## Suggested Inpatient Diabetes Management Recommendations during COVID-19 and/or limited PPE—if DKA, refer to separate protocol

1a-assess patient's ability to use glucose meter and if they have meter / supplies with them

1b-assess if patient has a Continuous Glucose Monitor (CGM)

2-provide diabetes education packet on intake: instructions on glucometer and insulin injection, paper BG log

3-meal type recommendation: consistent carb meals for most patients/may liberalize if: poor intake or well-controlled BG

Contact Diabetes Service at pager 6141 with any questions

## If glucose >200 OR Pre-existing Diabetes Mellitus

## Triage as above Steps 1-3

Parameters	Type 1 DM	Type 2 DM
Blood Glucose monitoring	<ul> <li>If pt does not have meter / capable of testing, page 6141 for meter</li> <li>Fingerstick testing QID preferred</li> <li>Page 6141 for consideration of CGM (continuous glucose monitoring)</li> </ul>	<ul> <li>First 24-48 hrs, check BG TID AC. If on insulin, but clinically stable considerer reducing BG monitoring to BID breakfast/dinner.</li> </ul>
Medications Preferred	<ul> <li>Adjust home regimen to clinical scenario</li> <li>OR</li> <li>Start weight-based daily Levemir or Lantus         (0.2 units/kg) – do NOT hold basal insulin</li> <li>Weight based Lispro with meals</li> <li>Insulin pump if present</li> </ul>	<ul> <li>If glucose &gt;200 start weight based Detemir (Levemir) or Glargine (Lantus) daily (0.2 units/kg)</li> <li>If BG still 180-250s, Add Sitagliptin (Januvia) 100 mg (there is some controversy regarding role in viral response but appears safe) or repaglinide (Prandin) 1 mg with meals. Second choice: Glipizide XL 2.5-5 mg daily or Metformin 500 mg daily if low risk lactic acidosis</li> <li>If BG still &gt; 250, start lispro with meals (basal dose/3)</li> </ul>
If poor PO intake or NPO	<ul> <li>Reduce basal Lantus or Levemir by at least 50%.</li> <li>Hold mealtime Lispro if not eating</li> <li>OR</li> <li>Consider giving injection immediately after meal</li> </ul>	<ul> <li>Reduce basal Lantus or Levemir by at least 50%</li> <li>Hold mealtime Lispro if not eating</li> <li>Hold sulfonylurea (eg. glipizide) due to risk of hypoglycemia</li> </ul>
Medications to Avoid	<ul> <li>Mixed insulin (Novolog 70/30) due to risk of hypoglycemia</li> </ul>	<ul> <li>Canagliflozin (Inovkana) (SGLT2 inhibitor) due to risk of DKA and kidney injury</li> <li>Metformin if lactic acidosis risk OR anticipated imaging w/ contrast</li> </ul>

## Suggested Inpatient Diabetes Management Protocol during COVID-19 and/or limited PPE— Special Challenges

Key terms: basal/bolus regimen = (1 basal insulin injection + 3 bolus insulin injections with meals)

Basal insulin = glargine or detemir . Bolus insulin = Meal time insulin = lispro

Weight based dosing: Basal Dose = 0.2 units/kg, Meal Dose = Basal Dose/3 (e.g. 90 kg, Basal = Glargine 18 units daily, Meal dose = Lispro 6 units TID AC)

Challenges	Type 1 DM	Type 2 DM
Relative Hypoglycemia (glucose <110)	<ul> <li>decrease Lantus/Levemir dose by 10-20% do NOT hold</li> <li>reduce mealtime Lispro doses by 10-20%</li> <li>Only hold mealtime Lispro if eating &lt; 25% of meal tray</li> </ul>	<ul> <li>Assess if basal/bolus regimen necessary. If needed, can decrease basal doses by 10-20%</li> <li>Consider <i>holding</i> meal time insulin if not eating &gt; 50% of meal tray</li> <li>Consider adding Sitagliptin or Metformin as replacement for mealtime Lispro</li> </ul>
Patient on Steroids	<ul> <li>QID BG for at least 72 hrs → consider increasing mealtime lispro by 20%, may need to increase more</li> <li>Contact diabetes team at 6141 for CGM placement if BG difficult to control</li> </ul>	<ul> <li>QID BG for at least 72 hrs → will likely need basal/bolus—calculate weight-based dose and increase by 10-20%</li> <li>As steroid doses taper can try to consolidate regimen to NPH 0.2 units/kg (dosed with prednisone) or daily Lantus/Levemir (0.2 units/kg)</li> </ul>
Stress Hyperglycemia (BG > 400 no DKA)	<ul> <li>Consider increasing basal insulin dose by 10-20%</li> <li>Consider increasing meal time insulin dose by 10-20%</li> <li>Patients may be VERY insulin-sensitive once stress hyperglycemia resolves after 2-3 days, so will likely need to decrease insulin doses</li> </ul>	<ul> <li>Keep NPO until BG &lt; 300 and gentle fluids</li> <li>If fluids not feasible monitor BG q4hrs and give Lispro correctional dose q4hours until BG &lt; 300</li> </ul>
Tube Feeds	<ul> <li>Limit BG monitoring to BID</li> <li>Consider weight based Levemir BID instead of NPH q6hrs</li> <li>If TF held, start D10 dextrose infusion to limit fluids</li> </ul>	<ul> <li>Minimize BG monitoring to BID when feeds are stable</li> <li>Consider NPH q8hrs or Levemir BID instead of NPH q6hrs</li> <li>If TF held, then will need to start D10 dextrose infusion</li> </ul>
AMS/Delirium	<ul> <li>Contact Diabetes service for assistance</li> <li>QID BG monitoring or contact Diabetes at 6141 for CGM placement</li> </ul>	<ul> <li>If well-controlled on Januvia or metformin, d/c BG testing</li> <li>Can limit BG monitoring to BID if well-controlled on insulin</li> </ul>
Liver or Kidney Disease	<ul> <li>Decrease basal insulin doses by 10-20%</li> <li>Decrease meal time insulin doses by 10-20%</li> <li>Reduce insulin doses further if poor PO intake and FS &lt; 110</li> </ul>	<ul> <li>Try to consolidate regimen to daily Basal Insulin (0.2 units/kg) + Prandin 1 mg with meals or add Januvia at reduced doses for renal impairment</li> </ul>

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These treatment recommendations are made to meet the pressing needs due to COVID19. Treatment recommendations have not been validated in clinical trials and are based on expert opinion. Guidance is meant for internal clinical use within the Mount Sinai Health System. The Mount Sinai Health System is not responsible for use of this protocol by any external provider, hospital or health system.