

# Perioperative Glycemic Control Optimization on Day of Surgery [2379]

Does patient have Diabetes, OR BMI 25 or GREATER, OR age 45 or GREATER, OR has an Insulin Pump?

NO: No further testing, proceed to procedure/surgery

YES: Perform fasting FSBG and Blood Glucose in preoperative area or in procedure room, then follow Perioperative Glucose Control Optimization

[Click here for Perioperative Glucose Control Optimization Pathway](#)

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## General

### Pre-Op Glucose Control Optimization: (Single Response)

Proceed after initial Fasting FSBG and Blood Glucose results

If results are LESS than 180 mg/dL, No further testing is needed. Proceed to procedure/surgery.

Glucose results - Past 2 hours (If available):

@BRIEFLAB2H(LABGLUC:\*,POCGLU:\*)@

( ) Results GREATER than or EQUAL to 180 mg/dL and LESS than 300 mg/dL (Single Response) (Selection Required)

#### ( ) Medium Dose Correction Scale

insulin lispro (ADMELOG) injection 0-12 Units, subcutaneous, every 2 hour PRN, high blood sugar, blood sugar GREATER than 180 mg/dL, For 1 Doses, Pre-op MEDIUM Dose Perioperative Correction Scale - Subcutaneous

70 - 140 mg/dL blood glucose: 0 unit(s)

141 - 180 mg/dL blood glucose: 0 unit(s)

181 - 220 mg/dL blood glucose: 2 unit(s)

221 - 240 mg/dL blood glucose: 3 unit(s)

241 - 260 mg/dL blood glucose: 4 unit(s)

261 - 280 mg/dL blood glucose: 5 unit(s)

281 - 300 mg/dL blood glucose: 6 unit(s)

GREATER than 300 mg/dL blood glucose: 7 unit(s) and Call MD

Corrective Scale: MEDIUM dose correction scale

Bedside glucose Routine, Every 2 hours  
Check in OR every 2 hours, Pre-op

Notify Anesthesia Routine, Until discontinued, Starting S, PACU: If glucose is 200 mg/dL or GREATER, PACU

Bedside glucose Routine, Every 2 hours  
In PACU. Notify Anesthesiology for FSBG GREATER than 200 mg/dL, PACU

#### ( ) High Dose Correction Scale

insulin lispro (ADMELOG) injection 0-12 Units, subcutaneous, every 2 hour PRN, high blood sugar, blood sugar GREATER than 180 mg/dL, For 1 Doses, Pre-op HIGH Dose Perioperative Correction Scale - Subcutaneous

70 - 140 mg/dL blood glucose: 0 unit(s)

141 - 180 mg/dL blood glucose: 0 unit(s)

181 - 220 mg/dL blood glucose: 4 unit(s)

221 - 240 mg/dL blood glucose: 5 unit(s)

241 - 260 mg/dL blood glucose: 7 unit(s)

261 - 280 mg/dL blood glucose: 9 unit(s)

281 - 300 mg/dL blood glucose: 10 unit(s)

GREATER than 300 mg/dL blood glucose: 12 unit(s) and Call MD

Corrective Scale: HIGH dose correction scale

Bedside glucose Routine, Every 2 hours  
Check in OR every 2 hours, Pre-op

Notify Anesthesia Routine, Until discontinued, Starting S, PACU: If glucose is 200 mg/dL or GREATER, PACU

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<input type="checkbox"/> Bedside glucose	Routine, Every 2 hours In PACU. Notify Anesthesiology for FSBG GREATER than 200 mg/dL, PACU
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( ) Results GREATER than or EQUAL to 300 mg/dL (Single Response)

HOLD Surgery and Call Physician for further orders if DKA/HHS is present. If DKA/HSS is NOT present, continue with these orders.

‡Diagnostic Criteria for DKA and HHS

DKA: blood glucose >250 mg/dL, pH <7.3, serum bicarbonate <15 mEq/L, anion gap >12 and positive ketones (urine or serum) must all be present

Euglycemic DKA: blood glucose <250 mg/dL but all others are present

DKA	HHS			
Mild	Moderate	Severe		
Plasma Glucose (mg/dL)	>250	>250	>250	>600
Arterial pH	7.25-7.3	7-<7.24	<7	>7.3
Serum bicarbonate (mEq/L)	15-18	10-<15	<10	>15
Urine ketones	Positive	Positive	Positive	Small
Serum ketones	Positive	Positive	Positive	Small
Effective serum osmolality (mOsm/kg)	Variable	Variable	Variable	>320
Anion gap	>10	>12	>12	<12
Alteration in sensoria or mental obtundation	Alert	Alert	drowsy	Stupor/ coma

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( ) Medium Dose Correction Scale

<input type="checkbox"/> insulin lispro (ADMELOG) injection	0-12 Units, subcutaneous, every 1 hour, For 2 Doses, Pre-op MEDIUM Dose Perioperative Correction Scale - Subcutaneous
	70 - 140 mg/dL blood glucose: 0 unit(s) 141 - 180 mg/dL blood glucose: 0 unit(s) 181 - 220 mg/dL blood glucose: 2 unit(s) 221 - 240 mg/dL blood glucose: 3 unit(s) 241 - 260 mg/dL blood glucose: 4 unit(s) 261 - 280 mg/dL blood glucose: 5 unit(s) 281 - 300 mg/dL blood glucose: 6 unit(s) GREATER than 300 mg/dL blood glucose: 7 unit(s) and Call MD Corrective Scale: MEDIUM dose correction scale
<input type="checkbox"/> Bedside glucose	Routine, Every 2 hours Check in OR every 2 hours, Pre-op
<input type="checkbox"/> Notify Anesthesia	Routine, Until discontinued, Starting S, PACU: If glucose is 200 mg/dL or GREATER, PACU
<input type="checkbox"/> Bedside glucose	Routine, Every 2 hours In PACU. Notify Anesthesiology for FSBG GREATER than 200 mg/dL, PACU

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( ) High Dose Correction Scale

<input type="checkbox"/> insulin lispro (ADMELOG) injection	0-12 Units, subcutaneous, every 1 hour, For 2 Doses, Pre-op HIGH Dose Perioperative Correction Scale - Subcutaneous
	70 - 140 mg/dL blood glucose: 0 unit(s) 141 - 180 mg/dL blood glucose: 0 unit(s) 181 - 220 mg/dL blood glucose: 4 unit(s) 221 - 240 mg/dL blood glucose: 5 unit(s) 241 - 260 mg/dL blood glucose: 7 unit(s) 261 - 280 mg/dL blood glucose: 9 unit(s) 281 - 300 mg/dL blood glucose: 10 unit(s) GREATER than 300 mg/dL blood glucose: 12 unit(s) and Call MD Corrective Scale: HIGH dose correction scale
<input type="checkbox"/> Bedside glucose	Routine, Every 2 hours Check in OR every 2 hours, Pre-op

<input type="checkbox"/> Notify Anesthesia	Routine, Until discontinued, Starting S, PACU: If glucose is 200 mg/dL or GREATER, PACU
<input type="checkbox"/> Bedside glucose	Routine, Every 2 hours In PACU. Notify Anesthesiology for FSBG GREATER than 200 mg/dL, PACU

Patient is on an insulin pump (Single Response)  
(Selection Required)

To allow for continuation of insulin pump use, ALL of the following statements must be TRUE:

- 1) Patient has mental capacity and supplies to self-manage insulin pump Pre and Post-Op
- 2) Procedure or surgery is LESS than 2 hours
- 3) Pump insertion site is not the surgical field
- 4) There will NOT be any exposure to X-Ray or MRI during the procedure or surgery

ALL of the above statements are TRUE

COMPLETE 'INSULIN PUMP-PATIENT SUPPLIED' ORDER

<input type="checkbox"/> Perioperative glycemic control optimization	Routine, Per unit protocol For Until specified Patient is on an insulin pump, Pre-op
<input type="checkbox"/> Insulin Pump - patient supplied	subcutaneous, continuous, Pre-op CALL ADMITTING/ORDERING PROVIDER FOR ANY QUESTIONS REGARDING PATIENT-SUPPLIED INSULIN PUMP Patient assessed and determined to be capable to self-manage pump:
<input type="checkbox"/> Patient supplied insulin pump forms	Routine, Until discontinued, Starting S 1) Using link below, print RX193 Patient-Supplied Insulin Pump Patient Agreement Form. Review with patient and obtain patient signature. Submit the signed form for scanning into the electronic record.  2) Using link below, print the Patient Record of Bedside Insulin Pump and Blood Glucose. Provide the patient with a new form daily at 0700., Pre-op
<input type="checkbox"/> Provide insulin pump instructions	Routine, Once Decrease basal rate to 50%, Pre-op
<input type="checkbox"/> Bedside glucose	Routine, Every hour Pre-op, Intra-op and PACU: Monitor glucose by serum or POC fingerstick every hour, Pre-op
<input type="checkbox"/> Notify Anesthesia	Routine, Until discontinued, Starting S, Pre-op, Intra-op, and PACU: If blood glucose is UNDER 70 mg/dL or GREATER THAN 200 mg/dL, Pre-op

ANY of the above statements are FALSE

<input type="checkbox"/> Perioperative glycemic control optimization	Routine, Per unit protocol For Until specified Patient is on an insulin pump, Pre-op
<input type="checkbox"/> insulin GLARGINE (LANTUS) injection	0.2 Units/kg, subcutaneous, once, For 1 Doses, Pre-op Administer 1 to 2 hours BEFORE removing insulin pump.
<input type="checkbox"/> Remove insulin pump	Routine, Once For 1 Occurrences Have patient remove insulin pump and store in a safe place. Patient may remove the insulin pump 1 to 2 hours AFTER administration of insulin glargine., Pre-op
<input type="checkbox"/> Bedside glucose	Routine, Every 2 hours, Pre-op
<input type="checkbox"/> Notify Anesthesia	Routine, Until discontinued, Starting S, If blood glucose is UNDER 70 mg/dL or GREATER THAN 200 mg/dL, Pre-op

**Pre-Op HYPOglycemia Management**

<input checked="" type="checkbox"/> dextrose 50% solution - 12.5g	12.5 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is between 41-69 mg/dL, Pre-op
<input checked="" type="checkbox"/> dextrose 50% solution - 25 g	25 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is 40 mg/dL or LESS, Pre-op

**Post-Op HYPOglycemia Management**

<input checked="" type="checkbox"/> dextrose 50% solution - 12.5g	12.5 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is between 41-69 mg/dL, PACU & Post-op
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dextrose 50% solution - 25 g

25 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is 40 mg/dL or LESS, PACU & Post-op