Supplemental Table S1. Algorithm for the Intravenous Insulin Treatment in Severe Hyperglycemia

Blood glucose testing is as follows:
    Check blood glucose levels initially and then every hour using a finger stick
    If glucose levels are remained in the desired range (140–180) for 3 consecutive times, testing can be reduced to every 2 hours.

Mix 250 U of rapid-acting insulin analog per 500 mL of 0.9 % normal saline.

Start infusion via pump on rate of 0.05 U/kg/hr.

In those already on long-acting basal insulin, it should be prescribed at their usual dose.

In those newly diagnosed, commence a long-acting basal insulin, at a dose of 0.25 units/kg once daily.

The insulin infusion rate should be adjusted to maintain a plasma glucose level of 140–180 as follows:

When blood glucose is more than 300 mg/dL, increase 2.5–3 U/hr of infusion rate.

When 250< blood glucose ≤300 mg/dL, increase 1.5–2 U/hr of infusion rate.

When 180< blood glucose ≤250 mg/dL, increase 0.5–1 U/hr of infusion rate.

When 140< blood glucose ≤180 mg/dL, maintain infusion rate.

When 80< blood glucose ≤140 mg/dL, reduce infusion rate by 25%–50%.

When 60< blood glucose ≤80 mg/dL, stop infusion. Repeat capillary blood glucose measurement 1 hour later. Restart by 50% of prior infusion rate if blood glucose is 80 and over.

When 45< blood glucose ≤60 mg/dL, stop infusion. Give 10 mL of 50% glucose over 15 minutes. Repeat capillary blood glucose measurement 30 minutes later. Restart by 50% of prior infusion rate if blood glucose is 80 and over.

When blood glucose ≤45 mg/dL, stop infusion. Give 20 mL of 50% glucose over 15 minutes. Repeat capillary blood glucose measurement 30 minutes later. Restart by 50% of prior infusion rate if blood glucose is 80 mg/dL and over.