Continuous Cycler Peritoneal Dialysis: Teaching the Inpatient Nurse
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Problem
Peritoneal Dialysis (PD) is an alternative to Hemodialysis (HD) which is offered to some patients with End Stage Renal Disease. There are two types of peritoneal dialysis available: Continuous Ambulatory Peritoneal Dialysis (CAPD) and Continuous Cycler Peritoneal Dialysis (CCPD). Most PD inpatients convert to manual exchanges (CAPD), in part due to a lack of nursing/physician education and/or lack of cycler machines in the inpatient settings. Due to this lack of knowledge, leadership developed an educational program to educate the medical/surgical nurse.

Aim/Goal
- Developed training and education to engage the medical surgical nurse to provide optimal safe care to our CCPD inpatient population.
- Identified necessary pre-education, supplies, equipment, super-users, documentation and facility requirements to ensure a successful pilot.

The Team
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- Tracy Lee MSN; RN
- Jane Foley; RN, BSN, MHCA
- The staff of Rosenberg 7

Interventions
- Unit leadership visited another Boston medical center with an existing, successful CCPD program.
- Organized super-user classes with cycler distributor.
- Collaborated with distribution staff to order and par level necessary supplies and equipment.
- Developed a standardized MD order set and nursing flow sheet with input from our Nephrologists and Forms Committee.
- Required baseline educational readings for nursing staff.
- Created policy and teaching binder for step-by-step reference guide. Reference binder also includes policy, supply list, MD order set, nursing flow sheet, most commons alarms and troubleshooting assistance.
- Provided small teaching sessions for all nursing staff, as well as real-time bedside teaching.
- Collaborated daily with renal fellow.

Findings/Results
Since the start of the pilot, over seventeen patients have used our hospital CCPD pilot program. Medical surgical nurses were able to care for CCPD hospitalized patients with collaborative support. Patient satisfaction is high, with many now specifically requesting to be admitted to the unit trained in CCPD.

Issues Identified/Lessons Learned
- Prepare for routine edits using the PDCA (Plan, Do, Check, Act) model for improvement; changes were made to the MD order set, nursing flow sheet, par levels and policy from lessons learned/experience.
- Standardizing early set up, programming and hook up of cycler with identified shift responsibilities.
- Acuity of unit impacting teachable moments.
- Importance of teamwork with renal fellow for timely orders and collaboration of patient care.
- Added complexity and communication required with pharmacy when medications are added to bag(s).
- Challenges with programming of less common orders. For example, “last fill” antibiotic (volume of bag/concentration of dose).
- 24/7 clinical support at Baxter proven to be very helpful.

Next Steps/What Should Happen Next
- Create step by step visual guide to mirror guideline.
- Update MD order set and nursing flow sheet based on pilot suggestions.
- Provide additional training using supplies and simulated abdomen.
- Work with distribution to review and update necessary supply list.
- Work with pharmacy and IS to create a workflow process of adding medications within pharmacy department.

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