



Wye Valley NHS Trust (WVT) provides community services and hospital care to more than 180,000 people in Herefordshire, and urgent and elective care to around 40,000 people in mid-Powys, Wales. The trust was established in 2011 following a merger of Hereford Hospitals NHS Trust with Herefordshire PCT community services and Herefordshire Council's Adult Social Care services. It runs Hereford County Hospital, Bromyard Community Hospital, Leominster Community Hospital and Ross Community Hospital.



THE PROBLEM WITH PAPER A BETTER WAY

In a National Reporting and Learning System, review of medication errors 525,186 incidents were reported between 2005 and 2010. Of these, 86,821 (16%) of medication incidents reported actual patient harm and 822 (0.9%) resulted in death or severe harm.

Like many trusts, WVT relied on outdated paper prescribing processes, with handwritten prescriptions delivered to pharmacies by hand, air tube or email. There were more than 20 types of prescription available within the trust, including inpatient medication charts, which were 14-day charts often requiring rewrites, outpatient charts, outpatient prescriptions and FP10s, with bespoke charts being created by different specialities.

"We had approximately 500 medical and 100 non-medical prescribers hand-writing prescriptions for inpatients and outpatients across our sites, which includes three community hospitals", explains John Gwilliam, lead digital pharmacist at Wye Valley NHS Trust.

"The system just wasn't fit for modern healthcare and there were far too many opportunities for error which could, ultimately, cost lives."

Recognising the serious risks associated with illegibility, lost charts, and prescription and transcription errors, ePMA was made a priority as part of the trust's wider digital transformation strategy.

Wye Valley was looking for an ePMA solution that would work across all patient groups - inpatient, outpatient, day cases and community hospitals - and across all specialities, with the exception of oncology. Crucially, it was looking for a solution that would also integrate with its existing EPR. As part of the competitive tender process, the project team arranged for staff demonstrations of several ePMA systems, with clinicians able to test for themselves the usability of the technology and score each system.

"This was a really important part of the process for us, as we had to be sure that the solution we commissioned was fit for our staff and our workflows," explains Gwilliam.

Better Meds was chosen for its functionality, user experience and interoperability, including its ability to integrate with existing workflow and technologies. Gwilliam adds:

"It received the best score from staff demonstrations for usability and functionality, while also being comparable on costs."

Better Meds – an award-winning solution:

- Medication reconciliation throughout inpatient hospitalisation from admission to discharge
- Therapy protocols with support for complex infusions
- Modern and easy to user interface

Created as a stand-alone solution, Better Meds is compatible with any EPR and can be integrated with decision-support and hospital pharmacy systems. At WVT, the solution integrates with Epro's Clinical Portal and Maxims EPR. It also links with Epro's allergies module, providing a best of breed approach that can grow and evolve with the trust.

IMPLEMENTATION AT PACE

In the early phase of implementation, the project team faced the unexpected, and unprecedented, challenges associated with the COVID-19 pandemic and the project was temporarily put on hold. When they were eventually able to reinstate work, they achieved the first go-live on the pilot ward in October 2020, just six months after the system was first accessible to the trust.

"Our implementation was initially put on hold as the trust stopped non-essential work to prepare for, and treat, Covid patients," explained Gwilliam.

"So when we were able to reinstate the project, we knew that we had to move forward with our implementation as quickly, but as safely, as possible. Any project delays may have resulted in safety concerns due to a mixed economy of paper and digital wards."

Extensive pre-planning was undertaken to ensure the success of the ePMA rollout, starting with gaining buy-in at board level. The project board included the clinical director of pharmacy, financial director, medical director, and nursing director. This meant that if the implementation team had any problems within medical or surgical divisions, for example, they could go back to the medical director for advice. If the board level was unable to help, they could escalate to the executive board.

CONQUERING CHALLENGES

One such challenge occurred during an early go-live on a medical ward. The implementation team faced resistance from a consultant who was unaware of the planned roll-out on their ward; the team's planned notifications had not reached the consultant and as a result he put the roll-out on hold.

"This was a great lesson for us early on in the project," Gwilliam explains. "We had communicated our plans via various methods - notifications via the executive board, emails, posters - but they didn't reach the consultant in charge. We knew we had to take a new approach for future go-lives and so we appointed workstream leads who were responsible for engaging ward staff in person to plan ahead of the rollout. This then worked seamlessly for future go-lives."

The trust faced other significant implementation challenges, such as the opening of a new hospital site and the merging of hospital wards due to COVID-19, which increased bed capacity by 50% meaning the team could not proceed with the planned go-live.

Further to this, in-person training was not possible during the pandemic, and increased workloads meant that staff had less time to engage.

"The COVID-19 pandemic had the potential to cause significant delays and completely derail the project", explains Gwilliam. "That's why our pre-planning phase was so important for ensuring the success of the ePMA implementation. We were prepared for multiple go-live scenarios."

The team decided to move training online and incentivise participation with a Royal College of Nursing accreditation.

"This gave staff the autonomy and flexibility to learn about the ePMA system at their convenience," Gwilliam explains.

"There was the risk that staff wouldn't complete the training ahead of implementation on their wards, so we incentivised engagement by getting the course accredited with the Royal College of Nursing. This gave nurses a nudge to complete the training, as they knew they would have a certificate for revalidation."

PRESENT AND AVAILABLE

Present and available

- Best integration capabilities on the market Pharmacy stock management (50+% of UK market), electronic prescription service (UK, NZ, SLO), GP Connect (UK), dm+d (UK), ability to integrate within institution's EPR/PAS portal
- Award-winning speedy rollout Health Tech – Excellence in EPMA Award for fast implementation during Covid at Wye Valley NHS Trust (2021)
- Backed by a vibrant community Knowledge and best practice sharing within Meds Community Club

As with all digital transformation, overcoming resistance to change was an important consideration for WVT and critical to the overall success of the project. To remedy any initial reservations, the team engaged with end-users from the offset to understand their pain points, enabling rollout by consent through an atmosphere of ownership and collaboration.

"Staff engagement was a real priority, not just a tick box exercise", explains Stefan Siekerski, project lead at WVT.

"We made a point of speaking with end users to understand their needs, and we let them trial the system on laptops before gathering feedback and adapting the solution accordingly. The ePMA wasn't imposed on staff, they were active collaborators in the project. This meant that when we experienced challenges — which you always do when implementing systems like an ePMA — there was a sense of camaraderie and staff cooperated to solve them."

Kate Leonardo, Critical Care Lead Pharmacist, WVT, adds: "We really appreciated the responsiveness of the implementation team and their willingness to adapt the solution. The preparation beforehand made a big difference, as did the one-on-one training sessions which helped to get me up to speed with the new ePMA system."

This hands-on approach continued throughout the implementation phase, with the project team conducting door-knocking exercises and joining ward rounds to educate staff about the new technology. They also organised a stand to answer questions in the canteen and stood at the staff entrance from 7am to speak with workers as they arrived

The team went live on the first pilot ward just six months after gaining access to the ePMA, with subsequent roll-outs every 2-3 weeks. During each ward implementation, the team was available from 07:00–22:30 for additional troubleshooting sessions and ensured that they were

contactable outside these hours through an on-call system. In addition, staff on wards that had already gone live provided support to other wards and training was adapted for subsequent rollouts, resulting in fewer support calls.

Leonardo adds: "The roll-out went so well, and we were fortunate to receive four weeks of face-to-face support. It really was a collaborative effort. The 24/7 support was a big commitment, but staff welcomed this and it ensured there was no adverse impact on the care provided."

THE RESULTS

Present and available

- ~840 hours will be saved per annum from pharmacists no longer having to look for charts
- Doctors will save ~60 hours per week without having to transcribe medicines in discharge letters
- Doctors will save ~12 hours per week without having to rewrite medication charts

In just nine months Better Meds was live across 95% of the trust, and staff quickly noted significant improvements to safety and efficiency.

Sharon Handley, Ward Sister, said: "I've found the system to be invaluable when completing audits and investigations; I'm able to see clearly what the medication was, who prescribed it, who stopped it and on what date, without having to distinguish the writing or signature. It's much safer and enables a clear audit trail."

Susan Vaughan, Lead Pharmacist, adds: "It has been very useful to pull up an ePMA record to discuss with a doctor, when I am not physically present. This has made it much easier for both parties to see what is being discussed, and the resultant discussions feel better."

The trust estimates that 210 working hours will be saved each quarter from pharmacists no longer having to look for charts. Doctors are estimated to save 60 hours a week due to no longer having to transcribe medicines in discharge letters and 12 hours a week will be saved from no longer rewriting medication charts.

Jake Burdsall, CCIO and Consultant Gastroenterologist, says:

"One of the major benefits is that I can now always review current prescriptions on ward rounds. In the past the cardex was often missing for some patients, which involved spending time trying to track it down when we should be seeing other patients. This was a big frustration on a daily basis."

As a result of the ePMA, staff can now spend more time with patients, and the new systems improve patient safety by eliminating the risks associated with paper-processes. The trust also estimates that between £13-16k will be saved per year in local prescription chart printing costs.



Better data, better care.



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