

Selected Strategies for Making Process Changes and Monitoring Reports to Prevent Sharing of Insulin Pens in Hospitals

- ✓ Tamper-evident tape application standardized to be perpendicular to junction of the pen cap and barrel, not wrapped-around junction.

YES:



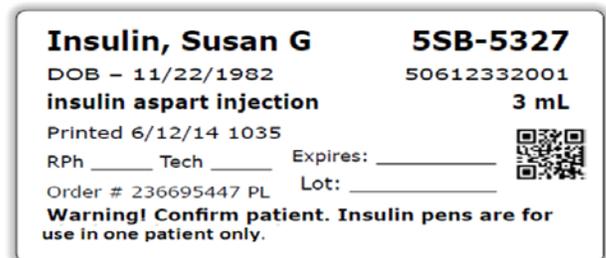
NO:



Benefit: Ensures cap removal breaks tape, making it evident pen has been used and avoiding re-use if returned in credits.

- ✓ An electronic-health record generated, order-specific barcode on the flag label affixed to the pen* to replace barcode-scanning of the manufacturer's barcode.

Benefit: Scanning patient wristband and then order-specific barcode verifies both correct insulin AND that it is for the intended patient, whereas scanning the wristband and manufacturer's barcode only verifies correct insulin type, but not the correct pen.



* If a nurse scans the order-specific barcode affixed to the incorrect insulin pen, a warning should display immediately on-screen that prevents further eMAR documentation pursuant to the scan. The correct insulin pen must be obtained.

Note: This is a high leverage wrong-pen error reduction strategy that requires hospitals to

- ✓ Have barcode medication administration (BCMA) implemented.
- ✓ Use an electronic medication administration record (eMAR).
- ✓ Work with electronic health record (EHR) provider to determine if barcode programming options are available that permit continued scanning of an "order-specific" barcode for use with multiple active orders for the same insulin type, and also in the event the order from which the pen label was generated is discontinued, but other orders for the same insulin type remain active. This capability may not be available from all EHR providers.

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If implemented, it is encouraged to also develop and monitor BCMA reports to identify information that may help confirm appropriate (and inappropriate) insulin pen administration practices, such as:

- Scanning Compliance: For insulins provided in pen form, monitor patient ID scanning and medication scanning compliance. Non-scans (i.e., manual documentation) limit the ability to detect and prevent wrong-pen injections. While there are many reasons for non-scans, unjustified non-scans could be considered “at-risk” employee behavior.
- Wrong-pen Alerts: On-screen “wrong pen” warnings that display as the result of scanning the patient’s ID followed by the order-specific barcode on a different patient’s pen may be data that can be captured and incorporated into a report. The report could show that an alert fired, followed by subsequent manual eMAR administration documentation (without scanning), which may indicate an administration may have occurred using the incorrect pen, despite receiving a warning. The report could also show that an alert fired, followed by no subsequent manual eMAR insulin documentation, or documentation of scanning of another product (i.e., correct insulin pen, other medication) within a specified time frame. This may indicate a “near-miss” (i.e., that the wrong-pen warning was adequate to cause the nurse to recognize a wrong pen was present and change actions).

✓ **Pharmacy scanning of manufacturer’s barcode on the pen before dispensing**

Benefit: For hospitals with multiple insulins stocked in pen form, scanning the manufacturer’s barcode against the electronic-health record generated, order-specific barcode just before affixing the flag label to the pen ensures the pen selected and labeled matches the order.

Note: This is a high leverage wrong-pen error reduction strategy that requires hospitals to:

- ✓ Have barcode medication administration (BCMA) implemented.
- ✓ Use an electronic medication administration record (eMAR).
- ✓ Work with electronic health record (EHR) provider to determine if functionality to program scanning during the dispensing process is available.

If implemented, this functionality is most-effective when used in conjunction with use of nurse-scanning of an order-specific barcode printed on the electronic-health record generated pen flag label, as it mitigates concern that a pharmacy “wrong insulin pen” dispensing error (i.e. label for correct insulin has been affixed to incorrect insulin pen type) has occurred that may remain otherwise undetected.

✓ **Statements on the eMAR and pen flag label**

- “Warning! Confirm patient. Insulin pens are for use in one patient only.”

Benefit: Serves as a reminder at the point of care what has been established in hospital policy and procedure, and staff training.

✓ **From the eMAR, hyperlink to an internally-developed “Insulin Pen Injection Safety” webpage that includes hospital policies and procedures related to safe insulin pen use, and other resources**

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Benefit: In addition to educational initiatives (e.g., newsletters, inservice education programs, educational modules), provides convenient, ongoing point-of-care access to information about appropriate use of insulin pens.

- ✓ **Verify manufacturer's barcode is "blacked-out" with marker before dispensing**
Benefit: Prevents ability to scan any barcode other than order-specific barcode on flag label in the event the affixed label with patient identifiers comes off or is intentionally removed.
- ✓ **Affix insulin pen label so as to cover blacked-out manufacturer's barcode on pen barrel, but leaving uncovered the insulin name and manufacturer's lot/expiration**
Benefit: Prevents ability to scan any barcode other than order-specific barcode on flag label.
- ✓ **Using colored highlighter, highlight patient name on affixed patient-specific label**
Benefit: Makes name of patient for whom pen was dispensed easier for nurse to see.
- ✓ **Dispense labeled pen to patient-specific secure location on patient care unit in a clear, unlabeled zip-closed plastic bag**
Benefit: Avoids placing pen for one patient in zip-closed plastic bag labeled for another patient.