Good Practice Guideline for Residents with Diabetes in Care Homes

For: GPs, pharmacists, pharmacy technicians, nurses, care staff, care home managers, chefs and other staff working within care homes.

Aim: To help care homes to provide high quality and safe care for residents living with diabetes.

Background: Everyone living with diabetes should have access to the same level of high quality care, whether they live independently or in a care home. Up to 26% of residents living in care homes may have diabetes and good quality care can help prevent complications and prevent hospital admissions. This guidance sets standards that should be used to develop and review new and existing procedures. It should be used to develop and sustain good practice in key areas of diabetic care.

Standards for Good Diabetes Care in Care Homes

1. All care homes should have a diabetes policy.

2. Residents with diabetes should have a personalised diabetes care plan in their notes (in addition to other standard care plans). This should include key roles, responsibilities, targets, outcome measures and any arrangements for specialist review.

3. There should be at least one ‘Diabetes Champion’ or ‘Diabetes Key Worker’ within each care home who has attended locally recognised accredited training.

4. All care staff should have basic knowledge of diabetes and care homes should ensure staff supporting residents with diabetes are competent to care for these residents.

5. Care staff who deliver personal care to residents living with diabetes should be aware of the diabetes care plan relating to ‘foot care’ and the need for feet to be inspected every day.

6. Care home should have a fully stocked ‘Hypo box’ which contains fast acting glucose to treat hypoglycaemia or “hypos” (low blood sugars). Some nursing homes may choose to have individual ‘hypo boxes’ for residents with more complex needs.

7. Residents who are at high risk of hypoglycaemia (insulin dependent) should have their blood glucose monitored by care staff as agreed with the GP/Diabetic Specialist Nurse/District Nurse and in line with the local protocol for blood glucose monitoring for patients with diabetes in care homes.

8. There should be a nutrition care plan based on both the resident’s MUST score and best practice guidance on nutrition for residents with diabetes.

9. All residents with diabetes should have an annual diabetes review in line with NICE Guideline 28 [www.nice.org.uk/guidance/ng28](http://www.nice.org.uk/guidance/ng28).

10. Each care home should develop an audit tool to assess the quality and extent of diabetes care within their care homes.

11. All residents should be screened for diabetes on admission to the care home and this should be documented in the residents care plan.
Key Roles and Responsibilities for Providing Care for Residents with Diabetes:

Residential Care Homes

- Every resident with diabetes should have a detailed diabetes care plan which has been agreed with the resident and/or their family and their GP/HCP. (See Resident’s Diabetes Passport)
- Good diabetes care starts with a diabetes policy and all staff should be aware of the care home diabetes policy.
- There should be a diabetes champion or key worker in each care home - this person should attend the locally recognised diabetes training and will be responsible for making sure each resident with diabetes has a diabetes care plan with all the relevant sections completed. They can support all other care staff to provide high standards of diabetes care especially regarding good foot care, nutrition and other elements of care depending upon each individual.
- The annual review for diabetes is the responsibility of the GP practice.
- Residential care staff can be trained on all aspects of diabetes care. Care workers will need a competency assessment to enable them to administer insulin to individual residents. Competency will need to be assessed on a resident by resident basis.
- Annual theoretical training can be provided to care home staff by the diabetes link nurses that have a delegated responsibility of giving insulin to an individual. Staff will be given a certificate and assessed for competency using a competency assessment tool.
- The record of competency will be kept in the individual patient’s care record within the care home.

Nursing homes

- Every resident with diabetes should have a detailed diabetes care plan which has been agreed with the resident and GP/HCP. (See Resident’s Diabetes Passport)
- Good diabetes care starts with a diabetes policy and all staff must read and be aware of the policy.
- There should be a diabetes champion or key worker in each care home - this person should attend the locally recognised diabetes training and will be responsible for making sure each resident has a diabetes care plan with all the relevant sections completed. They can support all other care staff to provide high standards of diabetes care especially regarding foot care, nutrition and other elements of care depending upon each individual.
- The annual foot review should be completed by a clinician with the required competency which could be the GP, a care home nurse or a Health and Care Professions Council (HCPC) registered Chiropodist or Podiatrist.
- The Annual review is the overall responsibility of the GP who may request that nurses within homes undertake some of the required checks. Nurses should ensure that they have the skills and competency to complete these when requested.

GP

- The resident’s GP is responsible for ensuring the diabetes annual review is undertaken, including a medication review, and this should be done at least every year.
- The resident’s GP is responsible for offering pre-diabetes reviews and screening of new residents for diabetes.
The following documents can support The Diabetes Care Plan and can be used to implement the minimum standards required for good diabetes care.

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<th>Document Title</th>
<th>Description</th>
<th>Page</th>
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<td>Diabetes policy for care homes</td>
<td>Every care home should have a detailed diabetes policy that all staff caring for residents with diabetes should comply with. The diabetes policy should meet the minimum standards set out within this document; in addition care homes may consider including the following information depending upon on their specific local circumstances. The care home should ensure that their own diabetes policy meets the needs of their residents.</td>
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<tr>
<td>Resident’s Diabetes Passport</td>
<td>The Diabetes Passport was designed to understand the person with diabetes so they can receive appropriate care and support. The resident’s passport should be completed from the resident’s diabetes care plan with any other relevant information from health care professionals. The passport can support and enhance communication between HCPs in primary and secondary care.</td>
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<tr>
<td>Resident's Diabetes Passport</td>
<td></td>
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</tr>
<tr>
<td>Hyperglycaemia care plan</td>
<td>This nursing care plan is for the management and prevention of high blood sugar.</td>
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<tr>
<td>Hypoglycaemia care plan</td>
<td>This nursing care plan is for the management and prevention of low blood sugar.</td>
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<td>Hypo Box for care homes</td>
<td>All care homes that care for residents living with diabetes should keep a fully stocked ‘hypo’ box that is available to treat residents who experience low blood glucose (hypo). Stocked and maintained by the diabetic champion.</td>
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<td>Foot care in diabetes</td>
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<tr>
<td>Diabetes annual review</td>
<td>Every resident living with diabetes should have an annual medical review of their diabetes in either their GP surgery or in their care home</td>
<td>16-17</td>
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<td>Protocol for blood glucose monitoring (BGM) for patients with diabetes in care homes</td>
<td>Provides a framework for direction and guidance for safe BGM in care homes.</td>
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</table>
### Diabetes Policy for Care Homes

What to include in a diabetes policy:
Both the Diabetes UK and the Care Quality Commission (CQC) have clinical practice guidance for care home residents.

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<thead>
<tr>
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<tbody>
<tr>
<td>A screening programme for diabetes</td>
<td>Diabetic eye screening – <a href="https://www.nhs.uk/conditions/diabetic-eye-screening/">NHS</a></td>
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<tr>
<td>Treatment goal setting</td>
<td></td>
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<td>Management of hypoglycaemia</td>
<td>See <a href="#">page 7</a> and <a href="#">Appendix 1</a></td>
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<tr>
<td>Availability of hypoglycaemia kit (hypo box)</td>
<td>See <a href="#">Page 8</a></td>
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<td>Blood glucose monitoring</td>
<td>See <a href="#">page 18</a></td>
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<td>Annual review arrangements to include eye screening</td>
<td>See <a href="#">Page 16-17</a></td>
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<td>Dietary and nutritional policy</td>
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<tr>
<td>Daily foot care and access to services</td>
<td>See <a href="#">Page 14-15</a></td>
</tr>
<tr>
<td>Regular audit of services which could include referral to hospital</td>
<td><a href="https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=JvTEvwnCH_s%3d&amp;tabid=2874&amp;portalid=1&amp;mid=4502">https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=JvTEvwnCH_s%3d&amp;tabid=2874&amp;portalid=1&amp;mid=4502</a></td>
</tr>
<tr>
<td>Supporting staff to deliver effective diabetes care- access to education and training</td>
<td>See <a href="#">Appendix 2</a>, <a href="#">Appendix 4</a> and <a href="#">Appendix 5</a></td>
</tr>
</tbody>
</table>
Resident’s Diabetes Passport

Please click on link to download the diabetes passport. This should be completed in conjunction with a health care professional.

Hyperglycaemia Care Plan

<table>
<thead>
<tr>
<th>Residents Name: Date of Birth:</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Diabetes key worker:</td>
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<tr>
<td>When to contact the GP:</td>
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</tbody>
</table>

Care homes can either use this template or their own diabetes/standard care plans as long as all relevant sections are included.

Hyperglycaemia (hyper) is the medical term for high blood glucose levels. It is a common problem for people with diabetes. It can affect people with type 1 diabetes and type 2 diabetes who are at increased risk of hyperglycaemia when they are unwell, have an infection and/or start steroid therapy. It may be that increased blood glucose monitoring is required at these times – the resident’s GP can advise on this.

### Symptoms of hyperglycaemia (high blood glucose)

Symptoms for people with diabetes tend to develop slowly over a few days or weeks. In some cases, there may be no symptoms until the blood sugar level is very high. Symptoms of hyperglycaemia include:

- increased **thirst** and a **dry mouth**
- needing to urinate (frequently)
- tiredness
- blurred vision
- **unplanned weight loss**
- recurrent infections, such as thrush, **bladder infections (cystitis)**, and skin infections

### Very high blood sugar levels can cause life-threatening complications, such as:

- **Diabetic Ketoacidosis (DKA)** – a condition caused by the body needing to break down fat as a source of energy, which can lead to a diabetic coma. This tends to affect people with type 1 diabetes but can also occur in people with type 2 diabetes.

- **Hyperosmolar Hyperglycemic State (HHS)** – severe **dehydration** caused by the body trying to get rid of excess sugar. This tends to affect people with type 2 diabetes.

### When to ask for urgent medical attention

Contact the diabetes care team or GP immediately if **(Name)** has a high blood sugar level and has the following symptoms:

- feeling or being sick
- **abdominal (tummy) pain**
- rapid, deep breathing
- **signs of dehydration**, such as a **headache**, dry skin and a weak, rapid heartbeat
- difficulty staying awake

These symptoms could be a sign of DKA or HHS (see above) and **(Name)** may need to be looked after in hospital.
Hypoglycaemia (Hypo) Care Plan

<table>
<thead>
<tr>
<th>Residents Name: Date of Birth:</th>
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</table>

<table>
<thead>
<tr>
<th>Diabetes Key Worker:</th>
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<tr>
<th>When to contact the GP</th>
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</table>

Care homes can either use this template or their own diabetes/standard care plans as long as all relevant sections are included.

**What is a hypo?** *(Name)* has diabetes and his/her blood glucose levels can sometimes become very low – this is called hypoglycaemia (hypo). This means that his/her blood glucose levels have dropped below 5 mmol/L.

A number of things can cause a hypo:
- Too much insulin
- Too many diabetes tablets
- Delayed or missed meals
- Eating less starchy foods than usual
- Increased activity
- Drinking too much alcohol or drinking alcohol without food

Sometimes there is no obvious cause, but treatment should always be given immediately, as advised below.

**Does the resident have diagnosed dysphagia (swallowing difficulties) and need thickened drinks?**

**And/or a soft or pureed diet?** Products in the Hypo Box may not be suitable - request specialist advice from Speech and Language Therapist and/or Dietitian and record this advice in this care plan.

<table>
<thead>
<tr>
<th>Which glucose source would <em>(Name)</em> prefer?</th>
</tr>
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</tbody>
</table>

In the event of a hypo follow the guidance in the hypo care plan and for further advice see:

If a resident is unable to swallow safely and/or if they become drowsy and unconscious, they will need immediate emergency treatment - **someone should dial 999 for an ambulance**. The resident should be put in the recovery position (on their side with their head tilted back). Do not give anything orally - glucose treatments should NOT be put in their mouth.

When a hypo has been treated, tell the care home diabetes lead and also the resident’s GP/HCP or Diabetes Specialist Nurse (DSN) who may review the resident’s diabetes treatment to prevent further hypos.
Hypo Box (Kit) - Guidance for Care Homes

Aim:
All care homes that care for residents living with diabetes should keep a fully stocked ‘hypo’ box that is available to treat residents who experience low blood glucose (hypo).

All staff should know the location of the hypo box and it should be easily accessible to trained staff at all times.

What is a hypo box?
A hypo box is a box containing several suitable sources of fast acting glucose which is available to be given to residents* who are experiencing an episode of low blood glucose (hypo). This should be used in line with the ‘hypoglycaemia in care homes guideline’ and the individual resident’s diabetes care plan.

(* Residents with diagnosed dysphagia (swallowing difficulties) who require thickened drinks and/or a soft or pureed diet will need a specialist care plan regarding treatment of hypos)

Contents of the Hypo Box
It is the responsibility of the care home to purchase a plastic box and the required glucose products to make their own ‘Hypo Box’. These items are available at large supermarkets and/or local pharmacies. It may be useful to have a liquid measure available with the box.

Suggested products to include in a hypo box include:
Non-diet fizzy drink, carton of smooth orange juice, GlucoTabs® GlucoJuice. Follow the hypoglycaemia guideline for actual amounts of glucose to be given.

Maintenance of the hypo box:
There must be a process within the care home to:
• Check that each item within the box is in date on a monthly basis or more often if applicable
• Any item that has been opened for use must then be discarded and replaced
• Ensure that each care plan states the resident’s preference of product, e.g. would they prefer a glucose drink or sweets?
• Expiry dates should be clearly marked on the exterior of the hypo box
• Depending upon the size of the home it may be useful to have more than one Hypo Box e.g. one hypo box per floor

Figure 1: Image of a ‘hypo’ box
Sick Day Rules

When diabetic residents are systemically unwell with another illness, especially diarrhoea and vomiting, and fever with sweats and shivers, their diabetes may get out of control leading to the risk of diabetic ketoacidosis. Adopting “Sick Day Rules” can minimize the risk of severe complications.

Type 1 diabetes

- Insulin should NEVER BE OMITTED
- Maintain an adequate fluid intake of approximately one glass (100-200ml) of sugar-free fluids every hour.
- Maintain a regular intake of carbohydrate – if the resident is unable to take solid foodstuffs, but can tolerate fluids, encourage them to take carbohydrate in the form of soup, milk or milky drinks. As a last resort give non-diet cola or lemonade
- Increase blood glucose monitoring to 2-hourly (or time frame agreed by community team)
- Test all urine passed for ketones
- Request review of the patient by the GP practice or out-of-hours service
- Anti-emetic medication may be prescribed for occasional vomiting, and additional rapid-acting insulin prescribed to control hyperglycaemia
- Persistent vomiting, inability to eat or drink in the presence of ketonuria, dehydration or failure to control hyperglycaemia may all require hospital admission.

Type 2 diabetes

- Advice on fluids and diet as for people with type 1 diabetes
- For those managed on glucose-lowering therapies, the frequency of blood glucose testing should be increased during inter-current illness
- For minor self-limiting illness, without risk of dehydration, glucose-lowering therapies should generally be continued
- During periods of more serious illness, particularly where there is risk of dehydration, some glucose-lowering therapies are associated with specific problems. In such circumstances, metformin is associated with risk of lactic acidosis and the SGLT-2 inhibitors (the “gliflozins”) with euglycaemic DKA (Caution: ketosis can occur even where the capillary blood glucose is not particularly elevated). It may be necessary to withhold these medications during periods of illness and advice should be sought from a GP or diabetes nurse as to whether or not that is considered clinically necessary.
- In general, other oral glucose-lowering medications should be continued where possible during inter-current illness, although if hypoglycaemia is considered a risk (e.g. for people prescribed sulphonylurea therapies), this should be reviewed and medications temporarily withheld if clinically indicated
- GLP-1 analogues should be withheld in people with unexplained abdominal pain, nausea and vomiting (if symptoms are severe, consider pancreatitis)
- For residents with type 2 diabetes on insulin therapy, blood glucose testing should be undertaken at least four times a day, with insulin doses adjusted accordingly. Seek advice from a diabetes specialist nurse as needed
- It may be appropriate to review the need for, or withhold other medications (e.g. diuretics, ACE inhibitors/ARBs, NSAIDs) during an episode of illness, particularly where dehydration or Acute Kidney Injury (AKI) is considered a risk – seek advice from the GP or OOH doctor
- Consider emergency hospital admission for any individual with persistent vomiting or who is unable to eat or drink with developing ketosis or dehydration
- Once the illness episode has passed, it is important to review the ongoing need for glucose-lowering therapies and re-instate withheld medications as clinically indicated
**Medicine management**

Treatment can vary depending on the type of diabetes that the patient has. Type 1 diabetics produce no insulin, so they have it prescribed and inject it themselves or with support from a nurse or carer. Type 2 diabetics may be able to produce small amounts of insulin, but not enough to control their condition. They are usually treated with a combination of oral medication and lifestyle management. Insulin may be prescribed when oral medication is no longer effective. Treatment is patient-centred and can change if patient’s condition fluctuates. It is essential that diabetic care plans are accurate and that they are updated when appropriate.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Administration</th>
<th>Common side effects and cautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insulin:</strong> Rapid acting (e.g. Apidra, Humalog, Novorapid) Short acting (e.g. Actrapid) Intermediate acting (e.g. Insuman basal, Humulin I, Insulatard) Long acting (e.g. Abasaglar, Levemir, Tresiba)</td>
<td>• Insulin helps the body to convert glucose to energy • Usually administered via injection • Insulin pumps are available but patient needs to meet NICE guidelines</td>
<td>• Hypoglycaemia • Injection site reactions • Headache • Nausea • Flu-like symptoms • Weight gain • Oedema</td>
</tr>
<tr>
<td><strong>Biguanides (Metformin)</strong></td>
<td>• Standard or modified release oral medication • Does not lead to weight gain • Reduces risk of cardiovascular events</td>
<td>• Gastrointestinal – nausea, vomiting, bloating, flatulence, abdominal pain</td>
</tr>
<tr>
<td><strong>Sulphonylureas (Gliclazide, Glipizide, Glimperide)</strong> Gilbenclamide should NOT be prescribed in older people</td>
<td>• Oral medication • Given to patients who are not overweight or with higher blood sugar levels</td>
<td>• Hypoglycaemia • Hunger or weight gain • Skin reactions • Upset stomach • Dark coloured urine</td>
</tr>
<tr>
<td><strong>Thiazolidinediones (Pioglitazone)</strong></td>
<td>• Oral medication • Additional therapy with metformin if risk of hypoglycaemia, or with gliclazide if metformin not tolerated • Triple therapy with above oral tablets when insulin is not appropriate</td>
<td>• Gastrointestinal • Headache • Oedema • Weight gain • Should not be initiated in patients with heart failure or liver impairment. Requires careful monitoring.</td>
</tr>
<tr>
<td><strong>Dipeptidyl Peptidase-4 (DPP-4) inhibitors (Gliptins – Alogliptin, Linagliptin, Vildagliptin, Saxagliptin, Sitagliptin)</strong></td>
<td>• Oral medication • Can be taken in combination with metformin</td>
<td>• Gastrointestinal • Flu-like symptoms • Skin reactions</td>
</tr>
<tr>
<td><strong>Glucagon-like peptide-1 receptor agonists (GLP-1) (Liraglutide, Exenatide, Lixisenatide, Dulaglutide)</strong></td>
<td>• Injection • Usually given if condition cannot be controlled with oral medication • Can be given with insulin and oral medication • Should only be prescribed according to NICE and local guidelines</td>
<td>• Gastrointestinal – diarrhoea, constipation, indigestion, nausea, vomiting • Headaches • Dizziness • Sweating</td>
</tr>
<tr>
<td><strong>Diet and lifestyle</strong></td>
<td>• Eat less • Try to remain active • Stop smoking</td>
<td>Discuss with Clinician before making any significant changes to diet or lifestyle.</td>
</tr>
</tbody>
</table>
How to Treat Hypoglycaemia (Hypo's) in Care Homes

What is hypoglycaemia?

Hypoglycaemia ("hypo") is the term used to describe low blood glucose levels. In younger adults, this is generally taken to mean a capillary glucose level of < 4 mmol/l but in frail elderly people with diabetes, who are treated with glucose-lowering medications, a blood glucose reading < 5 mmol/l should be considered indicative of hypoglycaemia.

Who gets hypos?

Hypos are a risk in diabetic patients who have insulin injections or who take certain types of glucose lowering tablets, especially sulphonylureas (glipizide, glimepiride, gliclazide).

What can cause hypos?

- Taking too much insulin or diabetes tablets
- Delayed or missed meals
- Eating less food than usual
- Weight loss
- Strenuous physical activity

There may often be no obvious cause. Hypoglycaemia occurs more commonly as people get older especially when they suffer from multiple other chronic conditions and are taking many medications.

Recognition of hypo's

Hypo’s can cause a whole range of symptoms including:

- Sweating
- Feeling anxious
- Trembling and shaking
- Hunger
- Looking pale
- Palpitations
- Tiredness
- Confusion
- Feeling faint
- Blurred vision
- Odd or aggressive behavior

Sometimes in older people, hypos give much more subtle symptoms such as:

- Weakness
- Feeling faint
- Mild confusion
- Sleepiness

In severe hypoglycaemia, the individual may become unconscious andunarousable.

Confirming hypoglycaemia

Glucometer blood glucose measurement should be carried out immediately if hypoglycaemia is suspected in an individual at risk. If you are unable to do a glucometer blood glucose measurement please contact community nursing team for advice. In this situation, a capillary glucose of < 5.0 mmol/l should be considered indicative of hypoglycaemia.
Treatment of hypoglycaemia

If the resident has a blood glucose less than 5 mmol/l, and is conscious and able to swallow, then oral glucose should be administered as soon as possible. Suitable preparations would be:

Orange juice 200ml (small carton or glass)
Non-diet fizzy drink 150ml
Glucogel 25g (contains 10g glucose)
GlucoJuice 60ml (contains 15g glucose)
GlucoTabs 4-5 tablets (each tablet contains 3.7g glucose)

The blood glucose should be measured again 10-15 minutes after giving oral glucose as above. If the glucose is still less than 5 mmol/l, further oral glucose should be administered.

Once the blood glucose is above 5 mmol/l, a carbohydrate-containing snack should be given (e.g. a sandwich, a piece of fruit, a glass of milk or a bowl of cereal). Alternatively, if the next meal is due this can be given.

If a resident is having a severe hypo where they are unconscious:

- Do not attempt to give anything by mouth as they will be unable to swallow
- Put the resident into the recovery position
- Give a Glucagon intramuscular injection (nursing homes only)
- Call 999 for an ambulance

Prevention of hypo's

Regular meals
Eat some carbohydrate with each meal
Take medications for diabetes at the recommended times and at the correct dose

Follow-up

Hypoglycaemia, particularly if recurrent, sometimes arises because an individual is prescribed relatively too much glucose-lowering medication (as people get older they sometimes need less medication). Because of this, any confirmed episode of hypoglycaemia should be reported to the GP or diabetes nurse, who can then advise whether medication review is required and make any changes as clinically indicated.
**Nutrition Advice in Diabetes**

There is not one ‘diabetic diet’ which is suitable for everyone and as with all care, diet for diabetes must be patient-centred. Nutrition advice for people with diabetes has changed over time because of new research and evidence. This means that people with diabetes, their carers, family and friends may have heard or been given lots of different advice in the past, and because of this there are many myths and misunderstandings about diet for diabetes.

It is very important that residents with diabetes and all care home staff are up to date with current evidence-based advice about diet and diabetes.

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**Current Nutrition Advice and Care Homes**

The Health and Social Care Act 2008 Regulations 2014: Regulation 14 states “People must have their nutritional needs assessed and food must be provided to meet those needs”. This includes care home residents who have diabetes.

Nutrition advice for older people and care home residents with diabetes may be different to general nutrition advice for other people with diabetes. Older people in care homes are more likely to be underweight rather than overweight and are also more likely to be at risk of malnutrition. Therefore it may not be helpful to reduce fat, sugar and salt for every older person with diabetes.

Restricting food for care home residents with diabetes is not helpful, and terms such as “needs diabetic diet” or “needs sugar free diet” should not be included in nutrition or diabetes care plans.

Remember that reducing the fat and/or sugar content of all recipes (for residents who do not have diabetes as well as for those who do) is unlikely to be helpful either because this could put other residents at greater risk of malnutrition.

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**Residents with Diabetes who are at Risk of Malnutrition**

Food first advice (to increase energy and protein intake) to treat malnutrition should be used for people who have diabetes as well as for those who do not.

If a resident with diabetes who has malnutrition has high blood glucose levels, it may be better to adjust their diabetes medication to manage blood glucose levels instead of restricting their food intake. It is important to work with the resident’s GP, diabetes specialist nurse and/or dietitian to manage high blood glucose levels in this way.


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**Sugar and Sugary Foods**

Care home residents with diabetes do not need to eat a sugar-free diet. Sugar can be used in foods, including in cakes and baking, as part of a healthy diet.

Residents with diabetes should be offered sugar-free, no added sugar or diet squash/fizzy drinks, instead of sugary versions or instead of a lot of fruit juice.
Foot Care in diabetes

People with diabetes may develop damage to the nerve endings in their feet (neuropathy) or to the circulation in their legs. This makes developing foot problems more likely. The aim of foot care is to prevent skin damage and foot ulcers.

- Foot ulcers cause many diabetes related admissions to hospital
- Many leg amputations are for people with diabetes
- Having a foot ulcer makes amputation more likely. The risk of foot ulcers is increased for those with:
  - increasing age
  - loss of sensation
  - blood vessel disease
  - immobility
  - those on renal dialysis
  - pressure sores
  - poor eyesight
  - other chronic states

Accurate assessment and identification of risk by a podiatrist also known as a chiropodist can prevent foot ulcers.

Foot Care Advice Sheet for Staff Working with Older People

- **Wash feet daily and dry very carefully**, especially between the toes
- **Inspect feet daily**
  - Look for blisters, scratches and areas of possible infection (such as areas which are hot or red). Look between the toes.
  - Contact the podiatrist, doctor or registered nurse if there are any changes. Ensure accurate documentation of this daily check.
- **Inspect shoes / slippers daily** especially before they are put on
  - Ensure shoes/slippers fit correctly to avoid friction and reduce risk of falls.
  - Check for foreign objects, e.g. drawing pins in shoe soles, stones in shoes, torn linings or other problems that might damage feet.
  - All shoes / slippers should be well fitted. Bear in mind that some residents may be unable to feel if their shoes are comfortable.
  - Shoes/slippers should not be too tight and should allow toes room to wiggle. Avoid pointed shoes and those with seams at the front.
  - If feet are misshapen / of a non-conventional shape, and cannot be accommodated in a specialist off the shelf shoe such as Cosyfeet or EasyB the resident may need to be referred to the diabetic foot clinic (through their GP) for foot wear advice and possible provision of specialist footwear.
• **It is important to change socks daily**
  - Ensure that stockings / socks fit properly and take them off daily.
  - Avoid socks/stockings with seams or those that have been mended or have tight elastic around the tops.
  - Ensure shoes are not worn without socks or stockings because this increases risk of damaging the skin.
  - Compression hosiery should not be worn by those with ischaemia or with caution in people with neuropathy. If there are particular concerns over individuals seek advice from a healthcare professional to discuss the risk/benefits of compression hosiery

• **Avoid extreme temperatures**
  - Do not use hot water bottles or heating pads.
  - If feet feel cold at night, wear good fitting bed socks.

• **Minor infection** can cause significant problems for people with diabetes
  It is very important to contact the podiatrist / chiropodist, doctor or nurse at the first sign of infection.
  Common signs of infections are:
  - Redness or any other discolouration of a toe or an area of the foot
  - Swelling
  - Discharge of pus / fluid from a toe or other part of the foot
  - Discolouration

• **Pain** may indicate a problem, but remember the **resident may not feel pain** if they have lost sensation in their feet

• **Avoid walking with bare feet**

• **Do not use chemical agents** such as corn pads or hard skin remover

• **If there is any concern, seek advice from a HCPC registered chiropodist or podiatrist**

Useful information on what to expect from an annual foot check can also be found within the Diabetes UK leaflet.


**Diabetic foot health checker:**

[https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=w7UmT_zHO9g%3d&tabid=2874&portalid=1&mid=4502](https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=w7UmT_zHO9g%3d&tabid=2874&portalid=1&mid=4502)
Annual Review for Every Resident Living with Diabetes

Aim:
- Every resident living with diabetes should have an annual medical review of their diabetes in either their GP surgery or in their care home
- The residents GP practice is responsible for ensuring the diabetes annual review is undertaken (although, where available, this may be undertaken or supported by the Diabetes Specialist Nursing Team or Clinical Pharmacist, where appropriately trained)
- The date of the review and where the review will take place must be recorded in the resident’s diabetes care plan

Information required for an annual diabetes review:

At or before the annual review the GP will need the following information: - Please liaise with your GP about who gathers this information in time for review.

<table>
<thead>
<tr>
<th>Diet</th>
<th>Weight record, current Malnutrition Universal Screening Tool (MUST) risk (score) and Nutrition care plan</th>
</tr>
</thead>
</table>
| Monitoring results | BP readings  
A record of all HbA1c and urine tests  
A urine specimen (ACR urine test) should be requested and a special container will be required. The GP practice will be able to advice on these requirements.  
A blood test may be requested 1-2 weeks prior to the review (HbA1C, kidney function, liver function and cholesterol) |
| Medication | A copy of the current Medication Administration Record (MAR) sheet |
| Foot Check | The Annual foot check is an essential part of the annual review. More information is available at:  
https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=w7UmT_zH09g%3d&tabid=2874&portalid=1&mid=4502 |
| General Condition | Information about any change in resident’s medical condition since their last review including changes in cognitive function, reductions in mobility, falls and other co-existing conditions. |

Consider asking the GP for an additional review and/or medication review if:

- Resident is losing weight and MUST score is 2 or above (high risk)
- Resident has episodes of hypoglycaemia or hyperglycaemia
- Changes to medication
- Resident’s health has declined (Other changes that may also require a review)

More information regarding diabetes treatment in older people can be found at:  
https://www.knowledgeanglia.nhs.uk/LinkClick.aspx?fileticket=N912cYE50mU%3d&tabid=2874&portalid=1&mid=4502
Ensure that the date of the annual review is recorded within the care plan.

Annual retinal eye screening should be available to all care home residents with diabetes for whom it is appropriate. The screening is not appropriate for those with severe frailty or dementia. Attending retinal screenings may involve transport to the GP surgery for this to be done.

**Screening for diabetes on admission**

Arranging venous blood sampling for all older people admitted to residential care and again at 2 yearly intervals where diabetes is not established may prove practically difficult and, therefore, where this is considered difficult or not feasible, an initial fasting capillary blood glucose might suffice. Although there is no established national guidance advocating the use of a fasting capillary glucose in screening for diabetes or in the diagnosis of diabetes, in nursing and care home facilities, a pragmatic approach may be required. A consensus from local experts advises that a fasting capillary glucose may be acceptable as an initial screening test where arranging venous blood sampling is practically difficult and, here, a FASTING capillary glucose of ≤ 6.0 mmol/l, would suggest that diabetes is unlikely. However, all fasting capillary glucose results of ≥ 6.1 mmol/l should be followed up with formal venous sampling.

Residents with pre-diabetes should have an annual HbA1c check.

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**Diabetes and End of life:**

Information regarding the care of residents with diabetes at end of life can be found below. Early referral to the resident’s GP or Diabetic Specialist Nurse (DSN) is an important consideration.

End-of-life Diabetes Care – Clinical Care Recommendations, Diabetes UK 2018
## Protocol for Blood Glucose Monitoring (BGM) for Residents with Diabetes in Care Homes

### Summary:

- Only perform BGM where there is a clinical need or testing has been requested by a registered practitioner (such as a GP or Nurse) and documented in the care plan.
- It is the responsibility of the registered practitioner to set targets, interpret the results and take action. The exception to this is in an emergency e.g. hypoglycaemia (hypo).
- Consent should be obtained prior to BGM as it is an invasive procedure however this may not be possible in the presence of hypoglycaemia, where confusion is likely to be common, as is aggression and people often refuse in these situations.
- It is the responsibility of the operator to ensure the blood glucose meter is being used according to the manufacturer’s recommendations and in line with Health and Safety procedures relating to safe disposal of sharps and infection control.
- It is recommended that any member of staff undertaking BGM must have completed training and been assessed by a designated registered practitioner.

### 1. Introduction

BGM is recognised as playing an important role in the effective management of people with diabetes who are taking insulin or sulphonylurea blood glucose lowering medication. It can provide information for the on-going assessment of diabetes and for the detection and management of hyperglycaemia (high blood glucose) and hypoglycaemia (low blood glucose). Generally type two tablet controlled diabetics do not need routine BGM except when starting new therapy with sulphonylurea or during illness.

### 2. Purpose:

The purpose of this protocol is to provide a framework for direction and guidance for safe BGM in care homes.

### 3. Responsibilities:

#### 3.1 Registered Practitioner (RP)

Any registered Nurse / Diabetes Specialist Nurse / GP / Pharmacist
- Must have evidence of annual training when using a blood glucose meter and be competent and confident in the procedure.
- Is professionally accountable for the delegation of the task and ensuring that anyone delegated to, is competent and confident to carry out the task at the time of the assessment. (NMC2008)\(^1\)

#### 3.2 Non-Registered Practitioner (NRP)

Any Healthcare Assistant / Support Worker / Care worker
- Is responsible for their actions/omissions and work within their scope of practice.
- Has responsibility to undertake the task only if they feel competent and confident to do so.
- Must receive approved training, demonstrate competence and have annual reassessment of competence by a registered practitioner.

#### 3.3 It is best practice for each care home to have its own BGM policy, reflecting the needs of its residents.

#### 3.4 It is recommended that each care home has a designated person to take overall responsibility for the ongoing care and maintenance of the blood glucose meter/s used in the care home.
4. Blood Glucose Monitoring:

4.1 BGM provides instant information about the effectiveness of a person’s diabetes management and should form part of the resident's care plan if it is clinically appropriate. Not all residents with diabetes will need to have their blood glucose levels monitored but in the following circumstances it may be recommended by a RP.

- If they are treated with a medication that can increase the risk of a hypo e.g. sulphonylureas (gliclazide) or insulin
- Initiation or change in dose of sulphonylurea
- To detect hypoglycaemia (hypo)
- To detect and assess poor glycaemic control, especially in times of illness or if steroids are prescribed

The RP may also review medication and consider whether any medication should be reduced or discontinued. Alternative therapies can also be considered that may not require blood glucose monitoring.

4.2 Residents should always be encouraged to self-test when able to do so.

4.3 Frequency of Testing: This will depend on the needs of the individual resident and should only be done following written or verbal request from a RP and as agreed in the resident’s care plan. The exception to this is in an emergency where there are concerns about a resident’s condition e.g. suspected hypo.

4.4 Blood Glucose Targets: Should be agreed by the RP and recorded in the care plan. This should be assessed at regular intervals but at least annually.

4.5 Reporting and Recording Results: Everyone must be aware of documentation requirements and reporting procedure.

4.6 Interpreting and Actioning Results: Only the RP is responsible for interpreting and taking action based on the results.

The NRP should report any result out of the expected range to the manager in charge/RP. In the event of an emergency where a RP is not available the NRP should contact the GP/Out of Hours service for advice and guidance. Hypos should be treated immediately without waiting to refer to other professionals (see above).

4.7 Consent: It should be remembered that BGM is an invasive procedure and verbal/written consent should be obtained. If there is doubt over the person’s ability to provide valid consent then The Mental Capacity Act (2012) and code of practice should be followed. In the event of hypoglycaemia leading to altered conscious state or behavioural changes, the resident may be unable to give consent however in their Best Interests BGM may need to be undertaken to prevent serious medical harm.

See CQC Regulations for service providers and managers

5. Health and Safety:

5.1 All users must recognise the potential hazards of handling and disposing of body fluids and sharps. See also - CQC Regulations for service providers and managers

5.2 Non sterile gloves should be worn during the blood glucose testing procedure

5.3 Use only single-use safety lancets for obtaining blood samples. These have a concealed needle that will help to prevent needle-stick injury and transmission of infection. Please note: – the prescribing of single-use safety lancets for use on care home residents is not supported locally – it is the responsibility of the provider to provide safety lancets and needles.
6. Operating a Blood Glucose Meter:

All monitoring equipment must meet recognised standards for infection control, quality control and health and safety. All staff using the equipment must be aware of the correct and safe use of the meter.

6.1 All users must have received training and annual updates on the operation of the meter that is being used.

6.2 The meter should be used in accordance with the manufacturer’s recommendations.

6.3 The manufacture’s guidance on storage should be used.

6.4 Cleaning should be done and recorded as per manufacturer’s recommendations.

6.5 Quality Control procedures as recommended by the manufacturer should be followed and recorded:
   - Staff must be aware that it is a legal requirement that Quality Control results are recorded. This is essential if there is a product recall or adverse event.
   - Records should be kept for 10 years in line with Royal College of Pathologists guidelines www.rcpath.org
   - Document when machine first used. Record maintenance, battery changes.
   - Always have manufacturer’s instructions to hand.

An example of what to record:

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Test Strip LOT number</th>
<th>Control Solution Batch: Number: When Opened:</th>
<th>Range Expected:</th>
<th>Result:</th>
<th>Signature:</th>
</tr>
</thead>
</table>

6.6 The care home should be aware of how to order Quality Control solution and new meters from the manufacturer.

6.7 A copy of the meter instructions should always be kept with each meter for reference.

7. Adverse Incident Reporting:

- Always report any fault or malfunction of the blood glucose meter to the manufacturer.
- Any adverse event can also be reported to the Medicines and Healthcare Products Regulatory Agency (MHRA). This can be done online: www.mhra.gov.uk
8. Training and Competency:

The use of monitoring equipment requires training and annual updates. It is recommended that any member of staff undertaking BGM must have completed training and been assessed by a designated registered practitioner.
(See 3.1)

9. Interpretation of Blood Glucose Measurements

<table>
<thead>
<tr>
<th>Glucose Level</th>
<th>Interpretation</th>
</tr>
</thead>
</table>
| ≤ 5 mmol/l    | **Hypoglycaemia:** see Appendix 4,5,6  
Assess for symptoms of hypoglycaemia, but some residents will have no symptoms at these levels.  
Administer sugar source as per care plan.  
Seek medical advice if needed. |
| 5- 8 mmol/l   | Acceptable levels though occasionally hypoglycemic symptoms can occur with these levels in some individuals. |
| 8 – 11 mmol/l | Suggested level for glucose range in elderly people to reduce the risk of hypoglycaemia |
| 11 – 15 mmol/l| **Mild hyperglycaemia:**  
Glucose levels slightly too high. If occur more than 3 times in one week, report to person in charge of care. The resident may require a review of their diabetes medication.  
Do not routinely measure blood glucose after meals as this is likely to give high levels. |
| ≥ 15 mmol/l   | **Hyperglycaemia:**  
Glucose levels too high and the resident may have symptoms  
Report to person in charge of care. Test urine for ketones – if positive inform GP/Out of hour’s service immediately. If negative report routinely to GP for medication review.  
Do not routinely measure blood glucose after meals as this is likely to give high levels. |
11. Resources:

**Blood Glucose Record Sheet:** (can be downloaded and printed)

**MHRA:** Point of Care Testing: Blood Glucose Meters – Advice for healthcare professionals.
www.mhra.gov.uk

References:


2. **CQC: Regulations for service providers and managers:**
http://www.cqc.org.uk/content/regulations-service-providers-and-managers

3. Good clinical practice guidelines for care home residents with diabetes - A revision document prepared by a Task and Finish Group of Diabetes UK 2010
   [https://www.diabetes.org.uk/resources-s3/2017-09/Care-homes-0110_0.pdf](https://www.diabetes.org.uk/resources-s3/2017-09/Care-homes-0110_0.pdf)

4. Guidance for CQC staff: Inspecting the quality of care for residents with diabetes mellitus living in care homes


5. Health and Safety Executive document.
   [http://www.hse.gov.uk/healthservices/needlesticks/actions.htm](http://www.hse.gov.uk/healthservices/needlesticks/actions.htm)
Appendix 2

https://www.diabetesonthenet.com/older-people (this is an interesting summary article, probably best aimed at nurses)

3 free learning modules from Primary Care Diabetes Society, which are suitable for almost anyone (particularly the first couple):


To access these, go to https://www.diabetesonthenet.com and register for free to access the site and educational resources
Appendix 3 Example of a diabetic passport

CARE PLAN

Note: A copy of this document should go with me to any hospital appointments, or if I am admitted to hospital. This should be updated at least annually.

<table>
<thead>
<tr>
<th>KEY PEOPLE IN MY DIABETES CARE TEAM</th>
<th>Date / /</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Known as</td>
</tr>
<tr>
<td>Date of birth</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>Tel no</td>
<td></td>
</tr>
</tbody>
</table>

The person at my care home who makes sure that my diabetes is reviewed is

<table>
<thead>
<tr>
<th>Name</th>
<th>Tel no</th>
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</thead>
</table>

The GP responsible for my diabetes care is

<table>
<thead>
<tr>
<th>Name</th>
<th>Tel no</th>
</tr>
</thead>
</table>

Other HCP contacts (consultant/DSN/podiatrist/dietician)

<table>
<thead>
<tr>
<th>Name</th>
<th>Tel no</th>
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<th>Name</th>
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</table>

MY BLOOD GLUCOSE TARGET RANGE

Between ____ mmol/l and ____ mmol/l

My hypo signs are:

If blood glucose is below ____ mmol/l Actions

My hyper signs:

If blood glucose is above ____ mmol/l Actions

Blood glucose tests: When should this be done?

Who should do this?

Meter and strip:
Appendix 4: Training and Safety: Insulin and Injectable Therapies

Basic principles for training in insulin administration, prescribing and use of insulin pens, pen needles and safety devices is given here. Comprehensive information regarding all aspects of insulin injection technique can be accessed from the Forum for Injection Technique (FIT) for Diabetes (FIT4Diabetes), with information for people living with diabetes requiring insulin therapy available via the Diabetes UK Website via the following links:

http://fit4diabetes.com/united-kingdom/fit-recommendations/

Training:

All healthcare professionals (HCPs), non-registered practitioners and care staff charged with supporting residents with capillary blood glucose testing and/or administration of insulin or other injectable therapies must undergo training to ensure competence in these procedures. Insulin is a high-risk medicine that may cause severe harm or even death if administered incorrectly. Administering insulin injections requires both a sound knowledge of diabetes, including understanding the effect of food and physical activity on blood glucose levels, and the appropriate practical skills to administer injections safely and correctly using an insulin pen.

In the case of non-registered practitioners and carers working in care homes across Norfolk and Waveney, insulin must only be administered by someone who has undergone the necessary theoretical and practical training, has been assessed as competent in insulin injection technique and where an insulin delegation log is in place. Regular education and ongoing support should be provided by local diabetes specialist nursing teams.

Insulin delegation should only be done if it is in the best interests of the individual patient i.e. if they are clinically stable and the clinical risk has been considered.

All HCPs and care staff charged with supporting residents with capillary blood glucose testing and/or administration of insulin or other injectable therapies, should meet the required occupational standards regarding infection control and should have evidence of any necessary vaccinations in line with occupational requirements.

Insulin Pens, Needles for injectable therapies and Safety Devices:

- Insulin must always be administered using the prescribed (named) insulin pen device and must NEVER be withdrawn from the pen device for administration in any other way;
- Insulin pens are for a (named) single resident and should never be shared between patients due to the risk of biological material from one patient being drawn into the cartridge and then injected into another person;
- Where an individual is able to self-administer their injectable therapy, a standard 4 or 5mm insulin pen needle should be prescribed. Prescribed insulin pen needles are for the use of a single named resident ONLY and should not be used for a different resident;
- For individuals unable to self-administer their injectable therapy, where third party administration is required, a safety needle should be used;
- Current EU legislation advises that insulin safety needles should normally be supplied by the employer of the person administering the insulin or injectable therapy;
- 4mm insulin pen needles are long enough to penetrate the subcutaneous tissue, with little risk of intramuscular (or intradermal) injection regardless of age, gender or BMI and should be the needle length of choice, although 5 or 6mm needles may be considered satisfactory for some individuals;
- 8mm and 12mm insulin pen needles increase the risk of intramuscular injection and should NOT be used;
- A new, sterile needle must be used with every injection - needles should be used ONCE only and NOT reused;
- NEVER recap the needle after administering insulin – this increases the risk of needlestick injury;
• Needles should be safely disposed of immediately after use and not left attached to the pen – leaving needles attached to finger prick and pen devices increases the risk of needlestick injury;
• Needles should be safely disposed of into proper sharps disposal containers and NEVER into general refuse bins;
• Any needle stick injury incurred should be managed and reported immediately in line with occupational regulations.

POSITION STATEMENT
Delegating responsibility for insulin administration to non-registered practitioners

Appendix 5: Guidance notes on how to assess competency:

What is competence?
• Competence can be defined as ‘The state of having the knowledge, judgement and skills required to perform a task’

Why is it important to assess competence?
• Anyone performing a task needs to be able to demonstrate that they are confident and competent in performing the task and that they have had the relevant training and assessment. The process of competency assessment contributes to greater patient safety. It is also a useful tool to enable relevant training to be identified for staff.

Who should assess competence?
• Someone who has the knowledge, skills and experience of completing the task to be assessed.
• Someone who is appropriate to assess the competence of another (i.e. the person assessing is an expert)
• When delegating a task it is the responsibility of the delegator to ensure that the person is competent to complete the task.

When should competence be assessed?
• Competence should be assessed before someone takes on a new task or care role.
• Competency should be reviewed at least annually or sooner if there are any changes to the task.

What should be included in the assessment?
• An accurate description of the task required, which relates to local policy/procedure or guidelines.
• An understanding of why the task is being carried out and the actions to be taken depending on the results of the task.
• For blood glucose monitoring, the assessment can include observation of the task, performing the task under supervision and performing the task independently.
• Record keeping and documentation also need to be assessed.
• The outcome of the assessment should also be recorded and can be kept as a portfolio of evidence.

<table>
<thead>
<tr>
<th><strong>Adapted from:</strong></th>
<th>Chiltern and Aylesbury Vale CCG's Scott Riley, Senior Project Manager, South, Central &amp; West Commissioning Support Unit May 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date:</strong></td>
<td>August 2018; version 4</td>
</tr>
</tbody>
</table>
| **Ratified by:**  | Richard Gilbert GP lead, Irene Karrouze Care home practitioner  
|                   | Dr Clare Hambling Clinical Lead for Diabetes                                                  |
| **Review date:**  | January 2021                                                                                     |