

27 May 2016
EMA/COMP/240716/2016
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

S-acetyl-(S)-4'-phosphopantetheine, calcium salt for the treatment of pantothenate-kinase-associated neurodegeneration

On 28 April 2016, orphan designation (EU/3/16/1654) was granted by the European Commission to Acies Bio d.o.o., Slovenia, for S-acetyl-(S)-4'-phosphopantetheine, calcium salt for the treatment of pantothenate-kinase-associated neurodegeneration.

What is pantothenate-kinase-associated neurodegeneration?

Pantothenate-kinase-associated neurodegeneration (PKAN) is an inherited disease caused by a mutation (change) in the gene that produces an enzyme called pantothenate kinase-2. This enzyme is needed by brain cells for the first step in producing coenzyme A, which is essential for them to function. Patients with the disease cannot produce a functioning pantothenate kinase-2 enzyme, resulting in gradual brain damage. Symptoms of PKAN usually appear in childhood and include severe dystonia (painful muscle spasms) and Parkinson-like effects such as rigidity and slow movement, as well as loss of sight and impaired swallowing.

PKAN is a long-term debilitating and life-threatening disease due to complications of severe muscle spasms that can affect swallowing and lead to pneumonia (infection of the lungs) and malnutrition.

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

At the time of designation, PKAN affected less than 0.1 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 5,000 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).

*Disclaimer: 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 (EU 28), Norway, Iceland and Liechtenstein. This represents a population of 513,700,000 (Eurostat 2016).

What treatments are available?

No satisfactory methods of treatment for PKAN were authorised in the EU at the time of orphan designation. Patients received supportive therapy including muscle-relaxant medicines and Parkinson medicines to deal with the symptoms.

How is this medicine expected to work?

This medicine provides S-acetyl-(S)-4'-phosphopantetheine, which can be absorbed by cells and allows them to bypass the first step of coenzyme A production and produce normal amounts of coenzyme A, thereby improving the 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 S-acetyl-(S)-4'-phosphopantetheine, calcium salt in experimental models was ongoing.

At the time of submission, no clinical trials with the medicine in patients with PKAN had been started.

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

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 23 March 2016 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, on the medicine's [rare disease designations page](#).

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	S-acetyl-(S)-4'-phosphopantetheine, calcium salt	Treatment of pantothenate-kinase-associated neurodegeneration
Bulgarian	S-ацетил-(S)-4'-фосфопантетеин, калциева сол	Лечение на пантотенат киназа-асоциирана невродегенерация
Croatian	S-acetil-(S)-4'-fosfopantetein, kalcijeva sol	Liječenje neurodegeneracije povezane s pantotenat kinazom
Czech	S-acetyl-(S)-4'-fosfopantetein, vápenatá sůl	Léčba neurodegenerace asociované s pantotenátkinázou
Danish	S-acetyl-(S)-4'-phosphopantethein, calciumsalt	Behandling af Hallervorden-Spatz sygdom
Dutch	S-acetyl-(S)-4'-phosphopantetheine calciumzout	De behandeling van pantothenaatkinase-geassocieerde neurodegeneratie
Estonian	S-atestüül-(S)-4'-fosfopantetiin, kaltsiumsool	Pantotenaat kinaasiga seotud neurodegeneratsiooni ravi
Finnish	S-asetyyli-(S)-4'-fosfopanteteiinin kalsiumsuola	Pantotenaattikinaasiin liittyvän neurodegeneraation hoito
French	S-acétyl-(S)-4'-phosphopantéthéine, sel de calcium	Traitement de la neuro-dégénérescence associée à pantothénate kinase
German	S-Acetyl-(S)-4'-Phosphopantethein, Calciumsalz	Behandlung der Pantothenatkinase-assoziierten Neurodegeneration
Greek	S-ακετυλ-(S)-4'-φωσφοπαντεθεινή, άλας ασβεστίου	Θεραπεία της σχετιζόμενης με την παντοθενική κινάση νευροεκφύλισης
Hungarian	S-acetil-(S)-4'-foszfopantetein, kalcium só	Pantotenát-kináz asszociált neurodegeneráció kezelése
Italian	S-acetil-(S)-4'-fosfopanteteina, sale di calcio	Trattamento della neurodegenerazione associata alla pantotenato chinasi
Latvian	S-acetil-(S)-4'-fosfopanteteīna kalcija sāls	Ar pantotenāta kināzi saistītas neiroleģenerācijas ārstēšana
Lithuanian	S-acetil-(S)-4'-fosfopanteteinas, kalcio druska	Su pantotenato kinaze siejamos neurodegeneracijos gydymas
Maltese	melh tal-kalcju ta' S-acetyl-(S)-4'-phosphopantetheine, calcium salt	Kura ta' newrodeġenerazzjoni assoċjata ma' pantothenate kinase
Polish	S-acetylo-(S)-4'-fosfopanteteina, sól wapnia	Leczenie neurodegeneracji związanej z kinazą pantotenu
Portuguese	S-acetil-(S)-4'-fosfopanteteína, sal de cálcio	Tratamento da neurodegeneração associada à deficiência em pantotenato cinase
Romanian	S-acetil-(S)-4'-fosfopanteteina, sare de calciu	Tratamentul neurodegenerescentei asociate cu pantotenat-kinaza
Slovak	S-acetyl-(S)-4'-fosfopantetein, vápenatá soľ	Liečba neurodegenerácie asociovanej s pantotenát-kinázou

¹ At the time of designation

Language	Active ingredient	Indication
Slovenian	S-acetil-(S)-4'-fosfopantetein, kalcijeva sol	Zdravljenje nevrodegeneracije, povezane s pantotenat kinazo
Spanish	S-acetil-(S)-4'-fosfopanteteína, sal de calcio	Tratamiento de la neurodegeneración asociada al pantotenato quinasa
Swedish	S-acetyl-(S)-4'-fosfopantetein, kalciumsalt	Behandlingen av pantotenatkinas-associerad neurodegeneration
Norwegian	S-acetyl-(S)-4'-fosfopantetein, kalsiumsalt	Behandling av pantotenatkinase-assosiert nevrodegenerering
Icelandic	S-asetýl-(S)-4'-fosfópanteteín, kalsíum salt	Meðferð við pantótenatakínasatengdri taugahrörnun