Entuzity™ KwikPen®

insulin injection, human biosynthetic
500 units/mL

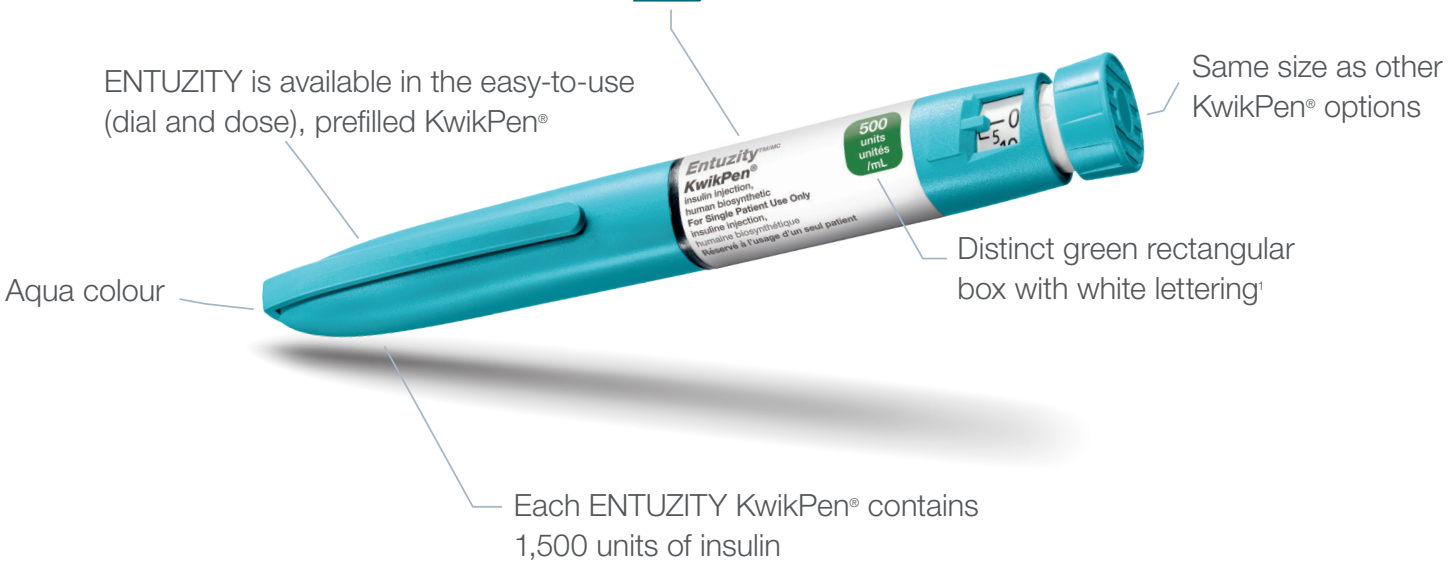
A new option for patients requiring more than 200 units of insulin/day[1]

ENTUZITY is reserved for the treatment of patients with diabetes requiring total daily doses of more than 200 units of insulin each day.

Important facts about ENTUZITY:

- ENTUZITY is a five-times concentrated version of a human insulin solution currently available in Canada as HUMULIN R (100 units/mL).
- HUMULIN R and ENTUZITY have different time-action profiles and thus are not equivalent. These insulins are not directly interchangeable.
- Switching from basal-bolus or mixed insulins with lower concentration to ENTUZITY can be done on a unit-to-unit basis for the total daily dose of insulins (basal plus bolus). No dose conversion is required when transferring a patient from from a 100 units/mL pen to a different insulin concentration; however, dose adjustment may be needed to achieve target ranges for plasma glucose levels.

Can deliver from 5 to 300 units per injection in 5-unit increments



ENTUZITY is the only prefilled pen that can deliver 300 units of insulin in one dose[2]*

Switching to ENTUZITY

Dosing example

For patients currently on 10 units of 100 units/mL insulin switching to 10 units of ENTUZITY, switching from a 100 unit/mL insulin regimen to ENTUZITY (500 units/mL) may be done unit for unit, resulting in a total daily injection volume which is reduced by 80%.

- Any change of insulin may result in the need for a change in dosage and should be made cautiously, and only under medical supervision.
- Medication errors have been reported for concentrated insulins. To avoid medication errors, always verify the product label before each injection.

- **Do not** transfer ENTUZITY from the prefilled pen to other devices, such as a syringe. The markings on the insulin syringe will not measure the dose correctly. Overdose can result, causing severe hypoglycemia.
- Please see product monograph for complete dosing and administration information.

IMPORTANT SAFETY INFORMATION

Indications and clinical use:

ENTUZITY is a concentrated human insulin indicated to improve glycemic control in adults and children with diabetes mellitus requiring more than 200 units of insulin per day.

The safety and efficacy of ENTUZITY used in combination with other insulins has not been determined. The safety and efficacy of ENTUZITY delivered by continuous subcutaneous infusion has not been determined. ENTUZITY should not be used for the treatment of emergencies such as diabetic coma and pre-coma and patients with diabetes undergoing surgeries. There is limited evidence available in geriatric patients aged 65 to ≤75. Patients >75 years of age have not been studied. No studies of ENTUZITY have been conducted in the pediatric population (below 18 years of age).

Contraindications:

- During episodes of hypoglycemia
- In patients who are hypersensitive to this drug or to any ingredient in the formulation or component of the container (see DOSAGE FORMS, COMPOSITION AND PACKAGING).

Most serious warnings and precautions:

Hypoglycemia: Uncorrected hypoglycemic or hyperglycemic reactions can cause loss of consciousness, coma, or death.

Administration:

- ENTUZITY should not be transferred from the prefilled pen to other devices, such as a syringe. The markings on the insulin syringe will not measure the dose correctly. Overdose can result causing severe hypoglycemia.
- Do not administer ENTUZITY intravenously, intramuscularly or in an insulin pump or dilute, or mix ENTUZITY with any other insulin products or solutions.
- Any change including changes in insulin, manufacturer, type, concentration, or method of administration should be made cautiously and only under medical supervision and the frequency of blood glucose monitoring should be increased.
- Never use ENTUZITY if it has become viscous (thickened) or cloudy; or if it has formed a deposit of solid particles on the wall of the cartridge; use it only if it is clear and colourless.
- Medication errors have been reported for concentrated insulins. To avoid medication errors, always verify the product label before each injection.

Other relevant warnings and precautions:

- Extreme caution must be observed in the measurement of dosage
- Stress; concomitant illness; or diseases of the adrenal, pituitary or thyroid glands may change insulin requirements
- Monitor potassium levels in patients at risk for hypokalemia (e.g., patients using potassium lowering drugs, patients taking medications sensitive to serum potassium concentrations, or patients losing potassium through other means such as diarrhea)
- To avoid transmission of disease, a cartridge or prefilled syringe should not be used by more than one person
- To avoid medication errors, always express the prescribed dose in units of insulin, and instruct patients to carefully inspect their medication to confirm that the correct product and concentration have been dispensed
- The combination of insulin with a thiazolidinedione or other antidiabetes agents is not indicated for treatment of type 2 diabetes mellitus
- Patients may require a change in dosage from that used with their usual insulins
- Hypoglycemia may occur if the insulin dose is too high in relation to insulin requirement
- Hyperglycemia may occur in conditions of inadequate dosing or discontinuation, and if left untreated may lead to diabetic ketoacidosis or coma which are potentially fatal
- Hepatic impairment may reduce insulin requirements
- Renal impairment may reduce insulin requirements
- Local/systemic allergic reactions may occur
- Antibody production may cause hypo- or hyperglycemia in very rare cases
- Patients should be fully informed about potential advantages and disadvantages of ENTUZITY
- Insulin requirements may vary during trimester in pregnant women
- Breast-feeding women may require dose adjustments
- Dose selection for an elderly patient should take into consideration the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy; also, hypoglycemia may be more difficult to recognize in the elderly
- Control of diabetes mellitus may be further complicated by diseases such as acromegaly, Cushing's syndrome, hyperthyroidism and pheochromocytoma
- Regular blood glucose self-monitoring should be considered to obtain optimal glycemic control; glycosylated hemoglobin should be measured periodically in all patients taking insulin products
- Insulin initiation and glucose control intensification: Patients whose blood glucose is greatly improved, e.g., by intensified insulin therapy, may lose some or all of the warning symptoms of hypoglycemia and should be advised accordingly. Intensification or rapid improvement in glucose control has been associated with a transitory reversible ophthalmologic refraction disorder, worsening of diabetic retinopathy, acute painful peripheral neuropathy, and peripheral edema. However, long-term glycemic control decreases the risk of diabetic retinopathy and neuropathy.

For more information:

Please consult the product monograph at www.lilly.ca/EntuzityPM/en for important information relating to adverse reactions, drug interactions, and dosing information which have not been discussed in this piece. The product monograph is also available by calling us at 1-888-545-5972.

* Comparative clinical significance has not been established.

References: 1. ENTUZITY Product Monograph. Eli Lilly Canada Inc., August 17, 2017. **2.** Eli Lilly ENTUZITY Support Letter for "Only prefilled pen that can deliver 300 units of insulin in one dose." Sept 20, 2017.

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