NHS
Suffolk and
North East Essex
Integrated Care Board

Prescribing Commissioning Policy for Biosimilar Insulin

Diabetes specialists across Suffolk and North East Essex have agreed that biosimilar insulins are to be included in the local health economy formulary as cost-effective alternatives to branded insulins. Biosimilar medicines often use the same international non-proprietary name (INN) as their reference product.

The ICB have agreed that all biological medicines, including biosimilar insulin, should be prescribed by brand name so that products cannot be automatically substituted at the point of dispensing. This is particularly important with insulin to ensure that the patient has the insulin that is intended for use with a delivery device that the patient has been trained to use, and has all the necessary items (e.g. needles, pen injection devices).

The choice of whether a patient receives a biosimilar or originator biological medicine rests with the responsible clinician in consultation with the patient. NICE recommends using the cost-effective choice where two or more products are suitable for a patient.

Biosimilar medicines are considered to be therapeutically equivalent to the originator biological medical medicines within their authorised indications.

Summary of Prescribing Principles for initiating biosimilar insulin

- All insulin prescriptions should include the brand name, the strength of insulin and the device to ensure continuity of supply of the insulin and associated administration devices.
- When a new insulin biosimilar has been added to the Local Health Economy Formulary, prescribers are encouraged to follow a phased approach to its introduction:
    - **Phase 1 - Stabilise** the supply for existing patients on the original brand. Ensure that all insulins are prescribed by brands.
    - **Phase 2 - Introduce** the biosimilar insulin for new **type 2 patients**
    - **Phase 3 - Switch** existing **type 2 patients** from the originator brand to the biosimilar brand with appropriate counselling where this is clinically appropriate.
    - **Phase 4 – Introduce** the biosimilar insulin for **new type 1 patients**
- Prescribers are reminded that whenever a patient's insulin is changed, their insulin passport should be updated.

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.

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Remember to follow local guidance prior to initiating insulin. This will ensure all appropriate medications have been tried first.

Initiating/Switching Insulin Aspart

Use lowest acquisition cost brand prescribing where insulin aspart is indicated

Original Insulin and device	**Cost (NHSBSA Dm+D Mar 22)**	**Biosimilar Insulin and Device**	**Cost (NHSBSA Dm+D Mar 22)**	**Cost Difference**
NovoRapid® 100units/ml (Insulin Aspart) cartridges	£28.31	**Trurapi® 100units/ml (Insulin Aspart) cartridges**	**£19.82**	**£8.49**
NovoRapid® 100units/ml (Insulin Aspart) Flexpen	£30.60	**Trurapi® 100units/ml (Insulin Aspart) Solostar**	**£21.42**	**£9.18**
NovoRapid® 100units/ml (Insulin Aspart) FlexTouch	£32.13			**£10.71**
NovoRapid® 100units/ml (Insulin Aspart) 10ml vial	£14.08	**Trurapi® 100units/ml (Insulin Aspart) 10ml vial**	**£11.97**	**£2.11**

Initiation/ switching Truapi in adult patients with type 1 and 2 diabetes

- When insulin aspart is indicated offer **Trurapi® (Solostar or cartridges)**
- **Always prescribe insulin by brand and strength so that the patient gets the intended preparation each time.**
- Trurapi® has a 1:1 initial unit dosing when compared to NovoRapid®. It is available in the SoloStar pen and cartridges.
- Trurapi® is similar to NovoRapid® in
    - pharmacokinetic and pharmacodynamic profile
    - mean HbA_{1c} reduction
    - long-term safety and tolerability profiles
- Trurapi may be used for Continuous subcutaneous insulin infusion (CSII) in pump systems suitable for insulin infusions

Trurapi is not licensed for use in the insulin pumps on formulary

Initiating/Switching Insulin Glargine

Use cost effective brand prescribing where insulin glargine is indicated

Initiate NPH (Isophane) Insulin when indicated for type 2 diabetics and ONLY use long-acting analogues-insulin glargine (Semglee) (in place of NPH) if patient needs help with injections and frequency needs to be reduced from twice to once daily, patient suffers frequent hypoglycaemic attacks that significantly affect quality of life or would need to have two insulin injections and continue oral anti-diabetic medication to achieve control.

Original Insulin and device	**Cost (NHSBSA Dm+D June 23)**	**Biosimilar Insulin and Device**	**Cost (NHSBSA Dm+D June 23)**	**Cost Difference**
Lantus (Insulin glargine) SoloStar and cartridges	£34.75	**Semglee pre-filled pen**	**£29.99**	**£7.78**

Initiation/ Swiching Semglee insulin in adult patients with type 1 and 2 diabetes

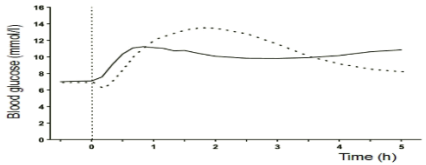
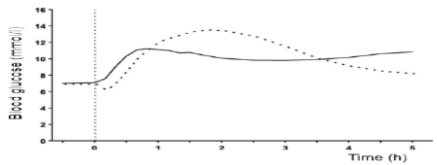
- When once-daily insulin glargine is indicated offer **Semglee (pre-filled pens)** for patients requiring glargine for the first time.
- **Always prescribe insulin by brand and strength so that the patient gets the intended preparation each time.**
- **Semglee insulin is available as prefilled pens only**
- Semglee® is similar to Lantus® in
    - pharmacokinetic and pharmacodynamic profile
    - similar mean HbA_{1c} reduction
    - similar long-term safety and tolerability profiles

References

- Medicines Q&As (2017) 'Prescribing by generic or brand name in primary care available at: SPS (Accessed: 07/10/2025)
- Product specification https://www.medicines.org.uk/emc (Accessed 07/10/2025)
- Dm+d Browser https://applications.nhsbsa.nhs.uk/DMDBrowser/DMDBrowser.do (accessed 07/10/2025)

Appendix

Trurapi and Novorapid

Characteristics	Original Insulin	Biosimilar Insulin
Brand	NovoRapid 100 units/ml	Trurapi® 100 units/ml (biosimilar)
Picture		
Insulin type	Insulin aspart	Insulin aspart
Cost	NovoRapid Penfill 100units/ml solution for injection 3ml cartridges (Novo Nordisk Ltd) £28.31/5 pens	Trurapi 100units/ml solution for injection 3ml cartridges (Sanofi) ▼: £19.82/5 pens
	NovoRapid FlexTouch 100units/ml solution for injection 3ml pre-filled pens (Novo Nordisk Ltd): £32.13/5 pens	Trurapi 100units/ml solution for injection 3ml pre-filled Solostar pens (Sanofi) ▼: £21.42/5 pens
	NovoRapid 100units/ml solution for injection 10ml vials (Novo Nordisk Ltd): £14.08/5 pens	Trurapi® 100units/ml (Insulin Aspart) 10ml vial Sanofi) ▼: £14.12
	NovoRapid PumpCart 100units/ml solution for injection 1.6ml cartridges (Novo Nordisk Ltd) £15.10/5 pens	
Pen size	300 units in 3ml (100 units/ml)	300 units/ 3ml (100 units/ml)
Pen delivery	1-80 units in steps of 1 unit	1-80 units in steps of 1 unit
Onset of action	10-20 minutes	10-20 minutes
Insulin peak	1 and 3 hours 	1 and 3 hours 
Duration of action	3 to 5 hours	3 to 5 hours
Change from other insulins	• Under strict medical supervision • May require change in first dose or first few weeks	• Under strict medical supervision • May require change in first dose or first few weeks

Final

Semglee and Lantus

Characteristics	Original Insulin	Biosimilar
Brand	Lantus 100units/ml SoloStar pens (Sanofi)	Semglee (Mylan) ▼
Picture		
Insulin type	Insulin glargine	Insulin glargine
Cost	Lantus 100units/ml solution for injection 3ml pre-filled SoloStar pens (Sanofi) £34.75/5 pens	Semglee 100units/ml solution for injection 3ml pre-filled pens (Mylan) ▼ £29.99/5 pens
	Lantus 100units/ml solution for injection 10ml vials (Sanofi) £25.69/5 pens	
	Lantus 100units/ml solution for injection 3ml cartridges (Sanofi) £34.75/5 pens	
Pen size	300 units/3ml	300 units/3ml
Pen delivery	1-80 units in steps of 1 unit	1-80 units in steps of 1 unit
Onset of action	30-60 minutes	30-60 minutes
Insulin peak	No pronounced peak	No pronounced peak 11.3 hours to maximum effect
Duration of action	24 hours	24 hours
Change from other insulins	**Intermediate/ long acting:** May require a change in dose and timing of basal insulin, fast-acting insulin, and other antidiabetic treatment **BD NPH insulin:** Reduce daily dose of basal insulin by 20-30% during first weeks of treatment to prevent the risk of nocturnal hypoglycaemia **Insulin Glargine U300 (Toujeo):** Reduce dose by 20%. For the first week, increase meal-time insulin. Thereafter, adjust individually. Closely monitor metabolic control during the first few weeks of switching. Adjust dose accordingly. Change of timing may be required if there is an increase to hypo-hyperglycaemia susceptibility.	**Intermediate/ long acting:** May require a change in dose and timing of basal insulin, fast-acting insulin, and other antidiabetic treatment **BD NPH insulin:** Reduce daily dose of basal insulin by 20-30% during first weeks of treatment to prevent the risk of nocturnal hypoglycaemia **Insulin Glargine U300 (Toujeo):** Reduce dose by 20%. For the first week, increase meal-time insulin. Thereafter, adjust individually. Closely monitor metabolic control during the first few weeks of switching. Adjust dose accordingly. Change of timing may be required if there is an increase to hypo-hyperglycaemia susceptibility.

Final