

DiaMonD Phase 2

Evaluating Switch to Insulin Pump Therapy

CGM Use is a Driving Factor in A1C Reduction¹⁻²

This study showed that changing insulin delivery method from multiple daily injections (MDI) to an insulin pump (continuous subcutaneous insulin infusion – CSII) does lead to improvements in glucose levels, time in range and time in hyperglycaemia; however, these benefits do not result in significant A1C reductions* when Dexcom continuous glucose monitoring (CGM)[†] use has already been established in the treatment plan.



* Phase 2 study not statistically powered to evaluate A1C differences between groups.
 † Study conducted using the Dexcom G4® PLATINUM CGM System with SW 505—the same software algorithm as the Dexcom G5® Mobile CGM System.

Study Objective & Methods

Objective:
 Evaluate benefits of changing insulin delivery method from MDI to insulin pump, while maintaining CGM use.

Research Design/Methods:
 Seventy-five participants who completed the DiaMonD phase 1 trial participated in this 28-week extension phase. (Phase 1 of the study evaluated the benefits of augmenting an MDI insulin regimen with CGM in adults with type 1 diabetes.) Participants in the CGM group of the phase 1 study were randomly assigned to either continue on MDI + CGM (n=38) or initiate insulin pump therapy (n=37), while continuing CGM use in phase 2. Subjects were on MDI insulin regimen ≥ 1 year prior to entering this phase of the study; <100 units insulin/day. Study protocol reflected common clinical practice.

Results

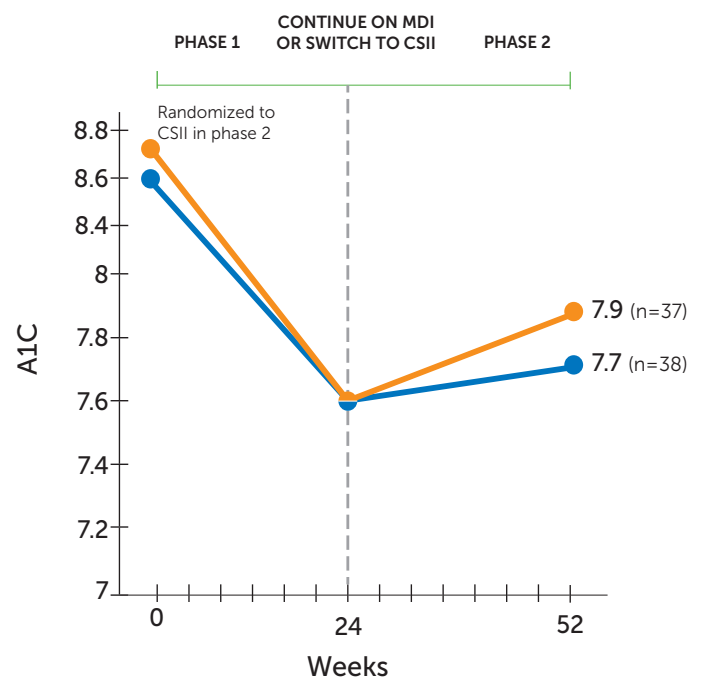
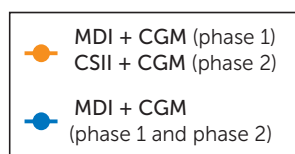


A1C Reduction

A1C benefits maintained regardless of delivery method¹⁻²

Significant A1C reduction maintained over 52 weeks (from start of phase 1)

- average 0.9% Reduction (MDI+CGM)
- average 0.8% Reduction (CSII+CGM)



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CGM Use is a Driving Factor in A1C Reduction¹⁻²



High Adherence and Persistence with Dexcom CGM

- Participants in both groups showed high levels of compliance
- All participants who completed study were still using the Dexcom CGM System

97%

MDI + CGM

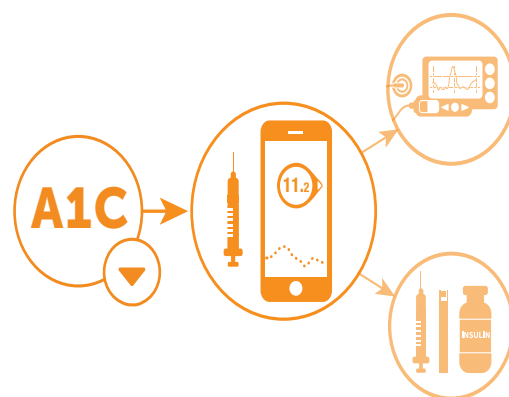
92%

CSII + CGM

Percentage of patients still using the Dexcom CGM System
≥6 days/week (week 28 of phase 2)

A New Paradigm

Results from the DiaMonD phase 1 and 2 studies support findings from other clinical trials and make a strong case for recommending CGM before an insulin pump.¹⁻³



CGM First™

Recognized as a standard of care in diabetes management by ADA, AACE and the Endocrine Society,⁴⁻⁶ CGM use has been proven to **both reduce A1C and decrease risk of hypoglycaemia regardless of insulin delivery method.**^{2,3} Optimize your patients' diabetes treatment plans and recommend a Dexcom CGM System today.

For more information about adding CGM to your patient's diabetes treatment plan, visit dexcom.com/global

References

- 1 Beck RW, Riddlesworth TD, Ruedy KJ, et al. Effect of initiating use of an insulin pump in adults with type 1 diabetes using multiple daily insulin injections and continuous glucose monitoring (DIAMOND): a multicentre, randomised controlled trial. [published online ahead of print July 12, 2017]. The Lancet Diabetes & Endocrinology. doi: [http://dx.doi.org/10.1016/S2213-8587\(17\)30217-6](http://dx.doi.org/10.1016/S2213-8587(17)30217-6).
- 2 Beck RW, Riddlesworth T, Ruedy K, et al. Effect of Continuous Glucose Monitoring on Glycemic Control in Adults With Type 1 Diabetes Using Insulin Injections: The DIAMOND Randomized Clinical Trial. JAMA. 2017;317(4):371-378.
- 3 Soupal J, Petruzelkova L, Flekac M, et al. Comparison of Different Treatment Modalities for Type 1 Diabetes, Including Sensor-Augmented Insulin Regimens, in 52 Weeks of Follow-Up: A COMISAIR Study. Diabetes Technol Ther. 2016;18(9):532-538.
- 4 American Diabetes Association Standards of Medical Care in Diabetes - 2017. Diabetes Care. 2017;40(Supplement 1):S1-S2.
- 5 Fonseca VA, Grunberger G, Anhalt H, et al. Continuous Glucose Monitoring: A Consensus Conference of the American Association of Clinical Endocrinologists and American College of Endocrinology. Endocr Pract. 2016;22(8):1008-1021.
- 6 Peters AL, Ahmann AJ, Battelino T, et al. Diabetes Technology-Continuous Subcutaneous Insulin Infusion Therapy and Continuous Glucose Monitoring in Adults: An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab. 2016;jc20162534.