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Abstract

Technology for the management of Type 1 Diabetes (T1D) has been available in Ireland for a number of decades. Research has confirmed that continuous subcutaneous insulin infusion (CSII) therapy has the ability to improve glycaemic control of individuals with T1D while enhancing their quality of life. Similarly, the continuous glucose monitor (CGM) removes the need to regularly finger prick in order to test blood glucose. Despite these positive findings, the uptake of both devices is relatively low amongst the T1D adult population in Ireland (Noctor and Firth, 2010, Donaghy, 2016).

This qualitative exploratory research sets out to identify the factors contributing to the uptake of CSII and CGM technologies in Ireland by understanding the impact of both devices on the self- management of T1D for adults living with this chronic illness. The research adopted a qualitative approach by conducting a number of semi-structured interviews with a network sample including both healthcare professionals and Type 1 diabetics in Ireland.

The findings of the research discovered that appropriate patient selection and education are vital to enable successful self-management of T1D using CSII and CGM technology. When used appropriately by suitable candidates, CSII can positively impact T1D in terms of improved health outcomes. A perception of enhanced quality of life through greater flexibility and better real time decision making is also associated with the use of CSII. More evidence based research is required to confirm the connection between the CGM device and health outcome. However, CGM has the ability to impact quality of life both positively and negatively when used to manage T1D. Similar to the insulin pump, the device was found to provide greater flexibility. However, CGM may increase anxiety levels of the user through alerts and alarms along with the constant flow of data which in some cases can lead to information overload.

Keywords: Type 1 Diabetes, self-management, continuous subcutaneous insulin infusion, continuous glucose monitor