

Occurring Medication Errors in the Operating Room

It is difficult to imagine doctors, nurses, physicians, or any medical professional making mistakes in their practice, especially mistakes that are life threatening. More often than not, medication errors, technology malfunctions or simple human mistakes will occur in almost half of all surgical procedures. Recent research confirms that there will be some type of medication error, or unintended drug side effect, in the operating room.

In the past, studies involving medication errors relied primarily on self-reported information from surgeons, nurses, physicians, and other medical professionals on their rate of medication errors during a procedure. Medication errors were scarcely reported because often medical professionals did not want to disclose this information, for fear of losing their credibility and ruining their relationship with patients and the patient's family. A group of researchers conducted a new study strictly based on outside observation of surgeries at Massachusetts General Hospital (MGH) to record the number and type of medication errors before, during, and after surgery. After directly observing 227 surgical procedures at the hospital, they reported that the number of medication errors were remarkably higher than previous studies, which relied on self-reported data.



The study found an overlooked error occurred in at least every other (emphasis added) surgical procedure. Though medications are more closely tracked and verified as they are passed from pharmacists to doctors or nurses for administration to patients at the bedside during normal hospital medication passes, overlooked errors occur when



uncontrollable/unanticipated events during surgery require immediate response, allowing healthcare professionals little time (sometimes seconds) to respond to the event, which results in less time for medication to be subjected to the same vigorous verification check as is

conducted at the bedside before the medication is administered to a patient during surgery. The report states that overlooked errors made by medical professionals resulted in patients being harmed about one-third of the time. The most common errors were untreated symptoms or medication errors, more specifically, incorrect dosages or improperly labeled medications. Researchers discovered that, while only 2% of the errors were life-threatening, 30% of the errors were considered "significant", and 69% were found to be "serious".

MGH is one of the leading hospitals to implement strategic patient safety methods and precautions to improve patient safety in the operating room. Perioperative medication errors rates are still however at a high. By analyzing anesthesia administrators, including anesthesiologists, nurse anesthetists, and resident physicians for a period of 7 months, researchers determined that because the pace of a patient's condition in the operating room can alternately change, medications fail to go through all of the complete checks before a patient receives it. In order to improve their drug verification system in



the operating room, MGH implemented electronic devices including barcoded syringe labels, similar to Pearson Medical's clearTag® Labels, and digital documentation to reduce the number of medication errors. Though human error will always be a factor, making it impossible to completely eliminate medication errors, establishing appropriate processes and implementing proper standardized solutions to reduce incorrect dosages and mistakes in medication labeling can significantly reduce the rate of medication errors.



Pearson Medical Technologies is a leading provider in manufacturing and developing pharmacy automation solutions to ultimately improve patient safety and decrease the number of medication errors, especially in terms of medication labeling. One of its premier products, clearTag® Labels, printed using Pearson's flagship software, m:Print® Bar Code Labeling software, is designed with ultimate flexibility to provide bar coded labels for syringes, ampoules, and any hard to label surface. Its clear stem design, freezer grade material, and high quality thermal transfer print make clearTag® Labels the most affordable and most reliable solution for liquid medication labeling needs. clearTag® Labels can be customized with 2D or linear bar codes and drug information through m:Print® Bar Code Labeling software. m:Print® Bar Code Labeling software can print a label on any label stock using any Windows® driven printer. m:Print® is the most comprehensive scan and print software for barcoding medication and ensuring safe medication labeling for any pharmacy and the operating room.