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PAN MERSEY AREA PRESCRIBING COMMITTEE
SAFETY STATEMENT
APC BOARD DATE: 26 JUN 2019



Pan Mersey
Area Prescribing Committee



INSULIN: reducing errors in prescribing and administration

Advice for all healthcare professionals [1,2,3]

- Take responsibility for making sure you receive regular training that includes insulin safety and all the insulin devices that you use, and ensure you are working to up to date policies.
- Use the 25/50 rule to reduce accidental overdose [4]. Check that high doses of insulin are intentional: rapid acting insulin, more than 25 units; intermediate, combination, or long acting insulin, more than 50 units.
- All written and electronic communications must describe insulin doses as a number of units followed by the word "units" spelled out in lower case [5]. Always specify the brand of the insulin formulation, the strength, the form of delivery, and the dose frequency.
- Never use a device you have not been trained to use.
- Healthcare staff involved in the administration of insulin should use safety needles and be trained on how to use safety needles correctly.
- Patients administering their own insulin should not be supplied with safety needles unless it is confirmed that they have received training on how to use and dispose of safety needles correctly. There is a risk of misadministration and not receiving the full prescribed dose [6].
- Never use a syringe to withdraw insulin from a pre-filled pen or penfill cartridge [5].
- Penfill cartridges must be used with specified devices and are not interchangeable.
- Ensure that patients read the pictorial or written information supplied and understand which insulin they are using so that they can be sure they are on the right treatment.
- Warn patients only to use insulin as they have been trained. Using it any other way may result in a dangerous overdose or underdose.
- Check the patient carries an up-to-date insulin passport. When insulin is prescribed, dispensed or administered, cross-reference the available information to confirm the correct identity of insulin products [7]. Re-issue or update as appropriate.

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Advice for Specialists[†] [1,2,3]

- Give patients a patient booklet and Insulin Passport (or safety card).
- Ensure that patients receive appropriate training on the correct use of the product.
- Patients, their carer, or healthcare professional providing care should be asked to monitor their blood glucose, and this should be assessed by the prescribing team after starting a new treatment. You may need to adjust doses and timing of concurrent insulin and other blood glucose lowering products.
- If different short and long-acting insulins are being prescribed together, the differences in appearance and use between the two pen devices must be highlighted. Written and pictorial information must be given to the patient about different insulin types they are on.
- Ensure patients know if there is more than one strength of their insulin available. Explain differences in the design of the package and the pre-filled pen for high-strength insulins (more than 100 units per ml) and standard-strength insulins, especially if the patient has been transferred from standard-strength insulin to high-strength insulin. Focus on colour differentiation, warning statements on cartons or labels and other safety design features such as tactile elements on the pre-filled pen.
- Patients who are blind or with poor vision must be instructed to always get assistance from another person who has good vision and is trained in using the insulin device. Consider changes in regimen and monitoring to accommodate the available support.
- Ensure that people with diabetes who are receiving insulin therapy are given information about awareness and management of hypoglycaemia.
- Make sure that people with diabetes who use insulin and who drive are aware of the need to notify the Driver and Vehicle Licensing Agency (DVLA) and their insurer. Clinicians should refer to chapter 3 of the DVLA's [Assessing fitness to drive – a guide for healthcare professionals](#) for more information. This advice should be clearly documented on the patient's clinical record.
- Be aware of 'sick-day' rules and ensure that people with diabetes who are receiving insulin therapy are given appropriate information about these.
- Although biosimilar insulin products have demonstrated similar safety and efficacy to the originator product, they are not presumed to be identical in the same way as generic non-biological medicines are to their proprietary originator product [8]. Monitor glucose levels closely after starting a new treatment and in the following weeks.
- When switching patients from standard-strength insulin to an insulin formulation that is not bioequivalent (such as Toujeo, insulin glargine 300 units/ml), switching can be done on a unit to unit basis but the dose may need to be adjusted to achieve target ranges for plasma glucose level.
- Before requesting non-specialist prescribing of newly initiated insulin the diabetes team must be assured that the patient, carer or both are willing, competent and trained to:
 - Administer the insulin (or District Nursing support has been arranged).
 - If and when required, amend the dose of the insulin, either with the support of their diabetes healthcare professional or independently.

[†] Clinicians who have undertaken relevant training and demonstrate ongoing competency in insulin initiation or switching.

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- Before prescribing responsibility transfers to a non-specialist the diabetes team must maintain clinical responsibility, review the patient, and prescribe sufficient insulin and administration devices for four weeks or until review by the diabetes team, whichever is longer. A copy of the review must be sent to the non-specialist prescriber with the request for transfer of prescribing.

Advice for General Practitioners [1,2,3]

- All insulin requires specialist[†] initiation of prescribing.
- Always prescribe insulin using the brand name, the strength and form of delivery.
- If specified, the dose must include a frequency and be expressed as a number of units followed by the word "units" spelled out in lower case.
- Always carefully check the product selected in electronic prescribing systems.
- Where clinical systems allow, consider using variable issue repeat prescriptions for insulin, blood glucose testing strips and pen needles. This is particularly important for people using an insulin pump system who may infrequently require a back-up supply of insulin.

Advice for Pharmacists [1,2,3]

- Always carefully check the product selected in electronic dispensing systems.
- Advise patients to check the correct product has been supplied.
- Ensure that storage arrangements for combination insulin medicines facilitate correct selection of the medicine and avoid confusion with other medicines.
- Whenever practicable, it is recommended to check that the patient, their carer, or both are able to read the strength of insulin and the dose counter and have been trained on how to use a newly prescribed pen.

Resources

Primary Care Diabetes Society. *The six steps to insulin safety*. [online] Available at <https://www.diabetesonthenet.com/course/the-six-steps-to-insulin-safety/details> [Accessed 11 Dec 2018]

Datapharm. *electronic Medicines Compendium*. [online] Available at <https://www.medicines.org.uk/emc/> [Accessed 19 Oct 2018]

Specialist Pharmacy Services (2018). *ARCHIVED NPSA Alert – The adult patient's passport to safer use of insulin 2011*. [online] Available at <https://www.sps.nhs.uk/articles/npsa-alert-the-adult-patients-passport-to-safer-use-of-insulin-2011/> [Accessed 19 Oct 2018]

Driver and Vehicle Licensing Agency (2019). *Assessing fitness to drive: a guide for medical professionals*. [online] Available at <https://www.gov.uk/government/publications/assessing-fitness-to-drive-a-guide-for-medical-professionals> [Accessed 17 Jun 2019]

DIABETES UK. *Diabetes and being ill*. [online] Available at <https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/illness> [Accessed 19 Oct 2018]

[†] Clinicians who have undertaken relevant training and demonstrate ongoing competency in insulin initiation or switching.

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References

- [1] Medicines and Healthcare products Regulatory Agency (2015). *High strength, fixed combination and biosimilar insulin products: minimising the risk of medication error*. [online] Available at <https://www.gov.uk/drug-safety-update/high-strength-fixed-combination-and-biosimilar-insulin-products-minimising-the-risk-of-medication-error> [Accessed 19 Oct 2018]
- [2] European Medicines Agency (2015). *Guidance on prevention of medication errors with high strength insulins*. [online] Available at http://www.ema.europa.eu/docs/en_GB/document_library/Recommendation_on_medication_errors/2015/11/WC500197133.pdf [Accessed 19 Oct 2018]
- [3] National Institute for Health and Care Excellence (2019). *Safer insulin prescribing KTT20*. [online] Available at <https://www.nice.org.uk/advice/ktt20> [Accessed 17 Jun 2019]
- [4] Hospital Pharmacy Europe (2014). UKCPA symposium report. Leading in excellence. [online] Available at <http://www.hospitalpharmacyeurope.com/featured-articles/leading-excellence> [Accessed 23 May 2019]
- [5] NHS Improvement (2018). *Never Events list 2018*. [online] Available at https://improvement.nhs.uk/documents/2266/Never_Events_list_2018_FINAL_v5.pdf [Accessed 19 Oct 2018]
- [6] Fox A. Insulin Safety Needles – Risk of Omitted Doses. Shared Learning from University Hospital Southampton NHS Foundation Trust. National Medication Safety Network. November 2018. Available on request.
- [7] Specialist Pharmacy Services (2018). *ARCHIVED NPSA Alert – The adult patient’s passport to safer use of insulin 2011*. [online] Available at <https://www.sps.nhs.uk/articles/npsa-alert-the-adult-patients-passport-to-safer-use-of-insulin-2011/> [Accessed 19 Oct 2018]
- [8] National Institute for Health and Care Excellence (2015). Diabetes mellitus type 1 and type 2: insulin glargine biosimilar (Abasaglar). [online] Available at <https://www.nice.org.uk/advice/esnm64/chapter/Key-points-from-the-evidence> [Accessed 11 Jun 2019]

Record of subcutaneous insulin administration and blood glucose monitoring

Patient details

NHS number

Surname

Forename

Date of birth

Allergy status

Alert Check chart to ensure insulin has **NOT** already been given. **Document** the date opened on the vial/pen. Unopened insulin should be stored in a refrigerator. Once open insulin can be kept at room temperature for 28 days after which it must be discarded. If using an insulin pen, ensure you use retractable needles as per policy.

<input type="checkbox"/> Type 1 or <input type="checkbox"/> Type 2 (please tick)	Insulin device (please tick) <input type="checkbox"/> Vial (use insulin syringe) <input type="checkbox"/> Cartridge pen <input type="checkbox"/> Pre-filled pen
Other:	GP / specialist nurse:

Individual management urine ketones to be checked if blood glucose level >15 mmol/l Yes No (please tick)

Date	Blood glucose	Time	Insulin	Dose	Lot number / expiry	Removed from fridge	Expiry once removed	Route / site	Name	Signature / designation
	mmol/l	24 hour	Brand and strength	Units		Date	Date	Subcutaneous	Print	
				units						
				units						
				units						
				units						
				units						
				units						

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