Insulin glargine U300 “Toujeo”

In August 2015 a new formulation of insulin glargine was released onto the Canadian market: its generic name is insulin glargine U300, branded “Toujeo”. I might have branded it “Lantus Forte” because Toujeo is a x3 concentrate of Lantus such that the same dose is now available in 1/3 the volume. When a patient gives themselves a dose of Toujeo they dial up the same number of units as they did previously with Lantus or other basal insulin. They do not give 1/3 the dose; a surprisingly common misunderstanding.

Toujeo costs 5% less per insulin unit than Lantus. It offers two clinical advantages over Lantus.

The first accrues to patients on larger doses, nominally >80 units per day. At around the 80 units per day mark the volume of injection becomes a factor – either because it requires two injections (or reloading the device while in the skin) or because higher volumes are uncomfortable. The volume of the cartridge for insulin pens is 1.5 ml thus each cartridge contains 450 units. It is expected that a 3 ml cartridge will be released shortly (=900 units).

The second advantage is an increased duration of action which translates into an even greater proportion of patients (nominally >90%) who get by with one shot per day. This is accompanied by a reduction in the incidence of hypoglycemia. NNT = 15 to prevent one episode of hypoglycemia, either “moderate” or severe.

---