

Issue No.	Problem	Recommendation	Organization Assessment	Action Required/Assignment	Date Completed
<b>Resolving drug safety conflicts</b>					
(1)	Doses of some medications need to be adjusted when converting from one route to another. Textbook and label warnings about this are often inadequate or nonexistent. In one case, a nurse and pharmacist intervened when a physician ordered metoprolol 50 mg IV, which led to a conflict between the practitioners. The nurse and pharmacist persisted and the physician decreased the dose, averting serious patient harm.	Establish a clear process for resolving drug therapy conflicts, which concludes only when all are satisfied that no harm will come to the patient. Request supporting documentation for atypical orders. Nurses and pharmacists should refuse to dispense or administer a medication if they are reasonably sure that withholding the drug is safer than giving it. Refer unresolved safety issues to an ad-hoc group for peer review.			
<b>Confusion over meaning of color-coded wristbands</b>					
(5)	Practitioners at an ambulatory diagnostic center were unaware that a green bracelet on a hospitalized patient signified a latex allergy. Thus, the patient's tests were performed using latex-containing vials/syringes, resulting in a reaction. A survey of Pennsylvania healthcare facilities confirmed that wide variations of colors are used to communicate information via wristbands.	Standardize and limit the number of primary colors used for wristbands and include brief, preprinted, descriptive text on the band for clarification of its intent.			
<b>Double key bounce and double keying errors</b>					
(1)	Errors have resulted from pressing <i>once</i> on an infusion pump's number key and getting an unintended <i>repeat</i> of that same number (e.g., the pump records <b>366</b> mL per hour, not <b>36</b> as intended). This occurs when the key is softly or partially pressed for a time, as one might do if programming a pump from an odd angle. Double keying errors from accidentally hitting a number key <i>twice</i> have also resulted in errors.	Always compare the patient's prescribed therapy on the medication administration record to the displayed pump settings. Stand directly in front of the pump when programming it and listen for one beep to correspond with each number programmed. Require an independent double check of pump settings for selected high-alert medications. Use smart infusion pumps with dose-checking technology.			
<b>Programming codes</b>					
(5)	Problems with programming codes can cause unintended consequences in application software. For example, a "code bug" with <b>ABACUS</b> TPN Software allowed continuation of vitamin K on a system-generated compounding sheet, <i>after</i> the additive had been discontinued.	Practitioners should ask current and prospective information system software vendors how they notify users of software problems and how such information can be retrieved. Software vendors should actively disclose when code issues are discovered if they can affect patient safety.			