It’s all about embracing lean logistics for improved patient care

Everything matters when it comes to designing and building a hospital: how patients and staff experience the hospital environment, as well as the general overall costs and efficiencies. In many hospitals clinical staff are frequently diverted into administrative duties which impacts negatively on patient care and at the same time wastes resources. From bandages and pills to larger items such as medical equipment and beds - the time it takes to find, fetch and deliver items is putting a strain on patient care and staff. A hospital needs to be fit for purpose, and logistics has become more important in the initial design stage.

To become more efficient and to serve their stakeholders better, hospitals are embracing lean logistics practices. Facilities teams and hospital leaders are choosing automated and optimised storage solutions to improve stock management, saving time and space and reducing the cash tied up in inventory.

Typically, a vertical lift automated storage system receives goods in at the basement level. All external packaging is removed, and the goods sorted into pre-defined and categorized trays. Inventory items are retrieved through access points on each floor, with staff only able to access items that are pre-programmed into their profile.

By creating one centralized stock room, inventory can be managed more effectively and precisely. With advanced Warehouse Management software, stock levels are automatically adjusted as soon as an inventory item is removed. The amount of time spent moving goods up and down and around corridors is greatly reduced and nurses' administration time has been cut by up to 75%. Valuable time that can now be spent on patient care.

Karlstad Central Hospital in Sweden embarked on a large-scale building project in 2010 to extend its facilities. The extension would increase hospital capacity to accommodate 600 beds and serve 350,000 patients a year, growing the footprint of the hospital to 147,000 m². The Karlstad Central Hospital Facilities team approached Kardex Remstar to design and build a vertical lift module to provide inventory storage and management for the entire hospital.

Two key issues prompted the hospital management to consider an automated storage solution. A huge amount of capital was tied up in inventory, impacting on cash flow and limiting funds for other areas of the hospital. But finance wasn’t the only issue - clinical staff were also caught up in time-consuming manual tasks running the wards. Nurses were spending a staggering four hours per shift picking and distributing items such as gloves, injections and linens. As a result, patients weren’t receiving as much quality care time.

A 25m high Shuttle XP 500 system, spanning all five floors and with an access point at every level, was put in place, the system was designed as the central hub for the building. The Kardex Vertical Lift Module contains 125 trays with stainless steel dividers and 10 different location sizes, offering a flexible and hygienic storage solution. Only authorised staff have access to the automated storage solution through handheld devices, picking and scanning stock with a ‘pick to light’ system. Kardex‘Power Pick system feeds into the existing hospital IT software, providing real-time stock inventory. Stock is only ordered when needed and the capital tied up in stock has been reduced by 90%.

But the biggest impact for staff has been in manual picking and distributing tasks. Nurses now only spend one hour per shift managing stock items, providing an extra three hours per nurse, per shift for patient care. The same amount of stock is now available in 10% of the footprint, freeing up space for clinical staff to care for another 4-5 patients per floor.

For more information on how we can help you save time, money and space in your hospital, contact us at [info.remstar.uk@kardex.com](mailto:info.remstar.uk@kardex.com) for more information.