

solid dose injection

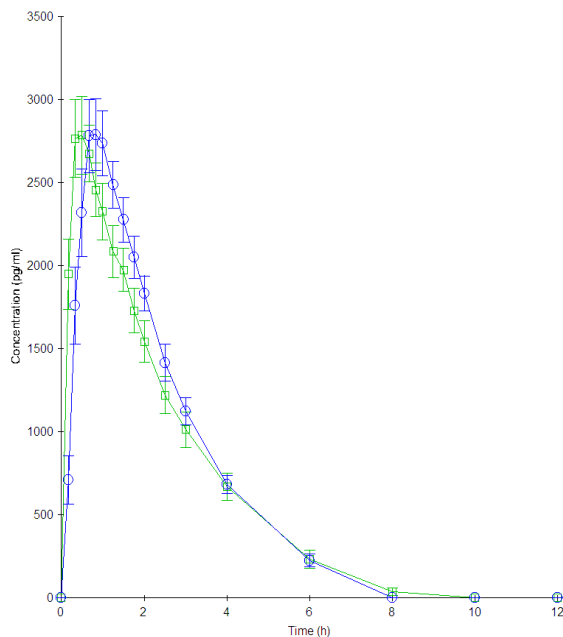
Glide Octreotide

Glide SDI® (Solid Dose Injector) is an innovative, patented drug delivery system for the injection of drugs and vaccines in a solid dosage form. The Glide SDI® employs a simple spring based mechanism, which ensures the system is easy to use and cheap to manufacture.

Octreotide is indicated for the treatment of acromegaly (increased pituitary growth hormone secretion) and GEP tumours and for the prevention of complications following pancreatic surgery. This is frequently self-administered. There are also oral and nasal dosage forms, but the bioavailability is poor in comparison with parenteral administration. Delivery of octreotide through the Glide SDI® can significantly improve patient compliance.

Clinical Study Design

A pilot two way crossover study design was employed to investigate the pharmacokinetics of a solid dose formulation delivered with Glide SDI® in comparison with the subcutaneous administration of a marketed solution Sandostatin using needle and syringe. The dose strength is 100 µg octreotide (based on free base).



PK profile showing Glide SDI (blue) against Sandostatin liquid injection (green)



the Glide SDI

Summary and Conclusions

The pharmacokinetic profiles are shown in the figure to the left following the successful injection of both the Glide solid formulation and Sandostatin in 12 healthy volunteers. The corresponding pharmacokinetic parameters are summarised in the table below. These data demonstrate that the solid octreotide formulation delivered by the Glide SDI® is equivalent to the subcutaneous injection using a needle and syringe.

Group	Cmax (pg.ml ⁻¹)	Tmax (h)	AUC _{0-∞} (pg.ml ⁻¹ .h)
Glide Implant	2958.8	0.89	7401.4
Sandostatin	2919.2	0.54	7131.1
Equivalency	101%	-	104%

pharmacokinetic data