



INTERVIEW

# Codonics Safe Labelling System improves patient safety, lowers costs

King Hamad University Hospital (KHUH) in Bahrain has installed the Codonics Safe Labelling System. *Middle East Health* speaks to Lt. Colonel (Dr) Khalid Ahmed Al-Sindi about the system.

■ **MEH: Why did KHUH choose to install the Codonics Safe Labelling System (SLS)?**

**Lt. Col. Dr. Khalid Al Sindi:** King Hamad University Hospital (KHUH) in Bahrain is committed to delivering outstanding healthcare that meets and exceeds international and national standards. The prestigious, technologically advanced hospital is leading the region with their commitment to implement advanced technologies to ensure patients receive unmatched care.

The operating room (OR) is a hectic environment where immediate decisions must be made, increasing the chance of human error for mistakes such as vial and ampoule swaps, mislabelling medications, and syringe swaps. Recent estimates reveal that drug errors occur in one out of every 140 cases\* and many more are likely unreported. In order to ensure medication labelling accuracy and compliance throughout their hospital, KHUH had a vision and turned to Codonics Safe Label System, an FDA-cleared medical device. A first-of-its-kind technology, Safe Label System (SLS) helps to significantly reduce medication labelling errors and healthcare costs through improved patient safety anywhere medications are prepared.

KHUH also purchased and installed Codonics Container Labeling System (CLS) to incorporate compliancy into their phar-

macy and throughout the facility. Used in pharmacy, CLS enables barcode unit dose labelling to improve efficiency and increase accuracy. The device creates and prints data matrix labels that feature machine-readable barcodes that can be read by SLS or any other system with a barcode scanner.

KHUH has recognized the need and safety impact of unit dose vial barcoding. They also understood the value of having a “second set of eyes” for clinicians when medications are prepared, as well as the importance of a “triple check” prior to administering the drug to the patient.

The Hospital Commander, Major General (Dr) Salman Bin Ateyatallah Al Khalifa of the King Hamad University Hospital says that not only have Codonics systems driven down our costs, we have seen an improvement in our workflow which has enabled our providers to spend time on their patients. These user-friendly technologies have helped us provide outstanding healthcare and ensure our patients’ safety.

■ **MEH: When was it installed? How long did it take to set up? Did it require specific staff training to use the system?**

**KAL:** The Safe Label System and Container Labeling System were installed at the site in December 2012. The systems utilize a formulary which is managed in the phar-

macy. This formulary database contains all of the hospital-approved drugs. Codonics worked with KHUH pharmacy staff to ensure the formulary was complete and accurate, and then it was deployed to every SLS via the network. The benefit is like having a pharmacist at every medication preparation location throughout the hospital.

■ **MEH: In which departments / sections of the hospital has it been installed?**

**KAL:** SLS is used in the facility’s operating rooms, NICU, PICU, Intermediate Care Unit, ICU, Labor & Delivery, ER, Day care, Radiology and Pharmacy.

Major General Salman Bin Ateyatallah Al Khalifa says the system enables the hospital to quickly, conveniently and accurately label our medications for syringes and IVs anywhere immediately upon preparation using barcode technology.

■ **MEH: How does the SLS work?**

**KAL:** Safe Label System (SLS) greatly reduces injectable medication errors common in the operating room. SLS simplifies and improves the safety and accuracy of syringe labelling, helping to eliminate vial and ampoule swaps, mislabelling, and syringe swaps.

SLS sits on your existing anaesthesia drug cart. When a drug is ready to be prepared, the clinician uses SLS to scan the vial or

container. The drug is instantly verified against the pharmacy's drug database. SLS then speaks and visually displays the drug name and concentration to confirm the selection, acting as a second pair of eyes. A full-colour label is printed on demand and includes the drug name, concentration, preparer's initials, expiration time and a barcode. Once the syringe is prepared and labelled, it can be 'triple-checked'. Using SLS to scan the barcode on the syringe label prior to injection provides the final visual and audible confirmation of the drug name as well as the time remaining until it expires.

Using the SLS touch screen, dilutions can be easily accommodated and include safety guardrails to avoid mistakes. When a drug is diluted, the easy-to-read label is printed showing the new dilution and concentration. From the touch screen, users can also quickly print line and catheter labels for both ends.

Major General Salman Bin Ateyatallah Al Khalifa says the hospital is keenly aware of worldwide medication labelling stan-

dards and has chosen to install the system throughout our hospital not only for compliance, but also for safety.

To support global medication labelling standards, SLS integrates worldwide best practices and international standards, including the Joint Commission International, recommendations of the European Society of Anesthesia (ESA), and ISO standards (a specific colour for each therapeutic class). With SLS, clinicians will never have to handwrite labels and every syringe will be clearly, safely and compliantly labelled.

**MEH: Has there been a noticeable improvement in patient safety at KHUH because of this SLS? If so, can you explain how and why it has improved?**

**KAL:** Major General Salman Bin Ateyatallah Al Khalifa, says the Codonics system not only improves our patient safety, but it has lowered our healthcare costs and enabled us to concentrate on what matters most – our patients. We believe in provid-

ing our patients with world-class healthcare, and we've made a choice to do that proactively through technologies that help avoid human error in medication preparation and delivery. The system has become an invaluable tool for our clinicians. We believe that the technology should be the standard of care, helping to prevent medication errors anywhere medications are prepared."

\* **Source:** "Syringe Swaps" in OR Still Harming Patients; Medication

Mishap Mitigation Drives 2008 APSF Workshop, by John H. Eichhorn, MD

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