

## **FACT SHEET FOR NDSS SUB-AGENTS: Risks of using the incorrect needle length**

### **Introduction**

There are concerns that Sub-Agents may be providing NDSS Registrants with different needle lengths and sizes from those recommended by their health professional.

It is understandable that if a pharmacy does not have a particular product in stock, they may offer an alternative. However, providing a Registrant with a needle length which is different from that recommended by their health professional can have adverse effects, such as haematoma. This imposes an unnecessary risk to the Registrant.

### **1300 136 588 NDSS Helpline**

The 1300 136 588 NDSS Helpline is available for NDSS Registrants to order their product directly, should the appropriate products not be held in stock by the Sub-Agent.

### **Health Implications of Needle Length**

#### *The Importance of Correct Needle Length and/or Gauge for Insulin Administration*

The specific needle length and/or gauge of pen needles is determined by the Registrant's health care professional or diabetes educator, and is specific for the individual Registrant's requirements.

The appropriateness of needle length and gauge is based on:

- Subcutaneous tissue depth to avoid intramuscular injection
- Subcutaneous tissue depth to allow maximum area for site rotation to avoid complications of lipohypertrophy
- Flow rate and required force to depress the plunger
- Registrant comfort
- Injection angle & need for pinch-up (based on amount of subcutaneous tissue and patient dexterity).

## Risks to Registrant

- Knowledge of injection site skin and subcutaneous thickness in Registrants with diabetes is essential in the selection of the appropriate needle length and injection technique for insulin injection therapy<sup>1</sup>
- When the insulin is injected too deeply it has a more rapid rate of diffusion, and consequently a shorter duration of action<sup>2</sup>.
- Injecting insulin in the vicinity of the capillary plexuses between fat and muscle layers carries the risk that insulin might be injected directly into muscle, thereby leading to faster resorption and increased risk of hypoglycaemia<sup>3</sup>
- Injection technique is also important for patient perceptions of pain and overall satisfaction<sup>4</sup>

## Sub-Agent Product Supply

Sub-Agents are reminded, that they must:

*provide a reliable supply of Products to Registrants, and maintain a supply to meet both the anticipated and actual demand for Products from Registrants, and as otherwise directed by us from time to time<sup>5</sup>*

Approved by MESC on 4 November 2010

Approved by DoHA on 11 November 2010

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<sup>1</sup> *Current Medical Research & Opinion June 2010 Vol. 26, No. 6, 2010, Pages 1519–1530, MA. Gibney, CH. Arce, KJ. Byron, LJ. Hirsch*

<sup>2</sup> *Diabetes & Metabolism February 2005, Volume 31, Issue 1, Pages 7-13, H. Gin, H. Hanair-BROUTIN*

<sup>3</sup> *European Diabetes Nursing June/August 2007, Volume 4, Issue 2, Pages 51-55, G. Kreugel, HJM. Beijer, MN. Kerstens, JC. ter Maaten, WJ. Sluiter and BS. Boot*

<sup>4</sup> *Current Medical Research & Opinion Volume 26, Issue 6, June 2010, Pages 1531–1541, LJ. Hirsch, MA. Gibney, J. Albanese, S. Qu, K. Kassler-Taub, LJ. Klaff, TS. Bailey*

<sup>5</sup> *NDSS Sub-Agency Agreement, Clause 3 Scheme Functions: Products*