



Injection Technique

Health Outcomes and Economics

ISSUE:

Poor diabetes injection technique and associated complications could be costing your local healthcare economy hundreds of thousands of pounds a year in excess insulin and emergency care.

- o A recent Spanish study has estimated that Spain spends 122 million Euros a year on excess Insulin due to Lipohypertrophy¹
- o Based on data from the Spanish study it is estimated that the NHS is spending around £59 million per year on excess insulin usage¹
- o By extrapolating information from a recent clinical Spanish study it can be estimated that a CCG might spend up to £300,000 per year on excess insulin usage due to lipohypertrophy¹
- o In the UK, 54% of patients reported having a lipo³
- o Lipohypertrophy causes clinically significant and delayed insulin absorption leading to possible glycaemic variation and hypoglycaemia⁴
- o Severe hypoglycaemia resulting in ambulance attendance and unscheduled hospital admissions costs £1000 per episode²
- o Hypoglycaemia is estimated to cost a typical CCG between £65,000 and £90,000 per year²
- o 49% of patients with lipohypertrophy experience glycaemic variation, which may contribute to long term diabetes complications¹

Correct injection technique is essential for optimal insulin absorption and other injected medications in diabetes. However, healthcare professionals rarely instruct patients adequately on the proper techniques. Rarely do such professionals explain the importance of using a needle length appropriate for the patients' subcutaneous (SC) tissue depth, or train them to:

- o rotate sites properly,
- o change needles between injections
- o monitor their injection sites for the presence of lipohypertrophy.³

"Lipohypertrophy is one of the most common complications of SC insulin injection..."¹

Key to the successful management of this complication is healthcare professional and patient education on correct injection technique. All CCGs need to ensure the delivery of optimal injection technique education, training and support for healthcare professionals and their patients.

SOLUTION:

Quality injection technique care can deliver significant improvements in health outcomes whilst minimising insulin related side effects and rationalising costs to the CCG:

- o The key to managing and reducing costs in relation to Lipohypertrophy is to screen, detect and prevent Lipo effectively using techniques designed by the skilled HealthCare Professionals within FIT (Forum for Injection Technique).
- o Detection of patient Lipos could provide significant savings to CCGs as seen in the Spanish Blanco. M study 2013, by reducing insulin dose once avoidance of site is recognised, and reducing the incidence of severe Hypo glycaemic events.

1 Blanco M, Hernández MT, Strauss KW, Amaya M. Prevalence and risk factors of lipohypertrophy in insulin-injecting patients with diabetes. *Diabetes Metab.* 2013 Oct;39(5):445-53. doi:10.1016/j.diabet.2013.05.006. Epub 2013 Jul 22.

2 Frier, B. The economic costs of hypoglycaemia. *British Journal of Diabetes & Vascular Disease* 2011 11:10

3 Strauss K, De Gols H, Letondeur C, Matyjaszczyk M, Frid A. The second injection technique event (SITE), May 2000, Barcelona, Spain. *Pract Diab Int* 2002;19:17-21

4 Forum for Injection Technique Slide Deck, www.fit4diabetes.com