#### Insulin Glulisine

[IAPI] Apidra® 300IU/3mL/Pre-Filled Pen ATC Code: A10AB06

中文名: 愛胰達注射劑 «Sanofi»

適應症: 糖尿病。

藥理分類: Insulin, Rapid-Acting.

用法用量:Note:

1. Insulin glulisine is a rapid-acting insulin analog which is normally administered **SubQ** as a premeal component of the insulin regimen or as a **continuous SubQ** infusion and should be used with an intermediate- or long-acting insulin.

- 2. When compared to insulin regular, insulin glulisine has a more rapid onset and shorter duration of activity.
- 3. In carefully controlled clinical settings with close medical supervision and monitoring of blood glucose and potassium, insulin glulisine may be administered **IV.** Insulin requirements vary dramatically between patients and dictate frequent monitoring and close medical supervision.

## **Diabetes mellitus, type 1:** SubQ:

### **General insulin dosing:**

### **Initial total insulin dose:**

0.2 to 0.6 units/kg/day in divided doses. Conservative initial doses of 0.2 to 0.4 units/kg/day are often recommended to avoid the potential for hypoglycemia. A rapid-acting insulin may be the only insulin formulation used initially.

# **Usual maintenance range:**

0.5 to 1 units/kg/day in divided doses. An estimate of anticipated needs may be based on body weight and/or activity factors as follows:

Nonobese: 0.4 to 0.6 units/kg/day.

Obese: 0.8 to 1.2 units/kg/day.

Pubescent Children and Adolescents: During puberty, requirements may substantially increase to > 1 unit/kg/day and in some cases up to 2 units/kg/day (IDF-ISPAD, 2011).

## Diabetes mellitus, type 2: SubQ:

# General considerations for insulin use in type 2 diabetes:

#### **Timing of initiation:**

- 1. The goal of therapy: HbA1c < 7%.
- 2. Dual therapy (metformin + a second antihyperglycemic agent) is recommended in patients with type 2 diabetes who fail to achieve glycemic goals after ~3 months with lifestyle interventions and metformin monotherapy (unless contraindications to metformin exist).
- 3. Preference is not given for adding insulin or a noninsulin agent as the second antihyperglycemic agent (drug choice should be individualized based on patient characteristics).
- 4. Insulin should be considered as part of a combination regimen when hyperglycemia is severe, particularly if patient is symptomatic or has catabolic features (eg, weight loss, ketosis). If insulin is selected, the addition of basal insulin with a long-acting insulin (ie, glargine or detemir [not insulin glulisine]) is recommended.
- 5. If HbA1c target not achieved after ~3 months of dual therapy, may proceed to triple therapy (Inzucchi, 2015).

## **Intensification of therapy:**

- 1. If HbA1c target has not been met, despite titrating basal insulin (ie, longacting insulin) to provide acceptable fasting blood glucose concentrations, intensification of therapy should be considered to cover postprandial glucose excursions.
- 2. Options include adding a GLP-1 receptor agonist (eg, exenatide, liraglutide) or adding a mealtime insulin (1 injection of a rapid-acting insulin analog [lispro, aspart, glulisine]) initiated at a dose of 4 units or 0.1 units/kg or 10% basal dose before largest meal; may progress to "basal-bolus" dosing of 3 injections of a rapid-acting insulin analog [lispro, aspart, glulisine] per meal or dose by adding up the total current insulin dose, and provide one-half of this amount as basal and one-half as mealtime insulin (split evenly between 3 meals).
- 3. Alternatively, although less studied, may transition from basal insulin (ie, long-acting insulin) to a twice daily premixed (or biphasic) insulin analog (70/30 aspart mix, 75/25 or 50/50 lispro mix) (Inzucchi, 2015).

不良反應: 低血糖、注射部位反應、過敏

注意事項: 1.開封後:

(1).室溫保存(勿高於25℃)不需冷藏,需防日曬。

(2).可冰箱冷藏,使用前先回温。

(3). 開封後(勿高於 25℃)保存期限 4 周。

2.未開封:應冷藏儲存(2-8℃)。切勿靠近冷凍層以防冷凍。

懷 孕 期: 臨床資料尚不足,孕婦使用時需嚴密監控血糖變化。

授 乳 期: 尚不清楚是否會分泌於乳汁中,但一般說來,胰島素並不會分泌於乳汁中,也

不會經由口服所吸收。授乳婦女可能需要調整胰島素的劑量及控制飲食。