



## ***TT – Medtronic Case Study***

### **Overview**

Medtronic commissioned Twin Technology (TT) to help collate and analyse data from a life changing medical trial. Medtronic have developed the Paradigm Real-Time Insulin Pump and Continuous Glucose Monitoring System. This provides patients with an embedded insulin pump and giving real time glucose monitoring. Patients benefit from immediate corrective action to keep their glucose levels healthy and prevent diabetes-related complications.

Medtronic needed to demonstrate:

1. Resource savings to the NHS
2. Prove to Nice, the medical body, why they should add the system to the NHS approved list
3. How efficient treatments improve patients quality of life, for instance through less hospitalisations

### **Project**

This "before and after" study collects data at trialling clinic consultations on the patients' pre insulin and post pump therapy. Comparative data is gathered regularly to assess the benefits.

Medtronic did not want to receive results from each of the trial centres in an Excel spreadsheet. This would necessitate a massive resource and have a security impact. Staff would have to collate this data, a report it back out to the centres and the regulatory bodies.

TT dynamically adapted best of breed technologies to deliver an effective solution using in-house rationalised development methodologies. This included a set of instructional videos to provide training as how to execute the programme. This further reduced the level of support required from Medtronic.

Trial centres are able to review their own statistics. They have a benchmark against nationally collated data from Medtronic.

The TT development team based an effective solution on:

- ✓ Hewlett Packard hardware
- ✓ Personalised and customised software using Microsoft, ASP and hosted the system on an ISI/SQL platform

## **Result**

The innovative system:

- Reduced data collection time
- Gave clarity and focus to the results
- Provided efficient data capture and statistical analysis
- Secure results are integrated from the Excel spreadsheets into web based browsers

## **Quotes**

*“We chose Twin Technology because of their excellent reputation and our experience working with them. The system has reduced costs, improved our reporting structure and likelihood of securing NICE approval.” - Dr Adam MacDonald - Medtronic*

*“It’s been a delight working on this project. By developing new applications, we have contributed to an important medical study that has the ability to both save both NHS resources and improve diabetes sufferers’ lives. A true win win solution.” – Dr Chris Upton  
TT Development Director*