HSE Prescribing Protocol

Alglucosidase alfa (Myozyme®)

for

Late-onset Pompe Disease

This document is intended for use by healthcare professionals only.

This guideline should be used in conjunction with the full prescribing and administration details in the Alglucosidase alfa (Myozyme®) Summary of Product Characteristics (SmPC)
https://www.ema.europa.eu/en/documents/product-information/myozyme-epar-product-information_en.pdf

INDICATION FOR USE[1]

TREATMENT	INDICATION	ICD10	PROTOCOL CODE
Alglucosidase alfa (Myozyme®)	Long-term enzyme replacement therapy in patients with a confirmed diagnosis of Late-onset Pompe disease (acid α-glucosidase deficiency)	E74.02	ERT007

TREATMENT[1, 2]

TREATMENT	DOSE	ROUTE	FREQUENCY	INFUSION TIME
Alglucosidase alfa (Myozyme®)	20mg/kg	IV Infusion	Every Two Weeks	See SmPC for full details

This treatment should be prescribed and supervised by a metabolic physician experienced in the management of patients with Late-onset Pompe disease.

Administration of alglucosidase alfa should be carried out by an appropriately trained healthcare professional with the ability to manage medical emergencies. The first number of infusions should be in the hospital setting and follow up home administration under the supervision of an appropriately trained healthcare professional may be considered for patients who are tolerating their infusions well. See SmPC for full details on home infusion[1, 2].

ELIGIBILITY CRITERIA

- Confirmed diagnosis of Late-onset Pompe disease by enzymatic analysis in leukocytes, fibroblasts or skeletal muscle and/or demonstration of pathogenic *GAA* variants in both alleles of acid alpha-glucosidase (GAA) gene[2, 3]. A positive dried-blood-spot screening test should always be followed by one of these tests for confirmation of the diagnosis.
- Patient is appropriately symptomatic i.e. skeletal and/or respiratory involvement as observed using clinical assessments[3]
- The patient should have residual skeletal and respiratory muscle function, which is considered functionally relevant and clinically important for the patient to maintain or improve[3]
- Patient must attend for medical appointments and investigations as determined by the clinical team

EXCLUSION CRITERIA

- The presence of another life-threatening illness or disease where the prognosis is unlikely to be improved by enzyme replacement therapy
- The patient is unable to comply with the associated monitoring criteria, including attending all required clinic visits

CONTRAINDICATIONS[1]

- Hypersensitivity to alglucosidase alfa or to any of the known excipients

BASELINE TESTS AND MONITORING[2, 3]

Once diagnosed, patients should undergo regular comprehensive assessments to evaluate the outcomes of therapy. Table 1: Recommended schedule of assessments[2, 3]

Assessment	Baseline	6 monthly	Annually
Pulmonary Function Tests (when appropriate and available)#	X		X
Clinical assessment including Skeletal Muscle Strength	X	X	
Skeletal Muscle Function*	X		X
QOL questionnaire	X		X
Blood tests – Creatinine Kinase, FBC, LFTs, renal, TFTs, bone profile and vitamin D	X		X
ECG and Echo	X		As clinically indicated
ERT Antibody Titre	X		X

#FVC in a sitting and supine position, maximal inspiratory/ expiratory pressure and ventilation use

*Using Medical Research Council grading scale, 6-MWT, timed Tests (10m walk, climb four steps, stand up from supine and stand from chair)

SPECIAL WARNINGS AND PRECAUTION FOR USE[1]

See SmPC for full details.

STOPPING CRITERIA

- Patient is unable to tolerate infusions due to infusion related severe adverse events that cannot be resolved
- There is no indication that skeletal muscle function and/or respiratory function have stabilised or improved in the first 2 years after start of treatment, as assessed using clinical assessments from table 1 above.
  N.B. If after stopping treatment the disease deteriorates faster than during treatment, restarting ERT can be considered
- Patient is unable to comply with assessments for continued therapy
- Patients will cease to qualify for treatment if they miss more than 5 infusions in any 12 month period, excluding medical reasons for missing dosages. Missed infusions must be medically approved. No more than 2 infusions should be consecutively missed unless for a medical reason.
- Coexisting illness where either long-term quality of life or expected survival is such that the patient will gain no significant benefit from specific treatment for Pompe Disease

Patients who discontinue ERT will continue to be monitored for disease deterioration and supported with other clinical measures. These patients should continue to be assessed to allow gathering of relevant clinical information to assess a patient's on-going care needs.

ADVERSE EFFECTS[1]

See SmPC for full details.

DRUG INTERACTIONS[1]

No formal medicinal product interaction studies have been conducted with alglucosidase alfa.

ATC CODE

Alglucosidase alfa A16AB07

FUNDING FOR TREATMENT

ERT patients within the public health system will be funded for their treatment by the Health Service Executive (HSE). Prior funding agreement will be sought before initiation of treatment for eligible patients. Once approval for funding has been received treatment can be initiated. All new patients and dose increases for existing patients require prior approval via the HSE National Enzyme Replacement Therapy (ERT) Steering Committee. Patient applications can be made and sent to aidmp@hse.ie.

OTHER INFORMATION

The enzyme replacement treatment (ERT) outlined for late-onset Pompe Disease (LOPD) in this guideline should be initiated in an appropriate setting for the management of LOPD with a specialist, consultant led, experienced multidisciplinary team who are part of the tertiary treatment centres at the National Centre for Inherited Metabolic Disorders (NCIMD) Mater Misericordiae University Hospital or at Children Health Ireland.

Local primary and secondary care clinicians will undertake to ensure all patients with LOPD are referred to the specialist teams in one of the above named tertiary centres. Collaboration between the tertiary treatment centres and local primary and secondary care services is imperative to ensuring patients with LOPD receive high standards of care.

As LOPD is a chronic, slowly progressive disorder and the aim of treatment is to delay/ reverse progression or to stabilise current parameters it is anticipated that treatment will be most effective when started early in the course of the disease. Treatment late in the course of the disease may have limited efficacy.

REFERENCES

1. Summary of Product Characteristics Myozyme 50mg powder for concentrate for solution for infusion. Available from: https://www.ema.europa.eu/en/documents/product-information/myozyme-epar-product-information_en.pdf Accessed on: 17/10/2024
2. Expert Clinical Opinion, National Centre for Inherited Metabolic Disorders.
3. Van der Ploeg AT; European Pompe Consortium *et al.* European consensus for starting and stopping enzyme replacement therapy in adult patients with Pompe disease: a 10-year experience. Eur J Neurol. 2017 Jun; 24(6):768-e31. doi: 10.1111/ene.13285. Epub 2017 May 6. PMID: 28477382.

APPENDIX

The HSE National Enzyme Replacement Therapy Steering Committee Membership November 2024:

- Acting Chair: Carol Ivory, General Manager, Specialist Acute Services, Access and Integration
- Deputy Chair: Ms Fionnuala King, Chief Pharmacist, Access and Integration Drug Management Programme
- Prof Ellen Crushell, Consultant Paediatrician, National Centre for Inherited Metabolic Disorders, CHI at Temple Street
- Dr Joanne Hughes, Consultant Metabolic Paediatric Physician & Clinical Lead, National Centre for Inherited Metabolic Disorders, CHI at Temple Street
- Prof Ahmad Monavari, Consultant Metabolic Paediatrician, Clinical Director, National Centre for Inherited Metabolic Disorders, CHI at Temple Street
- Dr James O'Byrne, Consultant in Biochemical/ Clinical Genetics, National Centre for Inherited Metabolic Disorders, Mater Misericordiae University Hospital
- Ms Eithne Losty, Lysosomal Storage Disorders Clinical Nurse Specialist, CHI at Temple Street
- Mr Gerry Greville, Interim ACFO, Acute Hospitals Finance, HSE Finance
- Lisa Kenny, HSE Primary Care Reimbursement Service Representative
- Ms Rhona O'Neill, Chief II Pharmacist, Access and Integration Drugs Management Programme

HSE National Enzyme Replacement Therapy Steering Committee Position Statement:
Patient care for ERT should be led by the centres of excellence with access to a multidisciplinary team with specialist interest in the management of patients with inherited Lysosomal Storage Disorders.

REVISION HISTORY

Revision Number	Revision Date	Summary of Changes