The Anesthesia Supply Cart Support System from H+H System, Inc.

THERE ARE OVER 70 ANESTHETIZING LOCATIONS throughout the Johns Hopkins Hospital in downtown Baltimore, Maryland. Charged with caring for patients of all sorts – from the littlest infant to the adult trauma patient – for neurosurgery, orthopedics, otolaryngology, or bypass surgery, the more than 100 attending anesthesiologists and nearly 100 resident anesthesiologists and CRNAs need to have their medical supplies readily available in a dependable and consistent manner, day and night.

A few years ago, we realized our system for storing these supplies was failing. Anesthesia technicians were required to support the operating rooms (helping the care team, fetching supplies, and transporting patients) and restock the carts with essential medical supplies at the same time. Each major area (pediatrics, cardiac, neurosurgery) had their own anesthesia supply cart design, most with the same items – IV catheters, endotracheal tubes, tapes, and syringes – but it was difficult to find the stocking list for any particular design, and items were never stocked in the same place from cart to cart. The solution, for better or worse, was for the resident to set out on a scavenger hunt before dawn, pillow case in hand, to the anesthesia supply workroom to get what was needed without knowing what was already in their cart for the day. Time was being wasted, and so were supplies.

As part of an enterprise-wide initiative, a new anesthesia supply cart support system was created through the use of the H+H System’s insert program.

What Was Needed
Because so many people in so many locations are involved in care and rotate routinely throughout the system on a daily basis, it was imperative to have a simple, uniform, straightforward, and extremely dependable system to deploy all of the necessary supplies to this fast-paced operation. I had free rein to find the solution that was effective, efficient, and reasonable in cost. A combined effort among pharmacists, materials managers, and anesthesia equipment specialists and technologists was lead by the anesthesiologist to develop a system to meet the needs of the anesthesia department.

Setting Goals
The goal was to have 100% of the most-used items in every cart, all the time, for the day’s cases. While not all of the items would always be used in all areas, knowing what was going to be in the cart permitted the clinicians to concentrate on the patient. It took over eight months to cull down the list of supplies to the most necessary items and determine appropriate par levels for each of them.

Creating the Solution
The H+H System cart inserts and dividers, which are easily configured, were used to create eight designs – two for the top drawer of each cart and one for each of the other drawers. The advantage of this system is all of the insert trays could be produced off-site, stocked, and then deployed. That allows the insert restocking process to take place out of the clinical area, and to be performed in a more consistent and efficient manner, day in and day out. That said, it is not all about supplies; the pharmacy supported creation of a revised emergency drug tray – which could be sealed with tamper-evident clear plastic and added to the cart at the point of use. Likewise, an insert designed to hold a complete set of laryngoscopes and handles was included and supported by the equipment specialists. Two complete sets of supplies for each cart were created – one in the cart and one in the restocking area. Every evening, after stock has been depleted, inserts are delivered and traded out with a freshly stocked set. Turnover of each cart only takes about a minute.

By simplifying the supply inventory, reducing unnecessary supply wastage, and eliminating the hoarding of supplies, our initial investment in the system has generated savings in supply costs, time, and personnel, as fewer people are required in the stocking area to restock the inserts during the day. In addition, our clinicians have increased peace of mind, knowing they have what they need.

Furthermore, when the clinical team decides to eliminate or add an item to the supply cart inventory, or if a vendor changes its packaging design, there are no problems, because the H+H System permits easy modification to the insert dividers. It only takes one turnover cycle to change the design for the enterprise. Flexibility, adaptability, and dependability make this a good solution for a large or small organization that requires a custom design.

In a hospital system as large and diverse as ours, it is the greatest challenge to convince employees to accept change. However, once deployed, this system was accepted immediately, and it has continued to grow with the enterprise, into our outpatient ORs and remote sites, including radiology, MRI, CT-neurology, and endoscopy. No matter where you are in our institution, if you have an anesthesia supply cart, you know you have the H+H System and the right supplies.

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