

A Protocol for the Adjustment of Insulin by the Dietitian in a Diabetes Day Centre



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Background

- The diabetes dietitian has specialist knowledge and understanding of the effect of food, digestion and lifestyle factors on blood glucose levels.
- The DAFNE-trained dietitian is equipped with understanding of carbohydrate counting, the time-action of insulin and dose adjustments.
- The recent availability of continuous glucose monitoring data (CGM) enhances the position of the dietitian as a member of the diabetes multidisciplinary team with a uniquely comprehensive skillset for interpreting trends in blood sugars and evaluating meal-time insulin doses.
- With the development of local guidelines, the scope of practice of the diabetes dietitian can be safely extended to include insulin adjustment, thus enhancing service provision.

Methods

- The aim was to develop a local protocol for the adjustment of insulin by a dietitian in the diabetes day centre to be peer-reviewed and approved by the endocrine consultants and dietitian manager.
- A review was undertaken of local and national insulin adjustment guidelines, DAFNE guidelines and a protocol put in place at another endocrine centre. This reviewed informed the protocol.

Results

Protocol Content

Essential Dietitian Criteria for Insulin Adjustment

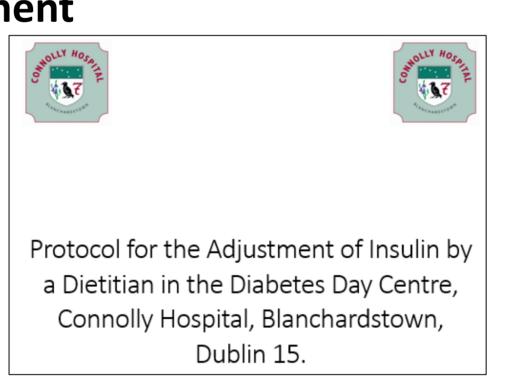
- Qualifications & experience.
- CPD requirements.

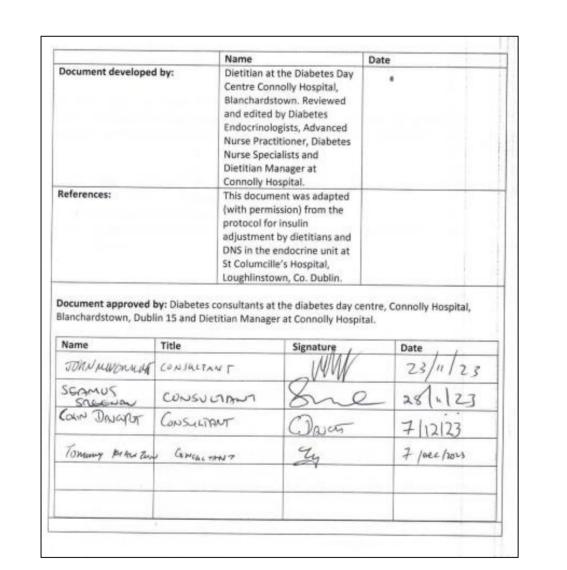
Context for Insulin Adjustment

- Definition of applicable patients.
- Description of dietitian assessment.
- Aims of insulin adjustments.
- Insulin types authorised to adjust.
- Factors to consider when adjusting.

Guidelines for Insulin Adjustment

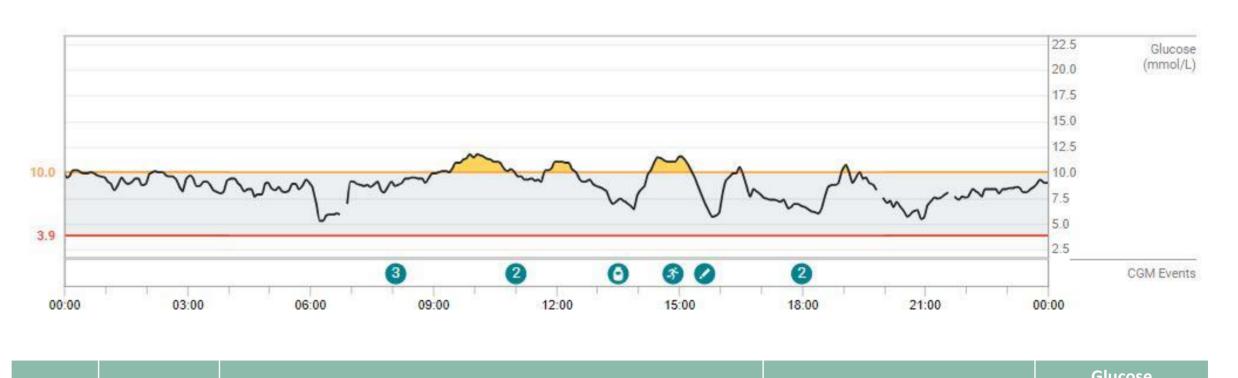
- Appropriate basal adjustments.
- Appropriate quick-acting adjustments.
- Typical insulin to carb ratios and sensitivities.
- Record keeping and clinical supervision.





Diabetes Dietitian Assessment

The dietitian is equipped to comprehensively assess available information on meal and snack content, insulin dosing and timing, activity levels, alcohol intake and digestive health before advising on adjustments.



| Time | Event | Details | Insulin Units | Glucose |
|-------|-------------|---|---------------|-------------|
| 18:00 | Note | Dinner 5 CP, took 5 QA. 1:1 because I trained this afternoon. | | 6.7 mmol/L |
| 17:56 | Fast-Acting | | 5.0 u | 6.7 mmol/L |
| 15:37 | Note | Took a lift about 40 min into the bike activity | | 6.8 mmol/L |
| 14:50 | Activity | 1 hr • Medium | | 11.0 mmol/L |
| 13:31 | Fast-Acting | | 2.0 u | 7.5 mmol/L |
| 11:00 | Fast-Acting | | 4.0 u | 9.6 mmol/L |
| 11:00 | Note | Snack, 2 CP, took 4 QA. | | 10.1 mmol/L |
| 08:14 | Note | 4.5 CP for breakfast. 9 QA. | | 9.0 mmol/L |
| 08:00 | Fast-Acting | | 9.0 u | 9.1 mmol/L |
| 08:00 | Long-Acting | | 20.0 u | 9.1 mmol/L |

Conclusion

- Insulin adjustment enhances the effectiveness of the therapeutic interventions of the dietitian working in diabetes.
- A local protocol for the adjustment of insulin by the dietitian can provide essential guidelines and ensure transparency within the team whilst recognising the scope of the role of the dietitian.
- 1. Protocol for the Adjustment of Insulin by Dietitians Specialising in Diabetes and Diabetes Nurse Specialists in The Endocrine Unit, St Columcille's Hospital, Loughlinstown, Co Dublin
- 2. Remote DAFNE Online (DAFNE Insulin Regimen)
- 3. National Insulin Titration Guideline for Nurses Working with People with Diabetes who require Subcutaneous Insulin Injections. HSE National Clinical Programme for Diabetes 2023