

Diabetes Awareness at End of Life

Please put your name, place of work and job role in the chat box as you join the session.
Thank you



slido

Join at
slido.com
#6914 059



Aims:

- To gain an understanding of Diabetes Management at the end of life, including the use of medications.
- To gain knowledge around medication de-intensification and withdrawal at end of life.
- To review steroid treatment in end-of-life care.
- To understand the importance of effective communication and care planning in diabetes management at end of life.

Learning Objectives:

- To recognise hypoglycaemia in an unconscious patient.
- To understand the effects of steroids at end of life and their relation to diabetes.
- To understand the potential impacts of diabetes on a person at end of life.
- To gain an understanding of processes to ascertain a person's wishes with their diabetes care at end of life.

Diabetes Facts and Figures

More than **4.3 million people** in the UK live with diabetes. Additionally, **850,000 people** could be living with diabetes who are yet to be diagnosed.

These registration figures for 2021-22 are up by **148,591** from 2020-2021.

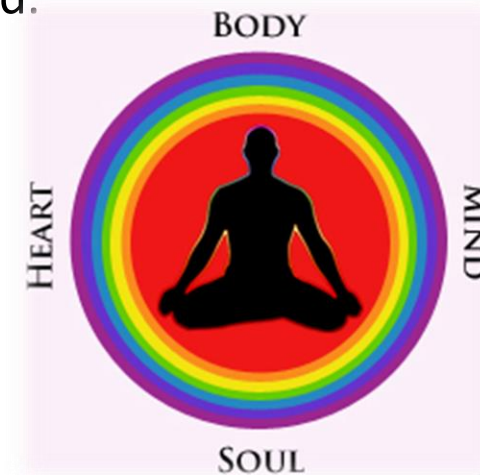
- Around 8% of people with diabetes have **type 1 diabetes**
- Around 90% of people with diabetes have **type 2 diabetes**.
- The **other forms of diabetes** make up the remaining 2%.

(Diabetes UK, 2022)

What is End of Life Care?

Individuals are ‘**approaching end of life**’ when they are likely to die within the next 12 months. Those whose death is imminent (expected in a matter of hours or days) are considered ‘**at end of life**’.

Those who have diabetes often do not die from their diabetes, but mostly from reasons attributed from other illnesses. Therefore, when caring for a person with diabetes at end of life it is important that all other **person-focused, holistic** end of life practises are still considered.



Signs that a person is at the end of life:

- Sleeping more/unroutable
- Less interest in diet and fluids
- Changes in breathing
- Confusion and hallucinations
- Cold hands and feet, blue lips and ears

So, if a person is unable to verbally communicate symptoms of hypoglycaemia?

Observe for signs such as:

- Sweating
- Palpitations
- Anxiety
- Confusion/ drowsiness/ behaviour changes
- Skin colour changes
- Seizures

Do not assume if the individual is comatose that it is due to the end-of-life primary condition.

What would we do?

- Consider, is this reversible?
- Check blood sugar levels and administer medications as per regime for hypoglycaemia.
- Continue to monitor patient both visually and through blood sugar readings.
- Monitor and ensure patient comfort
- Offer patient and relatives reassurance and support

Principles of High-Quality Diabetes Care at the End of Life

- Effective symptom management at end of life
- Tailor glucose-lowering therapy to minimise diabetes-related adverse treatment effects
- Avoid metabolic de-compensation and diabetes related emergencies such as hypoglycaemia, diabetic ketoacidosis, hyperosmolar hyperglycaemic state, symptomatic hyperglycaemia
- Avoid foot complications and pressure sores
- Avoid symptomatic clinical dehydration
- Provide an appropriate level of intervention according to stage of illness, symptom profile, and respect for dignity



Medications at end of life

A **review of all prescribed medications** should be actioned once it has been decided a person is at end of life.

There are significant potential **side-effects** and **tablet burdens** associated with medications such as ACE inhibitors, anti-hypertensives, anti-platelet agents and statins, used to reduce the risk of cardiovascular events. Stopping some or all of them may improve quality of life although this decision should be taken in conjunction with the **individual** and their **family** to avoid giving the impression that their healthcare professionals are 'giving up on them'

The **main focus** in end-of-life care is to avoid:

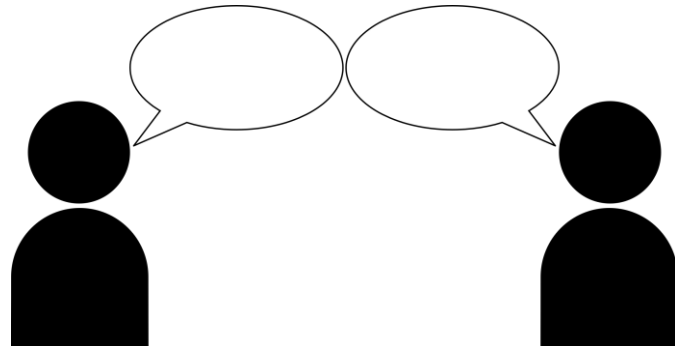
- Hypoglycaemia, Diabetic Keto Acidosis, Hyperosmolar Hyperglycaemic State or Symptomatic hyperglycaemia

Therefore, blood glucose targets are revised to:

- **No capillary blood glucose < 6 mmol/L**
- **No capillary blood glucose > 15mmol/L**

De-intensifying and Withdrawing Diabetic Treatments

- Any decisions to reduce or withdraw part of the medicines load is usually based on **clinical common sense** or **best practice** rather than sound evidence to support these decisions.
- The process of de-intensifying therapy should be proactive and based on the **likely benefits** or not of continuing with the specific treatment versus the **risk of harm** from adverse drug effects and their consequences.
- Withdrawing therapy of any kind raises ethical concerns and it is important that **agreement** is sought between clinicians involved, the person at end of life and his/her family. This should come only after a full **explanation** is provided by the clinician and the reasoning involved.
- A recording in the medical notes of the discussion and agreed plan of action is **essential**



Type 1 Diabetes

Insulin should be maintained in those with type 1 diabetes. A shift to a simpler regime such as once daily basal insulin should be considered to reduce the risk of diabetic ketoacidosis. Stopping insulin can cause severe hyperglycaemia and dehydration so should be avoided wherever possible.

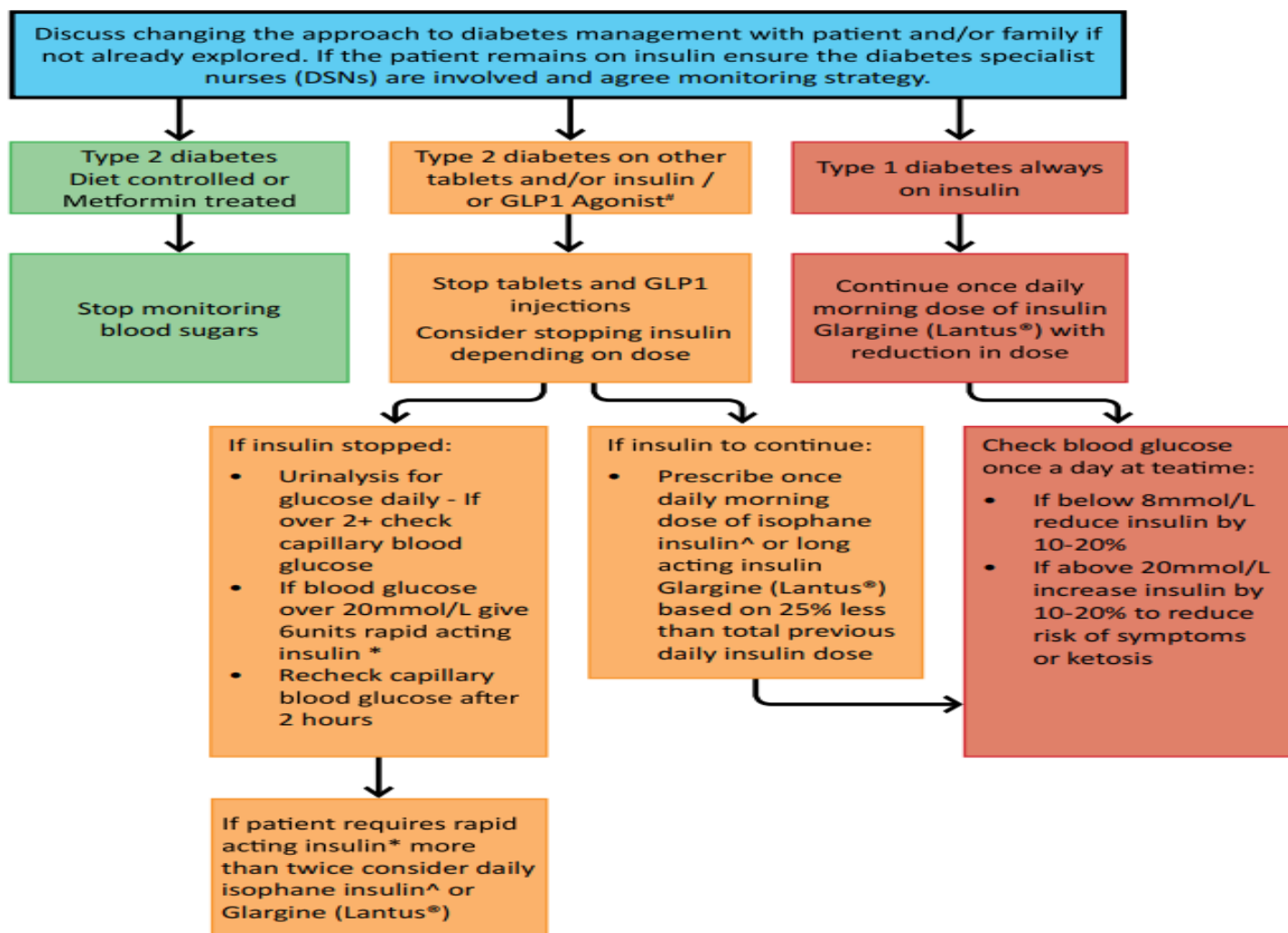
Type 2 Diabetes

Efforts should be made to withdraw insulin completely whilst again ensuring there is no significant deterioration in glucose control.

For those on **other glucose lowering therapy**, there should be a monitored but active process of reducing or withdrawing treatments such as Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) because of their adverse effects on appetite and associated weight loss and/or Sodium-glucose co-transporter-2 (SGLT2) inhibitors because of their adverse effects on fluid balance and the risk of urogenital infections.

Lipid-lowering agents such as statins can also be considered for withdrawal because of unlikely benefits and the reduction of adverse effects such as muscle pain.

End of Life Diabetes Management



Key

* Bydureon (Exenatide ER), Byetta (Exenatide) / Victoza, (Liraglutide), Lyxumia (Lixisenatide)

* Humalog/Novorapid/Apidra
 ^ Humulin I /Insulatard/
 Insuman Basal

- Keep tests to a minimum. It may be necessary to perform some tests to ensure unpleasant symptoms do not occur due to low or high blood glucose
- It is difficult to identify symptoms due to "hypo" or hyperglycaemia in a dying patient
- If symptoms are observed it could be due to abnormal blood glucose levels
- Test urine or blood for glucose if the patient is symptomatic
- Observe for symptoms in previously insulin treated patient where insulin has been discontinued

MEDICATION

Tailoring Medication Including the Use of Glucose Lowering Therapies in End of Life Diabetes Care

We have adopted **four stages (A - D from the Gold Standards Framework⁵)** within the end of life scenario for considering the use of glucose-lowering therapies and other relevant drug therapies: these are colour coded in line with other nationally recognised stages of end of life care:

A. Blue: "All" from diagnosis stable with year plus prognosis	B. Green: "Benefits" unstable / advanced disease - months prognosis
C. Yellow: "Continuing care" deteriorating weeks prognosis	D. Red: "Terminal care" - days prognosis

D. Red: "Terminal care" - days prognosis

Ideally by this stage diabetes treatment has been minimised so that few changes are needed in the last days of life. If the stage is reached where the individual is bed bound, semi-comatose, no longer able to take tablets, no longer able to eat and only able to take sips of fluid. The use of a local protocol or advice from the specialist team may guide your decision making.

At this stage, the Flowchart for Diabetes at End of Life (Fig 1 page 21) , describes how to manage diabetes in the dying individual. It can be reassuring for relatives and carers to know that this additional plan of care is being followed and that the diabetes is being managed differently rather than being "ignored".

The flowchart has been devised to minimise symptoms of diabetes and keep invasive testing to the minimum needed to achieve that aim.

(Trend Diabetes, 2021)

Case Study

Mrs. Morris has been admitted to a care setting for **End-of Life care**. She is an 86-year-old lady with a diagnosis of bowel cancer and is expected to die within days. She is now bedbound, semi-comatose, no longer able to eat or drink and can only tolerate minimal sips of water when she wakes. Her past medical history includes **Type 1 Diabetes** for which she routinely has Insulatard twice a day with Novorapid pre-meals, **hypertension** for which she takes Ramipril and takes Simvastatin for **hyperlipidemia**. She does not have a Flash Glucose Monitor, so her blood glucose levels have been tested using a Blood Glucose finger prick test. Now Mrs. Morris has been coded as dying, her **medications** have been **reviewed**. The medical team taking over her care, after a full assessment have determined that it is **no longer appropriate** or possible for Mrs. Morris to continue with the Ramipril or Simvastatin due to her inability to swallow. Due to her Diabetes being Type 1, the most suitable course of action for her at this stage is to start a **reducing dose of Lantus** each morning and to **test her blood glucose levels** each evening, reducing or increasing her Lantus dose accordingly to prevent hypoglycaemia or hyperglycaemia. When calculating her dose of Lantus, many factors would need to be considered including her previous diabetes medication regime, her reducing oral intake and her physical condition. This is in line with the Diabetes UK EoL guidance.

Mrs. Morris will need to be **observed closely** for signs of hypoglycaemia or hyperglycaemia as the signs and symptoms may be mistaken for pain, restlessness or delirium. **Frequent and clear conversations** will need to be had with Mrs. Morris' family to ensure they are aware of and understand the rationale for the change in Mrs. Morris' treatment plan.

Palliative Care Drugs

Common classes of drugs used include **analgesics** for background and breakthrough pain, **anti-secretory drugs**, **sedatives** and **relaxants** for agitated behaviour. An 'anticipated' approach to medicines prescribing in the terminal phase of life is recommended, preferably with a 1st line and 2nd line medication for each class of drug.



Steroid use at end of life

At end of life, steroids can be used in the management of **intercranial pressure**, to **relieve pain** and to **reduce inflammation**. Some corticosteroids can cause blood glucose levels to rise because they can affect how the body responds to insulin. (Above 750mcg dexamethasone or 5mg prednisolone)

If steroids are used for a **short time**, a person is less likely to need treatment for new diabetes or have their usual diabetes treatment changed. This is because as the dose of steroids reduce, so will their effect on insulin resistance.

People without a previous diagnosis of diabetes who need **long-term** steroids may benefit from diabetes medication if they have symptomatic hyperglycemia. This will depend on the person's needs and the dose of steroids they're taking.

Remember that aiming for normal blood glucose levels can be unrealistic in people receiving end of life care as they may eat less, or the amount they eat can vary, from day to day.

Steroid Treatment in End-of-Life Care

Once daily steroid therapy	This can be managed by morning administration of sulphonylurea (e.g. Gliclazide) or morning isophane insulin (e.g. Insulatard, Humulin 1 or insuman Basal)
Twice daily steroid therapy	This may include splitting higher doses of dexamethasone. If so, consider an alternative approach to setting times for testing glucose levels, and for managing the impact on blood glucose.
Twice daily gliclazide or isophane insulin	This can be effective but there is a risk of early morning hypoglycaemia. If hypoglycaemia is a concern, once daily insulin glargine or insulin detemir given in the morning may be safer.
Short-term courses (less than 3 days) of steroids	This may only require closer blood glucose monitoring.

Planning & Communication

Those who are unable to communicate effectively can represent a key challenge for all health professionals. It is therefore helpful to **encourage people to consider advance or future care planning** well ahead of time so that they can make known their wishes and priorities to guide decision making if they become unable to participate fully. A person's choices, culture, beliefs, and place of dying should be respected wherever possible.

Three important types of advance planning are usually recognised within the NHS:

An **Advance Decision** (sometimes known as an advance decision to refuse treatment, an ADRT or a living will). This represents a legally binding written decision an individual with mental capacity can make now to refuse a specific type of treatment at some time in the future.

An **Advance Statement**. This is a written statement that sets down the preferences, wishes, beliefs and values a mentally competent individual wishes to record about their future care.

A **ReSPECT** form. This process creates personalised recommendations for a person's clinical care and treatment in a future emergency in which they are unable to make or express choices. These recommendations are created through conversations between a person, their families, and their health and care professionals to understand what matters to them and what is realistic in terms of their care and treatment.

Advance decision to refuse treatment (ADRT)

UK National Formulary Advance Decision to Refuse Treatment: a Guide for Health and Social Care Staff, 2016



My name	If I became unconscious, these are distinguishing features that could identify me:
Address	Date of birth: NHS no (if known): Hospital no (if known): Telephone Number:

What is this document for?

This advance decision to refuse treatment has been written by me to specify in advance which treatments I don't want in the future. These are my decisions about my healthcare, in the event that I have lost mental capacity and cannot consent to or refuse treatment. This advance decision replaces any previous decision I have made.

Advice to the carer reading this document:

Please check

- Please do not assume that I have lost mental capacity before any actions are taken. I might need help and time to communicate when the time comes to need to make a decision.
- If I have lost mental capacity for a particular decision check that my advance decision is valid, and applicable to the circumstances that exist at the time.
- If the professionals are satisfied that this advance decision is valid and applicable this decision becomes legally binding and must be followed, including checking that it has not been varied or revoked by me either verbally or in writing since it was made. Please share this information with people who are involved in my treatment and need to know about it.
- Please also check if I have made an advance statement about my preferences, wishes, beliefs, values and feeling that might be relevant to this advance decision.

This advance decision does not refuse the offer or provision of basic care, support and comfort

ADVANCE STATEMENT	
An advance statement allows you to record how you would like to be treated should you lose the capacity to tell staff yourself. To help you do this, this form contains sections about what works best for you, how you would like your property to be looked after and who you would like to be told that you are receiving treatment. Although an advance statement is not legally binding, staff will use it to understand your preferences and therefore be able to make decisions in keeping with your choices.	
Name:	
Address:	
Tel:	
Date of Birth:	
Any Distinguishing Marks:	
My wishes regarding medication and treatment are as follows:	
(Set if you wish to refuse any treatment then please consider making an advance decision to refuse treatment. An advance decision to refuse treatment is legally binding with the exception of medication prescribed under the MHA (2003). It is helpful to give reasons why)	

ReSPECT Recommended Summary Plan for Emergency Care and Treatment for		Preferred name				
1. Personal details						
Full name	Date of birth	Date completed				
NHS/Health and care number	Address					
2. Summary of relevant information for this plan (see also section 6)						
Including diagnosis, communication needs (e.g. interpreters, communication aids) and reasons for the preferences and recommendations recorded.						
Details of other relevant planning documents and where to find them (e.g. Advance Decision to Refuse Treatment, Advance Care Plan). Also include known wishes about organ donation.						
3. Personal preferences to guide this plan (when the person has capacity)						
How would you balance the priorities for your care (you may mark along the scale, if you wish):						
<table border="0"> <tr> <td>Minimise discomfort, pain, distress, anxiety, etc.</td> <td>Maximise comfort, support, reassurance, etc.</td> </tr> <tr> <td>1</td> <td>10</td> </tr> </table>			Minimise discomfort, pain, distress, anxiety, etc.	Maximise comfort, support, reassurance, etc.	1	10
Minimise discomfort, pain, distress, anxiety, etc.	Maximise comfort, support, reassurance, etc.					
1	10					
Considering the above priorities, what is most important to you to be told?						
4. Clinical recommendations for emergency care and treatment						
Notes on the underlying condition as per guidance below	Notes on symptoms/condition as per guidance below					
Best practice clinical guidance on specific interventions that may or may not be wanted to identify appropriate, including being taken or admitted to hospital or receiving life support.						
CRU strongly recommended Adult or child	CRU sometimes/CRU should rarely, or not at all, be used	CRU strongly NOT recommended Adult or child				

Effective communication is Key!

Having open, honest and respectful conversations with people approaching end of life and their families not only ensures the patient is able to express their wishes with their care and treatment, but it also builds trust and confidence in the healthcare profession and individual organisations.

Any Questions?

Email: lisa.summers@hokh.co.uk or louisa.terry@hokh.co.uk

slido

Join at
slido.com
#6914 059



Resources

[End of Life Guidance for Diabetes Care – Trend Diabetes](#)