Application-in-Brief: Positive Breast Milk Identification

Legacy Health Systems (Legacy), a six hospital healthcare system in the Portland, Oregon area needed a solution to positively identify and match Expressed Breast Milk (EBM) to both mother and child.

Having previously implemented a bar coded Bedside Medication Administration (BMA) process with Code's CR2500 wireless bar code readers, the infrastructure was in place for Code's Application Engineering team to create an effective bar coded EBM verification solution, using the CR2500 wireless reader.

Application Process

As part of their BMA process, patients admitted to a Legacy Health System hospital receive a unique bar coded patient identification wristband. Throughout the patient's hospital stay, the bar code is read with Code's CR2500 wireless bar code reader to positively identify a patient before medications are administered. Expectant mothers, in addition to a wristband, receive a sheet of matching bar code labels (master bar code labels) for placement on EBM bottles. The baby also receives a matching bar coded wristband upon arrival, and the unit floor station receives a matching bar code label sheet (verification bar code labels) as well.

Once the mother expresses breast milk, she places a master bar code label on the bottle. The bottle is then removed from the patient room by a clinician and placed in refrigerated storage. Later, a clinician will retrieve the EBM bottle, scan the master bar code label that was placed on it, and then scans the verification bar code label the unit received when the mother was admitted. The CR2500 will beep once if it is a positive patient identification match, and three times if it is a negative patient identification match.

If the match is positive, the clinician will then follow the feeding schedule as prescribed and create individual smaller ounce EBM bottles, placing a label from the unit's verification bar code label sheet on the new, smaller individual bottles. The bottles are then returned to refrigerated storage.

At the time of feeding, the clinician retrieves the newly labeled EBM bottle and follows the hospitals' BMA process. This includes, at bedside, logging into the Health Information System (HIS), scanning the baby's bar coded patient identification wristband, followed by scanning the verification bar code label that was placed on the smaller EBM bottle. The HIS system will alert the clinician if the EBM matches, or does not match, the baby's bar coded wristband to ensure the baby receives the correct mother's breast milk.

Avoiding Workarounds

To ensure clinicians are following the EBM verification process, supervisors are able to download, via Bluetooth connection, the CR2500 scanning history. Clinicians scan a 'check in' bar code at the start of each shift, which indicates to the supervisor, the clinician on duty. In addition to check in history, the last eight EBM verification attempts, the results of each attempt and the length of time passed from check in to a verification attempt is available for download. The data allows supervisors to visually verify procedures are being followed.

Application Benefits

Feeding a baby the wrong mother's breast milk exposes the baby to potential health risks. Considering the number of feedings delivered and the multiple steps in handling EBM, more and more hospitals are recognizing the need of implementing a positive patient identification workflow to match EBM to both mother and child to eliminate the health risks.

Why Code Readers

Code bar code readers are disinfectant ready, easy to use and read all bar codes, even on curved surfaces, making them the ideal reader for reading bar codes on small bottles and infant wristbands. Additionally, Code readers feature a patented anti-glare technology for reading bar codes on wristbands through an incubator. Built on a JavaScript platform, Code readers are highly customizable and configurable to meet the needs of any application.

Solution Components

CR2500
CodeXML® M3 Modem
Proprietary JavaScript Application