



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

5 August 2020
EMADOC-628903358-2375

Public summary of opinion on orphan designation

Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(discrete-polyethylene glycol)24 for the treatment of neonatal encephalopathy

On 4 June 2020, orphan designation EU/3/20/2283 was granted by the European Commission to Clinipace GmbH, Germany, for Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(discrete-polyethylene glycol)24 (also known as PIC1-dPEG24) for the treatment of neonatal encephalopathy.

What is neonatal encephalopathy?

Neonatal encephalopathy refers to brain damage that occurs around the time of birth in babies who are not premature. Oxygen deprivation at birth is one of the most common causes of neonatal encephalopathy. Symptoms include reduced level of consciousness, seizures (fits), difficulty breathing, low muscle tone and poor reflexes.

Neonatal encephalopathy is a long-term debilitating disease due to its effects on mental and physical development, and can be life-threatening in the most severe cases.

What is the estimated number of patients affected by the condition?

At the time of designation, neonatal encephalopathy affected less than 1 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 52,000 people*, and is below the ceiling for orphan designation, which is 5 people in 10,000. This is based on the information provided by the sponsor and the knowledge of the Committee for Orphan Medicinal Products (COMP).

What treatments are available?

At the time of designation, babies with neonatal encephalopathy received therapeutic hypothermia, whereby the baby's body is cooled down to a body temperature lower than normal (hypothermia) to reduce extent of damage.

*For the purpose of the designation, the number of patients affected by the condition is estimated and assessed on the basis of data from the European Union, Iceland, Liechtenstein, Norway and the United Kingdom. This represents a population of 519,200,000 (Eurostat 2020).



The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with neonatal encephalopathy because early data suggest that the medicine might benefit patients when used together with therapeutic hypothermia.

This assumption will need to be confirmed at the time of marketing authorisation, in order to maintain the orphan status.

How is this medicine expected to work?

Low levels of oxygen in the brain can activate the immune system leading to inflammation and the production of harmful types of oxygen called reactive oxygen species, which can damage brain cells.

The medicine is expected to act on a protein called 'C1q', which is part of the body's immune system. The medicine is also expected to block certain enzymes involved in the production of reactive oxygen species, thereby helping to prevent inflammation and damage and relieve symptoms of the condition.

What is the stage of development of this medicine?

At the time of submission of the application for orphan designation, the evaluation of the effects of the medicine in experimental models was ongoing.

At the time of submission of the application for orphan designation, no clinical trials with the medicine in patients with neonatal encephalopathy had been started.

At the time of submission, the medicine was not authorised anywhere in the EU for the treatment of neonatal encephalopathy or designated as an orphan medicinal product elsewhere for this condition.

In accordance with Regulation (EC) No 141/2000, the COMP adopted a positive opinion on 23 April 2020, recommending the granting of this designation.

Opinions on orphan medicinal product designations are based on the following three criteria:

- the seriousness of the condition;
- the existence of alternative methods of diagnosis, prevention or treatment;
- either the rarity of the condition (affecting not more than 5 in 10,000 people in the EU) or insufficient returns on investment.

Designated orphan medicinal products are products that are still under investigation and are considered for orphan designation on the basis of potential activity. An orphan designation is not a marketing authorisation. As a consequence, demonstration of quality, safety and efficacy is necessary before a product can be granted a marketing authorisation.

For more information

Sponsor's contact details:

Contact details of the current sponsor for this orphan designation can be found on [EMA website](#).

For contact details of patients' organisations whose activities are targeted at rare diseases see:

- [Orphanet](#), a database containing information on rare diseases, which includes a directory of patients' organisations registered in Europe;
- [European Organisation for Rare Diseases \(EURORDIS\)](#), a non-governmental alliance of patient organisations and individuals active in the field of rare diseases.

Translations of the active ingredient and indication in all official EU languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(discrete-polyethylene glycol)24	Treatment of neonatal encephalopathy
Bulgarian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(дискретен полиетиленгликол)24	Лечение на неонатална енцефалопатия
Croatian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cis-Cis-Gln-Glu-Arg-Ala-Ala-(diskretni polietilen glikol)24	Liječenje neonatalne encefalopatije
Czech	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskrétní polyethylenglykol)24	Léčba neonatální encefalopatie
Danish	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskret-polyethylenglykol)24	Behandling af neonatal encephalopati
Dutch	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(onderscheiden-polyethyleenglycol)24	Behandeling van neonatale encephalopathie
Estonian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskreetne polüetüleenglükool)24	Neonataalse entsefalopaatia ravi
Finnish	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(ühtse molekulmassiga polüetüleenglükool)24	Neonataalisen enkefalopatian hoito
French	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(discret-polyéthylène glycol)24	Traitement de l'encéphalopathie néonatale
German	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskretes Polyethylenglykol)24	Behandlung der neonatalen Enzephalopathie
Greek	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(διακριτή πολυαιθυλενογλυκόλη)24	Θεραπεία της νεογνικής εγκεφαλοπάθειας
Hungarian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diszkrét-polietilén-glikol)24	Újszülöttkori enkefalopátia kezelése
Italian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(polietilene glicole a sequenza controllata)24	Trattamento dell'encefalopatia neonatale

¹ At the time of designation

Language	Active ingredient	Indication
Latvian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskrēts polietilēnglikols)24	Neonatālas encefalopātijas ārstēšana
Lithuanian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskretusis polietilenglikolis)24	Naujagimių encefalopatijos gydymas
Maltese	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(polietilenglikol diskret)24	Kura tal-enċefalopatija fi trabi tat-twelid
Polish	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(monodyspresyjny glikol polietylenowy)24	Leczenie encefalopatii noworodka
Portuguese	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(polietilenoglicol discreto)24	Tratamento da encefalopatia neonatal
Romanian	Ile-ala-leu-ile-leu-glu-pro-ile-cis-cis-gln-glu-arg-ala-ala-(polietilenglicol discret)24	Tratamentul encefalopatiei neonatale
Slovak	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(samostatný polyetylenglykol)24	Liečba neonatálnej encefalopatie
Slovenian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cis-Cis-Gln-Glu-Arg-Ala-Ala-(diskretni polietilen glikol)24	Zdravljenje neonatalne encefalopatije
Spanish	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cis-Cys-Gln-Glu-Arg-Ala-Ala-(polietilenglicol discreto)24	Tratamiento de la encefalopatia neonatal
Swedish	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskret polyetylenglykol)24	Behandling av neonatal encefalit
Norwegian	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala-(diskret-polyetylenglykol)24	Behandling av neonatal encefalopati
Icelandic	Ile-Ala-Leu-Ile-Leu-Glu-Pro-Ile-Cys-Cys-Gln-Glu-Arg-Ala-Ala (eindreift pólýetýlenglýkól)24	Meðferð heilakvilla hjá nýburum