



# Safer Practice Notice

## Status

- Active
- Updated
- Resolved

## Zone Application

- Provincial
- North
- Edmonton
- Central
- Calgary
- South

13 August 2015

## For Information of:

- Emergency Departments
- Acute Care settings
- Diagnostic Imaging
- Physicians
- Nurses
- Pharmacists

## Contact

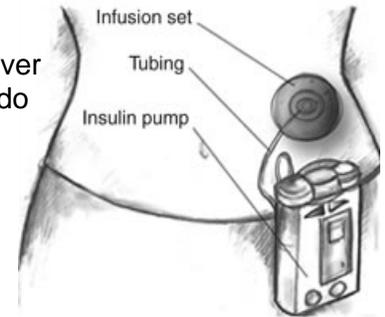
Glenda Moore, Manager  
Diabetes Obesity Nutrition (DON)  
Strategic Clinical Network (SCN)  
1-403-943-1847  
Glenda.Moore@albertahealthservices.ca

## Safe Insulin Pump Therapy in Acute Care

### Issue

Insulin pump therapy is becoming more common in the care of patients with type 1 diabetes. Insulin pumps deliver continuous subcutaneous *rapid acting* insulin. Patients do not receive intermediate or long acting insulin.

**Severe hyperglycemia and/or Diabetic Ketoacidosis (DKA) can result when Insulin Pump Therapy is stopped for as little as 2-4 hours and insulin is not replaced - even if glucose values are normal or low when pump is discontinued.**



### Action

- If insulin pump is stopped, basal insulin must be replaced within 2 hours to prevent Diabetic Ketoacidosis (DKA)
- If DKA develops, it must be treated with IV insulin. The pump should not be used to deliver insulin. Follow Emergency department DKA protocol.
- If severe hyperglycemia, but not in DKA; and there is concern regarding the integrity of the pump system, discontinue the pump and administer insulin via another route (sc or IV)
- For severe hypoglycemia; suspend or disconnect pump. **Once blood glucose above 6.0 mmol/l, insulin must be replaced (pump, sc, or IV)**
- The insulin pump should be removed for all radiologic procedures, except ultrasound, due to exposure to electromagnetic fields. The pump should be discontinued, and sc or IV insulin treatment should be initiated *before procedure*, for any procedure longer than 2 hours, or requiring general anaesthetic.
- If unfamiliar with insulin pump therapy; contact Endocrinology on-call, Certified Diabetes Educator, or your local Diabetes expert

### Resources

- AHS Insulin Pump In-Hospital therapy website: <http://www.albertahealthservices.ca/scns/Page13209.aspx>
- Video: Safety & Insulin Pumps in Emergency and Hospital Situations courtesy of Diabetes Care Program of Nova Scotia: <http://youtu.be/SC3dAJqMJHM>