

# Demystifying Insulin Pump Therapy in the Acute Care Setting: Clarifying Roles, Processes and Practices for Standardized Care Delivery

Sharnee Cederberg MSN, RN, CDE

*Lehigh Valley Health Network, SharneeSharnee.Cederberg@lvhn.org*

Joyce Najarian MSN, RN, CDE

*Lehigh Valley Health Network, Joyce.Najarian@lvhn.org*

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# Demystifying Insulin Pump Therapy in the Acute Care Setting: Clarifying Roles, Processes and Practices for Standardized Care Delivery

Sharnee Cederberg, MSN, RN, CDE and Joyce Najarian, MSN, RN, CDE  
Lehigh Valley Health Network, Allentown, Pennsylvania

## Background

Traditionally, the relative obscurity of insulin pump therapy and its mysticism to staff nurses and hospital providers fostered inconsistent care and even unsafe practices in the acute care setting. The low volume, high risk nature of these admissions posed complex glycemic control and safety challenges, particularly in a large, multi-center academic, community health system. The increased prevalence of insulin pump use among admissions necessitated that the health system embrace this issue to ensure safe and consistent hospital care.

## Plan

The multidisciplinary Network Diabetes Management Quality Improvement Team developed a strategic plan for standardizing hospital care for insulin pump users. Efforts to accomplish these means included:

- A comprehensive **procedure**
- A **patient/caregiver agreement**
- Computerized **physician order set**
- On-line **assessment and dose documentation fields**
- **Pump identification on admission intake**
- **Pump inclusion in home medication reconciliation process**
- **Reminder Checklist for Insulin Pump Patient Care**
- **Electronic insulin pump learning modules**
- **“Roving,” unit based inservicing**
- **CDE Consultation**
- **Physician Education**

## Process

**Procedure** - addresses unique care requirements for safe pump use from admission through discharge.

**Patient/Caregiver Agreement** - delineates role responsibilities of patients/caregivers, nursing staff and endocrine providers when an insulin pump is maintained in the acute care setting.

**Electronic Insulin Pump Order Set** - activated by admitting provider when a patient is deemed clinically appropriate to continue insulin pump use in the acute care setting. Set includes:

- Mandatory endocrine and inpatient diabetes educator consults
- BG and ketone testing orders
- Nursing reference screen to remind of the inpatient care unique to pump users.

**Electronic Assessment and Dose Documentation Fields** - created in each of three documentation systems utilized in the Network to facilitate consistency and completeness of nursing documentation.

**Reminder Checklist for Insulin Pump Patient Care** - two page staff worksheet designed to:

- Highlight key aspects of care, consolidating the lengthy procedure
- Provide supportive staff resources.

## Next Steps:

Efforts are underway to develop process and outcome measures to determine adherence to the insulin pump procedure, track root cause of any related patient safety events and monitor glycemic control for this population. Evaluation will be ongoing with emphasis on identifying necessary changes to improve the care, safety and satisfaction of insulin pump users in the acute care setting.

## Nursing Education

### Electronic Insulin Pump Learning Modules

- Purpose: To address the new insulin pump procedure and pump related process changes, highlight role responsibilities of providers, patients/caregivers and RN staff, and emphasize key safety aspects to standardize care delivery.
- Developed two unique modules: one for inpatient RN staff, another specific for Emergency Department RN staff
- Completed by nearly 1300 Network nurses (medical/surgical, critical care, ED RNs)

### “Roving” unit based inservices

- Purpose: To supplement the electronic learning module content with an opportunity to look at insulin pumps and associated equipment, and allow for discussion of unique care considerations specific to pump users
- Brief, CDE led education sessions
- More than 50 sessions provided on various days/times

### CDE Consultation

- Purpose: To support the RN staff through review of care and documentation guidelines, and reinforcement of available supportive resources

## Provider Education

Provider education related to the process changes and computerized pump specific order set was accomplished using written and oral methods.

- One page flyer hung in medical staff lounges
- Article in provider focused monthly Network newsletter
- Email “blast” from Department of Medicine Quality Champion
- Oral presentations at Department meetings including family practice, internal medicine, hospital medicine, OB/GYN, medical residents, surgical residents

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