



## Diabetes in the School 2010

## History of Diabetes in the School

- 25 years ago - urine testing and glucagon
- Early 1990's - intensive management options
- ★ Insulin at school
- ★ Blood glucose monitoring
- ★ Carb counting
- Past 5 yrs - insulin pumps
  - smart pumps
- Future - Continuous Glucose Monitoring

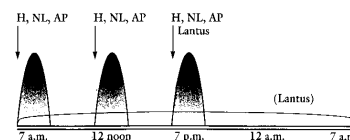
## Insulins

- Basal Insulin Pumps - long acting Lantus/Levemir
  - prevent Ketoacidosis
- Bolus Insulins - short acting Humalog/Novolog
  - carb/insulin ratio
  - correction factor
- NPH- still used by some

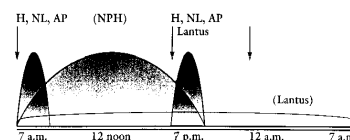
**Figure 1: Use of Lantus Insulin (or presumably, Levemir)**

*Two of the most common methods of using Lantus insulin:*

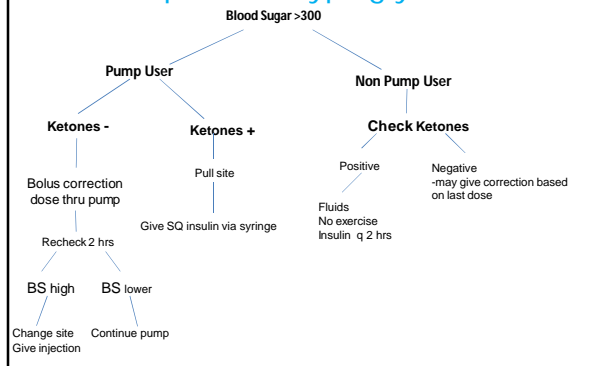
**Figure 1-A.** In the first example, Lantus is used as the basal insulin (given in the a.m., or at dinner or at bedtime) and a rapid-acting insulin is taken prior to meals and snacks.



**Figure 1-B.** In this second example, NPH and a rapid-acting insulin are taken in one syringe in the a.m. A rapid-acting insulin is taken alone at dinner. Lantus (alone in the syringe) is taken consistently either in the a.m., at dinner, or at bedtime.



## Response to Hyperglycemia



## Exercise

- Each child reacts differently
  - Exercise may allow sugar to go into cells faster causing Low BS
  - Exercise may stimulate adrenaline causing High BS
  - Delayed effect 6-12 hours later (may have Hypoglycemia)
- ? Who should test before gym/recess
  - Vigorous activity
  - Time from meal
  - History