Legacy Diabetes and Nutrition Education

Physician Referral Form

Please complete this form, print and sign, then fax to the appropriate location:

☐ Good Samaritan	☐ Meridian Park	☐ Mount Hood	☐ Emanuel	☐ St. Helens	☐ Woodburn	☐ Salmon Creek	☐ Randall Children's
Phone: 503-413-7227	Phone: 503-692-7791	Phone: 503-674-1254	Phone: 503-413-2750	Phone: 503-397-0471	Phone: 503-981-9526	Phone: 360-487-2727	Phone: 503-413-1600
Fax: 503-413-6888	Fax: 503-692-7788	Fax: 503-674-1267	Fax: 503-413-2735	Fax: 503-366-3014	Fax: 503-982-3814	Fax: 360-487-2729	Fax: 503-413-1915

Patient information

Last name _____ First name _____ Middle initial _____

Date of birth _____ Home phone _____ Other phone _____ Insurance _____

Diagnosis *(please include ICD9/10 code if not listed)*

Date of diagnosis _____

- ☐ Type 2 DM – 250.00
- ☐ Type 2 Uncontrolled – 250.02
- ☐ Type 1 DM – 250.01
- ☐ Type 1 Uncontrolled – 250.03
- ☐ Impaired Glucose Tolerance – 790.29
- ☐ Hyperlipidemia w/o Diabetes – 272.0
- ☐ Hypertriglyceridemia – 272.1
- ☐ Hypertension – 401.1
- ☐ Gestational Diabetes – 648.83
- ☐ Pregnancy w/pre-existing DM – 648.03
- ☐ Metabolic Syndrome – 277.7
- ☐ Polycystic Ovarian Syndrome – 256.4
- ☐ Celiac Disease – 579.0
- ☐ GI Disorder _____ *(Please specify ICD9/10)*
- ☐ Cancer _____ *(Please specify ICD9/10)*

Secondary Diagnoses:
- ☐ Overweight – 278.02
- ☐ Obesity – 278.00
- ☐ Morbid Obesity – 278.01
- ☐ Other _____ *(Please specify ICD9/10)* _____

→ **Important! Please FAX recent progress notes, problem list, pertinent labs (A1c, Lipids, 3-HR GTT, other) and list of medications (required by Joint Commission).** *(Not necessary if patient record is in Legacy EMR)*

Diabetes self-management training *(Non-diabetes nutrition counseling is provided in individual sessions)*

Medicare will cover individual Diabetes Education *only* if one of the following is documented by the referring provider:

☐ **Language barrier** – Interpreter needed for *(give language)*

_____

☐ **Learning difficulties** – Describe

_____

☐ **Hearing impaired**

☐ **Vision-impaired**

☐ **Other** *(please specify)*

_____

_____

☐ **Comprehensive Course (DSMT) — Type 2** *(10 hours)* Includes 1:1 assessment. If your patient has Medicare, **Please also mark Medical Nutrition Therapy.**

☐ **Children's Comprehensive Course (DSMT) — Type 1** *(New onset)* Group classes include diabetes self-care skills, healthy eating, role of exercise and avoiding complications. Follow-up one month later assesses achievement of established personal diabetes self-care goals.

☐ **Insulin Start** *(2-4 hours)* Give type and dose *(no abbreviations)*

_____

_____

Continue on oral agent? ○ Yes ○ No

Educator may make adjustments per protocol ***(see page 2)***

○ Yes ○ No

☐ **Insulin Pump — Type 1 or 2** *(2-10 hours)* Initiate therapy, upgrades, fine-tuning. See page 3 for Legacy pump policy.

☐ **Medical Nutrition Therapy (MNT)** for Medicare diabetes and Medicare renal patients only — *(first year 3 hours; subsequent years 2 hours)*

☐ **Diabetes Refresher — Type 1 or 2** *(2-4 hours)* Focused self-care topics such as healthy eating, blood glucose monitoring, role of exercise and avoiding complications.

☐ **Intensive Management — Type 1 or 2** *(4-6 hours)* Includes carbohydrate counting and individual assessment and plan for tighter blood glucose control.

☐ **Continuous Glucose Sensor** *(1-3 hours)* Sensor start and sensor download and interpretation. Please mark interpreter preference: ○ Educator ○ MD

☐ **Pregnancy Issues** *(2-3 hours)* Gestational diabetes or pregnancy with pre-existing diabetes. Dietary monitoring and insulin considerations.

☐ **Focused Nutrition Education (MNT)** *(1-3 hours)* Topics such as hyperlipidemia, GI issues, PCOS, etc. *(State topic and ICD9/10)*

_____

Referring provider authorization

As the health care provider managing this patient's diabetes care, I certify that this training is needed to ensure therapy compliance and provide the necessary skills and knowledge to enable the patient to manage his/her condition.

Referring provider

Name _____ Clinic _____ Phone _____ Fax _____

Primary care provider (if different) _____ Clinic _____ Phone _____ Fax _____

Physician signature _____ Date _____

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Insulin Adjustment Protocol
for Diabetes Educators

Key Points

1. Adjustments will be made for patients whose diabetes physician/provider has reviewed the protocol and checked the appropriate box on the referral form.
2. The target range for patients must be determined in writing documented in the chart by a diabetes educator before adjustments can be made.
3. All adjustments made will be documented and communicated to the physician/provider via written fax or letter.

Adjustment Guidelines

High Blood Glucose

If blood glucose is above target for two or more days at the same time of day and the educator has ruled out other causes, the dose of the appropriate insulin may be increased by

- Adjusting insulin-to-carbohydrate ratio and/or insulin sensitivity factor
- 10% of current dose
- 1-2 units

Sick Days

1. If a patient is ill, and experiencing high blood glucose, the following advice will be given:
   - Patient advised to check ketones for readings greater than 250 mg/dL, and report continued ketosis to primary care provider and diabetes educator
   - General sick day guidelines

2. If two or more consecutive blood glucose readings are greater than 250 mg/dL without ketones, a booster dose of the appropriate insulin may be given according to one of the following:
   - Adjustment of insulin sensitivity factor
   - 10% of total daily dose (TDD) X last 24 hours
   - 1-2 units
   - Physician's guidelines

   Types of insulin to use include Regular, lispro (Humalog), aspart (Novolog), glulysine (Apidra).

3. If blood glucose reading is 250 mg/dL or higher with greater than small ketones, the booster dose will be determined by:
   - Using insulin sensitivity factor
   - Following physician's guidelines for Sick Day
   - 20% of TDD

4. If blood glucose reading is greater than 250 mg/dL, ketones are present and patient is experiencing persistent vomiting, the patient is advised to call his/her diabetes care provider and go to the emergency department.

Low Blood Sugar

If the patient experiences an unexplained low blood sugar (target predetermined), the educator may decrease the appropriate dose the next day by one of the following:

- Adjusting insuln-to-carbohydrate ratio and/or insulin sensitivity factor
- 10%
- 1-2 units

If educator notes general pattern of blood glucose levels nearing hypoglycemia, educator will decrease appropriate dose by:

- 10%
- 1-2 units
- Adjusting insulin-to-carbohydrate ratio and/or insulin sensitivity factor.

Title: 900.5860 Adult & Pediatric Patients on Continuous Subcutaneous Insulin Infusion (Insulin Pump) Mgt

Revision: 1.2

LEGACY HEALTH

PATIENT CARE
Practice Guideline: 900.5860
Origination Date: MAR 2000
Review Date: JULY 2012

SECTION: DRUG ADMINISTRATION
TITLE: ADULT AND PEDIATRIC PATIENTS ON CONTINUOUS SUBCUTANEOUS INSULIN INFUSION (INSULIN PUMP) MANAGEMENT

PURPOSE: To allow continued insulin pump therapy for patients admitted on a subcutaneous pump. To ensure safe and accurate insulin administration.

KEY POINT: *This is not an IV insulin drip.*

RESPONSIBLE STAFF: Physician, RN, LPN, Diabetes Educators

SUPPORTIVE DATA:

An insulin pump is made up of a pump reservoir (like an insulin syringe, but bigger) filled with buffered Regular, or rapid acting insulin lispro (Humalog) or Aspart (Novolog). Apidra (glulisine) insulin, a small battery-operated pump and a computer chip that allows the user to control exactly how much insulin the pump delivers. It is all contained in a plastic case about the size of a pager.

The pump reservoir delivers insulin to the body by a thin plastic tube called an “infusion set.” Infusion sets have a needle or soft cannula at the end, through which the insulin passes. The needle or cannula is inserted under the skin, usually on the abdomen. Other alternative infusion sites are the thighs, arms and buttock area. The process of putting the infusion set in place is called “insertion,” and is similar to giving a standard insulin injection. The infusion set is changed approximately every two to three days.

The pump is intended to be used continuously and delivers insulin 24 hours a day according to a programmed plan unique to each patient and prescribed by his or her physician. A small amount of insulin (as little as 0.05 to 0.5 / units hour) is given continually -the basal rate. A basal rate is the amount of insulin given continually to maintain a normal metabolic state. There are usually two or more basal rates set in a 24-hour timeframe. This insulin keeps blood glucose in the desired range between meals and overnight. When food is eaten, the patient programs the pump to deliver a “bolus dose” of insulin matched to the amount of food that will be consumed (called an insulin-to-carbohydrate ratio). Carbohydrate ratios can vary for different meals. A bolus can also be delivered when blood glucose levels are elevated (called a correction factor) and for planned food intake and exercise.

KEY POINT: *If the patient is unable to deliver a bolus via their insulin pump the nurse will follow the physician order, call the doctor to obtain orders for alternate insulin delivery. The nurse is not to deliver a bolus because of potential confusion between various pump models.*

TOPIC/INSTRUCTIONS:

A. ASSESSMENT / ORDERS / MONITORING

1. The physician, nurse, or diabetes educator will assess and document the patient's ability to maintain operation of the insulin pump, deliver bolus doses of insulin, and accurately self-test blood glucose during the acute hospital stay.

KEY POINT: *Document the presence of the pump and ongoing assessment in the Line/Drain/Airway (LDA) flowsheet. The LIP documents via order entry and in the Progress Notes of in the electronic health record (EHR).*

2. For all patient's with a subcut insulin pump currently, the EHR physician order must specify:
   a. Insulin type used in the pump
   b. Patient's basal insulin doses
   c. Patient's prandial and corrective doses or scale
   d. Responsible person for CBG testing and monitoring (patient or LH)
   e. Frequency for CBG checks and CBG goal

KEY POINT: *LH testing is preferred so CBG automatically recorded in EMR. If patient self-tests, they must report the value to the RN who is responsible for recording the CBG in the EMR*

KEY POINT: *If the patient does not have their own meter at the hospital or runs out of test strips, use the hospital glucose meter. If the patient has a provider order to use their own glucose meter, refer to* LH policy *Quality Control for Personal Patient Glucometers.*

3. If the patient is physically and cognitively able to be responsible for the insulin pump therapy, a physician's order must specify that the patient may self-administer insulin via pump
4. If patient will be cognitively unable to manage the pump for a limited period of time and they are being continuously monitored (e.g. surgical procedure), the pump may be continued at the patient's usual basal rate during this time period. Blood glucose will be monitored q1H during this time period. If corrective insulin is needed for elevated CBGs, this may be done with subcutaneous or IV insulin. If hypoglycemia occurs, this should be managed via LH hypoglycemia protocol.
5. A physician's order must be written for supplemental insulin doses to treat elevated blood glucose. Order will include insulin type, dose, dosing scale, frequency and route.
6. If patient here for extended stay, contact patient family or diabetes services to procure additional infusion supplies.
7. Warning and Precautions: Insulin pumps should not be exposed to very strong electromagnetic fields such as an MRI. Remove the pump beforehand and keep outside the room during the procedure. X-rays, CT scan, Fluoroscopy, Ultrasound and Mammograms do not emit the same kinds of strong electromagnetic fields however it is recommended that you remove the pump and keep it outside of the room while undergoing these tests.

KEY POINT: Reconnect pump ASAP after test to avoid extended time with no basal insulin administration.

B. MANAGEMENT OF HYPERGLYCEMIA

1. If the blood glucose is greater than 240 mg/dL, follow Step a. below and recheck in 1 hour. If blood glucose stays greater than 240 more than 2 hours, contact physician and:

   a. Patient should troubleshoot pump and insertion site. Consider a set change if a replacement set is available. A change in insertion site will need a recheck in blood glucose levels within one and two hours to make sure insulin is being properly delivered.
   b. Refer to the physician's orders for supplemental insulin for appropriate insulin type, dose, and frequency, and route, or contact physician. If there is a question about patency of the pump

needle site, the additional insulin should be given per physician order subcutaneously with a syringe by the nurse or patient.

KEY POINT: *For pregnant patients using an insulin pump, refer to LH policy 911.5007 Obstetrical Patient with Diabetes Mellitus Standard of Care for blood glucose goals and action plan.*

C. MANAGEMENT OF HYPOGLYCEMIA

1. If the blood glucose is less than or equal to 70 mg/dL, refer to the 900.1411 Adult Patients With Type 1 or Type 2 Diabetes Standard of Care for instructions on how to treat and monitor the hypoglycemic patient.

2. For patients with altered level of consciousness, refer to hypoglycemia protocol and suspend or stop the pump operation (turn off) by referring to the pump manufacturer's guidelines, or remove subcutaneous insertion set to interrupt insulin delivery. The pump can be easily turned off by removing the batteries after disconnecting the infusion set from the patient.

KEY POINT: *Patients using subcutaneous insulin pumps have no long acting insulin available for basal (background) insulin when the pump has been suspended (turned off). Generally, once the blood glucose has increased to 80 mg/dL or more, the pump can be turned back on (refer to the pumps manufacturer's guidelines) or call physician for alternate orders for basal insulin delivery. Blood glucose levels can rise very quickly in as little as 90 minutes.*

DOCUMENTATION:

It is the nurse's responsibility to document the following on the point of care flowsheet and MAR in the E.H.R.:

- document presence of pump on admission including insulin pump manufacturer on LDA
- flowsheet: document injection site, date of last site change (usual rotation q3d), rotation, blood glucose meter used by the patient, and all blood glucose results
- site care on point of care flowsheet
- all subcutaneous doses of insulin administered via syringe, including insulin type, time, dose, route, and injection site on MAR.
- Verify pump settings, stopping, restarting, and removal of pump, and reasons for change in appropriate location;
- Insulin cartridge/bag changes on MAR

Key Words: INSULIN, DIABETES

References: Insulin Pumps. 2010 (2010) Consumer Guide. *Diabetes Forecast.* Accessed on *March* 15, 2010 at http://forecast.diabetes.org/insulin-pumps.
American Diabetes Association. Living with Diabetes. Accessed on March 15, 2010 at www.diabetes.org.

Replaces:

Approval: LH Patient Care Management
LH Medication Use Committee
LH Pharmacy and Therapeutics Committee
LH Nurse Executive Council
EMC Quality Council
GSQC Quality Council
EMC Medical Executive Council
GSQC Medical Executive Council
LMH Quality Council
LMH Medical Executive Council
LMP Quality Council
LMP Medical Executive Council
LSC Quality Council
LSC Medical Executive Council

Medical Quality & Credentialing Committee

Originators: Diabetes Services