



From the Front Lines

Appropriate Medication Use in Post-Acute and LTC

Insulin Pens: A Safer Advantage

Diabetes is a complex disease; affecting 29.1 million people or 9.3% of the U.S. population.¹ In 2011 the CDC estimated that 17.8 % of those diagnosed with diabetes used insulin to help treat their condition.² Individualized insulin doses as well as complex administration regimens is one reason The Institute for Safe Medication Practices (ISMP) placed insulin on a list of “High-alert Medications” because of its potential to cause serious patient harm if given in error.^[3,4] It is no surprise that medication errors associated with insulin are responsible for 80% of inpatient errors⁵ and 10% of all harmful drug errors.⁶

A number of facilities across the country have decided to replace the traditional insulin vial and syringe system with insulin pens throughout their facilities. There are several good reasons that nurses should be excited about this change.

A number of facilities across the country have decided to replace the traditional insulin vial and syringe system with insulin pens throughout their facilities. There are several good reasons that nurses should be excited about this change:

- Improved accuracy of dose administration
- Better management of the insulin delivery process
- Reduced potential for medication storage issues related to expired insulin
- Improved resident outcomes when transitioning to a lower level of care that includes self administration
- Decreased medication cost and reduced waste with expired or unused insulin

When using the insulin pens it is important to remember:

- NEVER share prefilled insulin pens among patients
- The needle should be discarded each time the pen is used
- The beginning date of use should be placed on the pen
- Each pen must display the individual's name on the unit itself (not the cap)

With any change there is always a learning curve but, with this change, we can expect easier administration of insulin, less chance of medication errors and more importantly better patient care.

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Appropriate Utilization of the Glucometer

Residents in long term care settings are at an increased risk for infection from blood borne pathogens such as HBV when blood glucose monitoring or other point-of-care devices are improperly handled or shared. The outbreaks reported in the 1990's were predominantly due to unsafe practices. Through awareness, proper cleaning and disinfection the risk can be substantially reduced.

According to the CDC, "if blood glucose meters must be shared, the device should be cleaned and disinfected after every use, per manufacturer's instructions, to prevent carry-over of blood and infectious agents."

Listed below is the specific cleaning guideline for the EvenCare G3 meter, a commonly used glucometer in a number of skilled nursing facilities. If this is not the meter used – always refer to the manufacturer's specific guidelines for cleaning and disinfecting the machine. **CMS strongly advises nursing homes not to share devices among residents when the manufacturer does not specify instructions for cleaning between uses.**

EvenCare G3 Cleaning and disinfecting procedure: (directly from the user guide)

1. Wash hands with soap and water.
2. Put on single-use medical protective gloves.
3. Inspect for blood, debris, dust or lint anywhere on the meter. Blood and bodily fluids must be thoroughly cleaned from the surface of the meter.
4. To clean the meter, use a moist (not wet) lint-free cloth dampened with a mild detergent. Wipe all external areas of the meter including both the front and back surfaces until visible clean. Avoid wetting the meter test strip port.
5. To disinfect your meter, clean the meter surface with one of the approved disinfecting wipes. Wipe all external areas of the meter including both front and back surfaces until visibly wet. Avoid wetting the meter test strip port.

** Allow the meter to remain wet at room temperature for:

- At least 30 seconds for Medline Micro-Kill Bleach
- At least 1 minute for Dispatch and Clorox Healthcare
- At least 2 minutes for Medline Micro-Kill

Wipe meter dry or allow to air dry.

6. Remove gloves

Reference: www.medline.com, www.cdc.gov, www.cms.gov

Timely Topics: To Vaccinate or Not?

Less than half of all Americans received the influenza vaccine last year. Overall, 75.2% of healthcare workers were vaccinated in the 2013-14 season. However, coverage of healthcare workers in long-term care was the lowest at 63%. We need to work as a team to improve our status within the healthcare setting. Vaccination is safe and recommended for everyone 6 months of age and older.

Vaccination of all employees working in the long-term care setting is critical because the residents have a decreased response to the vaccine and are at a greater risk of complications, including death from the flu. Our best tool to protect our residents is getting vaccinated ourselves.

Storage and labeling of the Influenza Vaccines

- Storage in dormitory-style refrigerators is not recommended. The CDC strongly recommends using a compact refrigerator without a freezer compartment. Vaccines should never be stored in the door of the refrigerator. Daily temperature logs need to be within 35-46 degrees Fahrenheit.
- Label each vial with the date opened. Multi-dose vials should be discarded after 28 days unless specified otherwise by the manufacturer. CDC notes that multi-dose influenza vials stored properly without visual changes can be used until the expiration date on the label.
- Do not use last years vaccine as it is expired. Please destroy these if you have any remaining in storage.

Fluzone high dose contains more flu antigen resulting in a better immune response in adults 65 years of age and older.

Reference: www.cdc.gov

Case Study: The 5 Rights of Nursing

Recently, a patient was admitted to our Medicare skilled unit with chronic renal failure, which can reduce the production of red blood cells leading to anemia of chronic disease. Tom Richards who works as an AlixaRx clinical pharmacist in our Medication Review and Optimization Center (MROC) alerted me that she was admitted with an order for darbepoetin alpha (Aranesp) inject 40mcg SQ at bedtime weekly on Monday. Darbepoetin alpha helps to stimulate the kidneys to increase the production of red blood cells. Nursing transcribed the order into our electronic health record as darbepoetin alpha (Aranesp) Inject 40mcg SQ at bedtime weekly on Monday and Tuesday.

So what is wrong with this order?

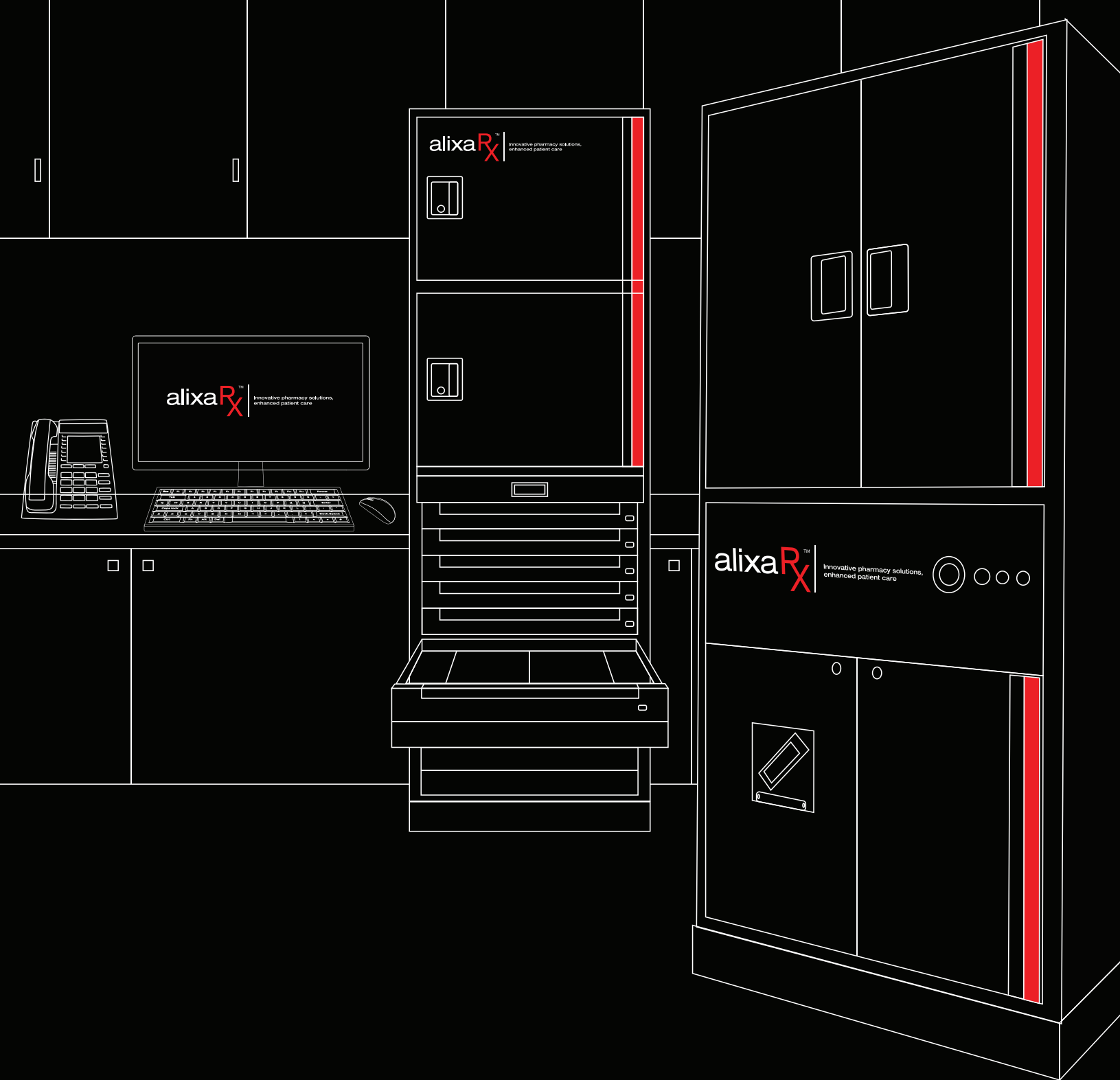
Clearly, the admission order was to administer 40mcg sq at bedtime every Monday and not twice a week. Twice weekly administration could lead to serious adverse consequences including increased risk for blood clots and possible DVT, stroke, or heart attack. In addition, darbepoetin is an expensive medication that has specific storage requirements of refrigeration. The incorrect transcription could lead to a extra charge, which would impact the facility as refrigerated items cannot be returned to the pharmacy.

But there is something else wrong with this order.

As mentioned above these drugs carry an increased risk for blood clots and this risk increases dramatically when the hemoglobin is above 11.0 g/dl. In fact the drug carries a Black Box Warning for “increased risk of death or serious cardiovascular events when administered to target hemoglobin > 11 g/dL”. For this reason, most prescribers indicate to hold the drug if the hemoglobin is greater than 10.0 g/dl or 10.5 g/dL and this should be part of every order for Aranesp, Epogen and Procrit.

As a reminder, please be sure to always double check orders follow the 5 Rights of Nursing:

- The right patient
- The right drug
- The right dose
- The right route
- The right time.



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