Starting insulin for type 2 Diabetes - Guidance notes for Primary Care teams

For GP Action -

Insulin started today, please titrate as per letter OR **Insulin to be started and titrated as per letter please**

Essential kit list: Insulin: pen and/or cartridges, needles (4mm), sharps container, testing meter (with strips and lancets)

Before starting:

- Patient and/or NOK should understand the rationale for insulin use and have verbally consented to using it ☐
- GP should be provided information on suggested starting insulin regimen, with dosage guidance by Specialist team if indicated (e.g., once daily basal, or intermediate insulin, twice daily mixed or intermediate insulin or basal bolus) ☐
- Patients should always be reminded of the need to continue to focus on diet and lifestyle measures (i.e., healthy eating, physical activity, taking other prescribed medications and regular glucose monitoring) alongside daily insulin use ☐

At time of initiation:

- Clarify, confirm, and document **insulin injection timing**(s) with patient/NOK (e.g., if once daily - within 1 hour of same time daily, 15 mins pre meal for rapid-acting and mixed insulins) ☐
- Clarify and document **insulin starting doses** for patient ☐
- Provide guidance on **insulin injection technique** – specifically site guidance (discuss rotation to help prevent lipohypertrophy), avoid oedematous areas (affects absorption) and the need to change needles after each injection ☐
- Provide **glucose monitoring equipment** (blood glucose meter and prescribe Libre 2/Dexcom One if on basal bolus or mixed insulins (as per NICE guidance) ☐
- Provide information on **daily glucose level management**: change needles after each injection, always check glucose levels pre-injection, give glucose targets (suggest 5-10mmol/L on average but for elderly or frail patients, suggest 6-14mmol), suggest short-term goals initially. ☐
- Provide **insulin dose titration guidance** (i.e., increase or decrease as below, adjusting the dose before the high or low readings observed):
    - OD (adjust dose by **+/- 10%** every 2 days until in suggested glucose range pre-breakfast
    - BD mix (adjust relevant pre-meal insulin doses by **+/- 10%** every 2 days until in suggested glucose range) ☐
    - Basal bolus (adjust relevant insulin dose by **+/- 10%** every 2 days based on glucose trend across the day)
- Offer guidance on **insulin storage** (i.e., in fridge for spare insulin pens/cartridges and out of fridge for up to 28 days for current pen) ☐
- Offer guidance and support on **sharps disposal** (how to dispose of needles and lancets) ☐
- STOP sulphonylurea tablets when insulin started ☐
- Discuss **hypoglycaemia** – (define, symptoms & signs, treatment, post hypo actions, how to reduce future risk, provide leaflet if possible, signpost to Diabetes UK website) ☐
- Outline increased risk of **hypoglycaemia** with concurrent use of insulin and **alcohol** ☐
- Discuss any potential **employment** associated issues (e.g. shift work and insulin timings) ☐
- Discuss **driving** – patient needs to check glucose levels before driving, have blood glucose meter and hypo treatments in the vehicle, inform DVLA and insurance company of insulin use (provide leaflets if possible) ☐
- Discuss **hyperglycaemia** (symptoms, actions to take – e.g., increase hydration and adjust insulin doses) ☐
- Discuss potential **weight gain** that insulin can cause ☐
- Discuss **sick day guidance** and provide leaflet, as insulin dose adjustments may be needed ☐

Future reviews:

- Offer **bespoke advice** for the patient where indicated, address concerns ☐
- Review **glucose data/trends** – optimise insulin doses where indicated – address hypos first ☐
- Review **injection sites and technique** to exclude lipohypertrophy ☐
- **Exercise** advice: see Diabetes UK (www.diabetes.org.uk) or runsweet.com (www.runsweet.com/diabetes-treatments/insulin-treatment/) ☐
- **Travel** advice: see Diabetes UK (www.diabetes.org.uk) ☐
- Seek specific **specialist advice** if indicated around renal disease (eGFR<30ml/min associated with reduced insulin clearance rate and increased hypo risk), or if elderly/cognitive/visual concerns/mental illness, review glucose targets with frailty ☐

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