

# U-500 Humulin R Medication Use Process Change Improves Patient Safety

## Problem

There medication use process U-500 Humulin R Insulin was identified as unsafe following a near miss event. Areas of concern included the following:

- U-500 Humulin R insulin was frequently described in “U-500 units” measured on a U-100 insulin syringe. For example, a dose of 200 units would be communicated as “40 units of U-500 insulin”.
- U-500 Humulin R insulin was ordered for “as needed” coverage rather than on a scheduled basis.
- U-100 insulin syringes rather than tuberculin syringes were used for measuring U-500 Humulin R insulin on the patient care unit.
- Bulk vials of U-500 Humulin R insulin were stored a stock item in the patient care unit medication refrigerators. These could be potentially mistaken for Humulin R 100 unit/mL insulin.
- Pharmacy did not prepare individual U-500 Insulin doses in ready to administer form. Nursing staff needed to calculate and measure the dose needed on the patient care unit.

## Aim/Goal

Implement a safe medication use process for U-500 Humulin R Insulin.

## Team

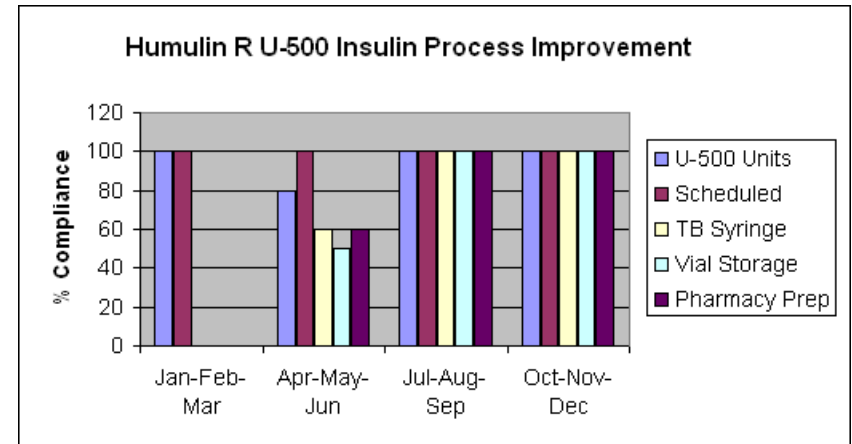
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## Interventions

- A U-500 Humulin R safe medication use process was researched and presented to the Pharmacy and Therapeutics Committee. The BIDMC High Risk Medication Management Policy#03-03-08 was updated to include this document.
- Pharmacy Staff were educated about this new process through email, a pharmacy fact sheet, and at Pharmacy staff meetings.
- Nursing Staff were involved in the development and implementation of the new process through Nursing /Pharmacy Committee
- Communication with the Joslin Consult Clinicians was done through the BIDMC Diabetes Working Group.

## Results



### Key

**U-500 Units:** U-500 Humulin R insulin was ordered and processed in total number of U-500 units.

**Scheduled:** U-500 Humulin R insulin was ordered for a scheduled dose (not for “prn” coverage).

**TB Syringe:** TB syringes used for measuring U-500 Humulin R insulin (not U-100 insulin syringes).

**Vial Storage:** Bulk vials of U-500 Humulin R insulin are stored in the pharmacy only.

**Pharmacy Prep:** Pharmacy prepares individual U-500 Insulin doses in ready to administer form.



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