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Public summary of opinion on orphan designation

Human glucagon-like peptide-2 analogue linked to a human immunoglobulin Fc fragment for the treatment of short bowel syndrome

On 11 January 2019, orphan designation (EU/3/18/2126) was granted by the European Commission to Hanmi Europe Limited, United Kingdom, for human glucagon-like peptide-2 analogue linked to a human immunoglobulin Fc fragment (also known as HM15912) for the treatment of short bowel syndrome.

What is short bowel syndrome?

Short bowel syndrome is a condition in which the body cannot absorb enough fluids and nutrients because much of the small bowel, the part of the intestines between the stomach and the large bowel (colon), is missing due to surgical removal, injury or an inborn defect. As a result, patients may have symptoms such as malnutrition, diarrhoea, dehydration and abnormal levels of fluids and salts in their blood. In addition, oxalate, a substance that is produced by the breakdown of amino acids or absorbed from the diet, cannot be removed from the body in patients with short bowel syndrome, and it can build up and cause damage to the kidneys. Patients usually require feeding by a drip into a vein (parenteral nutrition).

Short bowel syndrome is a long-term debilitating and life-threatening condition due to the complications of parenteral nutrition (which include liver failure and infection) and to kidney damage.

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

At the time of designation, short bowel syndrome affected approximately 0.2 in 10,000 people in the European Union (EU). This was equivalent to a total of around 10,000 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, the medicine Revestive (teduglutide) was authorised in the EU for the treatment of short bowel syndrome. In addition, patients with this condition normally received

*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 517,400,000 (Eurostat 2018).

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parenteral nutrition, vitamin and mineral supplements, and medicines to manage symptoms. In severe cases intestinal transplantation might be used.

The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with short bowel syndrome. Laboratory studies found the medicine more effective at increasing the intestinal weight than the authorised medicine. 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?

The medicine is made up of two parts: one part is similar to human glucagon-like peptide 2 (GLP-2), a hormone made in the gut that increases absorption of nutrients from the intestine. The second part is a protein that makes the medicine remain longer in the body.

The medicine works in a similar way to GLP-2. It increases intestinal absorption by increasing blood flow to and from the gut, slowing down the flow of food through the gut and reducing the amount of acid released in the stomach. This is expected to reduce the symptoms of the disease.

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, no clinical trials with the medicine in patients with short bowel syndrome had been started.

At the time of submission, the medicine was not authorised anywhere in the EU for short bowel syndrome 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 6 December 2018 recommending the granting of this designation.

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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 the 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 orphan condition in all official EU languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	Human glucagon-like peptide-2 analogue linked to a human immunoglobulin Fc fragment	Treatment of short bowel syndrome
Bulgarian	Аналог на човешки глюкагон-подобен пептид-2, свързан към Fc фрагмент на човешки имуноглобулин	Лечение на синдром на късото черво
Croatian	Ljudski glukagonu sličan peptid-2 analog vezan na Fc fragment ljudskog imunoglobulina	Liječenje sindroma kratkog crijeva
Czech	Analýza peptidu-2 podobná lidskému glukagonu spojený s Fc fragmentem lidského imunoglobulinu	Léčba syndromu krátkého střeva
Danish	Humant glucagonlignende peptid-2-analog bundet til et humant immunoglobulin Fc-fragment	Behandling af korttarmssyndrom
Dutch	Humaan glucagon-achtige peptide-2-analoog gekoppeld aan een humaan immunoglobuline Fc fragment	Behandeling van kortedarm syndroom
Estonian	Inimese immuunglobuliini Fc-fragmendiga liidetud inimese glükagoonisarnase peptiid-2 analoog	Lühikese soole sündroomi ravi
Finnish	Ihmisen glukagonin kaltainen peptidi-2-analogi, joka on kytkeytynyt ihmisen immunoglobuliinin Fc-osaan	Lyhytsuolioireyhtymän hoito
French	Analogue du peptide-2 analogue au glucagon humain lié au fragment Fc de l'immunoglobuline humaine	Traitement du syndrome de l’intestin court
German	Analogon des menschlichen Glucagon-ähnlichen Peptid-2 verbunden mit einem Human-Immunglobulin-Fc-Fragment	Behandlung des Kurzdarmsyndroms
Greek	Ανθρώπινο ανάλογο πεπτιδίου-2 τύπου γλυκαγόνης συνδεδεμένο με το Fc τμήμα ανθρώπινης ανοσοσφαιρίνης	Θεραπεία του συνδρόμου βραχέος εντέρου
Hungarian	Humán immunglobulin Fc-fragmentumához kötött humán glukagonszerű peptid-2 analóg	Rövid bél szindróma kezelése
Italian	Analogo del peptide-2 umano simile al glucagone legato a un frammento Fc dell'immunoglobulina umana	Trattamento della sindrome dell’intestino breve
Latvian	Cilvēka glikagonam līdzīgā peptīda-2 analogs, kas piesaistīts cilvēka imūnglobulīna Fc fragmentam	Īsās zarnas sindroma ārstēšana

[1] At the time of designation

Lithuanian	Į žmogaus gliukagoną panašaus peptido-2 analogas sujungtas su žmogaus imunoglobulino Fc fragmentu	Trumposios žarnos sindromui gydyti
Maltese	Analogu tal-peptide-2 simili għall-glukagon tal-bniedem marbut ma' framment Fc ta' immunoglobulina umana	Kura tas-sindromu tal-musrana qasira
Polish	Ludzki analog glukagonopodobnego peptydu-2 powiązany z fragmentem Fc ludzkiej immunoglobuliny	Leczenie zespołu krótkiego jelita
Portuguese	Análogo do peptídeo-2 semelhante ao glucagon humano ligado a um fragmento Fc da imunoglobulina humana	Tratamento do síndroma do intestino curto
Romanian	Analog de peptid-2 similar cu glucagonul uman legat de un fragment Fc de imunoglobulină umană	Tratamentul sindromului de intestin scurt
Slovak	Ľudský analóg peptidu-2 podobný glukagónu viazaný na Fc fragment ľudského imunoglobulínu	Liečba syndrómu krátkeho čreva
Slovenian	Humanemu glukagonu podoben peptid-2 analog, vezan na Fc fragment humanega imunoglobulina	Zdravljenje sindroma kratkega črevesja
Spanish	Análogo de péptido-2 similar a glucagón humano ligado a un fragmento Fc de la inmunoglobulina humana	Tratamiento del síndrome del intestino corto
Swedish	Human glukagonliknande peptid-2-analog länkad till ett humant Fc-immunglobulinfragment	Behandling av korttarmssyndrom
Norwegian	Human glukagonlignende peptid-2-analog bundet til et humant immunglobulin Fc-fragment	Behandling av korttarmsyndrom
Icelandic	Glúkagonlík peptíð-2-hliðstæða manna bundin við Fc-hluta ónæmisglóbúlíns manna	Meðferð heilkennis stuttra þarma