



2020 LEAD Capstone Poster Session

**Step Away From Step
Down: Insulin Drip Unit to Improve
Emergency Department Flow**

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Abstract

Background:

Progressive Care Unit (PCU) beds are a limited resource at Parkland Hospital used for borderline critically ill patients, oftentimes admitted straight from the Emergency Department. Patients requiring insulin drips are required to use PCU beds in the name of safety, contributing to the significant PCU bed shortage.

Objective and Plan:

By cohorting all of the simple diabetic ketoacidosis (DKA) patients to the Hospital Medicine Observation Unit, we can conserve PCU beds for sicker patients and standardize diabetic education. An EPIC protocol to help automate insulin drip transition to SQ insulin will improve length of stay. Standardizing nursing education in diabetic education will improve patient education, thereby empowering patients.



Objectives

- Conserve Parkland Hospital's limited Progressive Care Unit beds
- Improve flow through the Parkland Hospital's Emergency Department
- Improve patient satisfaction for Progressive Care Unit level admissions
- Provide high quality, safe and efficient care for uncontrolled diabetic patients in Diabetic Ketoacidosis (DKA) / Hyperosmolar Hyperglycemic State (HHS)
- Empower DKA/HHS patients through more comprehensive standardized diabetic patient education



Background Information

- Parkland Hospital's Progressive Care Unit (PCU) beds are a limited resource for borderline critically ill patients
- Patients requiring insulin drips for Diabetic Ketoacidosis currently cohorted in the PCU
 - Insulin drips are high risk, require intensive nursing workload
 - Increased number of patients requiring PCU beds on admission
 - Delays in transitioning off insulin drips
- Admitted patients boarding in the ED for many hours awaiting a PCU bed
 - Fractured nursing care in patients boarding in the ED
- Parkland has the busiest single-center Emergency Room in the country
 - Increased boarders significantly slows down patient flow through the ED, slowing down triage of new patients



Specific Aims

- To decrease Progressive Care Unit beds requests on admission by 10% within 2 months
- To decrease ED boarding times for admitted patients requiring PCU level care by 20%
- To improve patient satisfaction scores for PCU level patients admitted from the ED
- To improve length of stay with DKA / HHS patients by 6 hours



Project Plan

- Cohort simple diabetic ketoacidosis (DKA) and hyperglycemic hyperosmolar state (HHS) admissions to the 9-400 Hospital Medicine Observation Unit at Parkland Hospital
 - Conserves PCU beds
 - Exclude patients with other active medical issues including uncontrolled infectious trigger
- EPIC order set protocol
 - Allows RN to stop an insulin drip if patient meets all the suggested criteria
 - Provider orders SQ basal insulin on admission and "on hold" short-acting insulin
 - May save up to 12 hours of insulin drip time
 - Decreases length of stay
- Standardized diabetic patient education
 - Parkland's Diabetes Heroes program curriculum for nursing education
 - Diabetic patient education nursing protocol



Application of What You Learned at LEAD

- Prioritizing Stakeholder Interests



Proposed Budget

- **Increased nursing budget**
 - 1:3 staffing ratio (for 1-2 RNs per shift) on 9-400 unit
 - Paid time for more comprehensive nursing diabetic education



Innovation and Significance

- Protocol can be adopted at other hospitals
 - Decrease length of stay
 - Improve resource utilization
 - Improve patient outcomes and satisfaction
- Opportunities to further protocolize other common treatments
 - CHF exacerbations and COPD exacerbations
 - Improve nursing involvement in patient education
 - Improve utilization metrics
 - Improve quality of care
 - Improve patient satisfaction



References

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