

## Management of hyperglycemia in patients receiving parenteral nutrition

### If blood glucose is >200 mg/dl:

- 1) limit dextrose to <200 gram/day
- 2) add 0.1 unit of insulin for each gram of dextrose in CPN solution (e.g. 15 units for 150 grams)
- 3) discontinue other sources of intravenous dextrose
- 4) order subcutaneous sliding scale regular insulin with blood glucose monitoring by fingerstick every 4-6 h or sliding scale intravenous regular insulin infusion with blood glucose monitoring by fingerstick every 1-2 h as follows:

### If blood glucose remains >200 mg/dl and patient has been receiving:

*Subcutaneous Insulin:* add 50% of sliding scale regular insulin given in last 24 hr to next day's CPN solution; double amount of subcutaneous insulin sliding scale dose for blood glucose values >200 mg/dl

*Intravenous Insulin:* add 50% of IV insulin given in last 24 hr to next day's CPN solution; increase sliding scale IV insulin infusion rate by 50% for blood glucose values >200 mg/dl.

### If blood glucose remains >200 mg/dl, consider:

- 1) discontinuing CPN until better glucose control can be established
- 2) decreasing dextrose content in CPN
- 3) initiating insulin drip.

Dextrose in CPN may be increased when blood glucose control (100-150 mg/dl) is achieved. Insulin:dextrose ratio in CPN formulation should be maintained when CPN dextrose content is changed.

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Adapted from: Klein S, Rubin D. Enteral and parenteral nutrition. In: Feldman M, Freidman L, Sleisenger M (eds). Sleisenger & Fordtran's Gastrointestinal and Liver Disease. 7th ed. Philadelphia: W.B. Saunders Co., (in press).