

# Avoiding costly mistakes



ANDREA RUOSI: AX FOR PHARMA

Warehouse Management Systems play a critical role in the modern, highly regulated pharmaceutical industry

Imagine a standard warehouse with multiple aisles and shelves holding an abundance of boxes and drums, where only a handful of people know where to find specific products. Now imagine that there are life-saving medicines in the warehouse – one mistake in the distribution or shipping processes may lead to a tragedy. It's not hard to understand how an entire healthcare system could be paralysed if hospitals and pharmacies are sent the wrong shipments, and consequently the patients do not receive the correct medication. To operate safely and prevent this from happening, pharmaceutical and medical device companies must have state-of-the-art warehouse management systems (WMS).

**“ERP solutions like AX for Pharma, which integrate WMS, help pharmaceutical firms efficiently distribute products”**

Not only does effective warehouse management enhance patient safety, but it also enables companies to meet the requirements of Good Manufacturing Practice regulators around the world who have sharpened their focus on warehouse storage and distribution practices. Other drivers for implementing WMS include a growing demand for storage facilities, which has been prompted by the globalisation of manufacturing, an increase in temperature-sensitive biopharmaceuticals, and changes in technology.

Distribution processes require high security standards, constant information sharing, the ability to keep full control over the system and gain insights into the smallest unit. These processes become even more complicated in the case of drug products and pharmaceutical companies because the conditions and requirements related to drug storage are even stricter than those applied to food.

Warehouses often have several thousand locations and a vast number of pallets, each with hundreds of boxes containing dozens of smaller boxes of drugs. All of this poses a high risk for human error. However, WMS incorporate software and hardware to ensure inventory is accurate, and that processes such as shipping, receiving, manufacturing and inventory management are well organised. The right software is a fundamental component of a pharmaceutical organisation's supply chain, and it is crucial to the success of overall business processes. Appropriate software simplifies inventory processing through automation, ensuring that lots/containers are tightly controlled and tracked throughout the entire warehouse management process. Consequently, companies can be sure they are meeting the pharmaceutical industry's specific regulations and institutional requirements.

Microsoft's enterprise resource planning (ERP) platforms – Dynamics AX and the new cloud-based Dynamics 365 – integrates a WMS that enables material handling, receiving, cycle counting, and production processes by using handheld devices. Vertical solutions such as AX



for Pharma extend those features significantly to fulfil the stringent requirements of the pharmaceutical industry.

Monitoring the expiration date of drugs is a key priority because it is the warehouse's responsibility to deliver the right batch to the correct final recipient. Warehouse personnel need to be able to quickly access expiry date information for each individual drug they store to prevent drugs with longer expiry dates from being shipped out, while those with shorter dates are left on the shelves. AX for Pharma eliminates such errors, protecting companies from any possible damages.

In addition, it's critical that controlled substances are kept in locked areas and segregated from others while they are in the pharmaceutical manufacturing facility. The same principle applies to expensive, dangerous, or hazardous items that need to be kept in a specific place. WMS systems guarantee that storage restrictions are observed and that the shipping processes for these items are strictly controlled.

AX for Pharma's WMS allows warehouse staff to simply scan barcodes on unique product labels to retrieve all information about sub-batches. The system also guides users through several control processes, including intended use, storage conditions, handling instructions, expiry dates, disposition status and more. Together, this minimises the need for manual data entry across all operations.

Fulfilling regulatory requirements will always be a top priority for the pharmaceutical industry – not only when companies are developing and producing drugs, active substances and medical products, but also when they are storing and distributing them. ERP solutions like AX for Pharma, which integrate WMS, are crucial in helping pharmaceutical firms to efficiently distribute products, perform continuous quality control procedures and adhere to stringent regulatory requirements. ■

*Andrea Ruosi is the CEO at AX for Pharma*