

## Guidance for switching insulin originator products to biosimilar insulins in adults with Type 2 diabetes in Primary Care

The [Nottingham and Nottinghamshire joint formulary](#) includes biosimilar insulins as cost effective alternatives to branded insulins<sup>1</sup>. A biosimilar medicine must be shown to have no clinically meaningful differences from the originator medicine in terms of quality, safety and efficacy and therefore is considered therapeutically equivalent to the originator medicines within their authorised indications.<sup>2</sup> More information about biosimilars can be found in the Nottinghamshire Area Prescribing Committee [Biosimilar FAQ document](#).<sup>3</sup>

The NHS Business Services Authority statistical report shows that in 2022/23, 15% of the total spend on all prescription items prescribed in England was for drug items used in treating diabetes at cost of £1.53 billion<sup>14</sup>. The use of biosimilar alternatives in diabetes treatment offers the opportunity to make significant cost savings and support the NHS in meeting its affordability challenge while maintaining excellent diabetes care<sup>9</sup>.

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 most cost-effective choice where two or more products are suitable for a patient<sup>2</sup>. Prescribers are reminded to use the preferred biosimilar brands for patients newly starting on insulin. This is reflected in the [Nottingham Commissioning position statement for biosimilar and originator biologic medicines](#).<sup>4</sup>

The preferred biosimilar insulins can be found in the [Nottingham and Nottinghamshire formulary](#)<sup>1</sup>. The Nottinghamshire Health Community [treatment guideline for the management of Type 2 diabetes in adults](#)<sup>5</sup> also provides a useful summary of formulary insulins and recommendations.

This guidance aims to support switching patients from the originator insulins to the named biosimilar insulins by primary care clinicians who would usually prescribe insulin. It is intended to be used for individuals with Type 2 diabetes ONLY. Although biosimilar insulins are suitable for those with Type 1 diabetes, this guidance is not intended for use in this population, whose insulin is generally managed by a specialist.

This guidance is intended for adult patients with Type 2 diabetes who are prescribed the below and could potentially switch to the preferred biosimilar.

1. Currently prescribed NovoRapid<sup>®</sup> (Insulin Aspart) other than the preferred biosimilar Trurapi<sup>®</sup>.
2. Currently prescribed Lantus<sup>®</sup> (Insulin glargine) and Abasaglar<sup>®</sup> (Insulin glargine biosimilar) other than the preferred biosimilar Semglee<sup>®</sup>

## Exclusion criteria

- Patients currently managed by a diabetes specialist nurse (DSN).
- Patients who refuse to conduct additional glucose monitoring.
- Children and young people under the age of 18.
- Patients on insulin pumps.
- Patients known to be pregnant or planning pregnancy.
- Patients who have had a previous trial of the biosimilar or have recorded allergy.
- Patients using NovoRapid®FlexTouch pens prescribed for dexterity or other physical problems.
- Patients with Type 1 diabetes.

Extra care should be taken when considering switch for patients living with cognitive impairment, dementia or Alzheimer's, or using a smart pen device

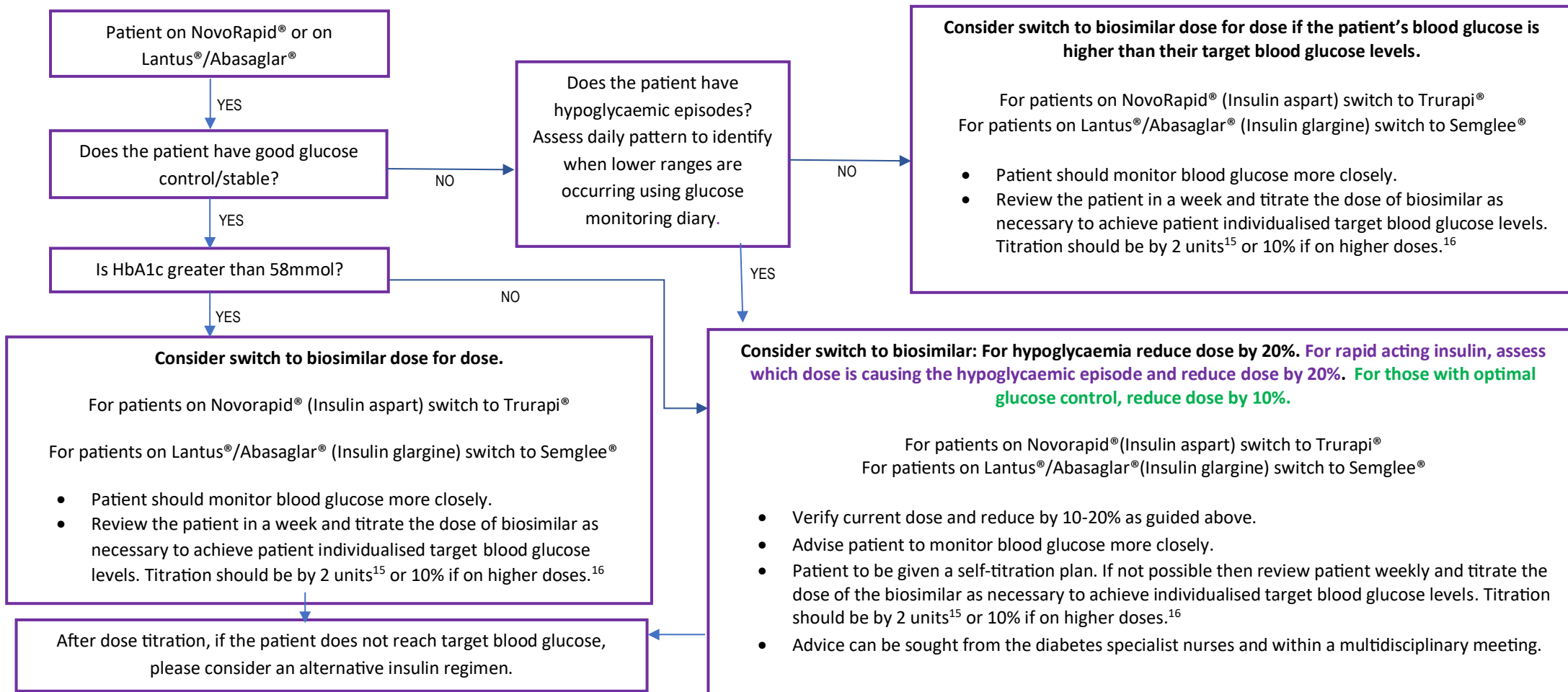
## Considerations when switching to a biosimilar insulin

- The switch should be carried out as part of a face to face full insulin review by staff trained in diabetes management.
- The decision to switch should be made on an individual patient basis as part of a shared decision and only actioned where clinically appropriate.
- A full exploration of the patient's lifestyle, eating habits, timing of meals plus patient preference should be taken into account.
- It may be apparent after review that a 1:1 insulin switch is not the best course of action for the patient in which case consider an alternative insulin regimen.
- Ensure all insulins including biosimilar insulins are prescribed by brand name.
- Check patients get the intended insulin with the correct delivery device for that insulin and are trained fully on how to use<sup>8</sup>. [The Nottingham and Nottinghamshire formulary](#) contains information regarding compatible pen devices for all insulins.
- Update the repeat prescription template and the summary care record.
- Involve and inform relative/carer regarding the change if they are involved in patient care.

## Important points

- Prescribers are reminded that whenever a patient's insulin is changed, their insulin passport should be updated.
- Report any suspected adverse reactions to the Medicines Health and Regulatory Agency (MHRA) via the yellow card scheme ( <https://yellowcard.mhra.gov.uk>)  
Yellow cards can also be obtained using Freephone 0808 1003352.
- Insulin injection technique should be assessed frequently and at least annually.<sup>8</sup>
- Safety net to report any concerns about glucose levels to practice diabetes team

**Guidance for switching insulin originator products to biosimilars in primary care<sup>8,9,11</sup>**



- CONSULTATION CHECKLIST FOR SWITCH**
- Discuss rationale for switch with the patient, offer information and obtain consent.
  - Advise the switch will allow cost savings with no anticipated difference in day-to-day control without compromising on efficacy and safety.
  - Ensure dose and device counselling is re-offered. Reinforce good injection technique.
  - Reinforce correct hypoglycaemic treatment plan and assess if hypo unaware.
  - Ensure insulin passport is updated.
  - Advise patient to contact healthcare professional if any concerns.

Table 1 showing cost comparison of available delivery devices of originator and biosimilar insulins

Biosimilar Insulin	Cost (March 2024)	Reference Insulin	Cost (March 2024)	Potential cost saving per box of 5 pens
<b>Insulin Aspart 100units/ml</b>		NovoRapid® 3ml FlexPens (5 pens)	£30.60	<b>£9.18</b>
Trurapi® 3ml SoloStar pens (5 pens) ( <a href="#">SmPc</a> )	£21.42	NovoRapid® 3ml FlexTouch pens (5 pens)	£32.13	<b>£10.71</b>
Trurapi® 3ml cartridges (5 pens) ( <a href="#">SmPC</a> )	£19.82	NovoRapid® 3ml cartridges (5 pens)	£28.31	<b>£8.49</b>
<b>Insulin glargine 100units/ml</b>				
Semglee® 3ml prefilled pens (5 pens) ( <a href="#">SmPC</a> )	£29.99	Lantus® 3ml SoloStar pens (5 pens)	£34.75	<b>£4.76</b>
Semglee® 3ml prefilled pens (5 pens) ( <a href="#">SmPC</a> )	£29.99	Abasaglar® 3ml Kwikpen pens (5 pens)	£34.75	<b>£4.76</b>

Please note that more information on devices, compatible pens, timings of onset, duration and of administration can be found on the individual monograph entries in the [Nottingham and Nottinghamshire formulary](#).

SmPC – Summary of product characteristics

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## References

1. Nottinghamshire Area Prescribing Committee Joint Formulary. Available at: [Nottinghamshire Area Prescribing Committee Formulary \(nottinghamshireformulary.nhs.uk\)](https://nottinghamshireformulary.nhs.uk) (Accessed on 14/02/2024)
2. NICE. Type 2 diabetes in adults: management NG28. June 2022. Available at: [Overview | Type 2 diabetes in adults: management | Guidance | NICE](#) (Accessed 14/02/2024)
3. Biosimilar Frequently Asked Questions. Nottinghamshire Area Prescribing Committee. Available at [biosimilar-faqs.pdf \(nottsapc.nhs.uk\)](https://nottsapc.nhs.uk/biosimilar-faqs.pdf). (Accessed 14/02/2024)
4. Commissioning position for biosimilar and originator biologic medicines: Nottingham and Nottinghamshire Integrated Care System. Available at [biosimilar-position-statement.pdf \(nottsapc.nhs.uk\)](https://nottsapc.nhs.uk/biosimilar-position-statement.pdf) (Accessed on 14/02/2024)
5. Nottinghamshire Health Community Treatment Guideline for the Management of Type 2 Diabetes (T2D) in Adults: Nottinghamshire Area Prescribing Committee. Available at [type-2-diabetes-guideline.pdf \(nottsapc.nhs.uk\)](https://nottsapc.nhs.uk/type-2-diabetes-guideline.pdf). (Accessed on 14/02/2024)
6. Herefordshire and Worcestershire Clinical Guidance. Guidance on insulin-based treatment in type 2 diabetes [ICB Biosimilar switch plan 2022 v1.1.pdf \(hwics.org.uk\)](https://hwics.org.uk/ICB-Biosimilar-switch-plan-2022-v1.1.pdf) (Accessed 10/04/2024)
7. NHS England: Biosimilar Medicines. Available at: <https://www.england.nhs.uk/medicines-2/biosimilar-medicines/>. (Accessed on 14/02/2024)
8. Diabetes UK. Biosimilar Insulins. August 2019. Available at: <https://www.diabetes.org.uk/resources-s3/2019-09/Biosimilars%20PS%20Final.pdf> (Accessed on 14/02/2024)
9. The Managed Introduction of biosimilar Insulin Glargine (Semglee®). BSOL CCG. Available at: [http://www.birminghamandsurroundsformulary.nhs.uk/docs/acg/The%20managed%20introduction%20of%20biosimilar%20Insulin%20Glargine%20\(Semglee\).pdf?uid=711779309&uid2=2021831103846407&UID=2238008312022927143051](http://www.birminghamandsurroundsformulary.nhs.uk/docs/acg/The%20managed%20introduction%20of%20biosimilar%20Insulin%20Glargine%20(Semglee).pdf?uid=711779309&uid2=2021831103846407&UID=2238008312022927143051). (Accessed on 14/02/2024)
10. Trurapi® Insulin Aspart 100units/ml Prescribing information (GB only) Sanofi. Available at [TRURAPI® ▼ \(INSULIN ASPART 100 UNITS/ML\) \(GB ONLY\) \(campus. Sanofi\)](#) (Accessed on 14/02/2024)
11. Quick guide: Initiating or switching to a biosimilar insulin. Morris D (2022) Journal of Diabetes Nursing. Volume 26. No 1 2022. Available at [3.-Morris-quick-guide.pdf \(diabetesonthenet.com\)](https://diabetesonthenet.com/3-Morris-quick-guide.pdf) (Accessed on 14/02/2024)
12. Medicines Optimisation Intervention Brief: Trurapi in place of Novorapid in Southampton, South West Hampshire, North and MidHampshire and the Isle of Wight NHS Hampshire and Isle of Wight. Available at [IB Trurapi updated Oct 23 .pdf \(hantsiowhealthandcare.org.uk\)](https://hantsiowhealthandcare.org.uk/IB-Trurapi-updated-Oct-23.pdf)(Accessed 14/02/2024)
13. Prescribing for Diabetes – England – 2015/16 to 2022/23. 10/08/2023 NHS Business Service Authority [Prescribing for Diabetes – England – 2015/16 to 2022/23 | NHSBSA](#) (Accessed 19/03/2024)
14. Adults- Insulin dose titration decision support tool for adult inpatients with diabetes. University Hospitals of Leicester Dec 2021. [Insulin Dose Titration for Inpatients with Diabetes UHL Guideline.pdf \(leicestershospitals.nhs.uk\)](https://leicestershospitals.nhs.uk/Insulin-Dose-Titration-for-Inpatients-with-Diabetes-UHL-Guideline.pdf) (Accessed 19/03/2024)
15. Insulin Adjustment Guideline: Your guide to safe insulin adjustment. T.R.E.N.D. diabetes. Available at [Insulin Adjustment TREND 2023.pdf \(trenddiabetes.online\)](https://trenddiabetes.online/Insulin-Adjustment-TREND-2023.pdf) (Accessed 19/03/2024)