

**HACKETTSTOWN REGIONAL MEDICAL CENTER  
NURSING POLICY MANUAL**

**INSULIN PUMP SELF MANAGEMENT**

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**Effective Date: October 2006**  
**Cross Referenced:**  
**Reviewed Date: 8/2008**  
**Revised Date: 8/2011, 6/2015**

**Policy No: 8620.215b**  
**Origin: Division of Nursing**  
**Authority: Chief Nursing Officer**  
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**SCOPE**

All RNs in Inpatient and Outpatient Areas

**PURPOSE**

To outline the management of the hospitalized patient with an insulin pump.

**POLICY**

Patients who are allowed to manage their diabetes care while hospitalized benefit from better control of blood glucose. The Provider will determine if the patient is able to manage insulin administration via the insulin pump.

A Provider order must be written stating that the patient is allowed to use the insulin pump. The order must include the type of insulin and current pump settings (i.e. basal rate, carbohydrate to insulin ratio, correction bolus).

The Provider must write the order for glucose monitoring to be completed by the patient with their glucose monitor (if the patient's glucose monitor device communicates directly with insulin pump) or by the nursing staff.

If pump is DC'd for any reason, call provider for alternate insulin coverage.

At any time the patient is deemed incapable of managing their insulin pump, it will be discontinued and the nursing staff will assume responsibility for all insulin therapy.

The infusion set is placed by the patient into a subcutaneous area.

**PROCEDURE**

**A. Assessment**

1. Assess the following upon admission and daily
  - a. The patient's ability to perform glucose testing and manage their insulin pump
  - b. The infusion site for signs and symptoms of infection and/or leaking/kinking of tube.
  - c. Verify provider's order matches pump setting.
  - d. Verify with the patient, the glucose testing results they are obtaining throughout the day.

**B. Pump Maintenance**

1. The patient must provide pump settings of current parameters to nurse and provider.
2. The patient will need to provide the supplies for changing pump site or tubing
3. When the insulin in the pump is depleted, patient will replace it, or if necessary pharmacy will supply.
4. If patient is supplying insulin, it must be verified by a pharmacist prior to use.
5. Exposure to MRI, CT scan or gamma rays will require the patient to temporarily disconnect the pump and place it outside the procedure room.
6. Be aware that delivering insulin through the tube system may cause frothing of the insulin, resulting in bubbles in the syringe or tubing.

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**C. Replacement and Discontinuation of Pump**

1. Replacement of the pump infusion set should occur:
  - a. Following general anesthesia
  - b. Following recovery from diabetic ketoacidosis (DKA)
  - c. When bolus dosing fails to bring down a high blood sugar
  - d. Every three (3) days or at manufacturer's recommendation
  
2. Discontinue should occur when:
  - a. The patient is deemed incapable of self-management.
  - b. For an insulin pump alarm the patient is unable to correct. The patient should notify the nurse and call the 24-hour pump hotline for assistance (the number is located on the pump). In the event the alarm cannot be corrected, the pump will be discontinued and insulin will be administered using an appropriate alternative route.
  - c. If two consecutive blood sugars are above 240 and trouble shooting is unsuccessful.

**D. Storage**

1. Storage of insulin will be in the patient-specific medication draw. The patient will request insulin when needed to refill cartridge and then return to the nurse.

**E. Reportables**

1. Any deviation from pre-established written parameters
2. Signs that the patient is not able to self manage insulin pump
3. Glucose values that fall in critical range
4. Sign/symptoms of infection

**F. Documentation**

1. Admission documentation of device presence is noted on the admission health history.
2. Ongoing assessment of site condition noted daily in "Incision and Wounds" section. Document type "insulin pump", location, laterality if applicable, surrounding tissue and dressing.
3. Document communications with provider regarding reportable conditions.
4. Document any patient/family education provided.
5. MAR: If pump is filled with insulin, documentation of volume delivered should be charted on the Medication Administration Record (MAR), along with the appropriate site of delivery.
6. Document patient's glucose results

**REFERENCES**

Mensing, C. MA,RN,CDE,FAADE, Halstenson, C. RD, LD,CDE. American Association of Diabetes Educator', The Art and Science of Diabetes Self Management Education 3<sup>rd</sup> Edition. (2014)