



## Appendix F: Insulins and Therapeutic Considerations

Also see [guidelines.diabetes.ca/CDACPG\\_resources/Insulin\\_Prescription\\_May\\_5\\_2014.pdf](http://guidelines.diabetes.ca/CDACPG_resources/Insulin_Prescription_May_5_2014.pdf)

Insulin Action	Insulin Name Trade Name– Supplied as either Vials (1x10 ml), Cartridges (5x3 ml) and/or Prefilled Pens (5x3 ml)	Cost per 100 IU of insulin (Cost per supply – 10 ml vial or 5x3 ml Pen/Cartridge)	Pharmacare Coverage	Therapeutic Considerations
<b>RAPID</b>	Insulin aspart NovoRapid(Vial, Pen/Flex Touch Pen) Insulin glulisine Apidra (Vial, Cartridge, Solostar pen) insulin lispro Humalog (Vial, Cartridge, Kwikpen)	Aspart \$3 (\$31)-Vial \$4.25 (\$65)-Pen Glulisine \$2.70 (\$27)-Vial \$3.60 (\$54)-Pen/Cartridge lispro \$2.9 (\$29)-Vial \$4 (\$60)-Pen/Cartridge	Partial Benefit	Bolus Insulin Onset: 10-15min. Peak 60-90min. Duration 4-5h
<b>SHORT</b>	Insulin regular Humulin R (Vial, Cartridge) Novolin ge Toronto (Vial, Pen)	Humulin R \$2.40 (\$24)-Vial \$3.2 (\$48)-Cartridge Novolin Toronto \$2.30 (\$23)-Vial \$3 (\$45)-Pen	Regular benefit	Bolus Onset: 0.5-1h. Peak 2-4h. Duration 5-8h.
<b>INTERMED</b>	Insulin NPH Humulin N (Vial, Cartridge, Kwikpen) Novolin ge NPH (Vial, Pen)	Humulin N \$2.5 (\$25)-Pen \$3.2 (\$48)-Vial Novolin NPH \$2.3 (\$23)-Vial \$3.1 (\$46)-Pen	Regular benefit	Basal Insulin Onset: 1-2h. Peak: 5-8h. Duration 14-18h.
<b>LONG</b>	Insulin glargine Lantus (Vial, Cartridge, Pen) Insulin detemir Levemir (Cartridge, Pen)	Insulin glargine \$6.6 (\$66)-Vial \$6.6 (\$100)-Pen Insulin detemir \$7.3 (\$110)-Cartridge \$7.7 (\$116)-Pen	Limited Coverage for insulin glargine and insulin detemir (Requires Special Authority or prescription written by endocrinologist). See Pharmacare website on insulin detemir or insulin glargine	Basal Insulin Onset: 1.5h. Peak: Flat. Duration: 24h (6-24h Levemir) Do not mix with other insulins. Levemir: at low dose may require BID administration Lantus: SC only
	<b>Long-acting Basal Analogue</b> Insulin Glargine U300 Toujeo SoloSTAR 4504/1.5 mL	Note: Insulin Glargine U300 solution is 300U/mL Toujeo SoloSTAR is 1.5 mL pen 3-pack/4.5 mL \$80 5-pack/7.5 mL \$135	To be determined	Basal Analogue Onset: Up to 6h. Peak: Not applicable. Duration: Up to 30h. SC only. Must not be mixed with any other insulin or diluted with any other solution
<b>PREMIXED</b>	<b>Premixed (% short (regular) to % intermediate (NPH))</b> Humulin 30/70 (Vial, Cartridge) Novolin ge 30/70, 40/60, 50/50 (Pen, Vial (30/70 only))	Humulin 30/70 \$2.40 (\$24)-Vial \$3.2 (\$48)-Cartridge Novolin 30/70, 40/60, 50/50 \$2.3 (\$23)-Vial \$3 (\$45)-Pen	Regular benefit	Action is combination of individual components.
<b>PREMIXED</b>	<b>Premixed Insulin Analogues</b> insulin lispro/lispro protamine Humalog Mix25, Humalog Mix 50 (Cartridge, Pen) insulin aspart/aspart protamine (NovoMix 30) (Cartridge)	Lispro/Lispro Protamine and aspart/aspart protamine \$4 (\$60)-Cartridge, Pen	Partial benefit – covered to cost of short-acting insulin, no SA coverage	Humalog-Onset: 10-15 min, Peak and Duration unavailable. Novomix 30-Onset: 10-15min Peak: 60-90min Duration: 15-18h

- Limited Coverage Criteria are current as per Pharmacare 2014/12/01 and are subject to change. Refer to Pharmacare website for updated criteria.
- Pricing is approximate as per PharmaNet 2014/08/26 and does not include dispensing fee and retail markup.
- For information on the current costs, please visit BC PharmaCare Formulary Search, website: [pcbl.hlth.gov.bc.ca/pharmacare/benefitslookup/](http://pcbl.hlth.gov.bc.ca/pharmacare/benefitslookup/)

## PharmaCare Coverage Definitions

**regular coverage:** also known as regular benefit; does not require Special Authority; patients may receive full coverage\*

**partial coverage:** Some types of regular benefits are only partially covered\* because they are included in the Low Cost Alternative (LCA) program or Reference Drug Program (RDP) as follows:

**LCA:** When multiple medications contain the same active ingredient (usually generic products), patients receive full coverage\* for the drug with the lowest average PharmaCare claimed price. The remaining products get *partial coverage*.

**RDP:** When a number of products contain different active ingredients but are in the same therapeutic class, patients receive full coverage\* for the drug that is medically effective and the most cost-effective. This drug is designated as the Reference Drug. The remaining products get *partial coverage*.

**Special Authority:** requires Special Authority for coverage. Patients may receive full or partial coverage\* depending on LCA or RDP status. These drugs are not normally regarded as first-line therapies or there are drugs for which a more cost-effective alternative exists. Pharmacare coverage period is indefinite, 3rd party payers may require re-confirmation.

**No coverage:** does not fit any of the above categories

\* coverage is subject to drug price limits set by PharmaCare and to the patient's PharmaCare plan rules and deductibles. See [www2.gov.bc.ca/gov/content/health/health-drug-coverage/pharmacare-for-bc-residents](http://www2.gov.bc.ca/gov/content/health/health-drug-coverage/pharmacare-for-bc-residents) for further information.

## References:

1. e-CPS [Internet]. Ottawa (ON): Canadian Pharmacists Association; c2007 [cited 2007 Jul 30]. Available from: [www.e-cps.ca](http://www.e-cps.ca).
2. Harper W, Clement M, Goldenberg R, et al. Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada: pharmacologic management of type 2 diabetes. *Can J Diabetes* 2013;37 (Supp.1): S61-68
3. Mann E. Diabetes mellitus. In: Gray Jean, editor. *e-Therapeutics+* [Internet]. Ottawa (ON): Canadian Pharmacists Association; c2007 [updated Sep 2006; cited 2007 Jul 30]. Available from: [www.e-therapeutics.ca.ezproxy.library.ubc.ca](http://www.e-therapeutics.ca.ezproxy.library.ubc.ca).