Integrating care records is good. Using intelligence to make them active is better

What is needed for the single patient record to deliver intended benefits? Dr Paul Deffley, Chief Medical Officer for Alcidion and former NHS commissioning professional, considers how emerging policy could help patient record systems to become more active and intelligent, enhancing the delivery of care.

A single patient record already exists in the NHS. Or at least, that's a perception shared by many. A survey of a thousand members of the public, conducted by NHS Confederation hosted organisation Understanding Patient Data, found that more than 6 in 10 UK citizens believed information on their NHS history was already collated in a single repository.

A somewhat different reality is known to most people working in the health service. Anyone who has worked in healthcare policy long enough will know that overcoming the challenge of fragmented records has long been a priority for successive NHS and Department of Health leaders.

As we anticipate the forthcoming NHS 10-year Health Plan, it is timely for us to reflect on how the pervasive matter of fragmented records will be overcome. It appears that money will be available after Chancellor Rachel Reeves committed £10bn for NHS digitisation in June's spending review, which specifies that a single patient NHS record will mean "every part of the health service has a full picture of a patient's care".

Integrating care records is good. But unless we make them active – capable of surfacing insights, prompting actions, and working seamlessly within clinical workflows – we risk building a vast digital filing cabinet that gathers dust.

Providers, systems, suppliers, and the thousands of data controllers that exist in healthcare, will all have a role to play in making such a plan reality and undoubtedly, with historic attempts having been abandoned in the past, issues such as the safeguarding of data will be key.

Many other questions must also be asked as the ambition advances to finally overcome data silos. Here's what four of those questions might be:

Liberating data: What's the opportunity?
There is already an enormous amount of data captured throughout the patient's journey. Much of this data sits within the fragmented landscape of applications that form the backbone of health IT systems. Pulling all this data into a single patient record represents enormous complexity and cost, and much of the data will not be of value to future care needs.

The key to a valuable single digital patient record is accessing the pertinent information when it is needed. Liberating the valuable information pertinent to the situation.

Before we go into how an active integrated patient record might be achieved – asking why such a record needs to be created is essential. Some answers have been very well documented over the years – with integrated data opening opportunities for patients not having to repeat themselves, for better informed care, informed patients, and informed research, as well as enhancing decisions that lead to safer care provision.

Whatever transcends into policy or even legislation, designing and delivering record systems that are both useful and used poses two questions: What do clinicians really need from an integrated record? And what will benefit patients?

Patient empowerment will be key against a policy backdrop of prevention – and records will undoubtedly need to prompt and present individuals with the right information to make informed

choices about their care. However, the way patients continue to both consume and contribute to that data will change – and strategic approaches must respond accordingly.

Wearables, for example, have become a rich source of data that often remains excluded from patient records. We need to think about how that data and other datasets that haven't even been conceived yet can be better contribute to the comprehensive picture of a patient's health. And we need to consider how data in a new single record can be integrated into the digital systems that clinicians actually use in their workflows, rather than creating a standalone silo that sits in the corner of a ward or on an app that never gets accessed.

How can emerging intelligence enable record solutions to be more active?
So, how could a single patient record be put into practice? Simply building a bigger record risks creating a very large database of patient data – something many NHS providers and professionals I speak to are eager to avoid. Particularly those already benefitting from solutions that alleviate the clinical cognitive burden and that are proactive in clinical decision support.

We need to build a solution that can work as an ally to patients and clinicians alike, and that is futureproofed to leverage emerging technologies. Every health and care worker might soon have their own generative AI assistant that can interrogate an integrated record, provide them with support or guidance, and advise on the likelihood of certain actions being a success.

The AI assistant is likely to have the capability to go out and interrogate a wide range of data sources to enrich the integrated record, making a large 'single' database unnecessary. Busy clinicians will no longer need to spend their time and effort searching for insight. As we develop record solutions that will take advantage of these capabilities, it is vital that the integrated care record becomes available for every health and care workflow.

The evidence that this works can already be seen in existing technology deployments – I've witnessed first-hand the recent benefits of integrating the Great North Care Record in one trust's EPR, a valuable data source that has exploded in use by making it easy for clinical teams to access. It's about more than creating a view of such data – this is about integrating data into the forms, pathways, and processes that clinicians use.

Does the NHS need a single record? Or a platform? Or both?
A single patient record is a fantastically clear way to articulate what is trying to be achieved. However, a single patient record does not mean a very large database, poorly designed into care workflows. Access to an integrated record that is populated with contextually rich and relevant data from multiple sources is a much more realistic and powerful way of delivering this capability to our clinicians. In making this happen, we need to be equally articulate about how we will get there from the earliest of stages.

That in part means learning from what has come before so that the programme can be differentiated. Large digital health programmes around the world have sometimes encountered failed adoption and escalating cost, when they have built first, and thought later, about how to integrate the data and insights into clinical workflows.

We need to think actively about the application of data in a clinical context, then design the data and intelligence layer that sits behind an integrated record in order to make the system a success, and to ensure we deliver active systems of engagement rather than passive records.

ICSs have a crucial role here – not just in adoption, but in defining what success looks like for local populations. The single patient record must be flexible enough to accommodate these differing priorities, without becoming fragmented all over again. We must be cautious not to conflate 'single' with 'centralised'. A national strategy must enable local adaptability – so that records can support different services, care models, and patient needs across systems.

Who are we building this for?
Population health, research possibilities, changing our understanding of illness – all critical use cases for liberating and consolidating patient data. However, we need to start by meeting the needs of our frontline clinicians and patients.

Clinicians need to be able to make good decisions first time to avoid duplication and waste that a stretched system can no longer withstand.

The record has to be an integral point of a patient encounter for it to be an effective partner and one that can then share insights across the integrated system. Imagine if we could prevent unnecessary readmissions by flagging patients at-risk based on their complete care history, or eliminate duplicate diagnostic tests by providing real-time visibility into recent procedures across different departments and facilities.

Consider the efficiency gains when emergency department clinicians can instantly access a patient's complete medication history, allergies, and recent specialist consultations rather than starting from scratch or waiting for paper records to be located. This reduces diagnostic time, prevents adverse drug interactions, and enables more targeted treatment protocols.

In surgical settings, integrated records can streamline pre-operative assessments by automatically surfacing relevant imaging, lab results, and specialist recommendations, reducing the need for repeat consultations and accelerating time to surgery. Post-operatively, the same system can trigger appropriate follow-up care protocols and coordinate discharge planning across multiple disciplines.

The efficiency multiplier effect becomes clear when considering how many hours clinicians currently spend searching for information, making phone calls to other departments, or repeating assessments that have already been completed elsewhere in the system. An integrated record that serves as a true clinical partner transforms these time-intensive activities into seamless, data-driven workflows that keep clinicians focused on direct patient care rather than administrative tasks.