LEVEMIR DISCONTINUATION RECOMMENDATIONS

Diabetes Alliance working group

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Executive Summary

Novo Nordisk has announced the global discontinuation of Levemir (insulin detemir) from December 2026, posing risks for the approximately 12,000 Australians with type 1 diabetes currently reliant upon this insulin. The Diabetes Alliance established a working group, comprising representatives from Diabetes Australia, the Australian Diabetes Society, the Australian Diabetes Educators Association, Australasian Diabetes in Pregnancy Society, and the Australia and New Zealand Society for Paediatric Endocrinology and Diabetes to assess the impact and develop recommendations.

Why Levemir is difficult to replace

Unlike once-daily insulin glargine (Optisulin/Toujeo), degludec (Tresiba), and other long-acting insulin products, Levemir has a relatively shorter, dose-dependent duration of action (14–16 hours) with a small peak, making it well-suited to twice-daily dosing for those individuals, with predominantly type 1 diabetes, requiring different morning and evening doses. This flexibility allows more precise matching of insulin to the physiological needs across the day and night for these individuals. Switching to a once-daily flat-profile insulin removes this flexibility and introduces risk of harmful hypoglycaemia and/or hyperglycaemia. There are no data to demonstrate how to switch in this group. Insulin glargine is a TGA category B3, whilst Levemir is TGA category A.

Scale of the problem

Lived experience responses from people with type 1 diabetes currently treated with Levemir described significant anxiety, frustration, and dread about the change which will likely continue until a successful switch has occurred. Data collected from people with type 1 diabetes from three Australian sources showed that between 46.8% and 63.9% (i.e. between 5,616 and 7,668) are using twice daily injections with different doses in the morning and evening, making them more prone to ongoing hyperglycaemia, and long-term complications and/or severe hypoglycaemia. The estimated number of people using twice daily Levemir potentially severely affected by its cessation is therefore between 2,700 and 6,000.

Recommendations for people with type 1 diabetes currently treated with Levemir

- An awareness, education and support program needs to be established, particularly targeting primary care and pharmacy. This requires discussions with the key professional and other related bodies.
- Possible establishment of a helpline for those impacted. This helpline could then be utilised for other medicine discontinuations.
- Diabetes specialist teams should immediately commence switching from Levemir to the best alternative for the person with type 1 diabetes.
- Prioritise government funding for insulin pump access for pregnant women and for those whose blood glucose remains unstable after the initial transition.

Switch options

1. For people with type 2 diabetes and type 1 diabetes using once-daily or equal-dose twice-daily Levemir, a switch to insulin glargine (U100 or U300) or degludec at 80–90% of the total daily Levemir dose can be recommended. For people with type 1 diabetes, access to hybrid-closed loop insulin pump therapy should be considered.
2. For those with type 1 diabetes using unequal twice-daily doses (>20% difference), there are no data to demonstrate the safety of switching to a once daily insulin. Depending on clinical expertise and if acceptable to the person with type 1 diabetes:
    a. **Preferred Option**: Offering an insulin pump as part of hybrid closed-loop technology is likely to be the first, best and safest choice, allowing the current flexibility to be maintained or enhanced. However, unlike in other similar countries, pumps are not subsidised in Australia and cost approximately $8,500.
    b. **Alternative option**: Switching to another long-acting basal insulin such as glargine or degludec (see Figure 1 below).

High-risk groups

Strategies addressing the discontinuation of Levemir should consider the support available to high-risk groups and ensure their timely access to relevant health professional advice. This includes pregnant women (where ongoing changing insulin needs lead to glycaemic instability posing increased risks of congenital anomalies and adverse pregnancy outcomes), postpartum and post-menopausal women, people who engage in vigorous physical activity, people in rural and remote areas with limited specialist access, those with low health literacy or English as a second language, and people who drive for work.

Background

Australia is the home to approximately 145,000 people with type 1 diabetes, which represents 10% of all people with diagnosed diabetes[1]. Over 60% of those with type 1 diabetes use multiple daily injections of insulin, mainly involving a basal-bolus insulin regimen. The optimal approach to insulin replacement requiring an insulin pump (automated insulin delivery), is not currently subsidised for adults in Australia, and out of reach for most people with type 1 diabetes [2] [3].

Currently, three long-acting basal insulin products are subsidised under the Pharmaceutical Benefits Schedule: Levemir and Tresiba (degludec) are subsidised only for people with type 1 diabetes and insulin glargine (Optisulin U100) or (Toujeo U300) are unrestricted. The action profile of Levemir and insulin glargine is different: Levemir has a shorter duration of action (14-16 hours – dose dependent) than Optisulin which has a duration of action of 20 hours and Tresiba which has a duration of action of at least 42 hours. In addition, there is a small peak in action after Levemir whereas Tresiba and Optisulin have a flatter profile. In view of this profile, people with type 1 diabetes who use Levemir, may require two injections per day, eg. before breakfast and either before the evening meal or before bed. Those people prescribed Levemir twice per day, may administer a different dose during the day and during the night. Any switch in basal insulin type can change the matching of insulin received to the amount of insulin needed at any one time, leading to hypoglycaemia or hyperglycaemia at different times of the day or night.

Novo Nordisk announced in 2024 that Levemir is to be globally discontinued from December 2026[4], which has significant implications for people living with type 1 diabetes who currently rely on this medication as part of their diabetes management, as well as for prescribing health professionals caring for people with type 1 diabetes. The discontinuation of Levemir may impact the quality of life and psychological wellbeing of those affected.

Services around Australia are beginning to start switching people from Levemir to other insulin products. In view of the potential severe risk to some people with type 1 diabetes and the potential for therapeutic confusion where a person with type 1 diabetes is not seeing a health professional skilled in insulin management, Diabetes Australia established a working group including representatives of Diabetes Alliance partner organisations to assess the impact of the discontinuation and to identify and evaluate viable alternatives or mitigations which can be communicated to the broader diabetes community.

Membership of the Diabetes Alliance Working Group on Levemir Discontinuation included representatives with expertise in type 1 diabetes management from Diabetes Australia, Australian Diabetes Society, Australian Diabetes Educators Association, Australasian Diabetes in Pregnancy Society and the Australia and New Zealand Society for Paediatric Endocrinology and Diabetes. The recommendations have also been reviewed by a panel of those with lived experience.

Impact Assessment

Of the 12,000 Levemir-treated adults with type 1 diabetes across Australia in 2025,[5] it is estimated that between 46.8% and 63.9% (i.e. between 5,616 and 7,668) are using twice daily injections with different doses

in the morning and evening. These individuals are expected to be at the greatest risk of significant hyperglycaemia or hypoglycaemia because of the need to switch from Levemir (Appendix 1). There were no available data from the paediatric population.

OTHER GROUPS AT HIGH-RISK INCLUDE:

- Women during pregnancy: Glycaemic management in women with type 1 diabetes is often more challenging during pregnancy than outside pregnancy. Management must account for nausea and vomiting, rapidly changing insulin sensitivity, and marked intra-day variability in basal insulin requirements. For women not using insulin pump therapy, this can necessitate Levemir administered two to three times daily, frequently with unequal dosing to match physiological needs. The unavailability of Levemir therefore poses a clinical concern. Alternative basal insulins may not offer the same flexibility or predictability, which risks deterioration in glycaemia. Suboptimal glycaemia in pregnancy is associated with higher rates of adverse maternal and foetal outcomes. Women who require alternative basal insulin options may be transitioned to U100 insulin glargine (eg Optisulin) or insulin degludec, both classified as pregnancy category B3 by the TGA.
- Those with other causes for varying insulin demand e.g. postpartum, breastfeeding and post-menopausal women, and people who partake in vigorous physical activity.
- Those on once per day insulin who benefit from the shorter action of Levemir through the use of rapid acting insulin at the end of the insulin action to avoid glucose increases, who may be at risk of hypoglycaemia initially[6].
- Those without ready access to a clinician with expertise in insulin management particularly in rural and remote communities)[7].
- Those who find it difficult to prevent or manage hypoglycaemia, those without family, household members or others who are unable to administer glucagon in a timely manner.
- Those with rare forms of diabetes that are managed similarly to type 1 diabetes e.g. type 3c diabetes and type 5 diabetes.

Appendix 1 provides more detail on the numbers of people with type 1 diabetes using Levemir and how it is being used.
Appendix 2 describes response from people with Lived experience on how withdrawal of Levemir will affect them
Annex 2 is an open letter from a person with type 1 diabetes about the Levemir withdrawal.

Operational Implications

TIMELINE

Timing of withdrawal: Reactive statement on distribution, stock and timing of cessation of access to Levemir in Australia

Levemir FlexPen and Levemir Penfill will be discontinued in December 2026 as part of Novo Nordisk's planned global phase-out. The Diabetes Alliance Working Group encourage health care professionals to investigate other treatment options prior to December 2026. Closer to the discontinuation timeframe, Novo Nordisk will remind healthcare professionals who prescribe Levemir to consider alternative insulin options available, to support continuity of care for their patients.

Switching process

Switching from Levemir to other basal insulins is unlikely to be too disruptive among those with type 2 diabetes unless the individual has very limited endogenous insulin secretion (e.g. incorrect type 2 diabetes classification, very long duration).

Switching from Levemir to an alternative basal insulin among those with type 1 diabetes can increase the risk of hypoglycaemia[8] including severe hypoglycaemia. Such switching should be done collaboratively between the person with type 1 diabetes and their diabetes healthcare team. Both the person with diabetes and the healthcare team should have adequate expertise in insulin management. The diabetes team includes an endocrinologist and credentialled diabetes educator (CDE). Ideally, all switching should occur while using continuous glucose monitoring (CGM). CGM is subsidised for all people with type 1 diabetes under the National Diabetes Services Scheme (NDSS). If patients cannot wear a CGM device, regular education on self-managed blood glucose monitoring should be provided. Consumers and healthcare professionals should be particularly vigilant for hypoglycaemia and hyperglycaemia during the first three days after switching insulin types. Safe driving practices and caution when operating heavy machinery should be reinforced during the transition and until blood glucose levels have stabilised.[9]

Switching options in type 1 diabetes

Options for replacing Levemir include:

- **Insulin pump (now with hybrid closed loop) (not subsidised)**
  - Randomised controlled trial and real-world evidence clearly show major benefit of Insulin pumps as part of hybrid closed loop (HCL) therapy over basal bolus insulin regimens[10]. Access to a pump requires patients to pay for the pump outright unless they hold top-level health insurance. Children and young adults under the age of 21 years who meet strict medical and financial criteria may be eligible for a pump through the Insulin Pump Program administered by Diabetes Australia. Insulin pump consumables are covered under the NDSS or those with type 1 diabetes who meet specific clinical criteria. This option provides the maximum flexibility in managing insulin 24 hours per day and is now the global best practice approach to type 1 diabetes insulin delivery.
- **Insulin glargine**
  - Randomised controlled trial evidence shows that treatment with twice-daily Levemir compared with once-daily insulin glargine resulted in similar HbA1c. However, the risks of both severe and nocturnal hypoglycaemia were significantly lower with Levemir[11].
  - Twice daily insulin glargine has been used and can be an option for some, but not all, individuals[12] [13].
- **Insulin degludec**
  - The BEGIN clinical trial program compared degludec with detemir in people with type 1 diabetes using basal-bolus therapy. It showed similar HbA1c reduction between degludec and detemir,

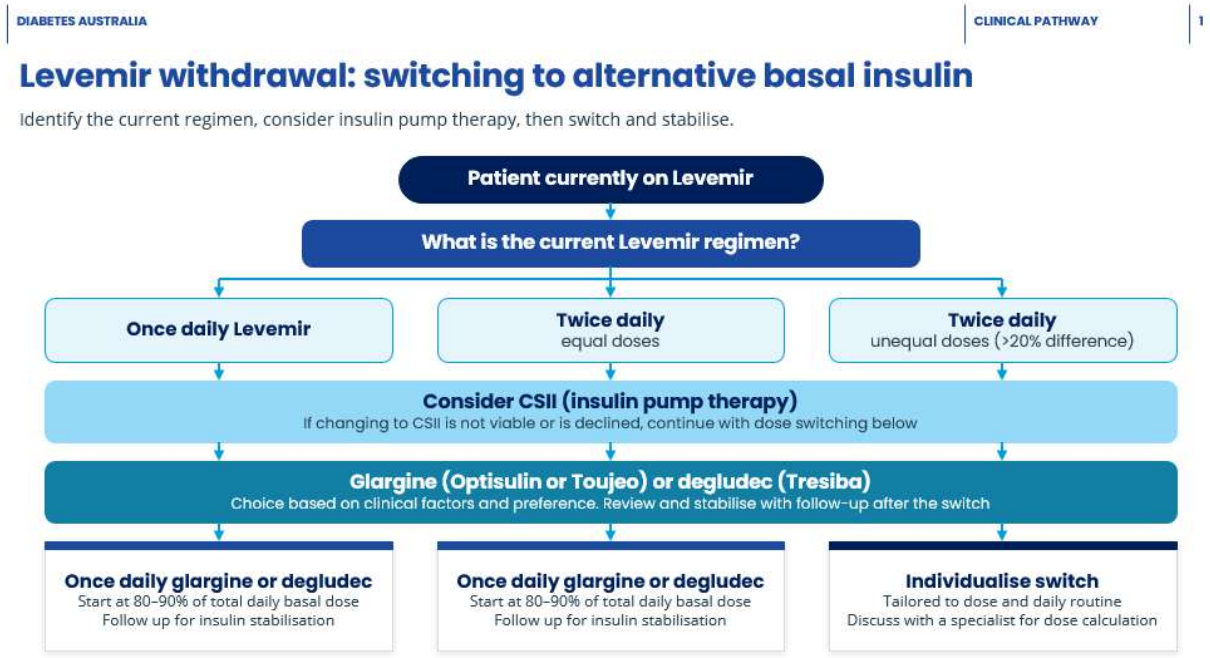
lower rates of nocturnal confirmed hypoglycaemia with degludec, similar or improved glycaemic control despite lower basal insulin requirements in some patients.

Table 1: Recommended approach to switching from Levemir to alternative background insulin for people with type 1 diabetes

Switching Process *(also refer to the flow chart below)*

1. **Anyone with type 1 diabetes treated with Levemir:** Switching to an Insulin pump is the recommended option for all with type 1 diabetes treated with Levemir. This can currently occur for anyone with available funds and access: either out of pocket or via health insurance support.
2. **Once-a-day Levemir:** Those using once/day Levemir can likely switch to once-a-day insulin glargine or degludec initially at 80-90% of the total daily basal dose with follow up insulin stabilisation.
3. **Twice-a-day Levemir with equal doses in the morning and evening:** This group can likely switch to once-a-day insulin glargine or degludec initially at 80-90% of the total daily basal dose with follow up insulin stabilisation.
4. **Twice-a-day Levemir with unequal morning and evening doses:** It is unclear how best to switch those on this regimen especially if there is a >20% difference between morning and evening doses. Doses should be individualised to the existing dose and day to day life of the person with diabetes. It is recommended that dosing is discussed with an Endocrinologist.

Figure 1: Levemir withdrawal – switching to alternative basal insulin



Other factors to consider when switching:

1. Changes in bolus quick acting doses (carbohydrate ratio and/or insulin sensitivity factor) may be required at different times of the day.
2. In all cases:
    i. Those with type 1 diabetes should be advised of the risks of both hyperglycaemia and hypoglycaemia during the transition.
    ii. It is strongly recommended that all of those switching have CGM in place with alarms turned on.
    iii. Patients should seek support via their diabetes health professional team.
    iv. There may be a hypoglycaemia risk, including when driving, for at least the week following the switch and this should be discussed.[14]
    v. Glucagon should be available and a close household member should be trained in its use where available
    vi. Always check for lipohypertrophy at injection sites and check insulin injection technique. U300 insulin may be considered across the dose range, including for those on higher doses (total daily dose >50 units).
3. Access to a 24 hours/day 7 days/week support line is recommended to be established before switching if possible.

4. An audit of switching from Levemir to a clinically judged dose of insulin glargine or degludec is urgently required. Such an audit has been commenced among adults across 8 NSW, Vic and SA hospitals.
5. A primary care and pharmacy awareness, education and support program is needed. This requires discussions with the key professional and other related bodies.
6. An awareness and support program is needed for those with type 1 diabetes and their carers.
7. No supply chain readiness or constraints exist for U100 or U300 insulin glargine currently.
8. Insulin degludec is now available in Australia and subsidised through the PBS.
9. Demand for insulin pumps may vary across the different providers but no supply chain issues are known to exist currently.

Impact on diabetes services and out of pocket expenses for staff costs

Switching insulin takes additional time to discuss options including risks and benefits, decide on an individual management plan, and then monitor glycaemia and make the required additional insulin and other adjustments in a timely way. While there are MBS items for endocrinology consults, no MBS items exist for additional CDE consults beyond the chronic care package (which also includes other allied health) and telephone and digital "insulin stabilisation" are not MBS funded. This will be additional work for all diabetes service teams, albeit as part of their regular consults. No additional funding is available for this service beyond standard MBS billing. Any additional out of pocket expenses for those with type 1 diabetes under private diabetes services will largely remain uncovered.

Healthcare professional training

Endocrinologists and CDEs are routinely trained and experienced in the management of type 1 diabetes. Primary care has varying expertise and most general practitioners, nurse practitioners, and practice nurses will require assistance from a diabetes specialist team. Where access to a public diabetes specialist team is limited (e.g. due to the absence of a local team in rural/remote areas or long waiting lists), a private diabetes specialist team may be required. However, this will come with out-of-pocket expenses. Availability of diabetes specialist teams is also not assured.

Healthcare professional awareness

The cessation of Levemir in December 2026 was announced by Novo Nordisk in early 2024 and almost immediately after by State governments, the Australian Commission on Safety and Quality in Health Care, the TGA and the Diabetes Alliance.

With the forthcoming need to switch all remaining Levemir users to alternatives, especially women of reproductive age who may become pregnant, an updated communications strategy reinforcing awareness of the cessation should commence through the same agencies. This should involve direct awareness to public and private health institutions including hospitals, community health, primary care, Aboriginal Community Controlled Health Organisations. Those in rural and remote areas may need special attention to plan ahead for access to endocrinologists and CDEs.

Education for People with type 1 Diabetes

Type 1 diabetes self-management is essential for day-to-day management and problem solving, including at times of insulin switching. Best practice is for all of those with type 1 diabetes to have received evidence based structured education. Such education is not systematically provided across Australia. As a result, Australia may be less well placed to switch from Levemir, not only because of the lack of subsidised insulin pumps, but also because of the historically limited access to evidence based structured education. This makes the need for access to healthcare professionals with type 1 diabetes management skills (endocrinologists, CDEs) even more important.

Communication to people with type 1 diabetes

While awareness of the Levemir change was commenced through the agencies described above, and Diabetes Australia messaging to its members and beyond, greater awareness is now needed with the imminent requirement to start switching. Those with type 1 diabetes now need to be made aware that this product cessation is imminent and that they require a plan for a switch before December 31st, 2026. It is likely that messaging through pharmacist, general practices, diabetes specialist teams and private diabetes specialist providers will need to start as soon as possible. A communications approach that covers all modalities and is available in different languages will be important.

Policy Recommendations

1. Discussions should be held with the TGA and the Australian Commission on Safety and Quality in Health Care regarding any required updates to existing leaflets and other materials and ensuring their distribution across all public and private health institutions. Those in rural and remote areas may need special attention to plan ahead for access to endocrinologists and CDEs.
2. A primary care and pharmacy awareness, education and support program needs to be established. This requires discussions with the key professional and other related bodies.
3. An awareness and support program is needed for people with type 1 diabetes and their carers. Besides updating and distributing existing leaflets and other materials, a Helpline should be established that can also be utilised for other medicine discontinuations. With the correct approvals the NDSS would be an appropriate method to distribute information in addition to health professional services.
4. Diabetes specialist teams should immediately commence switching from Levemir to the best alternative for the person with type 1 diabetes after counselling, discussion and agreement over the options.
5. Insulin pumps for automated insulin delivery systems should be accessible to those whose glycaemia remains unstable after the switch.
6. Insulin pumps should be made available to those with type 1 diabetes whose glycaemia remains unstable in the future with multiple daily dose insulin regimens. The Commonwealth Government

needs to develop and fund a policy relating to insulin pumps for the period after Levemir cessation after December 2026.

7. An audit is underway of switching from twice a day Levemir with unequal morning and evening doses have data during the changeover monitored to determine its impact on glucose levels The audit should report as soon as is possible to support the changeover from Levemir to other insulin regimens.
8. A dedicated confidential online service could be an appropriate method to be established contactable by health professionals and people living with type 1 diabetes for incidents (e.g. hypoglycaemia) to be reported following the switch. A monthly collated report of all incidents should be provided for the 6 months post switch to determine if other actions and policy are necessary to support those who have been affected.
9. There are currently no alternative suppliers of Levemir globally currently. Should one emerge, it would be worthwhile investigating suitability for importing.

Appendix 1: How many people are using Levemir currently and how?

Levemir Use: Data sources

Reports were collected from the Pharmaceutical Benefits Scheme (PBS) and the literature; however, such information was found to be insufficiently granular. As a result, individual data were sought from multiple sources including Adelaide (one Hospital, SA), OzDAFNE (community-Vic) and BIOGRID (8 hospitals in NSW and Vic). Only adult data were able to be obtained.

Numbers of people affected

Levemir is only subsidised for those with type 1 diabetes under The Pharmaceutical Benefit Scheme (PBS). PBS data suggest there were 12,000 people with type 1 diabetes being treated with Levemir across Australia in 2025 [5]. Data collected from people with type 1 diabetes from three Australian sources showed that between 46.8% and 63.9% (i.e. between 5,616 and 7,668) are using twice daily injections with different doses in the morning and evening (see below). Published studies suggest that 80-100% of Levemir-treated patients with type 1 diabetes are treated with twice daily Levemir, among whom, 55-75% have uneven/imbalanced regimens[6,7] and are likely to be most at risk from this switch. Beyond those treated with twice daily Levemir using uneven doses, those with even doses or once a day Levemir will still need to switch to a once daily "other" insulin and may be at risk of initially unpredictable hypoglycaemia and/or hyperglycaemia given the different background profiles of the different long-acting insulin agents. It may take some time for this to settle.

Those on insulin pumps may also require a revised "pump rescue plan" and associated re-training for when an insulin pump breaks or if they need to take an "insulin pump holiday". The latter occurs to reduce the burden of insulin pump calculations and constant reminders of their diabetes.

Patterns of use in Australia

Adelaide-single hospital site, SA (August 2025)

Among 69 Levemir treated patients, daily or twice a day doses were available on 60. Among these, 11 (18.3%) were treated with once per day Levemir, 17(28.3%) were treated with twice/day Levemir with the same doses morning and evening and 32 (53% were treated with twice/day Levemir with different doses morning and evening.

OzDAFNE-Victoria (January 2023-June 2025)

OzDAFNE is the Australian version of the randomised controlled trial proven "**D**ose **A**djustment **F**or **N**ormal **E**ating" group diabetes education program for adults with type 1 diabetes. Two anonymised baseline data sets were provided (before the OzDAFNE intervention) for between 01/01/2023 to

30/06/2024 (n=100) and 01/07/2024 to 30/06/2025 (n=75). Overall, 14.9% (26/175) commenced OzDAFNE using Levemir. Among those using Levemir, 70.8% (17/24) commenced OzDAFNE using Levemir twice daily, the others being once daily. Among those commencing OzDAFNE using Levemir twice daily, 70.6% (12/17) were using different doses morning and evening.

OzDAFNE also provided a paired pre-post data set (n=45), with 5 (11.1%), commencing OzDAFNE treated with Levemir. Twelve months after OzDAFNE, one person changed from Optisulin once a day to Levemir twice a day and one person changed from Levemir once a day to twice a day. All of those treated with Levemir for whom dose data were available were treated with different doses morning and evening.

BIOGRID data (February 2026)

Data from 4,365 patients with type 1 diabetes from the clinics at 3 NSW hospitals and 5 Victorian Hospitals/clinics showed that overall, 21.9% (957) of patients were using Levemir. However, this proportion varied between 1.2% and 34.0%. The NSW hospitals were all in one district with access to OzDAFNE program that promotes bd basal insulin particularly Levemir. Tables 1-2 show the sites surveyed, proportion of Levemir users, proportion of Levemir users using the insulin twice daily and where insulin dose was available, those with uneven twice daily Levemir doses were uneven. Of the 957 patients on Levemir 42 patients were < 18 years but only 1 patient from the paediatric cohort had their doses actually reported.

Table 1: *Sites surveyed, proportion of Levemir users and %Levemir twice daily users.*

Site	Number of T1 patients (% of total/column)	Number of Patients on Levemir (% of row)	Patients on Levemir with dosing reported (% of patients on Levemir)	Twice daily use (% of patients with Levemir dosing reported)
NSW x3	701 (16.1)	238 (34.0)	188/238 (79.0)	171/188 (91.0)
Vic 1a	1126 (25.8)	167 (14.8)	158/167 (94.6)	88/158 (55.7)
Vic 1b	152 (3.5)	21 (13.8)	20/21 (95.2)	10/20 (50.0)
Vic 1c	86 (2.0)	1 (1.2)	1/1 (100.0)	1/1 (100.0)
Vic 1d	152 (3.5)	21 (13.8)	20/21 (95.2)	10/20 (50.0)
Vic 1e	2148(49.2)	509 (23.7)	286/509 (56.2)	28/286(9.8)
OVERALL	4365 (100)	957 (21.9)	673/957 (70.3)	308/673 (45.8)

Table 2: *In those with doses of Levemir documented, and twice daily Levemir. Proportion of patients with any imbalance, imbalanced doses greater than 20% and greater than 50%*

Site	Mean Difference between doses in patients on twice daily Levemir (Mean %±SD)	Any imbalance in dosing in patients on twice daily Levemir	Difference in dosing >20% in patients on twice daily Levemir	Difference in dosing >50% in patients on twice daily Levemir
NSW x3	23.9 ± 23.8	118/171 (69.0)	82/171 (48.0)	30/171 (17.5)
Vic 1a	22.5 ± 20.9	65/88 (73.9)	39/88 (44.3)	14/88 (15.9)
Vic 1b	18.4 ± 22.4	5/10 (50.0)	4/10 (40.0)	2/10 (20.0)
Vic 1c	78.0	1/1 (100.0)	1/1 (100.0)	1/1 (100.0)
Vic 1d	18.4 ± 22.4	5/10 (50.0)	4/10 (40.0)	2/10 (20.0)
Vic 1e	45.1 ± 23.9	28/28 (100.0)	22/28 (78.6)	14/28 (50.0)
OVERALL	25.3 ± 23.9	222/308 (72.1)	152/308 (49.4)	63/308 (20.5)

* Difference calculated as (larger dose − smaller dose) ÷ larger dose x 100.

Across All sites

In Australian data, across all sites, those on twice a day Levemir therefore range from 45.8% (Biogrid), to 71.7% (Adelaide) to 70.8% (OzDAFNE). Among those using Levemir twice/day, uneven dosage use ranged between 49.4% (Biogrid >20% difference) to 70.6% (OzDAFNE) to 65.3% (Adelaide).

Appendix 2: Financial implications

Replacement of Levemir with Optisulin (Insulin glargine U-100) and Degludec

In Australia, both Levemir and Optisulin (Insulin glargine U-100) or Tresiba (degludec) are accessible under the PBS, with typical out of pocket costs of around $167 to $186 per box, though prices vary depending on pharmacy. However, the non-PBS (private) price of Levemir is approximately twice the cost of Optisulin. A 10% higher dose of Levemir is usually required compared with Insulin glargine making Levemir more expensive per user. It is unknown what proportion of Levemir uses can safely transfer from Levemir to Optisulin or Toujeo.

Replacement of Levemir with Insulin Pump Therapy

HCL insulin pump therapy is considered the best-practice option for people with type 1 diabetes. They currently require replacement every 4 years and cost between $8000 to $10000 per pump. Insulin pump consumables are subsidised by the NDSS for people with type 1 diabetes who meet specific clinical criteria. Children and young adults under the age of 21 years have means tested limited access to a subsidised insulin pump through the Insulin Pump Program (IPP) now administered by Diabetes Australia. Adults over 21 are not eligible for subsidised insulin pumps, but reimbursement is available through high level private health insurance.

Appendix 3: Lived experience responses

A call was put out among Diabetes Australia members through Younited and the Spark Change website for comment on the withdrawal of Levemir. Examples of responses are provided below and range from disappointment, unhappiness, likely disrupted glycaemia, anxiety provocation and dread. Responses were received between May and October 2025 and are copied below:

Response 1: "I *am devastated to hear this! I have been using Levemir for many years and am very happy with the control it gives me. Only have an occasional night-time hypo. Nothing compared to when I was on Lantus. Hopefully there are similarly compatible insulins available, not looking forward to trialling new ones, especially if they are disposable pens".*

Response 2: *"Hello, yes, I having been using Levemir since May 2020. I was using Lantus before that. I have 2 injections per day. 14units in the morning, 7 units at night. My endocrinologist changed me over. I have been a type 1 for 52 years (since I was 10). I also use Fiasp so it doesn't surprise me that once again I will have to change/manage a different insulin. Extremely disappointing".*

Response 3: "*Hello, I noticed on the T1 forum you wanted comment from people on Levemir. I have been on Levemir for several years after trying other long-acting insulins. My specialist commented that I would have to go to another insulin, he wondered about a mixed insulin but then realised the proportions would be wrong for me. I'll see him again in a couple of weeks to see what is going to happen. Not happy about Levemir being taken off the market*".

Response 4: "*Hello, I have used Levemir since it became available and found it to be a tremendous Insulin. I am able to vary it when necessary and it gives an excellent background control in association with NovoRapid at mealtimes etc. I also believe I was involved in the world trials of this drug, and I feel wonderful that such a medication was made available. Dr Tom Donnelly and the many other Endocrinologists including now Dr Kirsten Murray have assisted me over the 55-year type 1 diabetic journey. It would be a pleasure to be involved in this study if you think I could contribute".*

Response 5: *"Hi Diabetes team, I have been using Levemir twice a day for many years. Previously, I was taking Lantus however was switched over to Levemir as it was seen as more effective for my health. I have not spoken yet with my endocrinologist about changes due to discontinuation as there's still a bit of time left. I get very disheartened with changes to my medications solely based on economic decisions by these huge multinational pharmaceutical companies. It seems part of my life with a chronic condition that medications are at the whim of these companies. Levemir discontinued due to patent laws making it uneconomical, Fiasp being discontinued due to pricing issues. When I was younger human insulin replaced porcine and beef insulin firstly due to the fear of CJD, mad cow disease Creutzfeldt Jakob disease and then the ability to manufacture of course cheaper synthetic insulin. Human insulin led to increased deaths, and I was admitted to hospital. There still has been no accountability for these synthetic insulins that lead to so many young children dying from dead in bed syndrome. Of course, I would like to assist Diabetes Australia in any way I can by being an advocate etc to support insulin for diabetics in our*

community against these giant pharmaceutical companies with only shareholders' interests as the basis of their decision making".

Response 6: "*Hi, I have been a type 1 diabetic for 39 years and use 2 injections of Levemir and 3 injections of Novorapid per day. I would like to be included in providing feedback on an alternate for Levemir".*

Response 7: *"At your request, I am adding my voice to the quiet anxiety provoking and unacceptable position in which type 1 diabetics are placed in by the removal of Levemir from the Australian (and worldwide) market but who need to use long-acting insulin (once or twice a day) and multiple short acting insulin injections per day in order to self-manage their diabetes. I used Lantus for a number of years until I switched many years ago to Levemir because of the issues I had had with low blood sugars and/or high blood sugars overnight and in the early hours of the morning. As other contributors to the forum have indicated, the use of Levemir reduced my overnight and early morning hypos and high blood sugars. I dread being unable to access Levemir and note the paucity of clinically equivalent and viable options for me in my circumstances. I also feel let down that the government has not taken the initiative to see that insulins are manufactured by a government funded entity in Australia so as to guarantee supply in the face of increasingly concerning private pharmaceutical corporate market practices. The discontinuation of insulin such as Levemir as my medication of choice is extremely worrying. I find changing my medication regime very difficult and challenging, especially when there are limited options. No doubt these huge pharmaceutical corporations have lawyers, accountants and doctors working for them to make gigantic profits, however, lack the compassion to maintain a small amount of Levemir on the market for what is a minuscule amount of diabetics and money. Type one diabetics should be extremely thankful for your advocacy in Australia. We have been the punching bag for these huge multinational pharmaceutical companies making billions yet tinkering around with our essential insulin medications based on commercial decisions such as Fiasp over pricing and the discontinuation of Levemir due to patent issues. Check out articles below in the US press Reuters questioning the discontinuation of Levemir and limiting the choices for insulin".*

The TGA advises "If you are having difficulty obtaining a medicine that has been prescribed to you, talk to your doctor or pharmacist to discuss suitable options to continue your care." The TGA "is investigating management strategies and will consult with subject matter experts and sponsors. The sponsor will continue to supply until the market deletion date."

Annex 1: Membership

Membership:
The Working Group was Chaired by Diabetes Australia's Chief Medical Officer. It included representatives from the Australian Diabetes Society, Australian Diabetes Educators Association, Australasian Diabetes in Pregnancy Society and Australia New Zealand Society for Paediatric Endocrinology and Diabetes.

Name:	Title:	Organisation:
David Simmons	Former Chief Medical Officer	Diabetes Australia (DA)
Brett Fenton	Chief Health Officer	Diabetes Australia (DA)
David O'Neal	Professor, University of Melbourne	Australian Diabetes Society (ADS)
Adam Lamendola	Credentialled Diabetes Educator and Registered Nurse	Australian Diabetes Educators Association (ADEA)
Tang Wong	Conjoint Associate Professor, Western Sydney University	Australasian Diabetes in Pregnancy Society (ADiPS)
Tony Huynh	Director, Endocrinology & Diabetes, Queensland Children's Hospital	Australia and New Zealand Society for Paediatric Endocrinology and Diabetes (ANZSPED)
Monique Stone	Paediatric endocrinologist, Campbelltown and Liverpool Hospitals, NSW	Australia and New Zealand Society for Paediatric Endocrinology and Diabetes (ANZSPED)

Many thanks to Jane MacDonald, Melbourne, Vic for the detailed lived experience review who uses an insulin pump and relies on Levemir as backup in the pump rescue plan.

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