



**Toujeo**<sup>®</sup>  
insulin glargine 300U/mL

# Secrets Behind the Right Beat



**Assuring 36-hour stability**  
in your patients' glucose  
profile.  
Because stability matters  
to every one of us.



## What is Toujeo<sup>®</sup>?



Lantus<sup>®</sup>



Toujeo<sup>®</sup>

Smaller compact depot to  
allow slow release of insulin  
glargine throughout the day<sup>1</sup>



Once-daily long-acting  
insulin with up to 36 hours  
of duration<sup>2</sup>

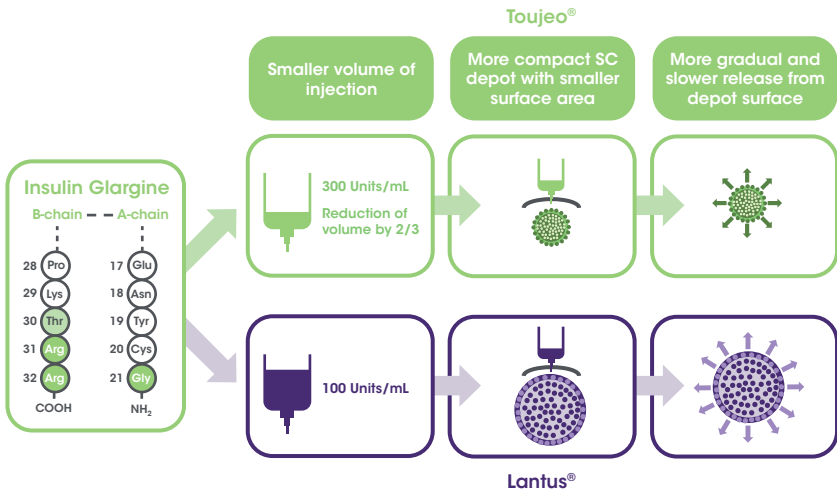


6-hour flexible dosing  
window to cope with each  
patient's daily life variation<sup>3</sup>



Eligible patients over a wide  
age range, from children  
aged  $\geq 6$  years to the elderly<sup>2</sup>

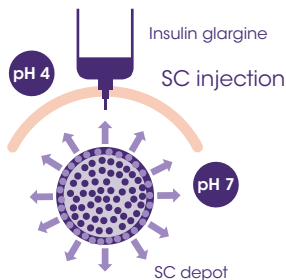
# Injecting the same units of Lantus® but at 2/3 less volume<sup>1</sup>



Adapted from Cheng AYY, et al. (2019)

Toujeo® delivers the same dosage of insulin as Lantus®, but in one-third of the volume. This results in reduced surface area of injection depot, ultimately resulting in a slower and more gradual release of monomers of Toujeo® as compared with Lantus®<sup>1</sup>.

## Gargine adopts a pH-dependent precipitation<sup>2,4,5</sup>



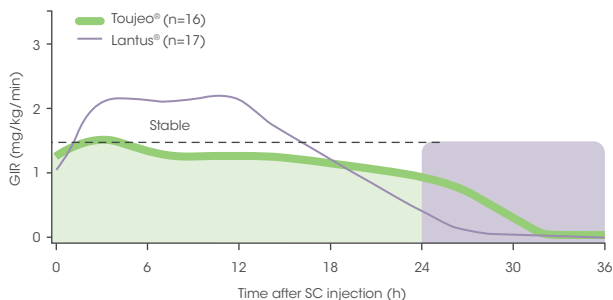
For illustrative purposes only

- Following SC injection, insulin glargine precipitates amorphously creating a SC depot at physiological pH
- Enzymatic maturation forms the active metabolite, 21A-Gly-human insulin, that is released slowly from the depot to the circulation

# More stable and prolonged activity profile vs Lantus®6,\*



## Activity profile at steady state in patients with type 1 diabetes



Adapted from Becker RH, et al. (2015)

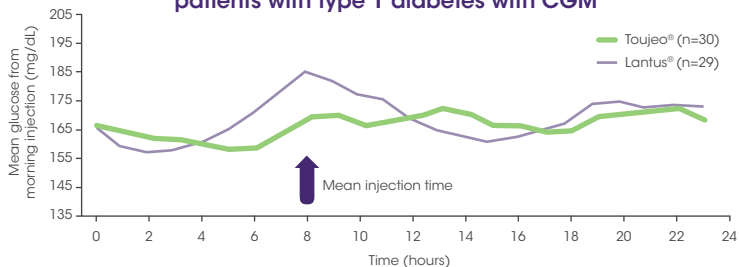
The GIR profiles with Toujeo® in steady state represented a stable, constant activity over 24 hours, with a slow decline beyond this time<sup>6</sup>.

# Less within-day fluctuation and between-day variability vs Lantus®7,†



CGM data

## Average glucose profiles evaluated in patients with type 1 diabetes with CGM



The mean 24-hour glucose profiles obtained by CGM were smoother with Toujeo® than with Lantus® irrespective of injection time<sup>7</sup>.

\* It was a randomised, double-blind, crossover study (n=30), applying the euglycemic clamp technique over a period of 36 h. In the multiple-dose to steady state study, participants received once-daily subcutaneous administrations of either 0.4 (cohort 1) or 0.6 unit kg<sup>-1</sup> (cohort 2) Toujeo® for 8 days in one treatment period and 0.4 units kg<sup>-1</sup> Lantus® for 8 days in the other. The results of a direct comparison between 0.4 unit kg<sup>-1</sup> on each treatment were focused. PK and PD assessments performed on the last treatment day included serum insulin measurements using a radioimmunoassay and the automated euglycemic glucose clamp technique over 36 h.

† The study was a 16-week, exploratory, open-label, parallel-group, two-period crossover study, 59 adults with type 1 diabetes were randomised (1:1:1:1) to once-daily Toujeo® or Lantus® given in the morning or evening (with crossover in the injection schedule). The primary efficacy end point was the mean percentage of time in the target glucose range (80–140 mg/dL), as measured using continuous glucose monitoring, during the last 2 weeks of each 8-week period. Additional end points included other CGM glycaemic control parameters, hypoglycaemia (per self-monitored plasma glucose), and adverse events.

CGM=continuous glucose monitoring. GIR=glucose infusion rate. PD=pharmacodynamics. PK=pharmacokinetics.

# Upgrade your patients to Toujeo®<sup>2</sup>



## Insulin-naïve patients

**Start: 0.2 U/kg**

Dose calculated based on weight

Weight range\*  
50-75 kg



Dose range  
10-15 U/day



## Patients on OD basal insulin

**1:1 conversion**

No dose recalculation required



## Patients on BID basal insulin

80% of total previous daily insulin dose

\* Weight change shown is illustrative only and dose calculation is not limited to this range.

BID=twice daily, OD=once daily.

**References:** 1. Cheng AYY, et al. *Adv Ther.* 2019;36:1018-1030. 2. Toujeo® Hong Kong prescribing information 2020 ver 1. 3. Riddle M, et al. *Diabetes Technol Ther.* 2016;18:252-257. 4. McKeage K et al. *Drugs.* 2001;61:1599-1624. 5. Kramer W. *Exp Clin Endocrinol Diabetes* 1999;107:S52-S61. 6. Becker RH, et al. *Diabetes Care.* 2015;38:637-43. 7. Bergenstal R, et al. *Diabetes Care.* 2017;40:554-560.

**Abbreviated prescribing information: Presentation:** Insulin glargine 300 IU/ml solution for injection. **Indications:** Treatment of diabetes mellitus in adults, adolescents and children from the age of 6 years. **Dosage:** Once daily (preferably at the same time every day up to 3 hours before or after the usual time of administration), with adjusted individual dosage. Please refer to the full prescribing information for guidelines on switching between other insulin preparations. **Administration:** Subcutaneous injection. Toujeo is NOT INTENDED FOR INTRAVENOUS USE since it could result in severe hypoglycaemia. Toujeo must not be drawn from the cartridge of the SoloStar pre-filled pen into a syringe or severe overdose can result. **Contraindications:** Hypersensitivity to insulin glargine or to any of the excipients. **Precautions:** Toujeo has not been studied in children below 6 years of age. **Elderly:** progressive deterioration of renal function may lead to a steady decrease in insulin requirements. **Renal impairment:** insulin requirements may be diminished due to reduced insulin metabolism. **Hepatic impairment:** insulin requirement may be diminished due to reduced capacity for gluconeogenesis and reduced insulin metabolism. Perform continuous rotation of injection site to reduce risk of lipodystrophy and cutaneous amyloidosis. Blood glucose monitoring is recommended after change in injection site. Hypoglycaemia. Intercurrent illness. Combination of Toujeo with pioglitazone. Medication errors prevention. **Interactions:** Effects enhanced by oral antidiabetics, ACEI, disopyramide, fibrates, fluoxetine, MAOIs, pentoxifylline, propoxyphene, salicylates, sulfonamide antibiotics. Effects reduced by corticosteroids, danazol, diazoxide, diuretics, glucagons, isoniazid, oestrogens and progestogens, phenothiazine derivatives, somatropin, sympathomimetics, or thyroid hormones, atypical antipsychotics and protease inhibitors. Beta-blockers, clonidine, lithium or alcohol may either potentiate or weaken the effects of insulin. Pentamidine may cause hypoglycaemia, followed by hyperglycaemia. The signs of adrenergic counter-regulation may be reduced or absent under the influence of sympatholytic medicinal products such as Beta-blockers, clonidine, guanethidine and reserpine. **Fertility, pregnancy and lactation:** Animal studies do not indicate direct harmful effects with respect to fertility and reproductive toxicity. The use of Toujeo may be considered during pregnancy if clinically needed. It is unknown whether insulin glargine is excreted in human milk. **Overdose:** Insulin overdose may lead to severe and sometimes long-term and life-threatening hypoglycaemia. Mild episodes of hypoglycaemia can usually be treated with oral carbohydrates. More severe episodes with coma, seizure or neurologic impairment may be treated with glucagon (intramuscular or subcutaneous) or concentrated glucose solution (intravenous). **Undesirable effects:** Hypoglycaemia, lipohypertrophy, injection site reactions. For common, uncommon, rare and very rare undesirable effects, please refer to the full prescribing information. **Storage:** Before first use: Store in a refrigerator (2°C - 8°C). Do not freeze. Protect from light. After first use: Store below 30°C. Use within 42 days. Do not freeze. **Preparation:** Toujeo 5 x 1.5ml (450IU) pre-filled pens. **Legal Classification:** Part 1 Poison **Full prescribing information is available upon request.**

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