



Examining the Effects of an Insulin pen compliance device on HbA1C and lifestyle in Individuals living with Type 1 Diabetes Mellitus

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Introduction

Insulin pen compliance devices have not been fully explored. This study investigates the effects of the InsulCheck device (records elapsed time between injections) on HbA1C and lifestyle in Type 1 diabetics.

Materials and Methods

Participants (n=25; m/f 16/9) were randomly assigned two groups: control (CON) and intervention (INT). Participants completed consent forms, pre and post study questionnaires and provided recent (Within 3-month) HbA1C readings pre and post study. Participants included number of Hypoglycaemic and Hyperglycaemic episodes for 6-months prior and study duration. Questionnaires included General Information, illness understanding, problem areas in diabetes for pre and post study. Service User Technology Acceptability Questionnaire included post. CON continued lifestyle and treatment for 6-months. INT used InsulCheck and continued lifestyle and treatment for 6-months.

Discussion

Preliminary results though not statistically significant, observationally indicate using InsulCheck reduces individuals HbA1C levels and hyperglycaemic episodes compared with non-users. Observational and statistically significant reductions in hypoglycaemic episodes in individuals using InsulCheck compared with non-users.

Acknowledgements and Contact Info

Mr. Minnock is funded by an Irish Research Council Employment-based Postgraduate Fellowship.

We would also like to thank Dr. Shashivadan Hirani of City University of London for allowing us to use the SUTAQ questionnaire

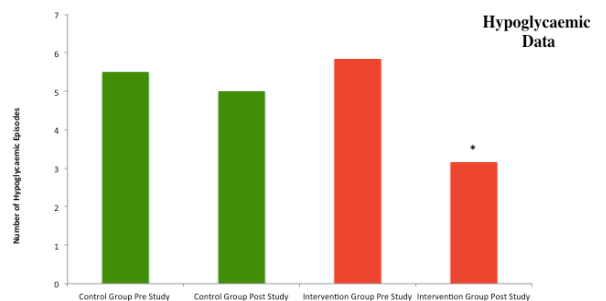
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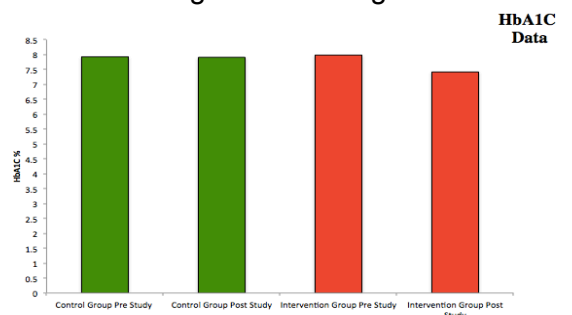
Results

Results thus far represent preliminary findings as the study is on going and n-sizes will increase.

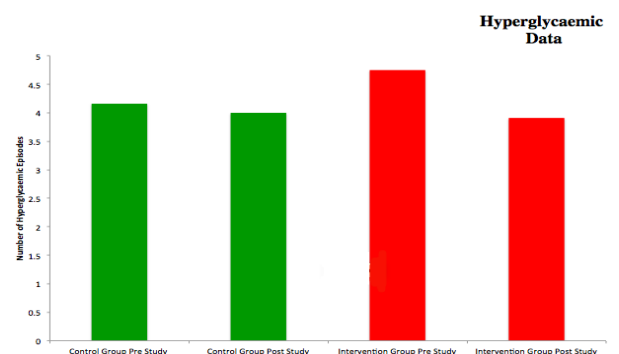


Hypoglycaemic episodes CON decreased 0.5 between pre and post study ($P > 0.05$) not significant, INT decreased of 2.7 between pre and post study indicating a statistically significant change ($P < 0.05$).

* Indicates a significant change.



HbA1C CON decreased 0.01% HbA1C ($P > 0.05$) between pre and post study, INT decreased 0.57% HbA1C ($P > 0.05$) both changes were not significantly different.



Hyperglycaemic episodes CON decreased 0.16 ($P > 0.05$), INT decreased 0.84 also not significant ($P > 0.05$)

References

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