

Insulin Order & Prescription

For Type 2 Diabetes Management

Refer immediately to endocrinology if client is pregnant, planning pregnancy or has T1DM

Patient/Client's Name: _____

Address: _____

D.O.B. (m/d/y): _____

	Step 1: Choose Insulin Type (to be administered subcutaneously)	Step 2. Enter Starting Dose	Step 3: Enter Titration/Adjustment Instructions (Authorization) (amount to adjust dose by [units] and CBG target to adjust to [mmol/L])
BASAL	Long-acting analogues (clear) <input type="checkbox"/> Basaglar™ <input type="checkbox"/> Cartridge <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Lantus® <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Levemir® <input type="checkbox"/> Cartridge <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Toujeo™ <input type="checkbox"/> Prefilled pen	Once daily dosing: ___ units at bedtime ___ units at _____ Twice daily dosing: ___ units at: _____ ___ units at: _____	†Adjust dose by: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ___ units every ___ or more days For evening dosing adjust dose until CBG: fasting is <input type="checkbox"/> 4.0 – 7.0 or <input type="checkbox"/> ___ – ___ OR For morning dosing adjust dose until CBG: ac supper is <input type="checkbox"/> 4.0 – 7.0 or <input type="checkbox"/> ___ – ___
	Intermediate acting (cloudy) <input type="checkbox"/> Humulin® N <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Novolin®ge NPH <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial		
BOLUS	Rapid-acting analogues (clear) Take 0-10 min before meal <input type="checkbox"/> Apidra® <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Fiasp® <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Humalog® <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Humalog®200 units/ml <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Novorapid® <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Prefilled pen	ac Breakfast: _____ units ac Lunch: _____ units ac Dinner: _____ units	†Adjust BREAKFAST dose by: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ___ units every ___ or more days Adjust dose until CBG: 2 hrs pc breakfast is less than: <input type="checkbox"/> 10.0 or <input type="checkbox"/> _____ OR ac lunch is <input type="checkbox"/> 4.0 – 7.0 or <input type="checkbox"/> ___ – ___
	Short-acting (clear) Take 30 min before meal <input type="checkbox"/> Humulin® R <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Novolin®ge Toronto <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial		†Adjust LUNCH dose by: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ___ units every ___ or more days Adjust dose until CBG: 2 hr pc lunch is less than: <input type="checkbox"/> 10.0 or <input type="checkbox"/> ___ – ___ OR ac dinner is <input type="checkbox"/> 4.0 – 7.0 or <input type="checkbox"/> ___ – ___
			†Adjust DINNER dose by: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ___ units every ___ or more days Adjust dose until CBG: 2 hrs pc dinner is less than: <input type="checkbox"/> 10.0 or <input type="checkbox"/> _____
PREMIXED	Premixed analogues (cloudy) Take 0-10 min before meal <input type="checkbox"/> Humalog® Mix 25™ <input type="checkbox"/> Cartridge <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Humalog® Mix 50™ <input type="checkbox"/> Cartridge <input type="checkbox"/> Prefilled pen <input type="checkbox"/> Novomix® 30 <input type="checkbox"/> Cartridge	ac Breakfast: _____ units ac Dinner: _____ units	†Adjust BREAKFAST dose by: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ___ units every ___ or more days Adjust dose until CBG: ac supper is <input type="checkbox"/> 4.0 – 7.0 or <input type="checkbox"/> ___ – ___ Without causing hypoglycemia post-breakfast
	Premixed regular (cloudy) Take 30 min before meal <input type="checkbox"/> Humulin® 30/70 <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Novolin®ge 30/70 <input type="checkbox"/> Cartridge <input type="checkbox"/> Vial <input type="checkbox"/> Novolin®ge 40/60 <input type="checkbox"/> Cartridge <input type="checkbox"/> Novolin®ge 50/50 <input type="checkbox"/> Cartridge		†Adjust DINNER dose by: <input type="checkbox"/> 1 unit every 1 or more days OR <input type="checkbox"/> up to ___ units every ___ or more days Adjust dose until CBG is: fasting is <input type="checkbox"/> 4.0 – 7.0 or <input type="checkbox"/> ___ – ___ Without causing hypoglycemia post-dinner
Insulin: Mitte: _____ boxes Repeats x _____		Supplies: <input type="checkbox"/> pen <input type="checkbox"/> pen needles <input type="checkbox"/> syringes <input type="checkbox"/> meter strips <input type="checkbox"/> lancets <input type="checkbox"/> other: _____	
Instructions for existing antihyperglycemic agents: (e.g. discontinue or adjust upon insulin initiation)			
Prescriber Information/Stamp: Name (printed): _____ CPSO #: _____ Address: _____ Phone & Fax: _____ Date (m/d/y): _____ Signature: _____			

†Adjustment is made to only one insulin dose per day

Abbreviations: CBG=capillary blood glucose (mmol/L); ac=before meal; pc=after meal

Adapted March 2014 from the Ontario College of Family Physicians Insulin Prescription Tool - March 2014 using 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada (Diabetes Canada) and revised September 2017 to include new insulins.

INSULIN INITIATION AND TITRATION SUGGESTIONS

(for type 2 diabetes)

People starting insulin should be counseled about the prevention, recognition and treatment of hypoglycemia .

The following are suggestions for insulin initiation and titration. Clinical judgment should always be used as the suggestions may not apply to every patient.

Basal Insulin added to Oral Antihyperglycemic Agents (Lantus[®], Levemir[®], Humulin[®] N, Novolin[®]ge NPH)

- Target fasting blood glucose (BG) of 4-7 mmol/L
- Most patients will need 40-50 units at bedtime to achieve target but there is no maximum dose
- Start at a low dose of 10 units at bedtime (may start at lower dose (0.1-0.2 units/kg) for lean patients (< 50 kg))
- Patient should gently self-titrate by increasing the dose by 1 unit every night until fasting BG target of 4-7 mmol/L is achieved
- When fasting BG target is achieved, the patient should remain on that dose until reassessed by their diabetes team
- If fasting hypoglycemia occurs, the dose of bedtime basal should be reduced
- Metformin and the secretagogue are usually maintained when basal insulin is added
- If daytime hypoglycemia occurs, reduce the oral antihyperglycemic agents (especially secretagogues)
- Lantus[®] or Levemir[®] can be given at bedtime or in the morning

Basal + Bolus Insulins

- When basal insulin is not enough to achieve glycemic control, bolus insulin should be added before meals. There is the option of only adding bolus insulin to the meal with the highest postprandial BG as a starting point for the patient who is not ready for more injections.
- For current basal insulin users, maintain the basal dose and add bolus insulin with each meal at a dose equivalent to 10% of the basal dose. For example, if the patient is on 50 units of basal insulin, add 5 units of bolus insulin with each meal
- For new insulin users starting with Basal + Bolus regimen, calculate total daily insulin dose (TDI) as 0.3 to 0.5 units / kg, then distribute as follows:
 - 40% of TDI dose as basal insulin (Lantus[®], Levemir[®], Humulin[®] N, Novolin[®]ge NPH) at bedtime
 - 20% of TDI dose as bolus insulin prior to each meal
- Rapid-acting insulin analogues (Apidra[®], Humalog[®], NovoRapid[®]) should be given immediately before eating
- Short-acting insulin (Humulin[®] R, Novolin[®]ge Toronto) should be given 30 minutes before eating
- Adjust the dose of the basal insulin to achieve the target fasting BG level (usually 4-7 mmol/L)
- Adjust the dose of the bolus insulin to achieve postprandial BG levels (usually 5-10 mmol/L)
- Consider stopping the secretagogue when bolus insulin is added

Premixed Insulin before breakfast and before dinner (Humalog[®] Mix25[®], Humalog Mix50[®], NovoMix[®] 30, Humulin[®] 30/70, Novolin[®]ge 30/70, Novolin[®]ge 40/60, Novolin[®]ge 50/50)

- Target fasting and presupper BG levels of 4-7 mmol/L
- Most patients with type 2 diabetes will need 40-50 units twice a day to achieve target but there is no maximum dose
- Start at a low dose of 5 to 10 units twice daily (before breakfast and before supper)
- Patient can gently self-titrate by increasing the breakfast dose by 1 unit every day until the presupper BG is at target
- Patient can gently self-titrate by increasing the supper dose by 1 unit every day until the fasting BG is at target
- Beware of hypoglycemia post-breakfast or post-supper. Stop increasing dose if this occurs
- When target BG levels are achieved, the patient should remain on that dose until reassessed by their diabetes team
- Premixed analogue insulins (Humalog[®] Mix25[®], Humalog Mix50[®], NovoMix[®] 30) should be given immediately before eating
- Premixed regular insulins (Humulin[®] 30/70, Novolin[®]ge 30/70 or 40/60 or 50/50) should be given 30 minutes before eating
- Continue the meformin and consider stopping the secretagogue

Basal Insulin Example
Starting dose 10 units at bedtime
Increase dose by 1 unit every 1 night until fasting blood glucose has reached the target of 4-7 mmol/L

Basal + Bolus example (80kg person)
Total daily insulin = 0.5 units/kg = 0.5 x 80 TDI = 40 units
Basal insulin = 40% of TDI = 40% x 40 units Basal bedtime = 16 units
Bolus insulin = 60% of TDI = 60% x 40 units Bolus = 24 units = 8 units with each meal

Premixed insulin example
10 units ac breakfast
10 units ac supper
Increase breakfast dose by 1 unit every 1 day until presupper blood glucose has reached the target of 4-7 mmol/L
Increase supper dose by 1 unit every 1 day until fasting blood glucose has reached the target of 4-7 mmol/L

To obtain more referral forms please go to www.torontodiabetesreferral.com or call the Toronto Central Diabetes Program Referral Service at 416-778-0676 x 242