

Paperless pharmacies can deliver life-saving benefits to the healthcare sector

NHS hospital pharmacy services are constantly preparing medicines for treatments, such as IV transmitted antibiotics and chemotherapy. These drugs – often supplied in ready-to-administer (RtA), injectable formats – need to be produced in sterile, controlled environments. This makes ongoing quality control and assurance vital in maintaining the standards of these aseptic services.

Research by the EEPUR has found, however, that there are an estimated 237 million medication errors each year in the NHS, in England. And ‘definitely avoidable’ adverse drug reactions are directly responsible for approximately 700 annual deaths. The financial cost to the health service is approximately £98.5 million annually, but the cost in terms of patient safety is immeasurable.

Greater automation could play a vital role in preventing these errors and help to vastly improve efficiencies in drug production and administering. There are hurdles to overcome on the path to automation, however – and two years on from the devastating impact of COVID-19, these challenges are more acute than ever.

But, as the sector begins to emerge from the pandemic, technology providers are working together to ease the transition.

IMPROVING OPERATIONAL EFFICIENCY

The NHS is under pressure to improve operational efficiency and become more personalised in its delivery of medicine.

Lord Carter of Cole’s report: Transforming NHS pharmacy aseptic services in England, published in October 2020, outlines a vision for the NHS to ‘become a leader in standardised aseptic services.’

This includes a hub and spoke model which, in essence, recommends developing a network of regional centres that can produce high volume products using automated systems. Centralising production off-site, before distributing to hospitals, could free up significant time for frontline nursing staff and enable aseptic facilities within hospitals to focus on producing ‘the more complex, personalised medicines close to the patient.’

In addition to these off-site facilities, automation can also revolutionise hospital pharmacies.

It allows information to be drawn, in an instant, from multiple systems – prescriptions, lab results, protocols or electronic medical records, for example – to provide operators with detailed instructions and the ability to verify every stage of the process. Digital processes can also ensure the most effective use of ingredients, and accurate weight measurements, or better stock control.

This will improve medication safety and product quality within the aseptic unit, while streamlining the pharmacy workflow and increasing efficiency.

It also provides an invaluable audit trail, which helps to maintain GMP and GDPR compliance.



IMPROVING PATIENT SAFETY

While digital pharmacies can deliver clear ROI, both financially and in terms of time and efficiency, the benefits for patients' health and safety are even more compelling. Lord Carter believes that an overhaul on the scale laid out in his report would build resilience and capacity into the system, but would also increase safety, transparency and standardisation.

If a problem is detected with a drug at any stage, a fully automated system can trace it right back to its creation within a specific isolator. With CCTV in place inside the isolator, investigators can also review the steps that an individual operator took.

Currently, fear of error means that every step in the preparation of injectable medicines is meticulously documented. Valuable staff time is consumed, and duplicated, in the process of locating, retrieving, filing and storing paper files, to maintain safety and compliance.

This is pulling both managers and frontline staff away from the job of leading their teams or focusing on patient care.

But automation slashes a reliance on these outdated and fallible paper-based systems – and delivers peace of mind to staff.

EASING THE TRANSITION

Despite all the obvious benefits, and huge enthusiasm from the health sector, the journey towards automation is still too slow - almost 18 months on from Lord Carter's report.

Progress appears to be gathering pace in Wales, however. Three centralised facilities have recently received £67m in funding as part of the Welsh government's Transforming Access to Medicines plan. Ministers say the facilities are 'the first of their kind in the UK'.

In England, many business plans were put on hold during Covid-19. Senior managers have been doing less managing and more dealing with staff issues, or even making up drugs themselves, so decision making has been lengthier.

Changes of this magnitude also require significant investment and the health sector is understandably nervous about the commitment – in terms of time and cost.

A wholesale move to paperless pharmacies requires a collaborative effort from a broad range of stakeholders – from senior management to IT and frontline staff.

Technology providers are working together to make the transition as easy as possible and alleviate some of the pain around the implementation, roll-out and training required.

End-to-end solutions, incorporating everything from aseptic isolators, touchscreen technology, barcoding, CCTV and medication workflow software are being integrated and deployed in tandem - either to new sites, such as those being developed in Wales, or to retro-fit existing facilities.

Post-pandemic, the appetite for more efficient and paperless pharmacy aseptic services is gathering momentum. With the solutions already out there to make this happen, we may soon see an end to out-dated processes. With the number of medication errors still so high and the NHS in a race to deal with the huge backlogs left by COVID-19, can we really afford to wait any longer?



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