Insulin Regular Kit for Hyperkalemia
University of Maryland Medical Center

Program/Project Description.
There was a lack of standardization and consistency with treatment and monitoring of hyperkalemia. Nurses were diluting regular insulin in the ICU for emergent treatment of hyperkalemia without a standard dilution procedure. There was an opportunity to improve safety of a high risk medication (insulin) and to standardize care of patients with hyperkalemia.

Process.
An insulin kit for hyperkalemia was developed. The contents of the kit included: 1 vial of Regular insulin; a 30 mL empty sterilized vial; and an instruction sheet containing guidelines for insulin dilution, administration with dextrose and disposal instructions. Several internal meetings were held with both pharmacy and nursing personnel. A careset was developed to make it easy for physicians to order. All nursing unit-based cabinets (UBCs) were assessed for space availability for kit placement. Each identified UBC was stocked with 2 insulin kits after several inservices with nursing, physicians, and pharmacy staff.

Solution.
A one page insulin dilution instruction sheet was developed and packaged with each kit and placed in each identified UBC for the nurse to retrieve for patients with hyperkalemia. The new kit was presented at several hospital-wide committees for approval. Inservices were conducted for physicians, nurses, and pharmacist.

Measurable Outcomes.
Medication safety was improved for the use of diluted insulin for hyperkalemia as a result of the kit. Nurse and physician satisfaction was improved, because of the ease of ordering and standardization of treatment with the care set. Nurses had all supplies in one kit that could be quickly retrieved from the UBC.

Sustainability.
Usage of the Hyperkalemia Kits is tracked. Event reports are reviewed for insulin errors.

Role of Collaboration and Leadership.
Pharmacy partnered with nurse managers to in-service both nursing and pharmacy staff before implementation. The pharmacy leadership team was actively involved to ensure in-services were conducted for nursing and pharmacy employees to promote awareness of the kit for the treatment of hyperkalemia. The leadership support was demonstrated by dedicating four different staff meeting times for staff inserviceing.

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