NHS
Kent and Medway

Kent & Medway Guidance on Safe Insulin Prescribing

Over the last few years, a variety of insulin preparations have become available, including high-strength insulins and biosimilar formulations. As a result, there can be potential patient safety risks from either prescribing or dispensing of the wrong product, or an incorrect dose being administered, due to lack of information or familiarity.

Therefore, this guidance has been produced to support healthcare professionals, within different healthcare settings, engaged in the care of patients with diabetes/using insulin, in the safe and appropriate prescribing and dispensing of insulins.

For primary care, Ardens templates are now available for EMIS.

Recommendations for ALL Insulin Prescribing

1. Avoid hand-writing prescriptions for insulin (where possible to do so i.e., in Primary Care).

Computer generated prescriptions are standardised, clearer, and therefore safer.

2. Prescribe all insulins by brand name.

This will ensure that the correct insulin is given to the patient and help reduce the risk of an incorrect strength product being given.

3. Prescribe the "right insulin, right strength, right device and right dose at the right time".
(See Appendix 2 for "Insulin Safety Poster").

Include on the prescription and communications :

- Brand name followed by generic name.
- Insulin type.
- Insulin strength e.g., 100units/ml, 200units/ml, 300units/ml, 500units/ml.
- Device used (cartridge/pen/vial).
- Dose, in units; with "units" written in full.
- Time that the dose is to be administered.

e.g., Humulin I® 100units/ml 3ml cartridges x 5. Dose 24 units at midday
e.g., Lantus® Insulin Glargine 100units/ml 3ml SoloStar pen devices x 5. Dose 56 units at 22:00.

4. Carefully check the strength of the insulin selected on the picking list of the clinical system.

5. For all new initiations of insulin, discuss with the patient the importance of all healthcare professionals across different healthcare settings being able to access up-to-date records about their insulin. Discuss options for ensuring this, for example, recommend that patients:

- Download the NHS app.
- Have given permission for healthcare professionals to access their Summary Care Record (SCR).
- Keep the most up-to-date copy of their repeat prescription on their person.

- If they have been given an insulin passport/insulin safety card, that it has been explained to them how to use it/the importance of updating it (as per the 2011 National Patient Safety Alert (NPSA) "The adult patient's passport to safer use of insulin").

6. Prescribers are reminded that whenever a patient's insulin is changed, their medication list, and their repeat prescription where necessary, should be updated on the clinical system, including stopping the previous insulin preparation. Their insulin passport/insulin safety card should be updated if they have one.

- This is to reduce the risk of inadvertent doubling of doses and to ensure patients are not prescribed duplicate prescriptions under different brand names.
- This is to enable healthcare professionals to accurately identify their current insulin products to ensure safe and effective transfer and continuity of care across healthcare sectors.
- When prescriptions of insulin are prescribed, dispensed, or administered, healthcare professionals should cross-reference available information to confirm the correct identity of insulin products.

7. Ensure that patients and carers are adequately informed and counselled about how to use their insulin.

8. If the patient needs insulin to be administered by a district nurse, an administration chart must be written up (including all details in point 3 above).

9. Refresh your knowledge about insulin safety.

Additional Recommendations for Prescribing HIGH STRENGTH Insulins

- Standard strength insulin products are 100 units/ml.
- High-strength insulin products have higher concentrations e.g., 200 units/ml, 300units/ml, or 500units/ml. They have been developed for patients with large daily insulin requirements. Despite the strength being higher than the standard 100 units/ml – the dosing method is identical.

1. **Always include the dose, in units of insulin, written in full as "units"** on the prescription.

2. **Ensure that you, and the patient, understand any changes in administration that are required when switching between standard strength and high-strength insulin products.**

- Consult the Summary of Product Characteristics (SPC) before prescribing.
- Understand any limits in changing the type of device e.g., what doses and dose increments the device is capable of, and make sure that any required dose conversions are correct.
- The numerical value prescribed is the numerical value dialled up on the pen device. The pens have a window showing the number of units of insulin that will be administered.
- Please note that the pen device shows the number of units of insulin to be injected irrespective of the strength of the device; therefore, the insulin dose may stay the same. There is a difference in concentration between standard and high-strength insulins - hence the volume administered changes, although the dose may stay the same.

Please see here for more information provided in comparison charts: "Insulin types & available medicinal forms within the UK", "Prefilled disposable pen device comparison chart" and "Re-usable cartridge pen comparison" from the Diabetes Specialist Nurse Forum UK.

3. **Inform patients that any insulin supplied in a prefilled pen should only be used with this device.** Healthcare professionals **must never use a syringe to withdraw insulin from a prefilled pen**, otherwise overdose can result.

4. Tell patients to **closely monitor their blood glucose levels when starting a high-strength insulin and in the weeks after.**

Fixed Combination Products

- **Xultophy® - NOT RECOMMENDED**
  - Xultophy® was the first product to combine insulin with another injectable treatment, a GLP-1RA. It contains insulin degludec 100 units/ml with liraglutide 3.6 mg/mL and is only available in a prefilled pen.
- **Suliqua® - NOT RECOMMENDED and not assessed locally for formulary inclusion**
  - Suliqua® is a fixed ratio combination product of insulin glargine with lixisenatide (a GLP1-RA). Suliqua® is available as two different strengths of pre-filled SoloStar® pens, providing different dosing options: Suliqua® (10-40) pen, and Suliqua® (30-60) pen.

Summary of Principles for Communication

- It is good practice to ensure patients know their usual brand of insulin.
- It is good practice for prescribers to use brand names in all communications relating to insulin prescribing.

For **further information and advice** for healthcare professionals, the MHRA has guidance on minimising the risk of medication error with high-strength, fixed combination and biosimilar insulin products, which following ensures the risk of medication errors with insulins is minimised.

Appendix 1
Checklist for the Safe Dispensing of Insulin

Reinforce the Benefits of Patients Carrying Up-to-date Records of their Insulin:

When prescriptions of insulin are prescribed, dispensed, or administered, healthcare professionals should cross-reference available information to accurately confirm the correct identity of current insulin products. Healthcare professionals should access up-to-date patient records about their insulin, for example:

- Patients' Summary Care Record (SCR), if they have given permission to access it.
- The most up-to-date copy of patients' repeat prescriptions.
- Patients' insulin passports/insulin safety cards, if they have been given one (ensure it is up-to-date). If not already in possession of one, provide one and encourage them to carry the passport/card and explain the benefits. Check patients' prescriptions against the insulin passport/card information and the product at the point of dispensing.
- The NHS app, for patients who have downloaded it.

If patients' records are not up-to-date and do not match the prescription, query with the prescriber. Whenever a patient's insulin is changed, their medication list, and their repeat prescription where necessary, should be updated on the clinical system, including stopping the previous insulin preparation. Their insulin passport/insulin safety card should be updated if they have one.

General Recommendations:

- All insulins should be prescribed and dispensed by brand name - return any prescription that does not specify the brand name to the prescriber.
- Dose conversion - if a patient is switching between different products, check whether a dose conversion is required, and whether this has been calculated correctly.
- Switching to a biosimilar insulin should only be undertaken after discussion between clinician and patient and only dispensed against a prescription; biosimilar insulins should not be given as a "brand" substitution for the originator insulin at the point of dispensing.

Minimise the Risk of Picking Errors:

- Ensure that storage arrangements for high-strength insulins facilitate correct selection of the medicine.
- Ensure that the electronic dispensing system allows clear differentiation between different strength insulins.
- Carefully check the strength of insulin selected from the picking list on the electronic dispensing system.
- Carefully check the strength of the insulin dispensed against the strength on the prescription.

Ensure that Patients Can Use Their Insulin Product:

- Ensure that patients have been trained on the use of any new insulin.
- If different short and long-acting insulins are prescribed together, the differences in appearance and use between devices must be highlighted to the patient.
- Check that patients/carers can read the strength of the insulin, and the dose counter of the pen device, before dispensing.
- Patients switched to a biosimilar insulin must receive appropriate education. Consider potential differences between insulins in terms of device (e.g., cartridges or pens) and administration, and storage conditions and shelf life (check product Summaries of Product Characteristics).
- Advise patients to closely monitor their blood sugar levels when starting a new insulin.

Appendix 2
Insulin Safety Poster

REMEMBER INSULIN PRESCRIBING RIGHTS

- RIGHT patient
- RIGHT insulin (use brand) e.g. Humalog
- RIGHT device e.g. KwikPen
- RIGHT dose e.g. 40 units (write 'units' in full – never 'u' or 'IU')
- RIGHT time in relation to meal time(s) and/or bedtime
- RIGHT strength