

## Inventory management

# Valle del Lili improves patient safety with automated inventory management

The Valle del Lili Foundation (Valle del Lili) was founded on the principle of patient safety based on compliance with the five rights of medication administration—the right patient, the right drug, the right dose, the right route and the right time. The hospital continues to assure this level of patient care by continuously working to reduce risks and errors. With these goals in mind, Valle del Lili implemented an automated inventory management, using GS1 standards to uniquely identify and manage single-dose medicines and medical devices across its value chain.

*By Victor Lopez*

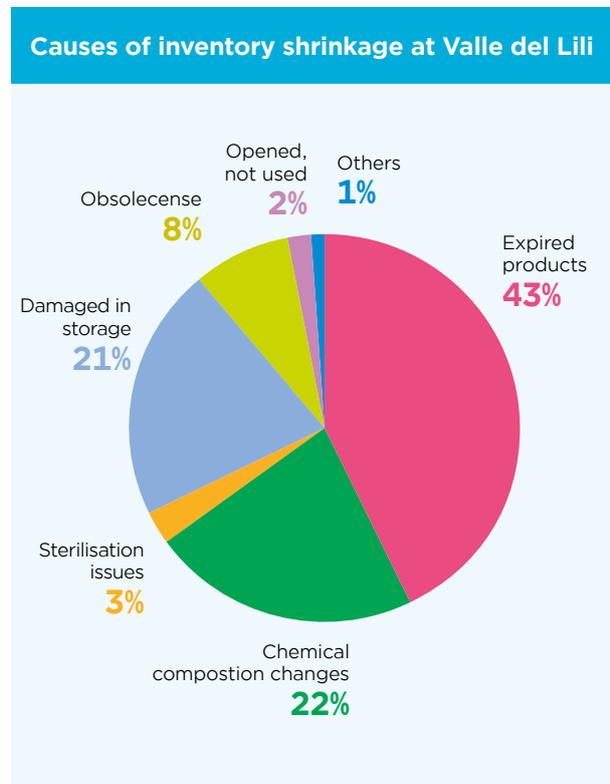


## Background

Located in Cali, Colombia, the 500-bed Valle del Lili Foundation provides healthcare solutions for its estimated 600,000 patients each year. Using the latest medical technology and cutting-edge healthcare practices, Valle del Lili is recognised as one of the most important hospitals in the region based on 2015 rankings published in *América Economía* magazine. For more than 20 years, the Valle del Lili Foundation has provided specialised healthcare services, ranging from preventive check-ups to cancer and cardiovascular care.

## Errors in inventory management

Valle del Lili took the lead to improve patient safety levels through the optimisation of supply chain administrative processes. Since 2001, Valle del Lili has implemented a Quality System certified by the International Organisation for Standardisation (ISO). In 2011, a new Enterprise Resource Planning (ERP) system was introduced to integrate the hospital's medical care and administrative processes. Yet, in spite of these advances, Valle del Lili was still using manual procedures that were prone to errors. In fact, 43 percent of errors were directly linked to inventory management issues related to expired products.



## Uniquely identifying medicines at the single-dose level

To minimise errors, Valle del Lili decided to automate its inventory management processes for medicines and medical devices. Now, a GS1 Global Trade Item Number® (GTIN®) with batch number and expiry date encoded in a GS1 DataMatrix barcode uniquely identifies each of its medicines and medical devices as they travel across the value chain—from receipt in the hospital’s warehouses to use with patients.

Four suppliers apply GS1 barcodes to 60 medicine types at the single-dose level. For products not identified and barcoded by suppliers, Valle del Lili re-labels these medicines at the single-dose level with a GS1 barcode to ensure compliance with the five rights of medication administration. Additional measures taken included the adoption of logistics best practices and the acquisition of the IT infrastructure to support the processing of collected information. Lessons learned during the implementation process involved the development of a change management process as well ensuring accurate and satisfactory operation of the handheld scanners.

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The hospital made the inventory management and traceability solution a priority for enhanced patient safety.

## Ensuring patient safety and inventory efficiency

With GS1 standards, Valle del Lili now has a traceability solution that allows the hospital to improve operational efficiency and increase its competitiveness in providing healthcare services.

### Benefits include:

- **Validation of the five rights** of medication administration
- **50-75% reduction** in obsolete inventory
- **15-30% reduction** in inventory levels
- **Effective recall process**
- **Ease of compliance** reporting of batch and due-date records to regulatory agencies
- **Easier and faster physical inventory procedures**, considering that all products stored in the warehouse are now identified with GS1 standards

### Project scope at Valle del Lili Foundation



Supply



Receiving process



Storage



Intrahospital distribution



Final dispensation

## Extending the use of standards to all suppliers

Even though Valle del Lili needed to invest in re-labelling medicines at the single-dose level, the hospital made the inventory management and traceability solution a priority for enhanced patient safety. Valle del Lili continues to work with GS1 Colombia, participating in its Collaborative Healthcare Group so that, as a second phase of the project, all of their suppliers will use GS1 standards as they arrive at the hospital.

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Scanning the barcode of the medicine.

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### About the Author



**Victor Lopez** is responsible for the supply chain management at the Valle del Lili Foundation. He has worked for this hospital located in Cali (Colombia) for over 17 years and has 26 years of professional experience in procurement management, demand planning, hospital logistics and corporate strategy. Victor Lopez holds a degree in industrial engineering and an MBA.

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### About the Valle del Lili Foundation

Founded in 1982, the Valle del Lili Foundation provides healthcare solutions for its estimated 600,000 patients each year. The goals of this hospital are to strive toward excellence, achieved through continuous evaluation, quality improvement, and comprehensive services for the patients. A special team of doctors and nurses monitor the procedures and results of each of the patients admitted and treated at the Valle del Lili Foundation.

[www.valledellili.org](http://www.valledellili.org)