About Tresiba® (insulin degludec)

What is Tresiba®?
Discovered and developed by Novo Nordisk, Tresiba® is a once-daily basal insulin for people with diabetes that successfully achieves equivalent reductions in blood glucose levels, with a lower risk of nocturnal hypoglycaemia versus insulin glargine. Tresiba® provides an ultra-long duration of action beyond 42 hours, allowing for flexibility in day-to-day dosing time when needed, without compromising efficacy or risk of hypoglycaemia.

Tresiba® and hypoglycaemia
Hypoglycaemia occurs when blood glucose levels fall to lower than normal levels, causing unpleasant symptoms, such as dizziness and confusion, unconsciousness and sometimes death. Hypoglycaemic events can range from non-severe to severe; people who experience severe events require third-party support. Research shows that fears and concerns about hypoglycaemia can interfere with achieving optimal glycaemic control in people with diabetes using insulin. Hypoglycaemia that occurs during the night is of particular concern for people living with diabetes, as it is often unpredictable and difficult to detect.

Results from studies over a two-year period show that Tresiba® successfully achieves equivalent reductions in HbA1c (reduces blood glucose levels), but with a lower risk of nocturnal hypoglycaemia, compared to insulin glargine:
- 43% for insulin-naïve type 2 diabetes (0.27 versus 0.46 episodes per patient per year)
- 25% for type 1 diabetes (3.9 versus 5.3 episodes per patient per year)
- There is no significant difference in the rate of confirmed overall hypoglycaemic episodes for Tresiba® versus insulin glargine for insulin naïve patients with type 2 diabetes (1.72 versus 2.05) or for patients with type 1 diabetes.

Mechanism of action
The ultra-long duration of action of once-daily Tresiba®, which provides a glucose-lowering effect lasting beyond 42 hours, derives from its specifically engineered molecular structure.

After injection, Tresiba® forms a long chain of hexamers, like a string of pearls. Individual Tresiba® molecules break away from the chain like a pearl coming off a string, one at a time and they are slowly and continually absorbed into the bloodstream. This allows once-daily Tresiba® to be slowly and steadily absorbed, at a constant rate, into the bloodstream, providing a duration of action beyond 42 hours.

Regulatory status
Tresiba® has received regulatory approval in Argentina, Aruba, Bangladesh, Bosnia & Herzegovina, Brazil, Chile, Colombia, Costa Rica, El Salvador, the EU, Honduras, Hong Kong, Iceland, India, Israel, Japan, Kazakhstan, Lebanon, Lichtenstein, Macedonia, Mexico, Nepal, Norway, Russia, South Korea and Switzerland.
References