

# Nantes University Hospital pharmacy optimises stock management

6 December 2023 | Hubert Heulot

By partnering closely with a key supplier, the pharmacy at Nantes University Hospital has significantly streamlined its logistics process. Utilising advanced flow analysis software, they've successfully optimised orders, increased stock efficiency, cut costs, and reduced CO2 emissions by 90%. Here's an in-depth look at the transformation, with insights from Kamel Olivier Sellal, head of the central pharmacy for medicines and medical devices.

## Moving beyond just-in-time management

One of the largest Becton Dickinson, a factory in Grenoble, 25th for medical products, 8th for medical devices, including perfusion equipment. 162 references in common in 2019, at the start of the study undertaken with the CHU for two years to improve their logistics agreement. For each reference, 14 specifications relating to flow processing.

For years, pharmacies, including Nantes University Hospital's, relied on 'just-in-time' management—ensuring that deliveries matched demand as closely as possible. However, this model has been replaced with a more sustainable approach. Instead of focusing on speed, the pharmacy now prioritises stable, secure, and high-quality deliveries. This shift started a year and a half ago when the hospital began collaborating with a major supplier to introduce a new logistics protocol.

"Pharmacy operations are viewed as a cost centre within the hospital," says Kamel Olivier Sellal. "Our goal was to optimise logistics and reduce expenses." With 2,500 medicine references, 1,500 medical devices and 60 million units delivered annually, the pharmacy manages a massive operation with 650 suppliers. However, by rethinking how orders are placed and how stocks are managed, they've found ways to reduce costs and environmental impact.

## Supplier collaboration: the key to success

One of the pharmacy's largest suppliers, Becton Dickinson, invested in cutting-edge flow analysis software to improve their logistics. Working with the hospital's team, the two organisations sought a mutually beneficial approach that would go beyond just price negotiations. Instead, they aimed for a long-term partnership with improved logistics for both sides.

"The software is powerful and accurate, which is essential for this kind of detailed logistics analysis," explains Sellal. By focusing on precision, both the hospital and the supplier were able to optimise their operations.

## Reframing the role of stock

Before this transformation, the hospital's pharmacy maintained an 'accounting' approach to stock management—only ordering based on immediate consumption. "Finance viewed stockpiling as unnecessary, and auditors questioned why we kept large volumes on hand," Sellal recalls. However, the COVID-19 pandemic changed everything. Hospitals had to rethink their approach to stock, recognising the need for anticipation rather than reaction.

Managing shortages has become one of Sellal's primary responsibilities, and stockpiling has proven to be a key strategy. For instance, catheters, crucial in the event of haemorrhages, are now stored for a month instead of just a day. Even rare antidotes are stockpiled to prevent shortages, despite the risk of expiry.

## Bulk ordering and smart logistics

Nantes University Hospital's ability to shift away from strict just-in-time management was made easier by the space available in its pharmacy building. Stock levels can now be kept higher, sometimes lasting up to a month and a half. This allows the hospital to consolidate and streamline orders. By reducing the frequency of orders, they ensure pallets and boxes are always full, lowering costs and increasing efficiency.

An individual order costs the pharmacy €200, and they now aim to avoid placing orders worth less than €250. Similarly, the supplier consolidates deliveries into single trips, optimising transportation and reducing unnecessary handling.

## Mutual benefits: reduced costs on both ends

The changes have had a profound impact on both the hospital and the supplier. Nantes University Hospital reduced its monthly orders from 28 to 16, while increasing the average value of each order from €3,000 to €5,400. This has allowed the pharmacy to handle 43,000 product units per month, compared to 20,000 previously.

On the supplier's end, deliveries now arrive directly from Becton Dickinson's distribution centre in Belgium, eliminating intermediary handling and improving product conditions upon arrival. This streamlined process has resulted in fewer deliveries, while increasing the number of pallets delivered each year from 390 to 735.

## Environmental impact: 90% reduction in CO2 emissions

One of the most impressive results of this collaboration is the dramatic reduction in CO2 emissions. By reducing the number of deliveries from 390 to 116 per year and cutting transportation distance from 266,000 kilometres to 74,000, the hospital has slashed its annual CO2 emissions from 264 tons to just 25 tons. Twice a year, the hospital and supplier fine-tune their operations through videoconferences, ensuring everything runs smoothly.

"This approach is a signal to all our suppliers," says Sellal. "It shows that this type of partnership is possible and beneficial." Although few suppliers have embraced similar initiatives so far, the potential for cost savings and environmental benefits is enormous.

Translation into English made by BD of the article "La pharmacie du CHU de Nantes réhabilite les stocks" published online by [achat-logistique.info](http://achat-logistique.info) with date "December 6th 2013". The original publication in French can be found [here](#).