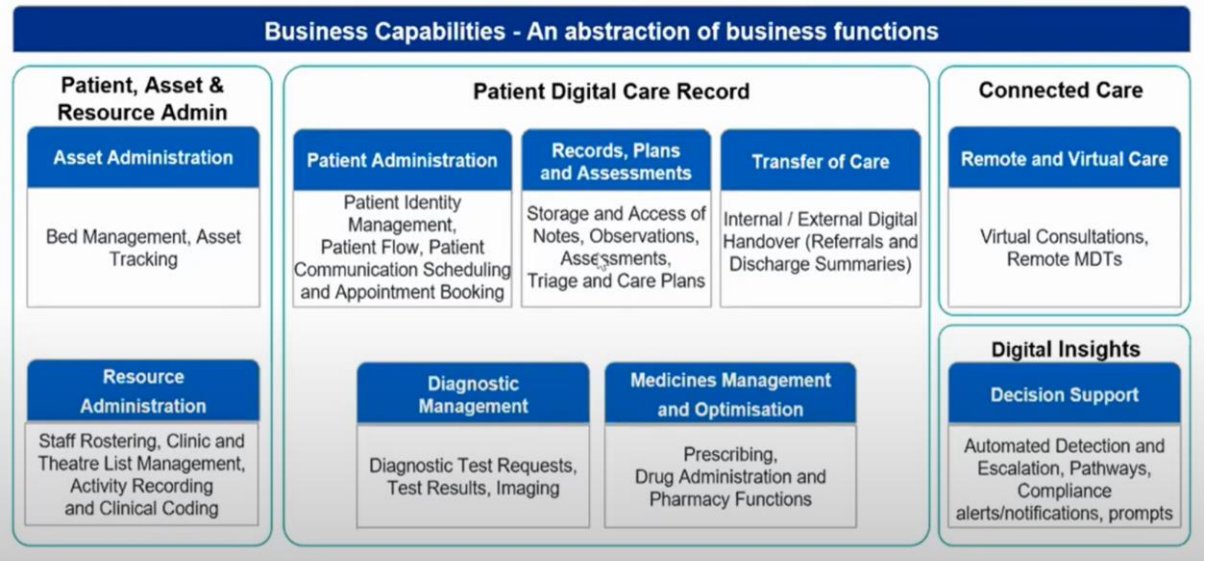

Figure 1: The NHS Minimum Digital Foundations

2.2. Funding and costs

Approximately £40M of national capital funds has been "earmarked" for Dorset for the next 3 to 5 years to achieve at least level 5 on the model shown above. The 15 year costs of a replacement PAS and EPR range from c15M to c150M for an organisation the size of UHD and probably double that for a solution that covers the three provider organisations in Dorset[3].

The difference in the range of costs relate to the functional scope of the solution:

- At the lowest end the solutions would typically be limited to a Patient Administration System, bed management, Order Comms, electronic observations, EPMA, electronic forms and clinical correspondence which would require an organisation to retain the existing solutions for more specialised clinical areas (e.g. ophthalmology, radiology, pathology, theatres, cardiology etc).
- At the high-end costs you would expect the solution to cover every aspect of the patient's health care journey throughout all care settings and hence, over time, replace all the existing systems and obviate their maintenance costs. Whilst £300 million over 15 years sounds like an enormous figure for a digital solution, we might typically find that this would offset approximately £15 million per year (£225M over 15 years) of existing spend on maintaining current systems and the specific infrastructure they require.

Arguably the higher range of costs and higher range of transformation leads to the higher benefits – e.g. Dorset wide consistent patient experience (activity scheduling that works

[3] There is a strong view across Dorset, and it is consistent with national policy, that we must achieve ICS wide capability that is focused on improving the health care journey that patients make between organisations, rather than to continue to be organisationally focused, in our choice of IT systems

across the county and in any care setting); clinicians undertaking their total workflow without leaving the EPR (significant productivity benefits).

3. Assessment

Digital stakeholders in Dorset are currently developing the long list of options associated with functional scope, organisational scope and technical architecture along with soft market testing and as much clinical engagement as possible to inform the development of an Outline Business Case. The current programme structure and governance diagrams are shown as appendix 1.

To support clinical engagement a digital summit will be held on 21 Sep 2022 (agenda attached as appendix 2).

One of the implications of undertaking such a large-scale transformational journey is the potential to enter a period of "planning blight". As the Figure 2 shows below the potential start of implementation is 2024. The timescale of implementation is impossible to state without answering the aforementioned scope questions. However, the 6-9 months of implementation of the UHD single PAS, 3 years to move from eCAMIS Clinical Viewer (RBH) to Graphnet EPR (movement of 34M objects) gives some indication that the implementation time will be measured in years not months.

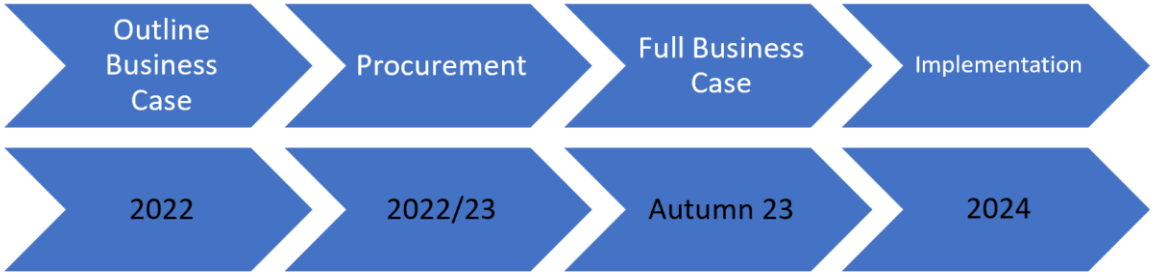

Figure 2: Indicative timeline for future Dorset EPR

3.1. Stakeholder early views

At this stage it would be helpful for UHD digital stakeholders to consider a number of key questions:

1. **When**: Would UHD wish to engage in a whole scale transformation of this nature concurrently with the start of the physical moves of the trust's departments to the future reconfigured estate across RBH and PH?
    a. The downside of not doing so is to live with the risk of core system failure/atrophy for longer and the expansion of the period of "planning blight"
    b. 2024 creates an opportunity as well, due to the need for teams to integrate in a new setting, integrating on a new pathway with new technology may be easier than integrating with legacy systems that then change. It would need strong OD support as this effectively becomes a way of working/organisation change programme.
2. **Ambition**: Where along the spectrum of change would UHD wish to be positioned (from changing the minimum number of systems (lower benefits) to the more ambitious end?
3. **Organisational alignment**: Do UHD stakeholders have an opinion about the "axis of collaboration" - e.g. whether an ***acute*** single PAS/EPR is preferrable, versus acute

and community (with or without Mental Health) or whether we should aim (ultimately) for a single ICS wide PAS/EPR?

3.2. Planning blight

Recent experiences of significant (>£0.5M) digital innovation (Think Big, patient 2 way booking, Electronic prescribing and Medicines Administration (EPMA) etc) would suggest that it takes a minimum of 15 months from idea generation to achieving the intended value[4]. Consequently, if there is only 20 months between now and the signing of a contract for the new EPR, any business case signed now would only have ~6months of value before we sign begin to replace it. With so many unknowns (scope, timeline, deployment phasing etc) it is difficult to resolve this currently (i.e. to agree or disagree with any new initiative (new IT system for ED, new Theatre Management System, Artificial Intelligence for Breast Screening etc)). The only resolution to this conundrum is to achieve as much certainty as quickly as possible in terms of the scope and deployment timeline for elements of the future functionality. This can only be achieved by working through the diagram shown in figure 2 as thoroughly but as quickly as possible.

During the interim period we will be having honest conversations of what is achievable; what existing systems will be included in the clinical specification for the new EPR - therefore future developments on these systems will be paused, focusing on maintaining safe systems rather than adding new functionality.

3.3. Clinician engagement

Recruitment of a 0.5 Planned Activity (PA) is underway (closing date 30 Sep 2022) for each clinical directorate in UHD to provide some protected time for a clinical IT lead for each directorate. We should reasonably expect this person to represent the views of their directorate to influence the scoring of the options, the specification of requirements and the procurement process ultimately leading a wider range of clinical staff involved in deployment activities.

4. Next Steps

This paper provides an early briefing for the UHD Board of Directors. The Board will receive an Outline Business Case in Nov 2022 for consideration, along with the other Boards in Dorset.

Collaborative Document from the UHD Digital Programme Group

Sep 2022

[4] 9 months to idea to the start of implementation (build/procure) and then at least 6 months for deployment

Appendix 1: Dorset EPR Programme Structure and Governance

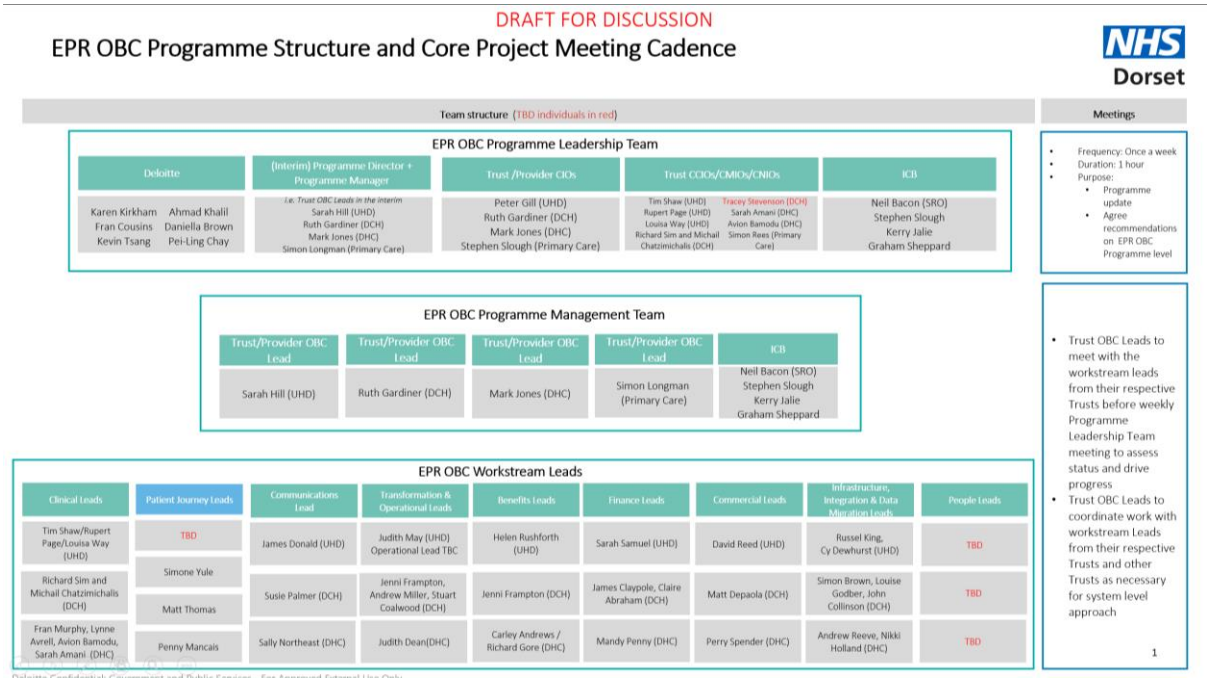

Figure 3: Current meeting arrangements and stakeholders

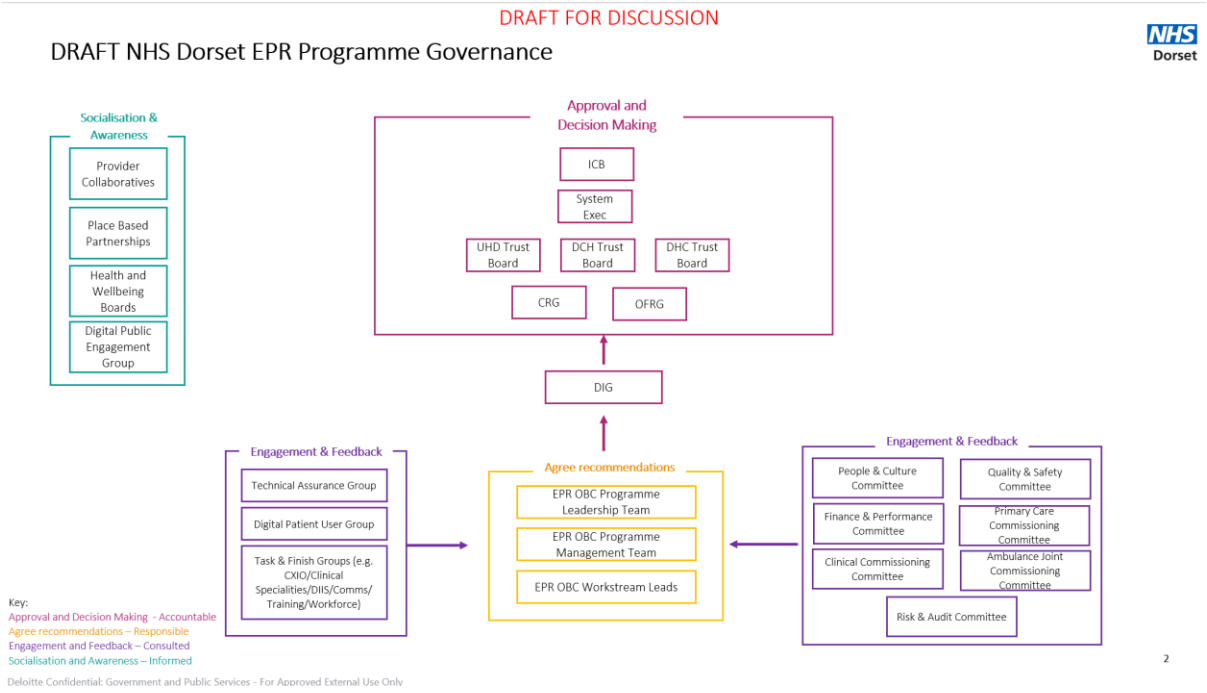

Figure 4: Current programme governance

Appendix 2: Digital Summit draft agenda 21 Sep 2022

Section		Content and Expected Outcomes	Format	Facilitator	Timings
Welcome and introductions		Understanding which organisations and clinical areas are represented (any gaps)	Plenary	**Dorset:** Stephen Slough, Peter Gill, Mark Jones, Ruth Gardiner, Paul Johnson or Neil Bacon (TBC)	09.00 - 09.15
Context and purpose of the session: Building common language and understanding of what we are trying to achieve in Dorset with our EPR		• What is Dorset's EPR Programme? • Why we need an EPR as part of the evolution of Dorset's Clinical Strategy • National direction of EPR convergence and deadlines • Setting "rules of the game"	Plenary	**Dorset:** Stephen Slough, Peter Gill, Mark Jones, Ruth Gardiner, Paul Johnson or Neil Bacon (TBC) **Deloitte:** Karen Kirkham	09.15 - 09.30
Understanding the current landscape - Overview of Business Case process - Overview of agreed strategic case		• Our EPR business case process • Work to date: Presenting the agreed Strategic Case – EPR strategic objectives, case for change, organisation scope • Outline Business Case work to date	Plenary	**Business case process:** **Deloitte:** Frances Cousins **Work to date:** **Deloitte:** Kevin Tsang and Ahmad Khalil **Dorset:** Stephen Slough **Phase 2 work to date:** **Dorset:** Sarah Hill (UHD), Jenni Frampton (DCH), Mark Jones (DHC) **Deloitte:** Kevin Tsang	09.30 - 10.30
Coffee Break (15 mins)					10.30 – 10.45
Workshop Session 1	**Option 1: Future state patient journeys**: Patient journeys: how our EPR can transform patient care and staff experience in Dorset	Development of future state patient journeys with frontline staff • **Patient Journey 1**: Frailty/Acute Journey • **Patient Journey 2:** Complex homeless/cancer journey	Workshop *Participants to choose between Patient Journey 1 and Patient Journey 2*	**Patient Journey 1**: Frailty/Acute Journey – Matt Thomas, Karen Kirkham (Notes: Pei-Ling Chay) **Patient Journey 2:** Complex homeless/cancer journey – Simone Yule, Catherine (Notes: Daniella Brown)	10.45 – 11.45
	Option 2: Functional Scope	• Overview of functional scope work to date • Getting your feedback on the functional scope	Workshop	**Dorset:** Graham Sheppard **Deloitte:** Jonathan Meddes, Ahmad Khalil (Notes: Kevin Tsang)	
Lived experiences & Panel Q&A: Learning from other systems across the country		• External guest speakers to share their EPR experiences and opportunity for participants to ask questions • Coventry & Warwickshire, West Hertfordshire, Southampton TBC	Plenary *Participants will have the opportunity to submit questions to the Panel via Menti*	**Guest Speakers** **Dorset:** Stephen Slough, Peter Gill, Mark Jones, Ruth Gardiner, Paul Johnson or Neil Bacon (TBC) **Deloitte:** Fran Cousins (Panel facilitator)	11.45 – 12.45
Lunch (1 hour)					12.45 – 13.30

Section		Content and Expected Outcomes	Format	Facilitator	Timings
Workshops Session 2	**Option 1: Future state patient journeys**: Patient journeys: how our EPR can transform patient care and staff experience in Dorset	Development of future state patient journeys with frontline staff • **Patient Journey 3**: Paediatric Journey • **Patient Journey 4:** Maternity journey	Workshop *Participants to choose between Patient Journey 3 and Patient Journey 4*	**Patient Journey 3**: Paediatric Journey – Penny Mancais, Catherine Hammons (Notes: Daniella Brown) **Patient Journey 4:** Maternity journey – Audrey Ryan (TBC), Karen Kirkham (Notes: Pei-Ling Chay)	13.30 – 14.30
	Option 2: Operating Model	• Culture and roles (what we need in terms of skills, training); • Information; • Processes (regional/organisational variances, duplicated capabilities, inconsistency of quality of processes) • Tooling (IT systems, facilities, estates)	Workshop	**Dorset:** Graham Sheppard **Deloitte:** Jonathan Meddes, Ahmad Khalil (Notes: Kevin Tsang)	
Critical success factors and emerging preferred options		• Refining our critical success factors • Process from longlist of options to shortlist of options. • Getting qualitative feedback on the shortlisted options	Plenary *Participants will have the opportunity to share feedback on CSFs via Menti* *Participants will have the opportunity to share feedback on options via Menti* • *To what extent do you feel the emerging preferred option will address the current challenges?* • *What do you think are the key constraints to consider about the emerging preferred option?*	**Deloitte:** Fran Cousins, Kevin Tsang **Dorset:** Sarah Hill (UHD), Jenni Frampton (DCH), Mark Jones (DHC) (Notes: Daniella Brown, Pei-Ling Chay)	14.30 – 15.30
Coffee Break (15 mins)					15.30 – 15.45
Benefits: Understanding the key benefits of the future EPR for Dorset		• Overview of benefits identified • Understanding how the EPR will improve care delivery and operational efficiency in Dorset	Breakout Groups Each Breakout Group will cover the same material across: • How will the EPR improve staff experience and staff efficiencies? • How will the EPR improve patient experiences and outcomes? • What operational efficiencies will the EPR unlock?	**Breakout Group 1:** **Dorset:** Helen Rushforth (UHD) **Deloitte:** Frances Cousins (Notes: Kevin Tsang) **Breakout Group 2:** **Dorset:** Jenni Frampton (DCH) **Deloitte:** Karen Kirkham (Notes: Pei-Ling Chay) **Breakout Group 3:** **Dorset:** Carley Andrews (DHC)/Richard Gore (DHC) **Deloitte:** Catherine Hammons, (Notes: Daniella Brown)	15.45 - 16.45
Next steps and Close		Sharing our plan and opportunities to continue to be engaged with shaping Dorset's EPR	Plenary	**Dorset:** Stephen Slough, Peter Gill, Mark Jones, Ruth Gardiner, Paul Johnson or Neil Bacon (TBC) **Deloitte:** Karen Kirkham, Frances Cousins	16.45 – 17.00