Collaborate 2 innovate

Shaping a better medication management future together

Collaborate 2 innovate: Shaping a better medication management future together

The Better Meds community came together to share insights into medicine management during their annual event. During the welcome session, attendees were reminded that the day wasn't just a discussion but a call to action to connect, share, and learn across the NHS to shape a better medication management future together.

Morning sessions focused on the transformative power of partnerships and integrations, and the afternoon zeroed in on collaborating for the future with lessons learnt and how we move those lessons forward.

What follows are the use cases and best practices that are transforming patient experience while also shining a light on the common barriers that need to be broken through to achieve the goal of a seamless digital flow of medicines information across health and care.

NHS England Digital Medicines Update

Rahul Singal, Chief Pharmacy and Medicines Information Officer at **NHS England** kicked proceedings off with a keynote on a set of initiatives that promote the adoption of appropriate technology and the use of medicines data to improve productivity, safety, and patient experience. This is being executed with four key workstreams:

- **Patients**: Shifting to mobile-first prescriptions via the NHS app to give patients more control and more choices, allowing them to get the best from their medicines.

- **Data collection**: Improving the quality, availability, and use of medicines data so it can be analysed for direct care and secondary research. This will be achieved by establishing a data collection from ePMA systems, with the information standards notice approval happening imminently and aiming to have the data flowing by the end of the year.

- **Connected technology**: Defining standards to enable the seamless flow of fully structured medicines information between NHS IT systems, without manual transcription, and driving the adoption of those standards. Modernising the Electronic Prescription Service to enable the expansion into secondary care and at the integrated care board level.

- **Workforce**: Developing digital capabilities across pharmacy professionals, both in terms of technical and leadership skills.

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I'm noticing the shift from theoretical narrative to being able to point to real-life examples of good work that is achieving benefits and is helping me to make a case for funding to scale up those innovations.

Rahul Singal
Chief Pharmacy and Medicines Information Officer,
NHS England

Use Case: Phasing out paper in the pharmacy ordering process

Daniel Pugh, Lead Pharmacy Technician for ePMA from **South Tees NHS Foundation Trust**, shared how the trust partnered with Better on integration between Better Meds and the Helix stock control system. While the process was previously completed by porters and pneumatic tubes taking paper orders from the ward down to the pharmacy before being transcribed into the ePMA system, medicine data is now sent and processed back and forth between the systems in real-time.

Valuable time is being saved that would have been spent transcribing, orders are fully traceable, and errors during transcribing are being avoided. The stock control system doesn't have to take into consideration clinical decision support as it's already validated in Better Meds and users can only dispense medication that has been ordered. The integration is also enabling a real-time update of everything that's changed with the prescription which is helping pharmacists prioritise workload.

Looking to the future, South Tees plans to extend the system's scope beyond inpatient supply requests and feeding back quantities and dispensed items, as well as utilising other data such as ward stock lists and integrating with further systems, i.e., bag tracking.

Use case: Integrating Better Meds with the Somerset Integrated Digital Electronic Record and the Electronic Prescribing Service

Somerset has a vision to join up all clinical systems across primary, community, and secondary care to empower patients and improve care. A major part of the strategy is developing new ways of delivering medicine management by utilising the data within healthcare systems. The Better Meds consolidated ePMA system is live across twelve sites including eleven community and one acute hospitals, in a wide range of clinical care contexts from hospital-at-home to intensive care units (ICU).

Better Meds has been integrated with Somerset's Integrated Digital Electronic Record (SIDeR) to feed medicine data into the patient's shared record. Any care provider in Somerset who has signed up to use it can access, write to, and update it.

The interface will release > 8,900 hours of transcribing medicines on admission and > 3,100 hours of transcribing medicines on discharge summaries, in addition to significantly reducing errors made while manually transcribing between systems.

A pilot is underway to interface with the Electronic Prescription Service for secondary care across Somerset using the Better Meds platform.

Integration will offer several benefits, such as being able to deliver the county's hospital-at-home service, respond faster to prescribing trends, reduce the associated risks with FP10 prescribing (diversion and alterations), release considerable cost savings and efficiencies, and improve the overall patient experience.

Next on their digital journey is to consolidate a reconciled timeline view from all the data points across Somerset so at any point, you can log into Better Meds and see exactly what's happening with a patient's medication. That work will unlock opportunities to empower patients to be more involved in their care.

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Consolidating medicine data across Somerset is complex, but with the support of our team, NHS England, and Better, we've made considerable progress towards care continuity and eliminating transcription.

Leo Martin-Scott
Digital Lead Pharmacist,
Somerset NHS Foundation Trust

Use case: Consolidating medication data in Catalonia

As part of **Catalonia**'s strategy to develop an integrated digital health platform, the region is moving from an individual paper prescription to a unique therapeutic plan in primary, secondary, and community care built around key factors:

- Integrated health management,

- Electronic prescription and dispensation,

- Safety and rational drug use,

- Coordination between healthcare professionals,

- Accessibility to medical and pharmaceutical services,

- Personal Health Card and single medication plan.

Jordi Piera Jimenez, Director of the Digital Health strategy office at **Catalan Health Service (CatSalut)**, updated attendees on the work that is currently happening to put people at the forefront of integrated care.

1. Enhancing the relationship with clinical information by linking treatments to patient-reported outcomes.

2. Extending the system to hospital outpatients, in-hospital patients, and the private sector.

3. Broadening the scope of the system to include nursing, dietetics, nutrition, odontology, and podiatry.

4. Aligning with national interoperability to support the dispensation used by the state public mutual societies and private sector.

5. Integrating with the European Medicines Verification System and EU-IPS.

6. Improving accessibility with mobile devices.

Use case: Navigating multi-system digitalisation at the Slovenian Institute of Oncology

In January 2024, the **Slovenian Institute of Oncology**, one of the largest centres in Europe, successfully implemented Better Meds.

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There was fast adoption among staff, and the system's intuitive design helped to keep the learning curve from being too steep, which contributed to a smooth transition.

Miha Oražem
Radiation Oncologist,
Institute of Oncology, Ljubljana

Templates of commonly prescribed medications are now available, which is helping to release time savings. Electronic documentation has replaced paper/phone orders, resulting in clearer documentation of prescription times, dosages, and administrations to improve communication and drive down errors.

Staff can now access and update the records remotely on mobile devices, thus further saving time. This is especially useful if a clinician is on call in another part of the hospital. E-prescribing is more convenient for patients because they can call the hospital or pharmacy to make changes and receive new prescriptions digitally, rather than having to collect them in person.

Looking to the future, plans are in place for the integration of ePROMS, introducing e-questionnaires for patients before their visit, video instructions, the expansion of teleconsultations, and the integration of radiotherapy modules.

Workshop: How to use ePMA data to measure and report outcomes

Electronic medication management provides more effective traceability and data collection to improve outcomes. This is important because the use of medicines is complex, and there are numerous steps and people involved, with many opportunities for error.

Reporting opportunities can be categorised into three areas:

Patient-level medication data collections (standard reports) are enabled in Better Meds' Reporting Microservice, which extracts the data from the system in a format that works with any business intelligence tool. Reports are published in real-time, with customisable run periods, filtering options and data at an individual prescription/administration level. Better Meds is also fully compliant with national reporting requirements.

Quality reporting looks at the quality/responsible use of medications and can be reported on with qualitative data using yes/no questions, quantitative data on changes over time and quantitative data looking at the outcomes of system performance. Dora Žmuc, MD & Product Manager at Better Meds, demonstrated how these reports can be achieved using data from Better Meds.

With medication expenses increasing in most healthcare systems, **financial reporting** is becoming more important. In response, several data points can be exploited:

- Medication expense per patient day,

- Generic percentage,

- Percentage of refilled prescriptions,

- Prescriptions dispensed per day,

- Percentage of expired drugs in pharmacies,

- Percentage of high-cost medications prescribed.

Following the presentation, attendees took part in a roleplay exercise acting as a multi-disciplinary group meeting to discuss an increased demand for improved reporting in an acute NHS trust setting where Better Meds is used for ePMA. Each group shared the main priorities for reporting, with common themes emerging around qualitative/quantitative data, measuring the process and outcomes of care, and focusing on patient safety and quality of care.

Use case: Lessons from Slovenia's shared meds record efforts

Slovenia's shared medicines record was introduced as a service in 2023. It is eligible for all patients (initially with more than five medications) and is based on a medication reconciliation process using a document developed to openEHR specifications. Data can be imported into the record from multiple sources, including e-prescriptions. Once discharge medications are dispensed to the patient, the record is uploaded to the national e-Health database which is available to all healthcare professionals and the patient can access via an e-Health app. This means the patient always has remote access to their record, which is especially useful in emergency care situations.

What were the key learnings from the implementation?

- Proper IT infrastructure is key.

- All stakeholders must use similar (openEHR-based) infrastructure.

- Standardised data must be used whenever possible.

- Medication management must be unified across all health and care professionals.

- A national (validated) medication dictionary must be used.

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The goal is to have a medication introduced only once in the system. The rest are revisions.

Tomi Laptoš
Clinical Pharmacist,
University Medical Centre Ljubljana

Envisioning seamless sharing of digital meds data in Wales

Digital Health and Care Wales is embarking on the creation of a shared medicines record for the whole of the country. The Digital Medicines Transformation Portfolio will include a shared medicines record, a patient access project, a secondary care ePMA programme, and a primary care electronic prescription service.

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> The good news about Wales is it's a greenfield site and we have a mandate to push the implementation of interoperability standards, so we are in a good place to digitally transform.
>
> **Keith Farrar**
> Deputy SRO,
> Digital Health and Care Wales

The record will be a centrally held FHIR store populated by all significant medicine events in any approved healthcare system across the country. Data will be pulled from secondary, tertiary, community, and primary care, along with citizen systems and wider services such as social care, care at home, care homes, private care and hospices. It will record every new prescription, prescription update, dispense, and administration for each patient and make it available to health and care professionals in a context-specific way at the point of need.

The benefits

- Reduced risk of errors while transcribing by providing timely access to patient medicines and allergy information.

- Reduction in transcribing time as clinical data is made available and shared electronically, releasing time to care.

- Supporting NHS Wales research as medicines and allergy data is made available.

- Empowering patients in their health care by giving them secure access to their record.

Projections estimate the integrated record will reduce errors by at least 40% and save 800 bed days and £383,000 annually.

Discussion: Shaping tomorrow's digital medication management

Panellists

- **Daniel Pugh**, Lead Technician for ePMA, South Tees NHS Foundation Trust

- **Keith Farrar**, Deputy SRO, Digital Health and Care Wales

- **Tomi Laptoš**, Clinical Pharmacist, University Medical Centre Ljubljana

Ann Slee, former Chief Pharmacy and Medicines Information Officer at NHS England, led a discussion with the panel and the audience to discuss the challenges and aspirations for delivering digital medicines management in the future. "Now we have nearly full adoption of ePMA across the UK. Where do you think the journey is going to take us next?"

Keith said: "Optimising what you've got already is the best starting point. Beyond that, I would suggest advancing content-specific decision support, making sure medicine administration is embedded in every health and care system and having medicine logistics across the whole workflow, from healthcare through to the supplier."

Other common themes emerged from the audience on interoperability, closed loop, data, empowering patients, moving to a preventative model of care, learning from each other, and avoiding duplication of work, more efficient transfer of care between countries in the UK, and breaking down barriers between primary, secondary, and community care.

How can we move that forward? With more clinical informatics roles that can argue the clinical benefits of a system, build that bridge between technical and clinical, and make sure they are involved in the initial procurement process. **Daniel commented**: "NHS England has gone a long way to making it slightly easier to procure a system that does what clinicians need, particularly for integration and standard requirements, but more work needs to be done in that area."

Ann put to the panel: "If empowering patients more is a key focus for the future. How can we support people to understand digital technology is a tool, not a means to an end?" **Tomi commented:** "The key principle is data, data, data. As long as you have it, you can validate, structure, and evaluate it to show the users how much time you can save, how much more you can do, how many deaths can be prevented, and so on."

Beyond the Buzz: Practical uses of AI in medication management

Over the last two years, Better has been exploring uses of AI within Better Meds that would be safe and enhance the user experience. Four key areas emerged:

- Supporting clinical decision support with the human-in-the-loop.

- Summarisations – generating well-formatted text from data.

- Retrieval Augmented Generation – combining search over your own data using chat capability.

- Combine prescriptions and other patient data with reasoning capabilities to provide an intuitive assistant.

Davor Hafnar, ML/AI Engineer & Product Manager, and **Dora Žmuc**, MD & Product Manager at Better Meds, demonstrated two new functionalities currently being developed within Better Meds, and the clinical background behind them.

Daily summary: A brief report highlighting all the changes that were made to a patient's prescriptions in the last 24 hours, keeping medication data accurate and up-to-date.

Assistant: A feature available on the patient's chart that emulates asking a question about their care, as if asking a colleague or searching through a patient's prescription history for the answer. The user can ask questions such as whether a certain medication has already been prescribed or if they have any allergies and have the assistant answer based on the patient's medication record – supporting clinicians and offering valuable insight. The list of use cases for this feature is continually growing as the Better team develops it further to not only enhance efficiency but also improve the overall clinician and patient experience.

Conversation: Prioritising the human experience in medication management

Lex Moon, ePMA Clinical Lead at Oxford Health NHS Foundation Trust, closed the day explaining the importance of including your organisation's people in the digital process: "Technology is great but if you don't have the people behind it and bring them on the journey to learn from their experiences, then the technology's impact will be limited."

This is particularly relevant with clinicians and ensuring they are involved in the process from day one because they are the main people who will be using the system on a daily basis. Lex highlighted that Oxford knew it had successfully made its implementation people-led when clinicians began feeding back sentiments that they could clearly see how it was a digital tool designed to make their job easier and support safer care.

Oxford is underway with integrating Better Meds with EMIS for supply requests, so pharmacists don't have to duplicate transcriptions. This is one way the trust focused on using technology to free up time so staff can concentrate on patient care and ensure medicines are safe.

No matter how advanced technology becomes, the human element of the care process will always be critical. People can contribute valuable clinical logic, context, empathy, and judgement which technology will never be able to fully emulate, especially in a complex, high-risk healthcare setting.

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