

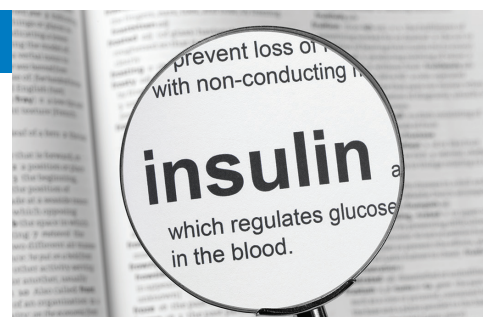
MEDICAL PHARMACIES DRUG NEWS

Drug Information and News for Health Care Providers

September 2017

USING INSULIN IN THE ELDERLY

- Insulin regimens in the elderly should be individualized and selected to promote resident safety.
- Basal-bolus regimens could help glycemic control, health status, and mood better than sliding scale insulin.
- Long-acting insulin is associated with a lower frequency of hypoglycemia and weight gain than premixed insulin.



What are the different types of insulin?

Types of Insulin (Trade Name)	Onset	Duration	Important to Know
Bolus (prandial) insulins			
Rapid-acting insulin analogues (clear) <ul style="list-style-type: none"> • Insulin aspart (NovoRapid®/Fiasp®) • Insulin glulisine (Apidra®) • Insulin lispro (Humalog®) 	10-15 min	3-5 h	<ul style="list-style-type: none"> • Give 0-15 minutes before mealtime to reduce risk of hypoglycemia.
Short-acting insulins (clear) <ul style="list-style-type: none"> • Humulin® R • Novolin® ge Toronto 	30 min	6.5 h	<ul style="list-style-type: none"> • Give 30-45 minutes before mealtime to reduce risk of hypoglycemia.
Basal insulins			
Intermediate-acting insulins (cloudy) <ul style="list-style-type: none"> • Humulin® N • Novolin® ge NPH 	1-3 h	Up to 18 h	<ul style="list-style-type: none"> • Hypoglycemia is more likely if meals are skipped. • A bedtime snack might be needed to reduce risk of nocturnal (overnight) hypoglycemia.
Long-acting insulins (clear) <ul style="list-style-type: none"> • Insulin detemir (Levemir®) • Insulin glargine (Lantus®) • Insulin glargine U300 (Toujeo®) 	90 min 90 min Up to 6 h	Up to 24h Up to 24h Up to 30 h	<ul style="list-style-type: none"> • Lower risk of nocturnal hypoglycemia than intermediate-acting insulin. • Injection at mealtime is not required.
Premixed insulins (cloudy)			
<ul style="list-style-type: none"> • Humulin® 30/70 • Novolin® ge 30/70, 40/60, 50/50 • Biphasic insulin aspart (NovoMix® 30) • Insulin lispro/lispro protamine (Humalog® Mix25® and Mix50®) 	A single cartridge contains a fixed ratio of % of rapid/short-acting insulin to % of intermediate-acting insulin.		<p>Hypoglycemia is more likely if meals are skipped.</p>

References:

- Diabetes Canada 2013 Clinical Practice Guidelines/Chapter 37 – Diabetes in the Elderly.
- Diabetes Canada Clinical Practice Guidelines 2015 Update/Chapter 12 – Table 1. Types of Insulin.