Supporting the digital transformation of healthcare

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For more than a decade, GS1 Global Reference Books have showcased the many learnings, success stories and best practices from across the globe as organisations work to digitise their clinical processes and supply chains. Although the past few years have brought with them some of the greatest disruptions many organisations have ever had to manage, the challenges have largely brought innovation. In cases where clinical integration of supply chains and improved inventory management had been overshadowed by electronic health record projects in many instances, a new fervour has emerged because of the greater understanding of the need for supply chain visibility.

Unprecedented demand for personal protective equipment demonstrated the value of being able to manage medical consumables more precisely. The rollout of vaccines showed how important it is to be able to track vital medical supplies and so use them in the most effective way possible. As antivirals become part of treating those at the highest risk of serious illness from Covid-19, the need to be able to quickly identify and remove counterfeit drugs from supply chains also becomes clearer. The value of GS1 global data standards within healthcare processes has never been clearer in countries around the world.

Making the best use of precious resources

Several case studies detail how hospitals are using GS1 standards to better manage stock. At The First Affiliated Hospital of Zhengzhou University in China, for instance, full tracking of high-value medical devices has been introduced to manage products using the Unique Device Identification (UDI) for the device. It's a similar story at Manchester University NHS Foundation Trust. As one of the largest healthcare providers in the UK, providing services for ten separate sites, obtaining full visibility of supplies across

the organisation has traditionally been very difficult, leading to inefficiencies. By implementing changes to systems and embedding global standards, an instant and precise picture of what equipment is available, where and in what quantities has been enabled. In addition, they have also reduced the time taken to manage product recalls, have released precious clinical hours back to care and are using the data created to help manage clinical variation.

Supporting the development of new treatments and keeping patients informed

Management of products used in clinical trials has long occurred in a wide variety of ways making it hard to capture or compare data. By following the clinical trials application standard, Pfizer was able to streamline and standardise the management of its clinical trial products. In the first instance, this is helping those at Pfizer ensure the right products go to the right sites in the right quantities and in the longer term, the same standards will also be used by hospitals to help with the administration of clinical trials medicines — and even by the patients taking part in trials. The vision is that patients would be able to scan a code using their phone which would then present information about, for instance, how and when to take the drug and how to store it. This is already happening with some commercially available products. In Singapore, Johnson and Johnson has introduced a mobile application that patients can download enabling them to scan the barcode on their products and link to a secure online system and directly to important, updated and regulated electronic product information in the language of their choice.

Enabling traceability and fighting falsified or substandard medications

Managing scarce medications has become one of regulators' and health organisations'

largest challenges in recent times. Many regulators have implemented requirements for serialisation and data sharing, meaning companies such as Aspen have needed to develop solutions that enable scalable compliance to a wide variety of regulatory frameworks. Thankfully most have chosen to utilise GS1 data standards. In countries like Ethiopia, for example, work is underway to enable them to immediately authenticate all medicines by scanning the product barcode at all points on the supply chain. And in Nigeria, the National Agency for Food and Drug Administration and Control (NAFDAC) has launched a five-year plan to implement traceability of all pharmaceutical products in the country. Based on GS1 data standards and barcodes, the idea is to be able to precisely track every medicine, from arrival in the country to administration. Covid-19 vaccines offered the opportunity to pilot the new traceability plans, and this means it is possible to see details of vaccine batches in the country — including manufacturer and expiry dates — and to follow the journey of any batch.

Innovation continues beyond the pandemic

The accelerated innovation seen during the initial phases of the pandemic has advanced the use of GS1 data standards in healthcare around the world. As the challenges faced during this time highlighted inefficiencies and we also continued to drive broader digitisation, many organisations have been refocussing teams on projects to ensure that we can manage the new 'business-as-usual' better than before. Data and analytics are critical to supporting the healthcare of today and tomorrow, and it is increasingly true that around the world, GS1 data standards are playing a role in making healthcare safer and more efficient for all.

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