How to start Lantus® (insulin glargine) in Type 2 Diabetes

Please review the full product data sheets available at www.medsafe.co.nz

When printing this PDF please include the reference and product mandatory sections.

This information is for Healthcare professional use only.

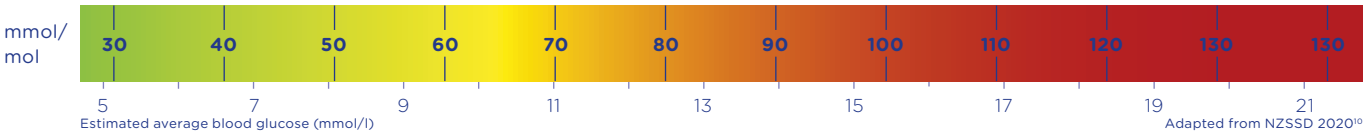
SANOFI

Before Starting Lantus®

- HbA1c persistently above individualised target (>3months).[1]

Recommended target for Type 2 Diabetes patients:
HbA1c 50-55 mmol/mol or as individually agreed.[1]

HbA1c an indicator of average blood glucose control



- Address other possible causes of hyperglycaemia[1] ☐
  - Check diet, exercise, excess weight ☐
  - Lack of adherence with current medications ☐
  - Suboptimal use of oral hypoglycaemic medications ☐
  - Other medications or medical conditions that can cause hyperglycaemia ☐
- Discuss barriers/concerns about starting insulin with patient[1] ☐
- Arrange a care plan if necessary – explain role of other healthcare professionals in patient education and monitoring[1] ☐
- Conduct regular testing to determine patient's blood glucose profile pattern[1] ☐
- Important: Include advice on treating hypoglycaemia[1] ☐
- Include advice on sharps disposal[1] ☐
- Select Lantus® insulin device: ☐
  - Lantus® SoloSTAR® disposable pen & needles,

OR

  - Lantus® AllStar Pro® pen & Lantus® 3mL cartridges & needles

OR

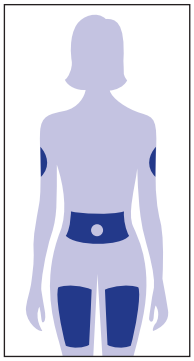
  - Lantus® 10mL vial & syringes with attached needle

Remember to:

- Allow additional Lantus® units to cover the 2 unit safety test (priming) prior to each injection. This is in addition to the daily dose of Lantus® ☐
- Provide Lantus® information books and blood glucose books, which are available from Sanofi to assist your patient starting Lantus®. Contact 0800 283 684 ☐
- Co-prescribe a 3 month supply of BD Micro Fine™+ needles (200 needles or 200 syringes with attached needle)[8] ☐

Advise your patient to:[2]

- Check that they have the right insulin, time and dose before injecting ☐
- Check that their Lantus® has not expired ☐
- Wash their hands thoroughly before starting each injection ☐
- Prime the needle: Perform a 2 unit safety test before each injection to ensure insulin is coming out of the needle ☐
- Inject Lantus® at the same time each day ☐
- Use a new needle for each injection ☐
- Inject Lantus® at a 90° angle ☐
- Count to 10 before removing the needle from the injection site ☐
- Inject into a different place everyday. Sites for injection include abdomen, thighs and upper arms ☐
- Keep Lantus® SoloSTAR® disposable pen, the Lantus® cartridge or vial they are using at room temperature, not higher than 30°C, and protected from the light ☐
- Store unopened pre-filled pens, cartridges and vials in the fridge between 2°C and 8°C. Do not allow to freeze ☐
- Discard any remaining Lantus® 28 days after first use ☐
- Regularly test blood glucose ☐



Recommended injection site usually the abdomen, other injection site options include thighs and upper arms

2 unit safety test (priming)

Advise patients:[2]

- **Not** to mix Lantus® with any other insulin ☐
- **Not** to confuse their insulins – Lantus® is clear, not cloudy. Lantus® is a long acting basal insulin ☐
- **Not** to use Lantus® if their pre-filled pen, vial or cartridge becomes cracked, cloudy or particles appear ☐
- **Not** to use Lantus® if the pre-filled pen, vial or cartridge has been frozen or exposed to excessive heat (30°C +) ☐

1. **Advise patients that if they forget to take a dose of Lantus®, as with any insulin never take a double dose to make up for a missed dose as they will be at increased risk of hypoglycaemia.[2]**
2. **Advise patient to seek healthcare advice.[2]**

Starting Lantus®

Simple steps to achieving the right Lantus® dose when starting an insulin naïve patient with Type 2 Diabetes

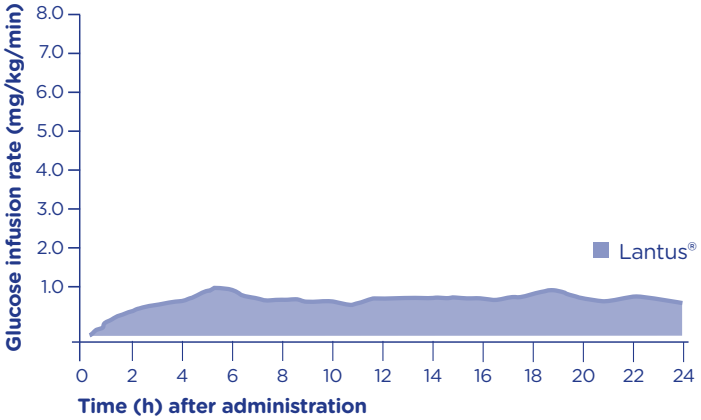
Start

Step 1:

Starting Dose

- Start patients on 10 units of Lantus®[3]
- Taken once-daily at the same time each day[3]
- Continue treatment with oral hypoglycaemic agents (OHAs)[1]

Lantus® Profile[3,4]



Adapted from Lepore M, et al, 2000[4] and Lantus® Data Sheet[3].
Mean GIR in subjects with Type 1 diabetes after SC injection of 0.3 u/kg

OHAs: Funded options include metformin, sulphonylureas, vildagliptin, acarbose and pioglitazone[8]

Titration: Fix the fasting blood glucose first[6]

Step 2:

Fix the fasting blood glucose - adjust the Lantus® dose using one of the schedules below to achieve a target FBG that correlates with the HbA1c target[9]

Evidence Based Titration Schedules[6,7]

Schedule 1. Patient self titration[6]

Increase by 2 units every 3 days, continue until FBG ≤ 5.5 mmol/L[6]

REPEAT

- Adapted from Davies et al. 2005.
- Titration reviewed each contact.
- Titrate only in the absence of BGL < 4 mmol/L
- Based on the average of 3 consecutive FBG tests.

OR

Schedule 2. Patient self titration[7]

Increase by 1 unit everyday, continue until FBG ≤ 5.5 mmol/L[7]

REPEAT

- Adapted from Gerstein HC, et al 2006[7]
- Titration reviewed each contact.
- Titrate only in the absence of BGL < 4 mmol/L

Step 3:

Check HbA1c in 3-6 months. If on target continue monitoring FPG and titrating as necessary, if not at HbA1c target check FPG levels, if FPG is at target then move to step 4 or continue titrating Lantus to 0.7 IU/kg before moving to step 4[9]

Step 4:

Find hidden hyperglycaemia (if HbA1c ≥ 55 mmol/mol or agreed target)

If preprandial FPG are on target but HbA1c and postprandial BGLs are not, review need for a dose of rapid-acting insulin such as Apidra® (insulin glulisine) to manage postprandial hyperglycaemia[5]

FBG – Fasting Blood Glucose BGL – Blood Glucose Level FPG – Fasting Plasma glucose

References

Lantus®

1. New Zealand Primary Care Handbook 2012. Ministry of Health.
2. Lantus® Consumer Information. October 2017
3. Lantus® Data Sheet. 31 October 2017
4. Lepore M. et al. Diabetes. 2000; 49:2142-2148
5. Phillips P. Medicine Today 2007;8(3): 23-24
6. Davies et al. Diabetes Care 2005;28(6) 1282-1288
7. Gerstein HC, et al. Diabet Med 2006;23:736-42
8. New Zealand Pharmaceutical Schedule. April 2020
9. Melanie J. Davies et al. Diabetes Care 2018; 41: 2669-2701
10. NZSSD resource from Department of Medical Illustration, Auckland City Hospital. https://www.nzssd.org.nz/hba1c Accessed 16/04/20120

Lantus® Abridged Data Sheet
Please review Full Data Sheet before prescribing – available at www.medsafe.govt .nz or from the sponsor.

Lantus® (insulin glargine). **Indication:** Once-daily subcutaneous administration for type 1 and type 2 diabetes mellitus patients who require insulin for control of hyperglycaemia. **Contraindications:** Hypersensitivity to insulin glargine or any excipient. **Precautions:** Hypoglycaemia, possibly with delayed recovery or altered warning symptoms; hepatic, renal and visual impairment; lipodystrophy and other injection site or immediate-type allergic reactions; antibody production; not studied in children <6 years, pregnancy category B3, lactation; not intended for i.v. use; not recommended for treatment of diabetic ketoacidosis; LANTUS® MUST NOT BE DILUTED OR MIXED WITH ANY OTHER INSULIN OR SOLUTION. Patient instruction on intercurrent conditions, blood glucose monitoring, injection technique recommended. **Interactions:** Oral antidiabetic agents; cardiovascular, analgesic, anti-inflammatory, neurological, antipsychotic agents, antibiotics, corticosteroids, other hormonal therapies, diuretics, protease inhibitors, sympathomimetic agents, lithium, alcohol, sympatholytics including ß-blockers, others. **Adverse effects**: Hypoglycaemia; injection site reactions; visual disturbances; others. **Dosage and Administration:** Subcutaneous, once daily; abdominal, thigh or deltoid administration; blood glucose monitoring is recommended. Lantus® is equipotent to human insulin. Initial dose should be determined individually, depending on desired blood glucose levels and doses and timing of any antidiabetic medication, including Lantus®. For changeover from once-daily NPH initial dose usually not changed; for changeover from twice-daily NPH to once-daily Lantus®, initial dose usually reduced by approximately 20% compared to total daily NPH dose; for initiation of type 2 patients, initial dose is usually approximately 10IU. For secondary dose adjustments, renal, hepatic impairment see full Data Sheet. **Medicine Classification:** Prescription Medicine. **Presentations:** Lantus® (insulin glargine injection) 100 U per mL is available in packs of 5x3mL cartridges, 5x3mL cartridges in SoloStar pre-filled pens and 10mL vials. Sponsor: Sanofi–Aventis New Zealand Limited trading as Sanofi, Level 8, 56 Cawley Street, Ellerslie, Auckland. Freephone 0800 283 684. **Lantus® is a Funded Medicine.**

Apidra®

Apidra® Abridged Data Sheet
Please review Full Data Sheet before prescribing – available at www.medsafe.govt .nz or from the sponsor.

Apidra® (insulin glulisine). **Indication:** Subcutaneous administration for type 1 and type 2 diabetes mellitus patients who require insulin for control of hyperglycaemia. **Contraindications:** Hypersensitivity to insulin glulisine or any excipient. **Precautions:** Hypoglycaemia; hepatic, renal and visual impairment; lipodystrophy and other injection site or immediate-type allergic reactions; patient instruction on intercurrent conditions, blood glucose monitoring, injection technique, checking insulin label if using reusable injection devices; not studied in children <4 years, pregnancy category B3, lactation; may be mixed with NPH human insulin, mixtures should not be administered intravenously. Interactions: Oral antidiabetic agents; cardiovascular, analgaesic, anti-inflammatory, neurological, antipsychotic agents (see full Data Sheet); antibiotics; corticosteroids, other hormonal therapies (see full Data Sheet); diuretics; protease inhibitors; sympathomimetic agents; lithium; alcohol; sympatholytics including ß-blockers; others, see full Data Sheet. **Adverse effects:** Hypoglycaemia; injection site reactions; others, see full Data Sheet. **Dosage and Administration:** Subcutaneous; abdominal, thigh or deltoid administration; blood glucose monitoring is recommended. Apidra® is equipotent to human insulin but with more rapid onset and shorter duration of action; should be injected within 15 minutes before or immediately after a meal. Initial dose should be determined individually, depending on desired blood glucose levels. Apidra® should normally be used in regimens that include a longer-acting or basal insulin. Apidra® can be mixed with NPH human insulin for subcutaneous administration. For secondary dose adjustments, renal, hepatic impairment: see full Data Sheet. **Presentations:** Apidra® (insulin glulisine injection) 100 U per mL (U 100) is available in packs of 10mL vials, 3mL cartridges and 3mL cartridges in SoloStar pre-filled pens. **Medicine Classification:** Prescription Medicine. Sponsor: Sanofi–Aventis New Zealand Limited trading as Sanofi, Level 8, 56 Cawley Street, Ellerslie, Auckland, New Zealand. Freephone 0800 283 684. **Apidra® is a Funded Medicine.**

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