What's New in the Patient Safety World

July 2014

Joint Commission Sentinel Event Alert:

Don't Misuse Vials

We've done several columns in the past year about patients being potentially exposed to blood-borne pathogens from misuse of insulin pens in hospitals (see February 26, 2013 Patient Safety Tip of the Week "Insulin Pen Re-Use Incidents: How Do You Monitor Alerts?" and our What's New in the Patient Safety World columns for April 2013 "More Tips on Insulin Pen Safety" and April 2014 "Insulin Pens - Again").

But a far more common risk is exposing patients to infection by misuse of single-use vials and even multi-dose vials. So much so that the Joint Commission has just issued a sentinel event alert on preventing infection from misuse of vials. The sentinel event alert notes that vials intended for single use do not have preservatives so they are especially prone to bacterial contamination and spread of infection.

Occurrences and outbreaks of blood-borne pathogens and associated infections, including hepatitis B and C virus, meningitis, and epidural abscesses. Adverse events caused by this misuse have occurred in both inpatient and outpatient settings but 2 outpatient settings seem to be especially vulnerable: pain management clinics and cancer clinics.

The biggest contributing factor is failure to adhere to safe injection practices and aseptic techniques. Joint Commission cites statistics that 6% of healthcare providers surveyed admitted using single-dose or single-use vials on multiple patients and 15% using multiple-dose vials used the same syringe to re-enter the vial numerous times for the same patient or used the vial for multiple patients.

The sentinel event alert focuses heavily on CDC's recommendations for injection safety and CDC's One & Only Campaign. The latter emphasizes "**ONE needle, ONE syringe, ONLY ONE time**".

The alert goes on to provide recommendations for standardized policies pertaining to single-dose/single-use, multi-dose, and all vials. It also recommends doing **audits** looking for open vials on various units. That's an important recommendation. In addition to formal audits, we'd recommend you **add this to the activities you do on your Patient**

Safety Walk Rounds. And the alert discusses the importance of training and education, safety culture and reporting.

Call us skeptics. You can do all the education and training in the world. But if you have vials and syringes in patient care areas it is inevitable that someone will at some time misuse those vials. The fewer people that have access to vials, the lower the likelihood that such misuse will occur. Absent some changes in product design at the manufacturer/supplier level, the best way to reduce the risk would be to have the pharmacy prepare all such doses and provide them to the patient care areas in pre-filled syringes. That solution might work in hospitals and hospital-based outpatient clinics but is problematic in those office and clinic settings that do not have access to a pharmacy.

We know that sometimes the misuse of vials is done with the good intention of cost containment. There is no question that our suggestion above or a change at the manufacturer/supplier level would increase supply costs (and perhaps personnel costs). But you have to weigh that against the costs (both financial and PR) you'd incur if you have to notify many patients of potential exposure, do testing for pathogen exposure, and cover costs for treatment of such exposure. In our April 2014 What's New in the Patient Safety World column "Insulin Pens - Again" we noted that the cost of one full course of hepatitis C treatment with the newer drugs just on the market is about $84,000.

This is a real problem. It deserves an industry-wide solution. We only solved the unintentional lethal KCl injection problem by taking vials of concentrated KCl off patient care units. We similarly need to avoid enabling well-intentioned healthcare workers from unintentionally exposing patients to infection through misuse of vials.

References:

The Joint Commission. Sentinel Event Alert. Preventing infection from the misuse of vials. Sentinel Event Alert 2014; 52: 1-6 June 16, 2014
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Home

Tip of the Week Archive

What's New in the Patient Safety World Archive