

Appendix 1 – Draft Single Patient Record (SPR) Requirement

Draft SPR Vision

What is the SPR?

In October 2024 the Secretary of State Wes Streeting announced: *“we need to work together to create a single patient record, owned by the patient, shared across the system, so that every part of the NHS has a full picture of the patient. This applies as much to research as to care.”*

The core vision for the SPR is to:

1. Give patients visibility and control of their data, enabling them to read, write, share joint care plans and offer corrections to data - while also being able to manage sharing preferences and have access to an audit of who has viewed their record and for what purpose.
2. Provide a single version of the truth by integrating data across settings, enabling patients, health care professionals and social care providers to work from the same record and to see key primary and secondary care NHS interactions, as well as autonomously prompt actions to occur.
3. Enable the secure availability of data for third-party applications such as research and clinical trials (allowing for patient choice).

The vision for the SPR is aligned with the Health Mission, acting as a major enabler to create an NHS fit for the future.

- **Hospitals to community** – As the number of people with long-term conditions grows, patients are being increasingly cared for by multiple care teams across care settings (both health and social care), which lack interoperable clinical settings. A consistent, high-quality data thread could support the move to more care being delivered by Multi-Disciplinary Teams (MDTs) in the community, and the shift out of hospital. Greater-quality data better identifies who can be treated via community pathways and gives social care settings better information about patients in their care. In doing so, traditional barriers between care organisations can be broken down rather than viewing each encounter with the health service as a single, unconnected episode of care.
- **Analogue to digital** – Expansion of the functionality of the NHS App is envisioned to give patients a digital front door to health services. The collation of data has the potential to facilitate the use of artificial intelligence (**AI**) to identify and solve problems, including facilitating research and innovation. A digital infrastructure transformation can allow direct interaction between care settings, encouraging greater productivity and efficiency of clinicians.
- **Sickness to prevention** – Large-scale information about the patient population can support the prevention agenda by enabling a risk score or stratification to patients. Patients are empowered with their own information, to take decisions about their own health, keeping them well and in work.

What are the benefits of delivering a SPR?

Who will use the SPR, and who will be impacted by it?

Single patient record will address issues for all NHS users

| Patients | Primary and secondary care clinicians | Primary and secondary care operators | Social Care Providers | Researchers and Innovators |
|--|--|--|--|---|
| <p>"I don't know how or where to access my full medical records"</p> <p>"My time might be wasted if I'm called to an appointment before my test results are ready"</p> <p>"If I interact with the NHS, I will have to provide the same information multiple times"</p> | <p>"I log into multiple systems to get access to information. It often doesn't correlate, or has gaps"</p> <p>"I can't see if I am requesting repeats of diagnostic activity for patients"</p> <p>"My handover to other settings is manual and time-consuming"</p> | <p>"I have limited ability to direct cohorts in the population to the most cost effective and fruitful treatments for them"</p> <p>"The data I see about the performance of the regional and national system is not dynamic"</p> | <p>"I see limited detail on my patient's medical history when they enter a care setting"</p> <p>"I can't make clinicians aware of observations and events for my patient while they are receiving care in the community"</p> | <p>"I have no access to big data to leverage for studies."</p> <p>"I can't communicate digitally with potential participants in studies"</p> |
| <p>▼</p> <p>"I can see all my health history and input my own data."</p> <p>"I can look at tailored information, informed by the latest research, to keep me healthy and happy"</p> <p>"I only need to provide information once to the NHS"</p> | <p>▼</p> <p>"I make decisions on complete and accurate information"</p> <p>"I can see a full record of historic tests and diagnostics"</p> <p>"My handover workload is reduced"</p> <p>"Accountability and liability issues for GPs are avoided"</p> | <p>▼</p> <p>"I can target relevant groups in the population for specific treatments"</p> <p>"I can see where changes to the clinical algorithm will benefit patients"</p> | <p>▼</p> <p>"There is an effective handover from primary and secondary care"</p> <p>"I can add data to my patient's record which would be relevant if they later received primary or secondary care"</p> | <p>▼</p> <p>"I can invite patients to trials via the NHS App"</p> <p>"I can safely access accurate and timely health data"</p> <p>"I can feedback the results of my trials and studies"</p> |

Example use cases for the SPR

Use Case 1: Clinical access to basic medical data points (medicines, allergies and conditions) through one entry point/clinical cohorts creation

As a care professional I would like to see the key information about a patient including medicines, allergies and conditions. I would like this data to be complete, including data held in different places such as the GP record or in secondary care locations, and for the data to be combined and any duplication removed and inconsistencies identified and resolved so I can see a single view on the data across all of the different sources. Ideally when I look at this combined view, it would highlight any really important potential clashes right there on the screen – like a reaction risk between a medicine and an allergy, or two medicines that shouldn't be taken together This data would also be consistent with any letters or correspondence I received from care professionals.

Use Case 2: Blood pressure

As a citizen / patient I would like to be able to provide blood pressure readings at home in a relaxed environment and upload them to my health record via the NHS App. I would like to be notified via the NHS app whether these readings fall into standard clinical ranges (per NICE guidance) and given easy to follow recommendations in the NHS app. For instance, consistently high readings should trigger notifications to me and my GP so an appointment can be arranged. My care pathway would be orchestrated by automated prompts or recommendations to myself, my GP, and other care professionals. These prompts would be guided by established clinical pathways and informed by factors including my calculated cardiovascular disease risk (e.g., QRISK) and relevant patient record information, aligning management decisions with NICE recommendations.

Use Case 3: Patient Initiated Follow-Up (PIFU)

As a citizen / patient I would like to have greater control of my care, being empowered to initiate appointments only when I need them, such as when my symptoms change and based on prompts from information shared either with questionnaires, or ideally through 'smart' diagnostic equipment (such as a smart inhaler). I would like to see the health information in my record – including my specific baseline inhaler usage, data from my smart watch, and also the self-management limits defined for my care plan – to understand whether a PIFU appointment is needed, with NHS approved self-care advice provided for anything in that range. Where an appointment is needed I would want to confirm when I need it by and where is convenient based on my own circumstances and data, and I would want a summary to be available for myself and all of my care teams on key points and trends.

Use Case 4: Cohorting

As a national service that needs to create clinical cohorts for direct care based on conditions, medicines and allergies I would like access to this data for all individuals so that I can create a clinical cohort. I would like to be able to update this cohort daily as needed and the data needs to be linked to an individual's NHS number so that I can link the cohort to the demographic details for the individual for sending out invites. It would be powerful if the system could help us identify people who seem likely to need this support soon, not just those who already meet the criteria, giving us a chance to reach out earlier. Also, it would be good if the system could learn from how things are going to suggest better ways to find the right group of people next time. I would like to see data on this cohort provided by multiple care settings as a single version of the truth.

Use Case 5: Demographics

As a citizen / patient I would like to be able to see in the NHS App the details the NHS has on my record including my name, ethnicity, sex, address, contact details, power of attorneys, details of my children, and which GP I'm registered with. I would like this to be a single source of the data used for any communications from national services and from primary or secondary care, and I would also like to be able to change the data if I have moved, changed my name or gender, or I see details such as my ethnicity or phone number are incorrect. It would be really helpful if the app could automatically flag up if my details seem out of date, potentially checking against other trusted services I use, or perhaps suggest adding my new baby's details if it knows I've recently had maternity care, just asking me to confirm it's correct. Any data changes need to be made to any local copies of the data so that the NHS has a single view on these details for me.

Use Case 6: Chronic Conditions

As a care professional I would like to coordinate care for patients with chronic conditions with other care professionals including as part of an integrated neighbourhood care team. I would like to have a clear view of the care being provided by other care settings and be able to request activities to support my patients from other care settings. I would like to have clear information from other care settings if they are unable to action the activities I have requested. Appointments would ideally be recommended based on real time availability within care providers in the system.

As a patient I would want to avoid being admitted to hospital and instead be supported by staying as well as I can whilst managing early stages of my condition at home. That would ideally involve a digital tool to keep track of my medications and appointments, so that I can adhere to my care plan and getting wraparound support including education on my condition, benefit advice, and home checks.

As both care professional and patient we would ideally receive support in co-ordinated orchestration of the care plan with automatic prompts to act based on any patterns observed in the patient data, missing patient information or potential gaps in the care plan. This would be informed by automated learning on what worked for previous patients with similar conditions and a similar profile.

Use Case 7: Cancer and Genomic Testing

As a citizen/patient I would like to be prompted for a checkup via the NHS App if genetic risks are detected in my family medical history. I would like this to result in a clinician conducting an assessment based on my care record, demographic information and my genetic profile which is stored in the Unified Genomics Record, to determine whether further testing is required. Where further testing is needed, I am able to confirm where is convenient based on my own circumstances and data, leading me to be referred to my local hospital for blood tests and scans. I don't have to repeat my information to the clinicians as they already have access to this information. When these results come back as suspicious, I would like the regional cancer centre to have access to my imaging and test results to help them reach a diagnosis and develop a care plan quickly. My GP can see the results of my genomic profile, blood tests and scans, and care plan, so that they can support me through my care.

Use Case 8: Digital Mental Health Therapies

As a citizen/patient I would like to escalate my mental health issue via the NHS App and receive quick support. I am prescribed a digital counselling tool, which can assess and automatically recommend next steps based on my inputs and wider health record, collated across all care settings. When I am then referred for face-to-face counselling, I would like to select an available appointment from a range of providers within my chosen distance to avoid long waiting lists at my local clinic. I would like my counsellor to be able to see my care record, including my mental health history and my inputs to the digital counselling tool so I don't have to repeat myself and we can use my sessions as effectively as possible.

What will the SPR give us over what we have today?

The SPR will transform the patient data ecosystem, integrating data across all care settings to improve access to patient information across the NHS.

The electronic health and care records for any individual patient are currently spread across multiple provider organisations, including GPs, and are controlled by that provider. Shared Care Records (**ShCRs**) are operational across a significant proportion of the United Kingdom, and provide data about patients' health and care. 74% of Trusts have ensured or are in the process of implementing patient access to ShCRs. However, these records are not comprehensive, are read only, and present data from care settings in tandem rather than creating a single version of the truth. From a care delivery perspective today, we are looking to better coordinate care between providers, make discharge summaries electronic, build neighbourhood health systems and run national vaccination and other direct care programmes. These need HCPs from different providers, as well as NHSE, to all have read and write access to a shared, comprehensive record built from multiple provider records. There are also opportunities to commission and monitor providers more effectively with better data. These activities are held back by the lack of a single record.

In the future: the SPR will provide a single version of the truth by integrating data across settings, enabling patients and health care professionals to work from the same record and to both see key primary and secondary care NHS interactions, as well as autonomously prompt actions to occur.

The SPR will give patients and HCPs access to a holistic single record created from multiple provider sources, so patients can be more in control of their health and health care, and HCPs have the data needed to make more effective clinical decisions. This single shared record will be critical to support new ways of working such as neighbourhood teams and other MDTs. Over time patients and HCPs will be able to both read and write to the record, so patient generated data and dynamic and joint care plans become a reality. The SPR should allow NHSE to deliver direct care more effectively (e.g. personalise 111 advice, run national vaccination programmes) as well as support secondary NHS uses – system management, population health management, policy development and monitoring and service planning – and over time support the training of AI including around assessment of clinical risk.

In the future, the future, the SPR will give patients visibility and control of their data, enabling them to read, write, share joint care plans and offer corrections to data - while also being able to manage sharing and have access to an audit of who has viewed their record and for what purpose.

Care delivery tomorrow is predicted to be much more digitally enabled, supported by artificial intelligence (AI) and algorithms that identify risk and can personalise care and promote preventative activities based on an individual's history. Access to rich, linked, clinical data will be the fuel for this revolution, and drive value from real world trials and other clinical research.

In the future, the SPR will create a data layer that can enable the secure availability of data (when consented to by patients) for third-party applications such as research and clinical trials.

How will the SPR interact with the NHS technology landscape?

In delivering an SPR, NHS England wants to make best use of the existing NHS technology estate. For instance, the data in source systems such as GP and Trust EPRs will remain the system of record for clinical activity, providing the single version of the truth. The SPR will connect and synchronise these systems for patients and health and care professionals to work from a single version of the truth.

NHS England would therefore welcome suppliers to advise on how to maximise the value of current infrastructure to develop an SPR within their response.

Draft SPR Product Definition

The minimum requirements set out in the tables below are only intended to be the functional minimum of a safe product and are not intended to articulate everything needed to deliver against the use cases set out above. Therefore, as well as meeting these minimum functional requirements, suppliers are invited to describe how they would meet the broader objectives as part of an SPR in areas such as:

- Ability to orchestrate care plans in practice and automatically prompt actions by care professionals and individuals based on real time data on that patient, their conditions, and existing care plans across care settings.
- Ability to analyse data across care pathways and analyse outcomes to both display relevant dashboards based on user requirements and to recommend improvements to care pathways.
- Ability to, where approved by the patient, integrate with third-party applications including research and clinical trials.

Minimum functional requirements (non-exhaustive and subject to change)

Citizens / Patients

| Capability | Functional Requirement |
|---------------------------|---|
| 1. Get data from the SPR | I can view my current care record including my care plans, with some elements restricted for clinical reasons, with information aggregated from each of the care settings I have interacted with into a single version of the truth |
| 1. Get data from the SPR | I can view a summary of my care record designed to be easy to understand and use, which highlights the most important information I need to understand |
| 2. Give data to the SPR | I can contribute relevant data in an appropriate structure which is then reflected in my record and available to the health and care professionals providing my care |
| 3. Information Governance | I can change my choices for certain uses of my data held within the SPR for users which do not provide services directly to me, for example the use of my data in research |
| 3. Information Governance | I can view which users (for example, identified by role and organisation) have accessed my care record and the purpose for their access of my record |
| 3. Information Governance | I can provide access to my record to other people and manage which parts of my record are shared with them, in line with DCB3051 guidance and requirements |
| 5. Security & Resilience | I must prove my identity in order to access my own health records, or the records of other people who have nominated me as a proxy, from the SPR, in line with DCB3051 guidance and requirements |
| 5. Security & Resilience | I can only access the data I have authorisation to access. |
| 5. Security & Resilience | I can't see back end system information through error codes descriptions |
| 3. Information Governance | I can reflect a change in my identity (for example following adoption) within my record |

Staff Members & Care Professionals

| Capability | Functional Requirement |
|---------------------------|---|
| 1. Get data from the SPR | I can view up to date information on the patient I am treating or supporting, such as data, including imaging, captured from all of the care settings and teams working with the patient, with access appropriate to my role, and a single version of the truth for data captured and/or used in multiple care settings |
| 1. Get data from the SPR | I can view a cross-care setting integrated care plan, including planned care activities from all of the care settings and teams working with the patient |
| 1. Get data from the SPR | I can view a patients record from a previous point in time, and rollback the record to that previous point |
| 2. Give data to the SPR | I can record relevant data in an appropriate structure to the record, or edit existing information, and that new data will be visible to all of the care teams working with the patient |
| 2. Give data to the SPR | I can input and edit a joint care plan for the patients I am managing, containing information about the care plans for that patient from each of the care settings currently interacting with the patient |
| 3. Information Governance | I can see and compare the information provided from individual care settings to understand how the current integrated record has been created, if I want to understand how the integrated record has been created |
| 5. Security & Resilience | I must follow appropriate requirements defined within the Data Security and Protection Toolkit and other relevant guidance when accessing or inputting data held within the SPR |
| 5. Security & Resilience | I can only access the data I have authorisation to access. |
| 5. Security & Resilience | I can't see back end system information through error codes descriptions |
| 3. Information Governance | I can respond to Individual Rights Requests (for example Subject Access Requests, right to be informed, etc), using the information held by the SPR |

System Vendor

| Capability | Functional Requirement |
|--------------------------|--|
| 1. Get data from the SPR | I can connect my product(s) which support health and care activities to retrieve data from the Single Patient Record, and ingest events from other data sources connected to the SPR, in order to have up to date information on patients from other care settings recorded in my product to present a single version of the truth |
| 2. Give data to the SPR | I can connect my product to the Single Patient Record and send data input by users into my system, so that this data is reflected to patients and other care settings and other systems are able to present a single version of the truth |

IG & Security professionals

| Capability | Functional Requirement |
|---------------------------|---|
| 3. Information Governance | I can see which users have accessed and/or edited specific patients records, the purpose, including fields involved, changes made, and time the change was made |
| 5. Security & Resilience | I can monitor system logs in real-time to detect and alert on critical events and anomalies. |
| 5. Security & Resilience | I can restore my services within the expected timeframe to limit service disruption. |

Must have non-functional requirements (non-exhaustive and subject to change)

All responses should meet demographic, security and performance requirements in existing NHS architectural and data standards, including the [NHS architectural principles](#) and [NHS Information Standards](#), that are to a sufficient standard for a platform that may be designated as Critical National Infrastructure.

Alongside adhering to NHS standards, deliberative patient engagement has highlighted two further non-functional requirements:

- Accountability - clarity around how data is managed, and consequences for misuse of data
- Transparency - design of the record, and access and use of data
 - The architecture of the SPR, including suppliers, systems, data, and data flows, is transparent to health and care professionals and members of the public
 - Access to patient information is transparent to patients, and is available for investigations (e.g. inappropriate access).

Data Inputs and Outputs (non-exhaustive and subject to change)

The SPR will record all data describing the interaction of a patient with the healthcare system, for example:

- Diagnosis history
- Prescriptions
- Hospital admission status
- Pregnancy status
- Physical measurements
- Test results
- Appointments

The below overview of data inputs and outputs demonstrates the data that will flow through the SPR. This is not intended as an exhaustive description of the data that will flow through the SPR:

| User | Example Data Inputs | Example Data Outputs |
|---------------------------------------|---|--|
| Patients | Proposed changes to their health record to correct errors, indirect data from wearables | Test results, diagnostic outcomes, appointments notifications |
| Primary and secondary care clinicians | Updated information on patients undergoing treatment, e.g. test results, diagnostic activity, clinician observations, physical measurements, patient status | Single version of truth for medical and diagnosis history, patient status |
| Primary and secondary care operators | Patient clinical algorithms | Information on population issues, system usage, system performance, demographic trends |
| Social care providers | Patient independence and support needs, risk assessments, patient status | Medical and diagnosis history, physical measurements, patient status |
| Researchers and innovators | Medication interactions, updates to clinical algorithms, patient-specific data | Input data for research studies, identification of cohorts |