



Electronic Patient Records

A guide to making the most of supplier/NHS relationships

This project was delivered on behalf of the NHS England Frontline Digitisation Programme

By SmartCo Consulting

Publication: May 2024

Introduction

This is a guide to help electronic patient record (EPR) suppliers and NHS trusts establish and manage productive working relationship as part of the digital transformation journey. It was developed with the help, experience and collaboration of EPR suppliers and trusts. Its aim is to improve the way suppliers and trusts work together and thus deliver successful EPR implementations. It spans the relationship lifecycle from vision and business case, through to procurement, contract management, implementation, optimisation and contract end.

A productive relationship is not only about how both parties work together, it is also about ensuring that each party works in a structured and methodical way. This will help to ensure expectations are met and there are no unpleasant surprises. This guide therefore not only covers how to work together but best practice steps to help to ensure a smooth working relationship.

This guide was developed through a techUK sponsored workshop with suppliers and a Humber and North Yorkshire Integrated Care Board (ICB) sponsored workshop with NHS digital, procurement and contracting specialists. A brief review of policy and evidence was undertaken as well as interviews with key stakeholders.

Introduction continued

An EPR implementation is highly complex and there are a range of interdependent factors that influence successful adoption. These include the technical, social, organisational and wider socio-political factors that can make the difference between success or failure. A productive relationship between NHS organisations and EPR suppliers impacts all these key success factors of technology adoption:

- **Technical** - working with suppliers to ensure you not only buy the right product but also address critical factors such as usability, performance, interoperability and adaptability throughout its lifecycle
- **Social** - working with your supplier to ensure the right training, onboarding and ongoing optimisation to meet the evolving needs of your end users
- **Organisational** - working closely with your supplier to get the organisation ready for change whilst setting realistic expectations for the benefits to be realised
- **Wider socio-political** - working with the integrated care board (ICB) and other partners to get the most from your supplier with your eye on the future as your requirements and the market evolves.

Introduction continued

3/3

You'll find a page counter
for each section here

This PDF is interactive, click the tabs along
the top to jump from section to section

Use the 'Previous' and 'Next' buttons
to navigate through the pages

Anything underlined will take you
to external links or resources

Creating a vision

Setting a clear vision for the future as well as a roadmap for how you are going to get there, is key to a successful digital transformation programme. If you invest in a digital strategy, as a key enabler of the organisational vision, your key stakeholders will shape and own it from the get-go and you will have a clear vision to communicate to EPR suppliers.

Press next to view the guide for:



NHS organisations



NHS suppliers

NHS organisations

A good partner will...



- ✓ **Engage the Trust's Board of Directors early** so that they own the digital strategy as a key enabler of the organisational vision and strategy
- ✓ **Appoint a member of the executive team as the senior responsible officer** so that they are able to keep the board engaged throughout with visibility at the most senior level
- ✓ **Assess digital maturity** so that you have an accurate picture of your current digital estate, strengths and weaknesses from which to build your vision for the future
- ✓ **Assess digital capabilities (of your staff)** so that you understand what support and development they need to realise the strategic vision
- ✓ **Scan the horizon and engage EPR suppliers at the earliest stage** so that you ensure your strategy and requirements are achievable with commercial off-the-shelf whilst also reflecting the trust's true potential for transformation
- ✓ **Engage clinical and operational stakeholders early (and continuously)** so that the project is clinically and operationally led with your stakeholders' future vision, needs and goals central to the digital strategy
- ✓ **Undertake an equality impact assessment of your strategy** (*and involve your equality lead*) so that you address issues of equity and inclusion from the beginning and throughout
- ✓ **Engage your procurement and human resources teams early on** so that they can help you plan ahead for procurement, contracting and workforce requirements
- ✓ **Create a vision of the outcomes you want to achieve enabled by technology** so that you understand the impact you want to achieve through delivery of the strategy

NHS suppliers

A good partner will...



- ✓ Follow [GOV.UK's guide to good practice for digital and data-driven health technologies \(2021\)](#) so that you comply with good practice valued by public services and can evidence you are aligned
- ✓ **Comply with standards such as DTAC** so that you make it easy for NHS clients to buy your products safe in the knowledge they meet accepted standards
- ✓ **Meet net zero requirements that the NHS has of suppliers**, this can include self-assessing against [The Evergreen Sustainable Supplier Assessment](#) as a way to share sustainability information with the NHS so that you can evidence your commitment to sustainability and make yourself more attractive as a supplier to the NHS

Developing a business case

Developing a robust and realistic business case is a fundamental foundation for digital transformation. You must make a good case for change that reflects your current position including your existing estate and all the dependencies, such as infrastructure.

A clearly defined business case will ensure you are clear about the cost and the benefits of your digital transformation and that you are able to communicate your requirements to suppliers.

Press next to view the guide for:



NHS organisations



NHS suppliers

NHS organisations

A good partner will...



- ✓ **Quantify the cost of change to a new supplier** where an EPR is already in use (*and include as an evaluated element in procurement*) so that you can weigh up the benefits/costs of the existing and new supplier in your procurement
- ✓ **Consider potential EPR convergence partners** (*engage with them in advance to determine their willingness to take part in a joint deployment or to add the trust to an existing instance of an EPR*) so that you can take a shared system approach where desirable and feasible
- ✓ **Undertake a readiness assessment** (*answering questions such as, to what extent do you want to self-build; innovate on top of the platform; replace existing systems; on premise or cloud hosting; risk appetite, leadership and culture, political context*) so that you have a clear picture of your current state and can articulate this to suppliers to ensure you focus on those who can meet your specific needs
- ✓ **Use and customise the content in templates provided by the Frontline Digitisation programme** so that you don't have to start from scratch and can customise the content to reflect your requirements whilst retaining a structure that is familiar to suppliers
- ✓ **Consider bringing in business case specialists** (*if you don't have in house expertise*) so that you have the right skills and experience to create a robust business case
- ✓ **Remember the infrastructure** so that the EPR you buy is able to perform optimally with an infrastructure that can support it
- ✓ **Avoid over-weighting initial acquisition costs in scoring** (*cost should be considered over the course of the contract*) so that you avoid encountering unexpected future costs

NHS organisations

A good partner will...



- ✓ **Request indicative pricing before budgets are established** (*ask EPR suppliers to outline value added software and services available; require cost projections over a 10-year period to identify future upgrade or replacement costs if applicable*) so that you have a realistic financial envelope to cover the lifetime of the EPR contract
- ✓ **Create outcome focused requirements** so that suppliers have flexibility to deliver those outcomes in different ways
- ✓ **Incorporate user and usability requirements** (*generated through user research*) so that you communicate to suppliers what is important to your users
- ✓ **Develop a realistic benefits case** and share it with suppliers so that they can understand how their product or service needs to release benefits over the course of the contract
- ✓ **Incorporate clinical and business transformation** so that the lifetime cost of user engagement, clinical and business transformation, and optimisation are included in the overall costs for the lifetime of the contract

NHS suppliers

4/5

A good partner will...

- ✓ Provide information about costs when required by trusts and cooperate with any other requests so that you can help shape business case requirements



Review all your existing assets to get as much value as possible from what you already have. Assess what assets can be utilised and what needs upgrading or updating. At this stage, focus on scalability, robustness, patient data security and in future proofing your ICT estate, without losing sight of the total cost of ownership.



Crown Commercial Service - Your guide
to digital transformation in the NHS

Procuring an EPR

Undertaking a robust procurement process that meets national standards is critical to buying the right product or service to meet your needs. You are more likely to make a good purchasing decision if you follow good practice and use every opportunity to engage with the marketplace.

Bear in mind important factors such as cultural fit, equality and diversity and social value so that you choose a partner you can build a good working relationship with over the course of the contract.

Press next to view the guide for:



NHS organisations



NHS suppliers

NHS organisations

A good partner will...



- ✓ **Communicate your priorities to the market** (*where possible in a coordinated way as an integrated care system*) so that suppliers can plan ahead and they are primed to respond to your requirements in pre-market engagement - this should happen as you develop your digital strategy
- ✓ **Undertake pre-market engagement early** (*3-5 months before formal procurement*) and before you start to develop your procurement requirements so that you understand the capability of EPRs and ensure your digital strategy and requirements are achievable whilst reflecting the trust's true potential for transformation; suppliers can understand your requirements and offer feedback so you can adjust where necessary
- ✓ **Discuss contracting expectations as part of the market engagement process** (*rather than waiting until the formal procurement*) so that the contract can be adjusted to match the implementation, support and other methodologies of the selected supplier
- ✓ **Learn how suppliers recommend their EPR software be installed and supported** (*how they collaborate with trust staff, and how issues with software or service are addressed both during the implementation and over the long term*) you can assess cultural and operational fit with your organisational ways of working
- ✓ **Follow good practice NHS procurement guidelines** so that you deliver using a tried and tested process
- ✓ **Make your procurement timeline visible** so that you create a level playing field and suppliers have early sight of your plans and can prepare to respond
- ✓ **Engage with other NHS trusts that have conducted successful EPR installations** so that you can learn what worked well, what didn't work, what the trusts would do differently, the extent to which the supplier has delivered on commitments, and the strength of the relationship

NHS organisations

A good partner will...



- ✓ **Involve users (including clinicians) in the procurement process** with scored demonstration sessions with end users as part of the selection so that you keep focused on meeting user needs
- ✓ **Undertake site visits with your end users to see the software in use** so that you get a good sense of how it works in practice
- ✓ **Include a quality assessment to allow for a cultural fit score when marking potential suppliers** so that you can incentivise equity and net zero practices among suppliers
- ✓ **Give sufficient time for the procurement process** so that suppliers can submit good quality responses
- ✓ **Include a social value assessment to allow for additional value the supplier will offer & include your equality & net zeros leads** (*social value - positive impact on local people and communities, the local economy, and the*

environment) so that you can secure social value from your supplier and incentivise positive impact

- ✓ **Request indicative pricing before budgets are established and limit pricing assumptions** (*with cost projections over a 10-year period to identify future upgrade/ replacement costs if applicable and asking them to include value added software and services*) so that suppliers can give you a realistic price and you can ensure you stay within budget
- ✓ **Understand the commercial model of the supplier and consider its alignment with what matters to your organisation** so that there is a commercial and values based fit between yourself and the supplier
- ✓ **Specify standards** (e.g. *FHIR*) so that suppliers understand what standards and regulation they need to meet

NHS organisations

A good partner will...



- ✓ **Ensure you understand all the costs of the EPR** *(are upgrades charged separately? Do suppliers include software and services at no cost that others may charge extra for?)* so that you can accurately compare the costs of each supplier and don't end up with unexpected costs
- ✓ **Be clear about how you get data in and out of the system as well as where the data needs to flow** *(do the integrations exist or will the supplier need to build them?)* so that you don't have any surprises when you move to implementation in terms of the costs and the timeline
- ✓ **Be clear about the extent to which you want an off-the-shelf system versus one you can configure** so that you can communicate your preference to suppliers and ensure you take the costs of configuration into account
- ✓ **Assess the extent to which the supplier will allow you to work with third party providers and any implications for device integration** so that you understand what flexibility you have to work with third parties
- ✓ **Be clear about the extent to which you want to self-serve or receive ongoing support as well as how you will manage change requests with the supplier** *(are upgrades charged separately? Do suppliers include software and services at no cost that others may charge extra for?)* so that you can accurately compare the costs of each supplier and don't end up with hidden costs you haven't anticipated
- ✓ **Communicate often and be responsive** so that you build and maintain trust with suppliers

NHS suppliers

A good partner will...



- ✓ **Respond to requests for early market engagement** so that you are able to help shape requirements at the earliest stage
- ✓ **Make sure you have the right policies in place for an assessment of quality (e.g. equality and diversity)** so that you can demonstrate the quality of your product, service and organisation
- ✓ **Make sure you offer social value** so that you can demonstrate values alignment

It is important to be aware of the full range of system providers, and network with potential suppliers in order to understand the ethos and values of the companies with which the organisation is considering embarking on a long-term relationship. Visiting other healthcare settings that have implemented similar technology can prove very helpful.



Ten key considerations for the successful implementation and adoption of large-scale health information technology

Contracting and governance

The contracting process is an opportunity to establish good working relationships from the get-go. If all parties invest in good communication this will provide a firm foundation for how you govern the contract during implementation and optimisation.

Planning together how you will cooperate on a day-to-day basis and in more formal contracting meetings, will make a positive difference as you hit inevitable challenges along the way.

Press next to view the guide for:



NHS organisations



NHS suppliers

NHS organisations

A good partner will...



- ✓ **Create a shared purpose with the supplier** (*you both have an interest in driving usage of the EPR*) so that you that work well from the get-go
- ✓ **Agree ways of working from the outset and review them regularly** so that you have good governance in place and control processes to support the contract
- ✓ **Ensure your commercial team works closely with your digital team** so that you are well aligned
- ✓ **Separate out the contractual governance from implementation** (*there must be lines of communication between them*) so that the two are kept separate and the implementation team is able to focus on deployment
- ✓ **Establish effective governance** (*include supplier representatives and executives as members of the programme board and key working groups*) so that you can make decisions quickly and with minimal re-work
- ✓ **Set meaningful key performance indicators, collect baseline values and monitor once live** so that you are able to articulate the benefits arising from the EPR
- ✓ **Follow through on commitments** so that you forge and maintain a good relationship
- ✓ **Pay on time** so that the relationship isn't compromised by chasing invoices
- ✓ **Create an open door for when issues arise** so that you can work collaboratively and respond quickly
- ✓ **Be open about potential risks and pitfalls and plan jointly for how you can avoid them as well as how you will respond if they arise** so that you avoid unexpected and unmanaged risks

NHS organisations

A good partner will...



- ✓ **Consider contract incentives for the supplier** (e.g. where an issue creates a penalty if they rectify it quickly then they can reclaim the money lost) so that your supplier remains well engaged and responsive
- ✓ **Build offboarding / end of contract into the beginning of the process** so that all parties understand offboarding process (including migration of data) from the outset and there are no surprises

NHS suppliers

A good partner will...



- ✓ **Engage early in planning how you will work together** *(and bring your expertise from working with other trusts)* so that you get good foundations in place for a productive working relationship
- ✓ **Get involved in formal governance arrangements** so that you are visible and able to demonstrate accountability
- ✓ **Cooperate on KPIs and assist with collecting data against metrics** so that you help to demonstrate the benefits of the EPR
- ✓ **Engage in early conversations about the end-of contract and offboarding** so that there are no surprises later down the track and you can maintain a good working relationship

Once a decision on the basic type of system has been made, it is important to base the final choice not only on organisational, but also on clinical needs. A system should be both fit for organisational purpose and fit for clinical practice. There are countless examples of systems that have been procured but never used (e.g., if they are perceived to undermine professional values) or are deployed in unintended ways, which will then typically result in a failure to realise the hoped for improvements.



Ten key considerations for the successful implementation and adoption of large-scale health information technology

Implementing an EPR

Implementation is a people and process challenge rather than simply a technical one. Once you have agreed a contractual relationship, it is important to look after the relationship to get the best out of the implementation of an EPR. It is easy to underestimate the changes that everyone will need to make to how they work to successfully implement an EPR. Optimism bias - our tendency to expect better than average outcomes from our actions - can result in projects taking longer, costing more and achieving less benefits than we anticipate. The main focus at implementation is to implement a tried and tested vanilla version of the system and it can take years to fully realise its benefits. Once use of the EPR stabilises you can begin to optimise it to improve and enhance your processes.

Press next to view the guide for:



NHS organisations



NHS suppliers

NHS organisations

A good partner will...



- ✓ **Build a high quality internal digital team** so that you are able to work with suppliers in a productive way and get the most out of the product or service. You may choose to match junior members of your digital team with experienced contractors so they can learn from them
- ✓ **Plan to retain staff into the 'business as usual' team post-implementation** so that knowledge gained during the programme is kept in-house
- ✓ **Be clear about what expertise you want in-house and when you want to bring in specialist help** so that you only buy what you need
- ✓ **Make sure every product has an in-house product owner who is accountable and holds the relationship with the supplier** so that you get the best out of the product during both implementation and its ongoing optimisation
- ✓ **Engage clinicians in configuring the system** so that it will meet their needs and improve their work lives as well as the care that they provide
- ✓ **Standardise wherever possible** so that you are able to release the benefits that arise from digitisation across services and clinical pathways
- ✓ **Create clinical champions** with protected time as a conduit between clinical teams and the digital team so that you ensure the clinical team has the time to transfer knowledge so that the digital team can better understand the clinical requirements
- ✓ **At go-live, provide peer super user support for clinical users** so that clinical users have the best go-live support from colleagues who understand their needs first-hand and with whom they have an existing relationship of trust

NHS organisations

A good partner will...



- ✓ **Give staff hands on practical training** and put around 40% of your budget towards this key activity (*specialists should be trained by specialists in the same area of practice*) so that staff are confident using the EPR and get the most from it avoiding the risk that they revert to paper or resort to workarounds
- ✓ **Only commence training once the EPR configuration is complete** so that you are training users on the version of the EPR that they will use in practice
- ✓ **Train staff in how to personalise the system** (*e.g. what they see on the home screen*) so that staff get a sense of control and mastery over the system and ensure it is as easy to use as possible
- ✓ **Install a vanilla version of the software in the first instance** so that you don't overwhelm services and staff can adapt to the new system and it can stabilise
- ✓ **Avoiding running a parallel paper system** (*in particular where you are introducing an EPR for the first time*) so that you don't inadvertently increase workloads for users and increase the potential for patient safety incidents
- ✓ **Look for success stories and share them** so that you build positive momentum and staff engagement
- ✓ **Create feedback loops through user research** so that you understand your end users and meet their needs
- ✓ **Ensure you have the right people and resources in place to undertake the necessary compliance** (*e.g. DPIAs and clinical safety*) so that you are able to deliver the right compliance as an NHS provider

NHS suppliers

A good partner will...

- ✓ **Share your expertise and tried and tested ways of working for a successful implementation** so that risks are mitigated and success is more likely
- ✓ **Co-operate in both formal contracting and KPI meetings as well as day-to-day informal contact** so that you maintain a positive relationship and respond promptly to issues that need to be resolved



There are some general pointers that tend to characterise effective preparation across organisations and technologies. [This includes] the decision to prioritise the implementation of functionality that can bring benefits to the greatest number of end-users as early as possible.



Ten key considerations for the successful implementation and adoption of large-scale health information technology

Optimising an EPR

Implementing an EPR is just the beginning. As your organisation continues to evolve the EPR will need to keep pace with changes to your ways of working, clinical practice, standards and regulation.

You can begin to optimise your EPR once you have stabilised, post implementation and you will start to reap the benefits. However, it is important to manage stakeholder expectations, as it can take many years to realise your EPR's full potential.

Press next to view the guide for:



NHS organisations



NHS suppliers

NHS organisations

A good partner will...



- ✓ **Create future state workflows with your end users and supplier** (*building on the user research and current state work you did when developing your business case*) so that you have a clear plan for how the software will support your future workflows
- ✓ **Ensure future-state workflows include structured data capture for mandatory reporting or registry requirements** so that you can meet reporting requirements
- ✓ **Create feedback loops between the digital team and end users** so that you understand your end users and can check that their needs are being met
- ✓ **Create a design authority** (*with a mandate to make decisions and a process to assess cost versus impact as well as risk, clinical safety and standards*) so that you ensure clear governance and accountability for change with a focus on standardisation and consistency
- ✓ **Put a clear process in place for change requests and any other routine and non-routine changes to the system** so that you have a clearly understood and agreed process
- ✓ **Consider collaborating with other NHS organisations as user groups to join up your optimisation requests** so they only have to be done once by the supplier and you can share enhancements; you will benefit from productivity and cost savings as well as learning from each other
- ✓ **Ensure you get cooperation from suppliers in getting the data you need to measure benefits** so that you can track whether you are achieving the benefits you planned

NHS organisations

A good partner will...



- ✓ **Maintain an active risk register and anticipate how you will manage risks** through activities such as simulation so that you have planned ahead and can deal with risks should they happen in practice
- ✓ **Continuously evaluate your EPR over the course of the contract** so that you can identify when the system is no longer fit for purpose and there is a need for a new solution
- ✓ **Horizon scan** so that you understand the market as it evolves and develops and can start planning ahead for what comes next

NHS suppliers

A good partner will...



- ✓ **Share your expertise and ways of working for successful optimisation** so that risks are mitigated and success is more likely
- ✓ **Co-operate in both formal contracting and KPI meetings as well as day-to-day informal contact** so that you maintain a positive relationship and respond promptly to issues that need to be resolved
- ✓ **Support your clients to set up user groups** (*ideally across multiple trusts*) so that clients can coordinate requests for changes and you can focus your efforts where they will have the most shared impact
- ✓ **Be open about your roadmap and flex to meet user needs** so that you manage expectations and meet your changing user requirements

Maintenance deserves particular attention as it is often under-estimated in relation to associated activities and cost. This is not only the case in relation to on-going costs (e.g., pertaining to support, infrastructure, and system upgrades), but also costs relating to potential system changes as the strategic aims of organisations and therefore the capabilities of existing technological systems are likely to change over time.



Ten key considerations for the successful implementation and adoption of large-scale health information technology

Further reading

[NAO Review - Governance for Agile Delivery](#)

[Governance principles for agile service delivery](#)

[Understanding NHS procurement processes](#)

[Making IT work: harnessing the power of health information technology to improve care in England](#)

[Who Pays for What proposals](#)

[Right from the Start: What should Integrated Care Systems prioritise to make digital, data and technology work for them and their populations?](#)

[Digital Boards programme, NHS Providers](#)

[A guide to good practice for digital and data-driven health technologies](#)

[Data Ethics Framework](#)

Marwaha, Jayson S., et al. "Deploying digital health tools within large, complex health systems: key considerations for adoption and implementation." NPJ digital medicine 5.1 (2022): 13.

Neil Pollock and Robin Williams (2009) Software and Organisations: The Biography of the Enterprise-Wide System - Or how SAP Conquered the World (Abingdon: Routledge)

Kathrin Cresswell, Stuart Anderson, Andrey M. Elizondo, Robin Williams, (2024) Opportunities and challenges of promoting integrated care through digitalisation—Learning lessons from large-scale national programmes in England, Health Policy and Technology, <https://doi.org/10.1016/j.hlpt.2024.100838>.

Thank you

James Boys, Harris Healthcare

Jaz Dhaliwal, KMPG

Joy Dodson, NHS Humber and North Yorkshire ICB

John Mitchell, NHS Humber and North Yorkshire ICB

Laura Ellis-Philip, Nautilus

Mark Kidd, Qualitest

Neil Perry, SmartCo

Nina Paul, Atos

Neil Proudlove, Hull University Teaching Hospitals NHS Trust

Paula Ridd, Civica

Paul Deffle, Alcidion

Paul Gilliat, SmartCo

Robin William, Institute for the Study of Science
Technology & Innovation, University of Edinburgh

Steve Gray, Cloud 21

Steve Lawrie, York and Scarborough Teaching Hospitals NHS Foundation Trust

Victoria Underhill, Optum

**This project was delivered on behalf of the NHS England Frontline
Digitisation Programme by SmartCo Consulting.**

Author - Victoria Betton

Proofing - Sharron Davis

Design - Helen Fisher