

Insulin Pump Policy for the Hospitalized Patient

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Insulin pump safety has become an urgent and significant concern for the hospitalized patient and staff. Hospitals have policy and procedures on patient's storage and self-administration of home medications. However, these policies do not address insulin delivered by an insulin pump ("Insulin Pump Safety," September 18, 2012). An insulin pump delivers rapid action insulin hourly by a set basal rate and the patient delivers their boluses according to their blood sugar and carbohydrate intake. Boluses are calculated with settings such as insulin to carbohydrate ratio, insulin sensitivity ratio, a blood glucose target, and active insulin time for covering their meals and/or correcting hyperglycemia. These pump settings are determined by their doctor, usually an Endocrinologist.

Target population

Policy development related to insulin pumps is focused on the lack of knowledge by the nursing staff. The lack of adequate policies for patients admitted to the hospital with insulin pumps has resulted in detrimental cases of hypoglycemia and even death. Recently, a local hospital reported a patient whom was admitted through the emergency room needing and emergency surgery. This gentleman was wearing an insulin pump that somehow went unnoticed or was assumed to be turned off. The patient went through three departments: emergency room, surgery, and recovery. He became hypoglycemic with glucose of 20mg/dl because his insulin pump was delivering insulin and the nursing staff was also administering insulin intravenously. It wasn't until his hypoglycemic attack and family communication to staff about his insulin pump that they realized how this had happened. It would be more comforting to assume that this was a rarity, but research shows what was expected. This local episode was not a rarity and insulin

pump patients admitted into the hospital are in real danger.

Population needs

Inadvertent hypoglycemia is can be related to the lack of policy and procedure for the management of the hospitalized patient wearing an insulin pump. Unless facilities establish a plan with policies and procedures to guide the safe management of patients on pumps, errors will occur with some being fatal (Cook, 2009). Investigations with other local nurse educators in the hospital setting, it was alarming to know there are no policies for the patients admitted wearing an insulin pump. There are protocols to follow when the diabetes department is consulted, but nothing for the general nursing staff to initiate and/or follow.

Objectives

The objective of the policy is for the patient and their family to be offered safe quality care, monitoring, and accurate insulin administration. The policy focuses on promoting patient independence in managing their diabetes by wearing their insulin pump. The needs of the patient are safe monitored administration of insulin without hypoglycemic events leading to adverse effects. Diabetic education and use of medical devices for delivery are critical education issues provided by nurses. Polices and protocols are essential tools in the education process. This can be achieved by having the patient review and sign an agreement to follow hospital protocol on insulin pumps. This agreement should include specific actions for all parties involved, nurse, patient, and care-giver. The patient should understand the importance of reporting site changes, boluses, or any pump problems. Both parties agree to communicate daily and at any time, if the patient is unable or unwilling to comply, the insulin pump will be removed (Cook et al. 2005).

There should be a concrete algorithm on how the policy gets initiated. For example, admission of

a diabetic patient on insulin pump generates consults to the diabetes education department, pharmacy, dietary, and endocrinology. Order sets are populated for insulin pump settings and directions for floor nurses to follow. Nurse assesses contraindications for patient to remain on insulin pump like altered state of consciousness, psychiatry issues, or refusal from family or patient to maintain pump therapy (Cook et al. 2005).

Process and procedures

Research to identify evidence-based practices is critical in providing excellence in patient care. Open discussions with the nursing staff and nurse educators provide the essential background data in establishing current practices and understanding. Soliciting input from interdisciplinary teams promotes a team effort in addressing the issues and providing safe care. Assess patient/family's willingness, cognitive status, and orientation to self-manage insulin pump. Nursing managers and administrators have the final authority for approval along with the Medical Review Board of the organization.

Responsibility

Policies with protocols are needed to protect the safety and quality of care of these unique patients. The first step to achieve this goal is to submit a policy to the hospital's policy and procedure committee for review and approval. Once approved it should be implemented throughout the hospital where all staff can be guided to give safe quality care and administration of insulin via insulin pump. Not only does this allow these patients independence in self-management, but most importantly will reduce and/or prevent adverse events. Based on the organizational policy, new policies and procedures should be evaluated upon implementation and periodically, usually annually, for possible revisions. Feedback from patients and nursing staff

assist administration in policy review and revision.

Conclusion

Organizational response to patient safety needs is the responsibility of all members of the health care team. This responsibility flows from upper administration, through all levels of the organization. Policies and procedures are the guiding tools to provide safety, effective, and efficient patient care. The nursing process provides well-established means to address policy needs within the organization. Assessing the need, identifying the focus, planning the implementation, implementing the plan, and evaluating the results yields greater patient safety. Implementing a policy to meet the needs of Diabetic patients on insulin pumps is an example of patient-centered care and safety.

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