

INSULIN

- Technique
 1. Injection sites: Abdomen, outer thigh, back of arm, flank and buttocks
 2. Insert needle at 90 degree angle into skin
 3. Hold needle in place for 5-10 seconds after injection to prevent leakage of Insulin
 4. Rotate injection sites to prevent lipohypertrophy (see adverse effects below)
- Preparations: Insulin Selection
 1. New Insulin analogues are preferred
 1. More consistent absorption than traditional Insulin
 2. Bolus analogues have more rapid onset
 3. Basal agents release at more constant rate
 4. Only disadvantage is analogues double price
 2. Combination agents are discouraged unless noncompliant
 1. Reduces flexibility in meal and activity timing
- Drug Interactions: Diabetes Agents
 1. Agents safe to use with Insulin
 1. Metformin
 2. Thiazolidinediones
 3. Alpha-glucosidase Inhibitors
 4. Sitagliptin (Januvia)
 2. Agents safe to use with basal Insulin (Lantus, Levemir); avoid or use caution if used with bolus Insulin (Lispro, Aspart)
 1. Sulfonylureas
 2. Glitinides
- Agents: Intravenous Regular Insulin
 1. Note that all other Insulins listed on this page are subcutaneous
 2. See Insulin Drip
 3. Onset: Immediate
 4. Half-life: 5-10 minutes
- Precautions: Insulin-Related Errors
 1. Insulin errors result in >100,000 emergency visits (typically Hypoglycemia related) annually in United States
 2. Wrong Insulin (bolus Insulin mistakenly taken)
 1. Prescribers should carefully check prescriptions and home instructions for errors (e.g. Lispro prescribed instead of Lantus)