

Read how JAC are helping
NHS Ayrshire and Arran extend
the reach of their medicines
management systems through
implementing **EPMA in a
Scottish Health Service.**

Electronic Prescribing and Beyond

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in association with



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Customer needs met

- **Hospital-wide replacement of paper-based prescribing with a full, electronic system**
- **Improved legibility of prescriptions delivering an overall reduction in drug dispensing & administration errors**
- **Routine use of electronic prescribing data for auditing & customised reporting**
- **Workflow integration with pharmacy**
- **Full delivery of the system via wireless technology and mobile devices - enabling bedside prescribing and administration**

Executive summary

Ayr Hospital chose JAC’s EPMA solution to replace its paper (drug chart) prescribing system. The JAC solution introduced a range of usability and functionality enhancements - including support for bedside administration - as well as decision support capability and more detailed reporting.

The JAC EPMA solution has extended the benefits of electronic prescribing throughout NHS Ayrshire and Arran (NHSAA), delivering integrated medicines management in conjunction with the hospital’s pharmacy system. Clinicians can also make use of bedside medicines administration facilities as well as auditing and reporting tools to help monitor prescribing patterns and infection control protocols quickly and accurately.

Ayr Hospital - an early adopter of e-prescribing

Ayr Hospital opened in 1991 and is operated by NHSAA, which serves a population of around 350,000. The hospital became an early adopter of electronic prescribing, when it conducted a small-scale e-prescribing trial on a single ward.

This trial demonstrated a clear reduction in medication errors and improved quality of prescription writing. Based on this initial project, Ayr Hospital worked collaboratively with JAC to develop their initial solution to address key clinical requirements. This solution was rolled out across six wards in 2001, including admissions, coronary care, orthopaedic, and general medical wards.

The response from users was extremely positive, with the benefits of legibility, reduced errors during prescribing, administration and dispensing, and information being available directly at the point of need all being reported by users.

Furthermore, this information was accessible on-screen in other areas, including the pharmacy dispensary, which was not possible with paper records - again helping to improve accuracy and rapid access to key information.

However, the hospital wanted to further extend the benefits of this early system version with additional features such as an improved user interface, support and detailed reporting. The Hospital again worked together with JAC as these features were included and the medicines management processes were refined.

Refining the solution, reaping the benefits

Richard Cottrell, senior clinical pharmacist and HEPMA pharmacist at Ayr Hospital said: **“Because our early experience of e-prescribing was with JAC, our staff are familiar with the system, and our workflow and processes fit into the usage of the system. As the system became more advanced and user-friendly, we could improve the efficiency of day-to-day tasks without taking forever for staff to learn and adapt.”**

“Also, as the JAC solution is developed in the UK, integration with other NHS systems is easy. We’ve found it fits into the way we prefer to work, not the other way round.”

JAC’s EPMA was then deployed fully across Ayr Hospital, and also at Biggart Hospital (both are operated by NHS Ayrshire and Arran). The EPMA solution and Pharmacy Management modules form a single, integrated system, covering all NHSAA hospitals on a single system.

The integration of hospital prescribing and pharmacy allows end-to-end medicines management processes that handle the complete cycle from prescribing, clinical verification and dispensing, to drug administration by nursing staff.

The hospital’s use of customised drug trolleys on wards allows them to push the boundaries of advanced patient care. These feature a mobile terminal with wireless connectivity, enabling staff to prescribe and administer medicines at the bedside. This enables staff to spend more time with patients, reducing errors and improving the patient experience.

Another key feature is the clinical decision support capability, using First Data Bank’s Multilex database. This provides access to detailed, warnings with regard to patient allergies/intolerances. Clinical staff use this information during the prescribing process to minimise risks to patients.

In-depth reporting

The JAC solution’s reporting functions have been welcomed by staff, according to Richard Cottrell, and have proven very useful for auditing and management purposes.

“At first, the sheer wealth of data and reporting capabilities available from the system came as a surprise to us. Over time, we’re using more and more data from the solution in various functions, such as helping clinical staff produce customised reports, for auditing and as an aid in infection control,” he said.

Medication usage reports produced from EPMA data help to manage appropriate and prudent use of antibiotics on wards. Clinicians are able to use the reports to get an immediate overview of patients with prescribed antibiotics, and then see how quickly treatment was administered. This also gives the hospital a detailed record of any restricted antibiotics or combination regimes. Without e-prescribing in place, this level of information would simply not be readily available.

Users can also conduct more in-depth analyses of the information in the JAC EPMA database, using the system’s reporting tools to derive values and display results in a range of easy-to-use formats.

Integration with pharmacy management has also helped minimise the administrative overheads of maintaining accurate levels of ward-held drugs.

Ongoing developments

“Developing the e-prescribing system is an ongoing process, and it has to integrate well with our systems and working processes as our needs evolve. We have a close working relationship with JAC which has enabled us to tailor the way we use the solution to our needs,” said Richard Cottrell.

About JAC’s EPMA system.

JAC has the largest installed base of Electronic Prescribing and Medicines Administration (EPMA) systems in UK hospitals. These systems improve patient safety by reducing prescribing and administration mistakes that could result in medication errors and adverse drug events. EPMA also facilitates wider improvements in clinical practice, including: reductions in paperwork and transcriptions; improved audit trails for medication; performance monitoring and intelligence; enhanced reporting capability to review practice, improve future care and delivery management and financial information in support for PbR; greater consistency and continuity of care between primary and secondary care settings; and more effective communication between hospital departments and pharmacies. The system incorporates the UK’s leading drug database, to support safe and effective electronic prescribing through its clinical checking. This allows the system to check for drug-drug interactions, sensitivities, drug doubling and duplicate therapy, therefore reducing the risk of medication errors and increasing patient safety

Find out how JAC’s electronic prescribing solution can deliver measurable benefits to your organisation.

Visit www.jac-pharmacy.co.uk or call +44 (0) 1268 416348.