Australian Government
Department of Health and Aged Care

Guidelines for the treatment of Gaucher disease through the Life Saving Drugs Program

Life Saving Drugs Program

About this program

Through the Life Saving Drugs Program (LSDP), the Australian Government provides subsidised access for eligible patients to expensive life-saving medicines.

Purpose of this document

This document provides guidance for treating physicians with relevant specialist registration who wish to apply for their patients to receive access to subsidised treatment for Gaucher disease (type 1) through the LSDP.

It describes the criteria for general, initial and ongoing eligibility to access subsidised treatment and the administrative requirements associated with the initial application and annual reapplications.

Treatment of Gaucher disease through the LSDP

Subsidised treatment is available for eligible patients with a confirmed diagnosis of Gaucher disease (type 1). Subsidised treatment through the LSDP is not available for patients with either type 2 or type 3 Gaucher disease.

Drugs currently available for the treatment of Gaucher disease through the LSDP

There are 4 medicines currently subsidised through the LSDP for the treatment of Gaucher disease (type 1).

The generic names for these medicines are imiglucerase, velaglucerase, taliglucerase and eliglustat.

The trade names for these medicines are Cerezyme®, VPRIV®, Elelyso® and Cerdelga®.

The Therapeutic Goods Administration (TGA) registration and Product Information for imiglucerase (Cerezyme®), velaglucerase (VPRIV®), taliglucerase (Elelyso®) and eliglustat (Cerdelga®) can be found on the TGA's website.

Choice of treatment

Treating physicians can request the most appropriate medicine to treat their patient.

All patients who are initiated on a medicine or transitioned to a different medicine through the LSDP are required to remain on the same medicine for a period of at least 12 months, unless there is objective clinical evidence of ongoing clinical deterioration or significant adverse reactions.

Dosage

The maximum dosage of imiglucerase that is subsidised through the LSDP is 60 U/kg per fortnight.

The maximum dosage of velaglucerase that is subsidised through the LSDP is 60 U/kg per fortnight.

The maximum dosage of taliglucerase that is subsidised through the LSDP is 60 U/kg per fortnight.

Dosage adjustments by down-titration can be made after 12 months for stable adult patients treated with enzyme replacement therapy (ERT). Dosage adjustments should be made on an individual basis, and may increase or decrease, based on achievement of therapeutic goals as assessed by routine comprehensive evaluations of the patient's clinical manifestations.

The maximum dosage of eliglustat that is subsidised through the LSDP is 84mg in an oral capsule twice daily. Before initiation of treatment with eliglustat, patients should be genotyped for CYP2D6 to determine the CYP2D6 metaboliser status (as this will affect the dose).

The LSDP can be advised of dosage adjustments by emailing lsdp@health.gov.au.

Home infusion

If a patient wishes to receive and is assessed to be suitable for imiglucerase, velaglucerase or taliglucerase through a home infusion service, the patient must have received at least 3 infusions in the hospital setting and have been assessed by the treating physician as medically stable, meaning that any infusion-associated reactions are well controlled.

General eligibility requirements

LSDP funding conditions

A patient must continually meet the LSDP funding conditions to be eligible to receive access to Australian Government–subsidised treatment for Gaucher disease (type 1) through the LSDP.

The current LSDP funding conditions can be found on the program's website.

For Gaucher disease, a patient must:

- satisfy the initial and ongoing eligibility criteria as detailed in these guidelines
- participate in the evaluation of effectiveness of the medicine by periodic assessment, as directed by these guidelines, or have an acceptable reason not to participate
- not be suffering from any other medical condition, including complications or sequelae of Gaucher disease (type 1), that might compromise the effectiveness of the treatment
- be an Australian citizen or permanent Australian resident who qualifies for Medicare.

In most cases, participation in a clinical trial will not affect a patient's eligibility to access LSDP medicines. However, treating physicians are required to advise the LSDP if their patient is participating in a clinical trial.

Exclusion criteria

The following patients are not eligible for subsidised treatment with imiglucerase, velaglucerase, taliglucerase or eliglustat for the treatment of Gaucher disease (type 1) through the LSDP:

- Asymptomatic patients: the treatment of asymptomatic patients is not generally granted unless the disease is of sufficient severity to suggest a severe course or impending complications (this could be determined through mutation analysis in the asymptomatic patient), or for a patient with a family history of a severe, accelerated course of the disease in childhood.
- Patients with confounding diagnoses: patients with potentially confounding diagnoses, such as Hodgkin lymphoma.
- Patients with irreversible complications of Gaucher disease. In some patients with Gaucher disease, secondary pathologic changes, such as avascular necrosis of bone, may already have occurred that would not be expected to respond to therapy. In such patients, reversal of the pathology is unlikely. Treatment of patients with significant secondary pathology would be directed at preventing further progression of the disease.
- In these cases, the extent to which symptoms, such as bone pain, are due to active progression of the disease, rather than the secondary pathology, can only be established by a trial of therapy.
- Patients with a presence of another life threatening or severe disease where the long-term prognosis is unlikely to be influenced by therapy.
- The presence of another medical condition that might reasonably be expected to compromise a response to therapy.

Initial eligibility requirements

Diagnosis

The diagnosis of Gaucher disease (type 1) must have been established by the demonstration of specific deficiency of glucocerebrosidase enzyme activity in leukocytes or cultured skin fibroblasts, or by the presence of mutations in the glucocerebrosidase gene, known to result in severe deficiency of enzyme activity, in tissue or peripheral blood leukocytes.

The patient must satisfy at least one of the following criteria to be eligible for treatment with imiglucerase, velaglucerase, taliglucerase or eliglustat:

Symptomatic Gaucher disease (type 1) with any of the disease manifestations listed below:

- Skeletal: Evidence of skeletal disease beyond mild osteopenia or Erlenmeyer flask deformity, as assessed by symptoms, skeletal survey and MRI.
- Haematological complications: Haemoglobin <105g/L for females and < 115g/L for males (at least 2 measurements more than 1 month apart and having excluded other causes, e.g. iron deficiency); or platelet count < 120 $x10^9$/L on at least 2 occasions (more than 1 month apart).
- Gastrointestinal complications: Liver volume (CT or MRI): 1.25 x normal; or Spleen volume (CT or MRI) 5 x normal.
- Patients under 16 years of age with symptomatic Gaucher disease with any relevant physical signs may be treated prior to confirmation of the type of Gaucher disease. Formal ophthalmologic review and neurodevelopmental status reports should be provided with the application.

Eliglustat

For treatment with eliglustat, in addition to meeting the above criteria patients must also be aged 18 years and over and have been treated with ERT for at least 12 months or be intolerant to ERT.

Patients should be genotyped for CYP2D6 to determine metaboliser status prior to receiving eliglustat (as this will affect the dose).

If these conditions are met a treating physician can request that a patient be switched to eliglustat by providing a clinic letter to the LSDP. A full application is not required for these patients.

Ongoing eligibility requirements

The treating physician must submit the separate reapplication form to the LSDP by 1 May every year if they wish their patient to continue to receive subsidised treatment through the LSDP.

The reapplication form must demonstrate clinical improvement in the patient or stabilisation of the patient's condition, and evidence to support ongoing eligibility for the treatment of Gaucher disease (type 1) must be provided.

The treating physician must declare that the patient continues to meet the eligibility criteria to receive subsidised treatment through the LSDP in accordance with the guidelines.

Subsidised treatment may continue unless one or more of the following situations apply:

- failure to comply adequately with treatment or measures
- failure to provide data, copies of test results and the Excel spreadsheet for Gaucher disease (type 1), evidencing the effectiveness of the therapy
- therapy fails to relieve the symptoms of disease that originally resulted in the patient being approved for subsidised treatment
- development of the following features consistent with a neuronopathic form of Gaucher disease:
  - opisthotonus
  - seizures
  - bulbar dysfunction (manifested by swallowing difficulties)
  - deteriorating intellectual function (determined by age-appropriate neuropsychological assessment), or
  - deterioration in motor skills.
- For ERT only: the patient has severe infusion-related adverse reactions which are not preventable by appropriate pre-medication and/or adjustment of infusion rates ((does not apply for eliglustat)
- the patient develops another life threatening or severe disease where the long-term prognosis is unlikely to be influenced by treatment
- the patient develops another medical condition that might reasonably be expected to compromise a response to treatment
- presentation of conditions listed in the exclusion criteria.

Testing is not funded or subsidised through the LSDP, however some tests may be subsidised through Medicare or available through the treating public hospital.

See the reapplication form for existing patients.

Patients who are applying to recommence treatment following a break should use the reapplication form.

Chitotriosidase testing

Treating physicians may wish to have chitotriosidase activity tested for patients receiving subsidised therapy for Gaucher disease (type 1) through the LSDP, to assess patient response to therapy.

Twice yearly the cost of such tests for imiglucerase, velaglucerase, taliglucerase and eliglustat patients will be met by the sponsors.

Treating physicians must indicate which drug the patient is being treated with when filling out a referral form for chitotriosidase testing. This will allow an invoice to be generated for the appropriate sponsor.

Samples should be sent to:

Women's and Children's Hospital
National Referral Laboratory
Department of Genetic Medicine
4th Floor, Rogerson Building
72 King William Road
NORTH ADELAIDE SA 5006

Phone: (08) 8161 7294

Skeletal MRI

Treating physicians may wish to have skeletal MRIs reviewed centrally for patients receiving subsidised therapy through the LSDP to assist with assessment of patient response to therapy.

Treating physicians must indicate which drug the patient is being treated with when filling out a referral form for a centralised MRI scan review. This will allow an invoice to be generated to the appropriate sponsor.

Costs will be met by the sponsors for an annual centralised skeletal MRI scan review for each Gaucher patient who is receiving subsidised treatment with imiglucerase, velaglucerase, taliglucerase or eliglustat through the LSDP.

The following skeletal MRIs are suggested for a radiology assessment:

- Spine: Sagittal T1 and T2 weighted imaging of the lumbar spine (not fat suppressed); and
- Lower limbs: (hips, femora to proximal tibia) T1 weighted coronal and STIR imaging of the length of both femora (from hips to proximal tibial epiphyses, in 2 scans if necessary, but include the length of the femora in one coronal image if possible).

These images should be saved in DICOM format and sent to the appropriate contact below, based on your patient's age. They can be sent as a downloadable file via email, on a CD or a USB stick. The accompanying letter, disc or USB should be labelled with the patient's name, date of birth, drug treatment and the date of the MRI examination.

For adult patients:

Contact: Ms Hayley Iengo
Hospital: Royal Melbourne Hospital
Department: Radiology Department
Address: Grattan Street PARKVILLE VIC 3050
Phone: (03) 9342 7255
Radiologists: Dr Kapilan Varatharajah, Dr Sarah Kalus
Email: hayley.iengo@mh.org.au

For paediatric patients:

Contact: Ms Evelyn Johnson
Hospital: The Royal Children's Hospital Melbourne
Department: Department of Medical Imaging
Address: 50 Flemington Road PARKVILLE VIC 3052
Phone: (03) 9345 5237
Email: evelyn.johnson@rch.org.au