

Using GS1 standards to reduce medication errors

Minor differences in medications can increase the risk of human error for hospital pharmacists when prescribing and dispensing.

Introducing GS1 standards and technology to digitise processes can work to improve accuracies and patient safety, ensuring:



Right patient



Right product (medication)



Right place




Right time




The results

Using GS1 standards – GLNs, GTINs and GSRNs – barcode scanning was used to monitor and verify each of these points in real-time, alerting the pharmacists to any potential medication errors.



prevented error rates in dispensing fell from 0.78% to 0.19% (P<0.001)



dispensing time reduced by on average, five seconds per item (P=0.015)



97% staff (n=31) agreed scanning reduced the likelihood of medication errors

Achieved outcomes

Outcomes clearly demonstrated that the adoption of barcode scanning technologies using GS1 standards had significantly positive results. Benefits included:



reduced prescribing errors



improved dispensing speed



improved patient safety



simplified processes for prescribers



decreased time, releasing staff capacity



cost reductions

“It’s hard to imagine how we worked without scanning in the first place – it should be routine practice”

Iain Davidson
Chief pharmacist, Royal Cornwall Hospitals NHS Trust

