**BYETTA Available for Injection**

**Abstract**

BYETTA (exenatide) is a synthetic analogue of exendin-4, a 39-amino acid peptide isolated from the saliva of the Gila monster, a species of venomous lizard. Exendin-4 is produced in the brain and pancreas and acts on several tissues such as the pancreatic beta cell, the hypothalamus, and the gastrointestinal tract. Exendin-4 and one of its analogues, GLP-1, are incretin hormones that act on the pancreatic beta cell to enhance insulin secretion in response to a meal. Incretin hormones are the principal physiological regulators of glucose-stimulated insulin secretion. Exenatide is by far the most potent of the incretin hormones in stimulating insulin secretion and inhibiting glucagon secretion.

**BYETTA and Diabetes**

BYETTA is indicated as an adjunct to diet and exercise to improve glycemic control in adult patients with type 2 diabetes mellitus who are not adequately controlled with metformin and/or a sulfonylurea.

**Mechanism of Action**

BYETTA acts on the pancreatic beta cell to enhance insulin secretion in response to a meal. Incretin hormones are the principal physiological regulators of glucose-stimulated insulin secretion. Exenatide, an analogue of exendin-4, is by far the most potent of the incretin hormones in stimulating insulin secretion and inhibiting glucagon secretion.

**Therapeutic Advantages**

BYETTA is indicated as an adjunct to diet and exercise to improve glycemic control in adult patients with type 2 diabetes mellitus who are not adequately controlled with metformin and/or a sulfonylurea. It is administered twice daily at any time within the 60-minute period before the morning and evening meals. The most frequently reported adverse event is nausea, which occurred in 78% of patients treated with BYETTA. The incidence of nausea decreased over the course of the study. The most common dose-limiting adverse events are nausea, vomiting, and diarrhea.

**Conclusion**

BYETTA is a new drug that may be useful in the management of type 2 diabetes mellitus. Its primary therapeutic advantage is the reduction of meal-induced glucose excursions. Its most common dose-limiting adverse events are nausea, vomiting, and diarrhea.