Draft Implementation Plan for Consultation
Adult Type 1 Diabetes Guidelines
1. Introduction
The following section is a national implementation plan, designed to provide a framework to guide the actions required to promote and support effective implementation locally and nationally of Adult Type 1 diabetes guidelines in Ireland. The national implementation of cost-effective evidence-based care will ultimately improve health outcomes for patients, reduce variation in practice and improve the quality of clinical decisions that patients and healthcare staff have to make. These guidelines will also inform patients about the care they should be receiving and assist them to make healthcare choices based on best available information.

Following completion of a national survey of Acute Hospital Adult Diabetes Services by the National Clinical Programme (NCP) for Diabetes it was found that many of the guideline recommendations, such as diagnosis, clinical monitoring of glucose control, insulin regimens, and treatment and monitoring of specific complications are already established as part of routine care for patients with Type 1 diabetes. There are however two key recommendations that are not yet established as routine care and are currently not widely available in Ireland. The guideline recommends that high quality structured patient education must be incorporated into routine care for all people with diabetes. It also recommends the measurement of HbA1c levels every 3–6 months in adults with Type 1 diabetes. To facilitate implementation of these guidelines there is a requirement to ensure access to high quality structured patient education and access to a minimum of 2 consultations with a diabetes healthcare provider per year for all adults with Type 1 diabetes. These recommendations will be the primary focus of this guideline implementation plan.

2. Baseline Survey of Acute Hospital Services Adult Type 1 diabetes Care

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<td><strong>Numbers of Patients with Type 1 diabetes</strong></td>
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**Percentage of Diabetes Services Meeting Recommended Recall Time for Adults with Uncomplicated Type 1 diabetes**

| 4 – 6 months | 42% |

**Percentage of Diabetes Services Meeting Recommended Recall Time for Young Adults with Uncomplicated Type 1 diabetes**

| 4-6 months | 65% |

**Structured Patient Education provision in 2016**

- 58% of hospital services provided access to a structured patient education programme
- 19% of hospital services provided access to a structured education programme which meets the standards set out in the guidelines
- A total of 409 patients completed a programme in 2016, 158 patients completed a programme which meets the standards set out in the guidelines

* Only 8 of 32 hospitals indicated that numbers were based on actual figures, 21 provided estimated figures, 3 were unable to provide an estimate of the number of people with Type 1 diabetes attending their service.
3. **Strategic Aims**
The core objectives of this implementation plan are as follows;

a. Outline the framework to provide access to high quality SPE programme for eligible adults with Type 1 diabetes in Ireland 6 – 12 months after diagnosis or at another appropriate time.

b. To provide access to a minimum of 2 consultations with a diabetes healthcare provider per year for all adults with Type 1 diabetes.

4. **Approach to Implementation**
The implementation of Adult Type 1 diabetes guidelines are dependent on a range of factors, most importantly the engagement by all relevant stakeholders in the process. For successful implementation, there are significant facilitators but there will also be potential barriers which have to be considered and overcome, some of which have been identified below;

**Facilitators to Implementation**
- Patient need and desire
- Current outcomes for Irish patients with Type 1 diabetes, data suggests suboptimal level of diabetes control and elevated HbA1C’s
- Appropriately qualified dedicated diabetes healthcare professionals
- Current practice in many diabetes units
- The evidence from clinical research which forms the basis for these guideline recommendations. These guidelines have been developed in conjunction with the National Institute for Health and Care Excellence (NICE) in the UK. Ireland is only the second country NICE have facilitated to contextualise one of their guidelines
- Patient representatives and representatives of all stakeholders involved in the care of people with Type 1 diabetes on the guideline development group
- Support from the outset was sought and received from senior policy and service decision makers within the NCEC, DOH and HSE. Ministerial endorsement of the guideline.
- Hospital group network
- National HSE Office for Structured Patient Education and National Structured Patient Education Co-ordinator
- HSE Database for Structured Patient Education which is currently under development and will allow collection of data electronically on education programmes

**Potential Barriers to implementation**
- Lack of awareness by people with diabetes and healthcare professionals of the guidelines
- Resistance to change work practices or acceptance that the status quo is adequate
- Capacity of hospital groups to implement due to staffing deficits
- Financial resources to allow procurement of a national structured education programme, to facilitate ongoing training and to purchase resources
- Lack of awareness by people with diabetes of the benefit and importance of attendance at structured education programmes.
- Lack of awareness by healthcare professionals of the benefit and importance to refer people with diabetes, and encourage attendance at structured education programmes.
- The requirement for hospital sites within hospital groups to work together to reach a hospital group target.
- Lack of information technology systems to facilitate sharing of information across sites
- Lack of information technology systems to facilitate national annual diabetes audit
Activities and Outputs
This plan designed by the guideline development group will be implemented through the following approaches to harness the facilitators and overcome the barriers;

- Create awareness and generate buy-in for implementation through a comprehensive communication strategy for all relevant stakeholders including patients, diabetes healthcare providers, DOH, HSE Acute Hospital Division, hospital groups and professional bodies. The process of generating awareness will commence at the start of guideline development and be maintained every step of the way, including after the guidelines have been implemented and the care is being delivered.
- Patients and all healthcare providers involved in the provision of care for patients with Type 1 diabetes will be invited to review the guideline during the consultation process.
- Full guidelines including budget impact analysis and implementation plan will be easily accessible on the DOH NCEC website.
- Once the guideline has been published, representatives from the guideline development group and from the national clinical programme for Diabetes will visit key personnel from each hospital group in order to assist in assessment of individual hospital group needs, fit, feasibility, capacity and readiness.
- Effective implementation through development of local action plans based on local structures and arrangements.
- Identifying hospital group clinical leads for Type 1 diabetes care.
- Determining and arranging staff training and support requirements for effective implementation.
- Effective monitoring and evaluation through the development of an audit dataset to assess the implementation of the guidelines to include HbA1c measurements, recall times for uncomplicated adult with type 1 diabetes and access and attendance at SPE programmes.
- Analysis and feedback of audit data.

Strategic Aim 1
To provide access to high quality structured patient education (SPE) programme for eligible adults with Type 1 diabetes in Ireland 6 – 12 months after diagnosis or at another appropriate time.

Proposed Roll out of high quality SPE programme for Type 1 diabetes nationally
A proposed model to ensure equity of access to high quality SPE for Type 1 diabetes is for;

- National procurement process for SPE programme which meets criteria outlined in the guidelines. This procurement process will be conducted through HSE procurement.
- Education programmes to be arranged per hospital group with shared staffing and shared patient care across the different hospitals within the group.
- Patients with Type 1 diabetes must be entitled to health leave for the purpose of attending the education programme.
- The location of education delivery within each hospital group should be agreed between the hospitals within the group. The education could be delivered on one site, however it is likely that the education will be delivered across several sites. The education does not have to be delivered in the hospital setting if suitable alternative arrangement can be found. Each group will require a minimum of 6-8 educators per hospital group depending on population and geographical distribution. It is hoped that staff from multiple hospitals within each group will participate in delivering structured education.
- Each hospital group should aim to deliver 50 courses annually to a minimum of 6 patients per course. This level of activity would result in approximately 1800 patients being trained on a yearly basis. With an estimated 20,000 patients with type 1 diabetes living in Ireland, the majority of whom have not yet attended structured education, it would still take approximately 10 years for all adult patients with Type 1 diabetes in Ireland to receive structured education.
- Each hospital group should have a clinical lead to oversee all aspects of Type 1 diabetes care, including delivery of structured education.
- Educators must be facilitated by the hospital group to work across multiple hospital sites within that hospital group, this includes travel costs, flexible hours to allow delivery of education outside normal working hours and online supports. The governance and indemnity issues will have to be addressed to facilitate people working across sites. It must also ensure that patients who have completed high quality SPE have access to structured follow-up and appropriate clinics.
- Develop an education module to train all health care professionals working with people with Type 1 diabetes that supports CHO counting, insulin adjustment and promotes diabetes self-management.
- Annual national audit of key performance indicators relating to delivery of high quality structured patient education across each hospital and each hospital group.

**Workforce requirements**

In order for a hospital group to establish high quality SPE for Type 1 diabetes they must identify a minimum of 6 educators per hospital group at any given time (3 Diabetes Specialist Nurses and 3 Senior Diabetes Dietitians). The majority of educators will come from existing staff but a minimum of one additional diabetes nurse specialist and one additional senior dietitian must be resourced within each hospital group. Educators may come from any of the hospitals within the group resulting in an ‘educator pool’. Each hospital group must also identify at least 1 doctor per centre to attend the doctor training programme.

To support the sizable administrative workload associated with scheduling, course preparation, follow up data entry, reporting nationally and ordering of supplies for delivery, 1 WTE administrative person to provide clerical support must be resourced within each hospital group.

**Training and resource costs for service**

Set up costs for a SPE programme in a hospital group not currently delivering, consists of staff training costs, plus purchase of a set of teaching resources. Given the scale of education required and the number of staff members who will require education, to improve accessibility and affordability training courses will need to be available in Ireland.

In addition to the training of the SPE educators, all staff who deliver care to people with Type 1 diabetes should have access to training that supports patient empowerment and diabetes self-management – CHO counting and insulin adjustment. This will necessitate availability of short courses being available for all staff on a rolling basis to ensure all healthcare professionals are SPE aware. This will allow ongoing support for patients on return to their base hospital.

On-going educational updates for staff will require regular regionalised short courses for staff and core training for educators to be available in Ireland annually.

**Staff costs**

- An additional 1 Diabetes Specialist Nurse and 1 Senior Diabetes Dietitian are required per hospital group to expand or establish access to high quality structured education programme for eligible adults with Type 1 diabetes in Ireland based on current staffing numbers from National Survey of Acute Hospital Diabetes Services and Resources 2017.
- 1 administrative person to provide clerical support within each hospital group.
ICT
Each diabetes unit should have access to the necessary ICT resources in order to facilitate audit of the care of patients with type 1 diabetes

Lead for Implementation
The overall responsibility for monitoring and optimising the delivery of SPE will rest with the NCP for Diabetes. The programme will ensure that annual audit is conducted, reported and evaluated. The NCP will work with hospital groups that are struggling to establish or maintain KPIs relating to SPE in order to optimise outcome. The NCP will work closely with the National Office for Structured Patient Education, to ensure that the implementation plan succeeds.

Timeline
Implementation will take place over the next 4 years Successful implementation of this plan will be dependent on securing resources outlined above.
- Year 1 - completion of procurement process, recruitment of additional staff and establishment of hospital group based strategies for delivery of education
- Year 3 - Expansion of education programmes, audit
- Year 4 - Each hospital group delivering over 50 group education programmes per year, audit.

Strategic Aim 2
To provide access to a minimum of 2 consultations with your diabetes healthcare provider per year for all adults with Type 1 diabetes.

The National Clinical Programme for Diabetes together with the Integrated Care Programme for Prevention and Management of Chronic Disease promote a Model of Integrated Care for delivery of diabetes care. In this model of care, people with uncomplicated Type 2 diabetes will have their care managed in primary care only. People with complicated Type 2 diabetes will be managed between primary and secondary care. People with Type 1 diabetes will be managed in secondary care only.

There are currently over 20,000 adults in Ireland with Type 1 diabetes, representing approximately 10% of adults diagnosed with diabetes. People with Type 1 diabetes need education and support from healthcare professionals with specific expertise in nutrition, physiology and therapeutics to manage their diabetes effectively and should have access to a minimum of 2 consultations annually with the specialist diabetes team.

Workforce requirements
Staff requirement to provide access to a minimum of 2 consultations needs to be reviewed on a hospital by hospital basis. Services must be encouraged to evaluate aspects of their current activity. Adequate resources are required by primary care to support the transition towards integrated diabetes care which relocates care of people with uncomplicated Type 2 diabetes from hospital to primary care. The introduction of the Cycle of Care for Diabetes is the first step in the reimbursement of structured diabetes care in general practice. Expansion and consolidation of this level of service in primary care should be addressed through the GP contract. Full implementation of the National Model of Integrated Care will increase capacity within diabetes specialist clinics to ensure that patients with Type 1 diabetes and those complex patients with Type 2 diabetes can be reviewed with appropriate frequency.
**Evaluation and Monitoring**
Recall times for uncomplicated adult with Type 1 diabetes should be included as part of an annual audit of diabetes care.

**ICT**
Each diabetes unit should have access to the necessary ICT resources in order to facilitate audit of the care of patients with type 1 diabetes.

**References**
- **Monitoring and Evaluation** - Annual national audit of Type 1 diabetes care to assess the implementation of the guidelines, data set to include HbA1c measurements, recall times for uncomplicated adult with type 1 diabetes and access and attendance at structured patient education programmes.

**Logic Model – Implementation of Adult Type 1 Diabetes Guidelines**

**Inputs**
- National Institute for Health and Care Excellence (NICE) guidelines contextualised for Ireland
- Clinical Guideline Development Group
- National Clinical Effectiveness Committee, Department of Health
- Budget Impact Analysis by Health Research Board Collaboration in Ireland for Clinical Effectiveness Reviews (HRB-CICER)
- National Clinical Programme for Diabetes
- National Office for Structured Patient Education (SPE)
- Survey of Acute Hospitals outlining current service delivery and workforce (2017)
- Healthcare staff and professionals

**Activities and Outputs**

**Participants (who we reach)**
- People with diabetes, Hospital Groups including CEO’s, Clinical Directors, Diabetes teams in 32 acute Hospital sites. Advocacy Groups, Irish Endocrine Society, Nursing and HSCP Professional Groups

**Activities (what we do):**
- Online dissemination of guidelines
- Patient information events, “Roadshow” visits to Hospital Groups and Clinical Sites. Establish a procurement process for a high quality structured patient education (SPE) programme. Organise a framework for training educators

**Products (what we produce):**
- Type 1 diabetes Clinical Lead in each Hospital Group. SPE Lead (Educator) in each Hospital Group. Trained educators in each clinical site delivering Type 1 diabetes SPE.

**Short/medium term outcomes**

**Implementation Outcomes**
- Healthcare staff, services and systems adopt the guidelines
- Completion of HSE procurement process
- Recruitment of additional staff
- Establishment of hospital group based strategies for delivery of SPE
- Identified SPE educators in all hospital group
- Availability of education for all diabetes healthcare professionals
- Annual audit of diabetes SPE

**Service Outcomes**
- Improved access to high quality SPE
- Improvements in quality and effectiveness of diabetes care delivery

**Client Outcomes**
- Improvements in patient outcomes in settings where guidelines are implemented

**Longer term outcomes**

**Implementation Outcomes**
- Guidelines implemented across all hospitals with fidelity
- Each hospital group meeting target of delivering over 50 SPE programmes annually
- Full implementation of integrated care for diabetes
- Access to the necessary ICT resources in order to facilitate annual audit of the care of patients with type 1 diabetes

**Service Outcome**
- Delivery of recommendations are cost-effective and sustained

**Client Outcomes** - Improved clinical outcomes including
- Improved HbA1c
- Fewer hospitalisation for diabetic ketoacidosis
- Fewer emergency admissions for severe hypoglycaemia
- Improvement in quality of life and reduced diabetes distress among people living with Type 1 diabetes

**Evidence:** Contextualisation of NICE guidelines; budget impact assessment; stakeholder engagement, including patients; scoping of feasibility and implementability of recommendations; expert review