KINGSTON GENERAL HOSPITAL

Review Due Date: 2016 May

PATIENT CARE ORDERS
Please use black ink ballpoint pen only and press firmly to make copy

Weight (kg)	Known Adverse Reactions or Intolerances			TRANSCRIPTION
	DRUG	☐ No	☐ Yes (list)	
	FOOD	☐ No	☐ Yes (list)	
	LATEX	☐ No	☐ Yes	

Diabetes Management – Tube Feeding/Parenteral Nutrition Order Set (Adult)

*****See Suggestions for Management (on reverse)*****
*****If any order changes are required post initiation of this set, then a new order set must be completed*****
*****Non-insulin antihyperglycemic agents or corticosteroid therapy may impact glycemic control*****

Capillary Blood Glucose Monitoring

☐ Capillary Blood Glucose 0800 h, 1200 h, 1700 h, 2100 h
0300 h (if concerns about overnight hypoglycemia)
☐ Capillary Blood Glucose q_____ h

Scheduled Insulin

- Discontinue all previous insulin orders
- If feedings or parenteral nutrition held, hold insulin, notify physician and request orders
- If tube feeding/parenteral nutrition is interrupted notify physician or nurse practitioner for further orders

24-hour Continuous Enteral Feeds or Parenteral Nutrition

Select a Basal Insulin

Long-Acting Twice Daily ☐ Insulin glargine ☐ Insulin detemir	**Subcutaneous at 0800 h** _______ units	**Subcutaneous at 2000 h** _______ units
OR		
Long-Acting Once Daily ☐ Insulin glargine ☐ Insulin detemir		**Subcutaneous at 2000 h** _______ units

If on 12-hour Continuous Enteral Feeds or Parentral Nutrition

Select a Basal Insulin

	Subcutaneous at 0800 h	**Subcutaneous at 2000 h**
☐ Insulin NPH ☐ Insulin glargine ☐ Insulin detemir	_______ units	_______ units

Prescriber Printed Name	Designation	Signature	Date (YYYY/MM/DD)	Time (HHMM):

Pharmacy Use Only:
Reviewed by: ____
Entered by: ____
Checked by: ____

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If on Bolus Scheduled Feeds

Bolus Insulin

Bolus Insulin	**Subcutaneous at # 1 Feeding Time** ________ **h**	**Subcutaneous at # 2 Feeding Time** _________ **h**	**Subcutaneous at # 3 Feeding Time** _________ **h**
Short-Acting Insulin Regular	________ units	________ units	________ units

AND A Basal Insulin

Long-Acting Twice daily ☐ Insulin glargine ☐ Insulin detemir	**Subcutaneous at 0800 h** ________ units	**Subcutaneous at 2000 h** ________ units
OR		
Long-Acting Once daily ☐ Insulin glargine ☐ Insulin detemir		**Subcutaneous at 2000 h** ________ units

Prescriber Printed Name	Designation	Signature	Date (YYYY/MM/DD)	Time (HHMM):

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TRANSCRIPTION

Correction Dose Insulin

***** Use Titrateable Medication Administration Record*****

Administer subcutaneously in addition to scheduled insulin dose with capillary blood glucose measurements. Select the insulin type:

- ☐ Insulin aspart (for 24-hour or 12-hour Continuous Feeds, Parenteral Nutrition)
- ☐ Insulin regular (if on Bolus Scheduled Feeds)

*Select **one** of the following algorithms:*
***Insulin Sensitive:** for patients requiring 40 units or less of scheduled insulin per day*
***Usual:** for patients requiring 40 to 80 units of scheduled insulin per day*
***Insulin Resistant:** for patients requiring 80 units or more of scheduled insulin per day*

Capillary Blood Glucose (mmol/L)	Insulin Sensitive (units) ☐	Usual (units) ☐	Insulin Resistant (units) ☐	Individualized (units) ☐
10.1 to 12.0	2	4	6	
12.1 to 14.0	4	6	8	
14.1 to 17.0	6	8	10	
17.1 to 20.0	8	10	12	
20.1 to 22.0	10	12	14	
Over 22	12	14	16	

Prescriber Printed Name	Designation	Signature	Date (YYYY/MM/DD)	Time (HHMM):

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SUGGESTIONS FOR SELECTING A BASAL-BOLUS REGIMEN IN A PATIENT WITH TUBE FEEDING / PARENTERAL NUTRITION

If tube feeding/ parenteral nutrition is interrupted start 10% dextrose (D10W) at 40 mL/hour immediately, hold the next dose of insulin, and determine the most appropriate insulin regime based on the patient's nutritional intake.

Step 1. Calculate Starting Total Daily Dose (TDD) of Insulin:

For patients previously on insulin:
Calculate the total daily dose of insulin by adding up all the doses of insulin they take on a usual day.

For patients previously not on insulin:
Use 0.3 units/kg/day if patient has "insulin sensitivity" [lean or malnourished patients, elderly, acute or chronic kidney disease (especially dialysis-requiring)]
Use 0.4 units/kg/day in "usual" patients (no features of insulin sensitivity or insulin resistance)
Use 0.5 – 0.6 units/kg/day if patient has "insulin resistance" (obese patients or receiving high doses of glucocorticoids)

Step 2. Determine Scheduled Insulin Dose

For patients receiving 24 hour continuous enteral feeds or parenteral nutrition:
Give ½ of the TDD of insulin as basal insulin.
Select detemir or glargine once daily
or
detemir or glargine q12 h (basal dose split into 2)
As the feeds increase over the first few days, be prepared to increase the dose of basal insulin to match the increasing intake of calories.

For patients receiving 12 hour continuous enteral feeds or parenteral nutrition:

Overnight- Feeds	Daytime- Feeds
Give ½ of the TDD of insulin as basal insulin	
Select NPH q12 h	
Give ¾ of the dose of NPH at 2000 to match the overnight feed	Give ¼ of the dose of NPH at 2000 to match the overnight feed
Give ¼ of the dose at 0800 to control daytime blood glucose levels	Give ¾ of the dose at 0800 to control daytime blood glucose levels

For patients receiving bolus enteral feeds:
Treat these patients like people who are eating meals.
Divide TDD to 50% basal, 50% bolus
Basal insulin: Select detemir or glargine once daily or detemir or glargine q12 h (basal dose split into 2). Basal insulin may not be warranted for patients who were previously well controlled on non-insulin antihyperglycemic medications. If no basal insulin is ordered reassess within 24-48 hours of initial order and continue to monitor.
Bolus insulin: Select Regular insulin. Time insulin dosing to match feed times

Step 3. Select an Appropriate Correction (Supplemental) Insulin Scale

Use rapid-acting insulin (aspart) for patients receiving 24 hour continuous enteral feeds or parenteral nutrition. Use Regular insulin for patients receiving bolus enteral feeds.
Frequent use suggests a need to modify the scheduled insulin dose.

Initially select the Correctional Dose Insulin Algorithm that matches the category used to calculate the starting TDD of insulin (i.e., "insulin sensitive", "usual", "insulin resistant")

Example of continuous enteral feeds:	Example of bolus enteral feeds:
80 kg obese woman on continuous feeds Step 1: TDD = 80 kg x 0.5 units/kg/day = 40 units Step 2: Give 50% basal (20 units) Basal: glargine or detemir 20 units typically given at 2000 Step 3: Select "Usual Algorithm" Correctional Dose Insulin Algorithm qid	80 kg obese woman on 3 bolus feeds a day Step 1: TDD = 80 kg x 0.5 units/kg/day = 40 units Step 2: Give 50% basal (20 units) Basal: glargine or detemir 20 units typically given at 2200 Give 50% bolus (20 units). Regular insulin 7 units before each bolus feed Step 3: Select "Usual Algorithm" Correctional Dose Insulin Algorithm qid