

Clinical Pharmacology Review

Memo to File

NDA: 20-986 (S047)
Drug: Novolog (Insulin aspart [rDNA origin] injection) solution for subcutaneous use
Sponsor: Novo Nordisk
Submission Date: 5/11/2007
Indication: To improve glycemic control in adults and children with diabetes mellitus
Reviewer: Jayabharathi Vaidyanathan, Ph.D
Team Leader: Sally Choe, Ph.D

Recommendations: The information in NDA 20-986/S047 (Novolog) was reviewed by the Office of Clinical Pharmacology/Division of Clinical Pharmacology-2 (OCP/DCP-2). The following labeling comments were sent to the sponsor.

(~~Strikeout text~~ should be removed from labeling and underlined text should be added to labeling.)

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A number of substances affect glucose metabolism and may require insulin dose adjustment and particularly close monitoring.

- The following are examples of substances that may increase the blood-glucose-lowering effect and susceptibility to hypoglycemia: oral antidiabetic products, pramlintide, ACE inhibitors, disopyramide, fibrates, fluoxetine, monoamine oxidase (MAO) inhibitors, propoxyphene, salicylates, somatostatin analog (e.g., octreotide), sulfonamide antibiotics.
- The following are examples of substances that may reduce the blood-glucose-lowering effect: corticosteroids, niacin, danazol, diuretics, sympathomimetic agents (e.g., epinephrine, salbutamol, terbutaline), isoniazid, phenothiazine derivatives, somatropin, thyroid hormones, estrogens, progestogens (e.g., in oral contraceptives), atypical antipsychotics.
- Beta-blockers, clonidine, lithium salts, and alcohol may either potentiate or weaken the blood-glucose-lowering effect of insulin.
- Pentamidine may cause hypoglycemia, which may sometimes be followed by hyperglycemia.
- The signs of hypoglycemia may be reduced or absent in patients taking sympatholytic products such as beta-blockers, clonidine, guanethidine, and reserpine [REDACTED]

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/s/

Jayabharathi Vaidyanathan
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Sally Choe
3/25/2008 10:44:17 AM
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