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ROBOTIC DISPENSING: WHY IT'S INSPIRATION, NOT PERSPIRATION

By JEREMY SAVAGE, FRPHARMS, DMS(*Health*)

For most hospital pharmacists, there are few things that you experience in your career that you would count as inspirational moments. For me, in 1996, when I saw an automated dispensing system — a robot — at work on a foreign language video with a tacky brass band sound track, I knew I was seeing something significant. I just had to see this development (the robot, not the musical ensemble!) for myself and immediately agreed to go to Germany to see the technology in action.

Technology for some people is simply a matter of functionality. It is a means to an end — the car that gets you from A to B, without thought for the magnificence of the twin overhead cam, supercharged engine and the double wishbones that make driving home along the B4067 bearable. No amount of pressure or slick patter from the used car salesman is needed when these individuals come in to change their car. They just want the beige one because it is two hundred quid cheaper.

For others, however, it is all about the smart sequential gearbox, ingenious permanent four-wheel drive, and the array of shiny knobs machined to make it look faster. When you are a fan of the output from Marenello, it matters more than life itself to get their latest “must have” model — something from Stuttgart simply will not do (... and, for Porsche fans, vice versa).

Automating the dispensing process will bring differing experiences to different people.

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But love it or fear it, the outcome will be the same because, based on our experiences in Wales ... it works!

The principles of using machinery to take the strain and embracing technological developments are embedded in our everyday lives. Imagine washing clothes manually. The only “dolly” anyone under 40 will have heard of is a cloned sheep — and rightly so.

The time has come for hospital pharmacy to engage with technology, in order to deliver reductions in picking errors, cope with a worsening manpower shortage and modernise the supply chain.

Using robots, even for the sceptical among us, has been an enlightening experience during the first phase of the Welsh automation project. The penny has dropped that the calm atmosphere that descends upon the dispensary when people are no longer rushing from shelf to computer and back is a real benefit. The avoidance of the confusion between “look-alike” and “sound-alike” drugs on burgeoning dispensary shelves will, I am sure, prove to be a significant factor in reducing dispensing errors.

The ability to assemble ward boxes more efficiently, for example, through the night is another potential benefit of introducing automated dispensing technology. In addition, the extra storage capacity robots bring could allow acute trusts to concentrate ward box assembly at one of their hospital sites. Moreover, the thought of remotely initiating the supply of urgently-required medicines from the comfort of your own home might seem on a par with the aspirations of Mr Bush to put a man on Mars — but it is a reality in Wales today.

With time, other benefits of robotic dispensing will no doubt accrue, particularly to the procurement end of the supply chain. Interfacing the dispensary computer systems with those of medicines suppliers or wholesalers will enable the rapid expansion of electronic ordering and invoicing. The enclosed nature of automated dispensing systems gives the same level of assurance to auditors as that derived from the systems currently in place, but without the need for a cumbersome paper trail.

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Hence the evidence-base for the introduction of automated dispensing systems is growing quickly. As a result, there are several contracts to supply this technology to hospital pharmacy departments currently out to tender — a clear indication that I am not alone in my enthusiasm for the technology.

There is, however, work still to be done. As with many other developments in hospital pharmacy, although the logic of introducing change is clear, delays in agreeing the associated financial framework can threaten the pace of progress. Comfort can be obtained from the fact, for example, that some primary care organisations and trusts have finally negotiated the introduction of original pack dispensing in hospitals. This suggests that a financial solution can be found where benefits are obvious. (Moreover, patient pack dispensing is a prerequisite to derive maximum benefit from the most widely used robots, so this development is important in itself.)

Of course, pharmacy-based original pack dispensing is not appropriate in all circumstances. In clinical areas such as mental health, where the use of original packs is inappropriate, unit dose machines might be more appropriate. With time, a mixture of systems to best fit each hospital's client base will inevitably come about.

There is also a danger that the industry supporting the implementation of these life-changing tools might be forced to expand too quickly to keep pace with demand. If it arises, this situation will need to be managed corporately to ensure long-term success.

Despite these issues, the market is undoubtedly maturing and I am sure it will continue to do so to create a sustainable and vibrant industry delivering the labour-saving devices that will become the norm for hospital pharmacy services. The result will be the release of pharmacists and technicians to deliver care directly to the patient in a safer and more efficient environment.

Now where did I put my car keys?