

# How to start Lantus<sup>®</sup> (insulin glargine) in Type 2 Diabetes

Please review the full product data sheets available  
at [www.medsafe.co.nz](http://www.medsafe.co.nz)

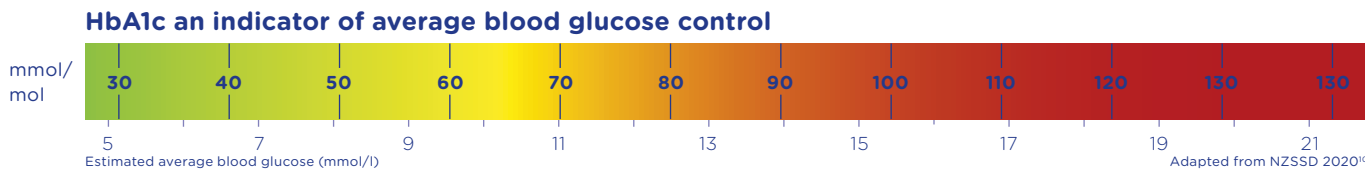
When printing this PDF please include the reference  
and product mandatory sections.

This information is for Healthcare professional use only.

# Before Starting Lantus®

- HbA1c persistently above individualised target (>3months).<sup>1</sup>

**Recommended target for Type 2 Diabetes patients:  
HbA1c 50-55 mmol/mol or as individually agreed.<sup>1</sup>**



- Address other possible causes of hyperglycaemia<sup>1</sup>
  - 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<sup>1</sup>
- Arrange a care plan if necessary – explain role of other healthcare professionals in patient education and monitoring<sup>1</sup>
- Conduct regular testing to determine patient’s blood glucose profile pattern<sup>1</sup>
- Important: Include advice on treating hypoglycaemia<sup>1</sup>
- Include advice on sharps disposal<sup>1</sup>
- 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:

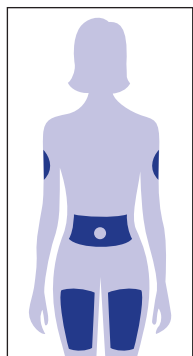
- Allow additional Lantus® units to cover the 2 unit safety test (priming) prior to each injection. This is in addition to the daily dose of Lantus®
- Provide Lantus® information books and blood glucose books, which are available from Sanofi to assist your patient starting Lantus®. Contact 0800 283 684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



## Advise your patient to:<sup>2</sup>

- Check that they have the right insulin, time and dose before injecting
- Check that their Lantus<sup>®</sup> 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<sup>®</sup> at the same time each day
- Use a new needle for each injection
- Inject Lantus<sup>®</sup> 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<sup>®</sup> SoloSTAR<sup>®</sup> disposable pen, the Lantus<sup>®</sup> 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<sup>®</sup> 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:<sup>2</sup>

- **Not** to mix Lantus<sup>®</sup> with any other insulin
- **Not** to confuse their insulins – Lantus<sup>®</sup> is clear, not cloudy. Lantus<sup>®</sup> is a long acting basal insulin
- **Not** to use Lantus<sup>®</sup> if their pre-filled pen, vial or cartridge becomes cracked, cloudy or particles appear
- **Not** to use Lantus<sup>®</sup> 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<sup>®</sup>, 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.<sup>2</sup>

2. Advise patient to seek healthcare advice.<sup>2</sup>

# Starting Lantus®

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

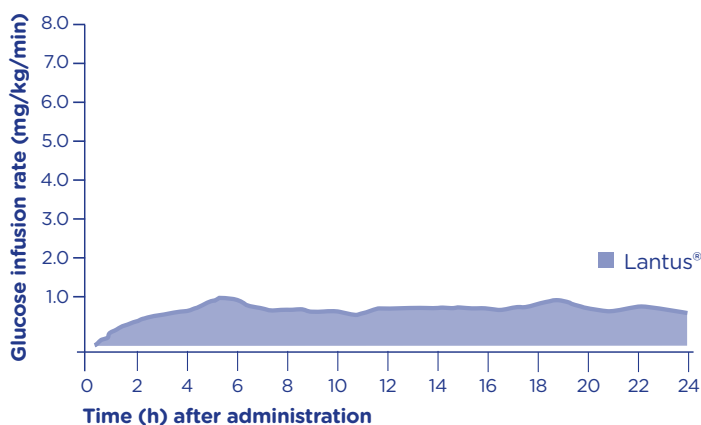
### Start

#### Step 1:

#### Starting Dose

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

### Lantus® Profile<sup>3,4</sup>



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

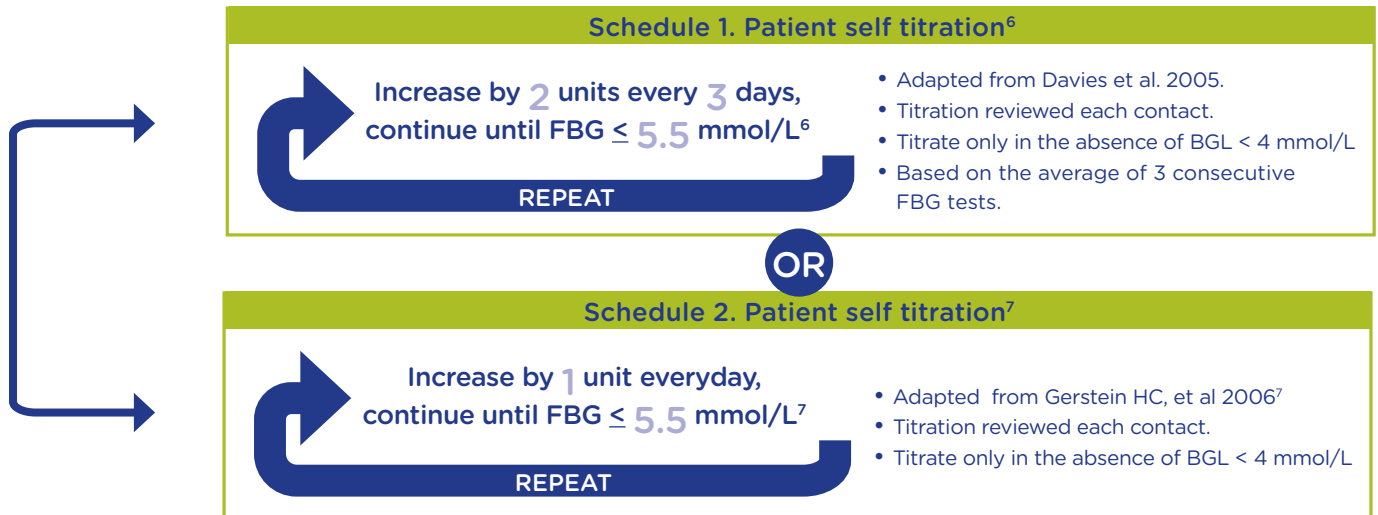
**OHAs:** Funded options include metformin, sulphonylureas, vildagliptin, acarbose and pioglitazone<sup>8</sup>

# Titration: Fix the fasting blood glucose first<sup>6</sup>

## Step 2:

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

## Evidence Based Titration Schedules<sup>6,7</sup>



## 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<sup>9</sup>

## Step 4:

Find hidden hyperglycaemia (if HbA1c  $\geq$  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<sup>®</sup> (insulin glulisine) to manage postprandial hyperglycaemia<sup>5</sup>

# References

## Lantus®

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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](http://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  $\beta$ -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®

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### Apidra® Abridged Data Sheet

Please review Full Data Sheet before prescribing – available at [www.medsafe.govt.nz](http://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, analgesic, 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  $\beta$ -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.**