Diabetes Training

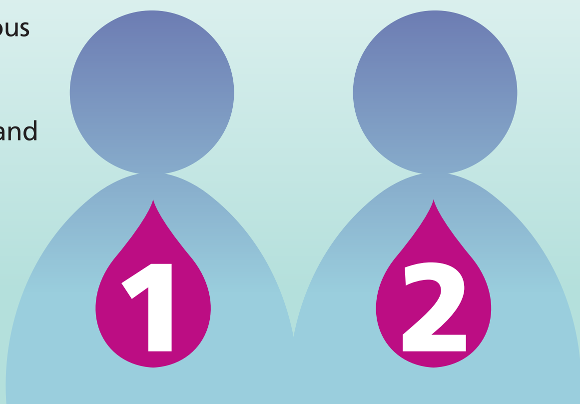
Adult Inpatient Teams

1 The Person

- It is often safer for patients to self-manage diabetes.
- What is the self-administration policy in your hospital?
- Listen to the person: they live with their diabetes 365 days a year.
- Diabetes is a challenging condition which can impact wellbeing.

2 Know the difference between types of diabetes

- People with type 1 diabetes need insulin for life: even in the last days of life to prevent diabetic keto-acidosis.
- People with type 2 diabetes may be on diet alone, diet plus tablets, injectable therapies, insulin or a combination of these.
- Stopping insulin without review can seriously harm your patient.
- 20-30% of people with serious mental illness have type 2 diabetes with up to 70% unaware of their diagnosis and may die up to 20 years early due to heart disease.

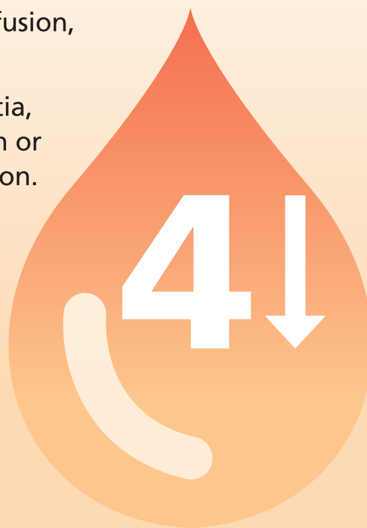


3 Feet (see 'Touch the toes test')

- Within 24 hours of admission all people with diabetes must have a foot check documented.
- Always remove dressings.
- If you identify a problem: find out how and where to refer in your locality.
- Referrals are usually made to: The Diabetes Specialist Team, Podiatry or Vascular on-call.

4 Hypoglycaemia or low blood glucose ('4 is the floor')

- Hypoglycaemia can kill and must be treated immediately: know your local treatment pathway.
- **Patients conscious and able to swallow:**
  Step 1: fast acting glucose
  Step 2: carbohydrate snack.
- Patients unable to safely swallow or unconscious:
  - See local treatment pathway.
- Symptoms: sweating, pale, shaky, sleepy, confusion, aggression, unconscious.
- Risk factors: frailty, reduced appetite, dementia, kidney or liver disease, terminal illness, insulin or sulphonylureas treatment, alcohol consumption.
- Refer to the diabetes team if severe or recurrent.
- Hypoglycaemia requiring IM glucagon should be reported to the National Diabetes In-patient Harms Audit.



5 Hyperglycaemia (high blood glucose consistently in double figures)

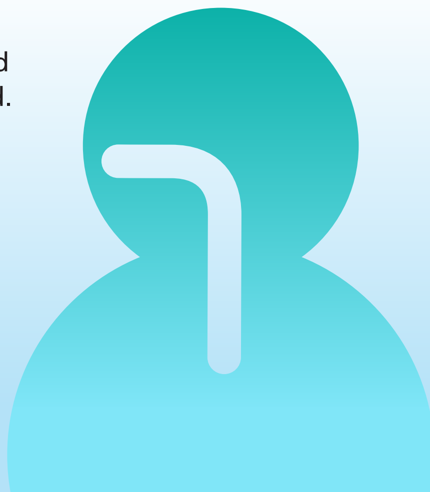
- Hyperglycaemia can kill if left untreated, especially in type 1 diabetes
- Avoid PRN insulin and request diabetes review if blood glucose consistently in double figures.
- **Symptoms:** thirst, polyuria, blurred vision, very sleepy, infections, weight loss, incontinence.
- **Causes:** virus eg COVID-19, bacterial infection, insulin or medication omission, being unwell, stress, newly prescribed or increased steroids or antipsychotics, enteral feeding, diet related, undiagnosed diabetes.
- Check blood ketones in patients with type 1 diabetes regardless of blood glucose if unwell.

6 How do I prescribe and administer insulin safely?

- Insulin is a high risk drug.
- Ensure the right person, right insulin, right dose, right time, right device.
- Be familiar with the common insulin profiles.
- Never omit long acting insulin: ask if unsure.
- Be familiar with local prescribing guidelines.

7 How do I manage a tube fed person on insulin?

- Give insulin at the start of the feed.
- Remember to review the insulin dose or regimen when feed is increased, reduced or stopped OR if the timing has changed.
- Look at local guidance on your intranet.
- Refer to the diabetes team if unsure.

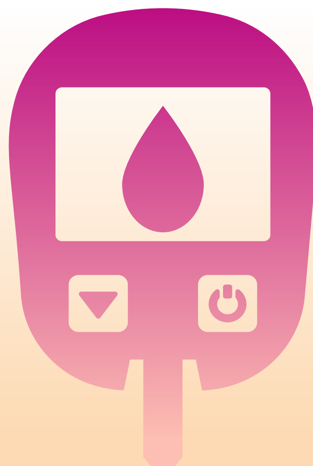


8 Does my patient need IV insulin? (not DKA or HHS)

- Not if eating and drinking.
- Only in: nil by mouth/peri-operatively/ acutely ill patients.
- Always continue subcutaneous long acting insulin alongside intravenous (IV) insulin.
- Check blood glucose hourly.
- Always use Trust variable rate intravenous insulin infusion (VRIII) guidelines.
- All patients receiving IV insulin must be prescribed IV dextrose.

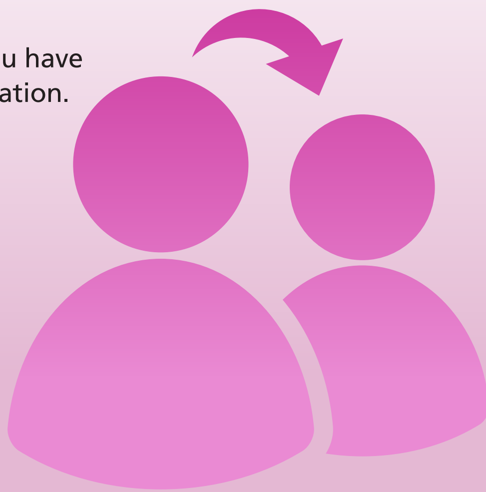
9 Diabetic ketoacidosis (DKA) and hyperosmolar hyperglycaemic state (HHS)

- DKA and HHS are diabetic emergencies.
- Seek senior advice and follow hospital guidelines.
- Always refer to the diabetes specialist team.
- Patients with DKA will require fixed rate intravenous insulin infusion (FRIII) when unwell.
- Know how to diagnose HHS.
- It can be harmful to lower blood glucose too quickly in HHS.



10 Know how to refer to diabetes team and podiatry

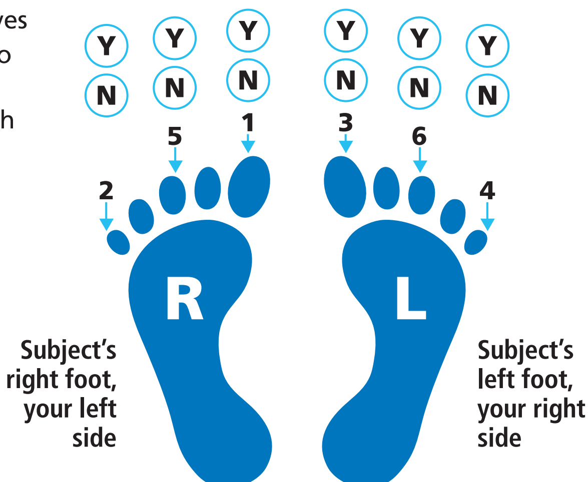
- **COVID-19**: Ensure patients with **type 1** and **type 2** diabetes know what to do when they are ill at home (sick day rules).
- Start discharge planning from the moment of admission.
- Ensure you know how to refer your patient to the diabetes specialist team, podiatry, medical and vascular doctor on-call in your locality.
- Speak to the ward pharmacist if you have queries about your patient's medication.
- Urgent referrals: DKA, HHS, acute diabetic foot, severe recurrent hypoglycaemia, pregnancy, insulin pump.
- For more information: see Joint British Diabetes Society (JBDS) Inpatient guidelines.



Touch the toes test

Does the person with diabetes have reduced sensation?

- Ask them to close their eyes
- Tell them you are going to touch their toes
- Ask them to tell you which foot you touched, left or right
- Touch toe number 1 for two seconds gently. ***Do not repeat***
- Continue until you have assessed 6 toes as marked on the diagram
- If they cannot feel 2 or more toes they have ***reduced sensation*** for their foot check



(The Ipswich Touch Test reproduced with permission from Diabetes UK)

All people with diabetes must have a foot check within 24 hours of admission to hospital

LOOK

- Ulcer?
- Gangrene?
- Deformity?
- Corn/Callous

CHECK

- Reduced sensation?
- Absent pulse?
- Previous ulcers/amputations?

REFER

- Ulcers and gangrene
- Hot red foot
- All other problems

For the above: urgently refer via your local Multi-Disciplinary Foot Pathway (MDFT)

See **www.knowdiabetes.org.uk**

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