MANAGEMENT OF ADULTS WITH DIABETES MELLITUS REQUIRING END OF LIFE CARE CLINICAL GUIDELINE

V2.0

February 2018
1. **Aim/Purpose of the Guideline**

1.1. The aim of this document is to provide Health Care Professionals working within the Royal Cornwall Hospital Trusts with management guidance for appropriate and sensitive high quality Diabetes care for all adults with Diabetes at the end of their lives.

1.2. **Scope**

This guidance is for the management of adults with Diabetes at the end of life in:

A) Continuing end of life care - deteriorating/weeks prognosis

B) Final days - terminal care/days prognosis.

*NB. If prognosis is uncertain to discuss with Consultant/hospital palliative care team. If guidance is required for the management of adults with Diabetes at the end of life who are stable with 1 year or more prognosis, or who are unstable with advanced disease/months prognosis please refer to “End of Life Diabetes Care Clinical Care Recommendations” (Diabetes UK 2013).*

2. **The Guidance**

2.1. **Principles**

The defining key principles that underlie high quality Diabetes care at the end of life are:

- Provision of a painless and symptom-free death
- Tailor glucose-lowering therapy and minimise Diabetes related adverse treatment effects
- Avoidance of:
  - Hypoglycaemia events
  - Diabetic Ketoacidosis (DKA)
  - Hyperosmolar Hyperglycaemic state (HHS)
  - Symptomatic Hyperglycaemia
- Avoidance of foot complications in frail, bed bound adults with diabetes
- Avoidance of symptomatic clinical dehydration
- Provision of an appropriate level of intervention according to stage of illness, symptom profile, and respect for dignity
- Supporting and maintaining the empowerment of individuals (in their self management) and carers to the last possible stage.

2.2. **Glucose Control Targets**

No published evidence exists to justify any particular glucose range to aim for at the end of life, but Diabetes UK (2013) has recommended the following glucose general ranges:

- **Aim 1** – no glucose level less than 6 mmol/l
- **Aim 2** – no blood glucose higher than 15 mmol/l
3. **Continuing end of life care - deteriorating/weeks prognosis**

3.1. **Main Aims:**
- Keep drug intervention to a minimum.
- Control symptoms and blood glucose ranges to within 6 -15mmol/l.

3.2. **Considerations** - when choosing or continuing with oral anti Diabetic agents:
- Renal function – review eGFR
- Dietary intake review
- Hypoglycaemia Risks

3.3. **Insulin Regimens:**
- Simplify to once per day regimens to be administered in the morning where possible
- Consider a reduction in total daily dose to 75% of usual total daily dose.
- **Do not stop long-acting basal Insulin’s in Type 1 Diabetes.**

Refer to Diabetes Inpatient Specialist Nurse Team via Maxims, # 3104, bleep 2205 or Endocrine team for advice.
4. Final days - terminal care/days prognosis

4.1. Main Aims:

- Control symptoms and average blood glucose ranges within 8 - 20mmol/l.
- Avoid Hypoglycaemia and DKA/HHS

Type 2 Diabetes managed with Diet and/or oral medication and/or GLP1 agonist

- Stop oral medications & GLP1 injections
- Stop monitoring blood glucose levels.
- If symptoms of Hyperglycaemia are observed perform urinalysis for glucose*.

Type 2 Diabetes managed with Insulin

- Stop Insulin
- Stop monitoring blood glucose levels
- Urinalysis for glucose daily.*

Type 1 Diabetes always managed with Insulin

- Do not stop basal Insulin. Continue once daily dose of usual long acting basal Insulin with reduction in dose to 75% of usual daily dose.

If over 2+ of glucose in urine - check blood glucose level.

If blood glucose > 20 mmols/l repeat in 2 - 4 hours. If remains > 20mmol/l start OD daily long-acting basal Insulin i.e. Glargine Insulin usually at 0.2 units per kg/body weight. DISN/Endocrine advice can be given for specific dosages if required.

Check blood glucose once daily varying times.

If < 8 mmols/l reduce insulin by 10%-20%
If > 20 mmols/l increase Insulin by 10%-20% to reduce risk of symptoms and development of Ketones

Notes.

- *If no urine available check blood glucose levels.
- Observe regularly for signs and symptoms of Hypoglycaemia.
- If symptoms of Hypoglycaemia are observed check blood glucose levels.
- If Hypoglycaemia is confirmed treat as per hospital guideline.

5. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Compliance with the relevant process for patients reviewed by Diabetes Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Kim Sleeman</td>
</tr>
<tr>
<td>Tool</td>
<td>Patient Documentation</td>
</tr>
<tr>
<td>Frequency</td>
<td>Adult in patients at the end of life reviewed by the specialist Diabetes team</td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>Non-compliance will be reported to the responsible medical team, ward / area manager. Non-compliance resulting in an adverse patient event will be reported via Datix</td>
</tr>
<tr>
<td>Acting on recommendations and Lead(s)</td>
<td>Medical teams / ward / area managers will undertake subsequent recommendations and action planning for any or all deficiencies and recommendations within reasonable timeframes for their areas. The Specialist Adult In-Patient Diabetes Team will undertake any trust wide recommendations and action planning for any or all deficiencies and recommendations within reasonable timeframes</td>
</tr>
<tr>
<td>Change in practice and lessons to be shared</td>
<td>Lesson learned or changes to practice will be shared with all the relevant stakeholders</td>
</tr>
</tbody>
</table>

6. Equality and Diversity

6.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Diversity & Human Rights Policy' or the Equality and Diversity website.

6.2. Equality Impact Assessment
The Initial Equality Impact Assessment Screening Form is at Appendix 2.
### Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Management of Adults with Diabetes Mellitus Requiring End of Life Care Clinical Guideline V2.0.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>15 February 2018</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>15 February 2018</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>15 February 2021</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Medical Directorate. Kim Sleeman Clinical Nurse Specialist - Diabetes</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 253104</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>Guideline for management of Diabetes at the end of life.</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Diabetes. End of Life Care. Palliative Care</td>
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<tr>
<td>Target Audience</td>
<td>RCHT CPFT KCCG ✔</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director Governance</td>
</tr>
<tr>
<td>Date revised:</td>
<td>Updated 15 Feb 2018</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Management of Adults with Diabetes Mellitus requiring end of life care V1.0.</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Diabetes In-Patient Specialist Nurses, Consultant Endocrinologists, Consultant in palliative care. Palliative care specialist Nurses.</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Roz Davies</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Not Required</td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet ✔ Intranet Only</td>
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<tr>
<td>Document Library Folder/Sub Folder</td>
<td>Endocrine &amp; Diabetes</td>
</tr>
<tr>
<td>Links to key external standards</td>
<td>NSF Diabetes 2001 standard 8</td>
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<td>Related Documents:</td>
<td>End of Life Diabetes Care Clinical Care Recommendations Diabetes UK 2013</td>
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<td>Training Need Identified?</td>
<td>No.</td>
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Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 Jan 15</td>
<td>V1.0</td>
<td>Initial Issue</td>
<td>Kim Bull Clinical Nurse Specialist - Diabetes</td>
</tr>
<tr>
<td>15 Feb 18</td>
<td>V2.0</td>
<td>Updated with: new referral process and basal Insulin Glargine and BG ranges in final days.</td>
<td>Kim Sleeman Clinical Nurse Specialist - Diabetes</td>
</tr>
</tbody>
</table>

All or part of this document can be released under the Freedom of Information Act 2000

This document is to be retained for 10 years from the date of expiry.

This document is only valid on the day of printing

Controlled Document

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Appendix 2. Initial Equality Impact Assessment Form

This assessment will need to be completed in stages to allow for adequate consultation with the relevant groups.

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed</th>
<th>Directorate and service area:</th>
<th>Is this a new or existing Policy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of Adults with Diabetes Mellitus Requiring End of Life Care Clinical Guideline V2.0.</td>
<td>Medical/Diabetes</td>
<td>Existing</td>
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<table>
<thead>
<tr>
<th>Name of individual completing assessment:</th>
<th>Telephone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kim Sleeman</td>
<td>01872 253104</td>
</tr>
</tbody>
</table>

1. *Policy Aim*  
Who is the strategy / policy / proposal / service function aimed at?  
To provide detailed guidance on the clinical management of adults with Diabetes and the end of life.

2. *Policy Objectives*  
- To provide a consistent approach to the management of adults with Diabetes at the end of life within RCH sites  
- Avoidance of symptoms and complications.

3. *Policy – intended Outcomes*  
- Provision of a painless and symptom-free death of adults with Diabetes and the end of life.

4. *How will you measure the outcome?*  
- Datix Reporting  
- Review of medical/nursing documentation as required

5. Who is intended to benefit from the policy?  
Adults with Diabetes at the end of life.

6a Who did you consult with  
b). Please identify the groups who have been consulted about this procedure.  
Workforce | Patients | Local groups | External organisations | Other |
<table>
<thead>
<tr>
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<tbody>
<tr>
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<td></td>
<td>X</td>
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</tbody>
</table>

**Please record specific names of groups**  
Diabetes In-Patient Specialist Nurses  
Consultant Endocrinologists  
Consultant in Palliative care.  
Palliative Care Specialist Nurses.

What was the outcome of the consultation?  
Comments made. Changes actioned and document approved and ratified via Diabetes Governance structure

7. The Impact  
Please complete the following table. If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.

Are there concerns that the policy *could* have differential impact on:
<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex (male, female, trans-gender / gender reassignment)</td>
<td></td>
<td>√</td>
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<td>Race / Ethnic communities / groups</td>
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<tr>
<td>Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.</td>
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<tr>
<td>Religion / other beliefs</td>
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<td>√</td>
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<tr>
<td>Marriage and Civil partnership</td>
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<tr>
<td>Pregnancy and maternity</td>
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<tr>
<td>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</td>
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</tbody>
</table>

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:

- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation - this excludes any policies which have been identified as not requiring consultation. or
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended.  
   | Yes | No | √ |

9. If you are not recommending a Full Impact assessment please explain why.

Guideline is suitable for all adult in-patients with Diabetes irrespective of any equality factors at the end of life.

Signature of policy developer / lead manager / director  
Kim Sleeman

Date of completion and submission  
15 February 2018

Names and signatures of members carrying out the Screening Assessment  
1. Clinical Nurse Specialist - Diabetes
2. Human Rights, Equality & Inclusion Lead

Kim Sleeman

Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead  
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa, Truro, Cornwall, TR1 3HD

Management of Adults with Diabetes Mellitus Requiring End of Life Care Clinical Guideline V2.0.
Page 9 of 10
This EIA will not be uploaded to the Trust website without the signature of the Human Rights, Equality & Inclusion Lead.

A summary of the results will be published on the Trust’s web site.

Signed: Kim Sleeman

Date: 15 February 2018