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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Recombinant protein consisting of modified human growth hormone releasing hormone and the translocation and endopeptidase domains of botulinum toxin serotype D for the treatment of acromegaly

On 11 January 2012, orphan designation (EU/3/11/947) was granted by the European Commission to Syntaxin Limited, United Kingdom, for recombinant protein consisting of modified human growth hormone releasing hormone and the translocation and endopeptidase domains of botulinum toxin serotype D for the treatment of acromegaly.

What is acromegaly?

Acromegaly is a disease in which the pituitary gland, a small gland located at the base of the brain, produces too much growth hormone. Acromegaly usually affects adults in middle age. In over 90% of patients, it is caused by a non-cancerous tumour of the pituitary gland called a pituitary adenoma. One of the most common symptoms of the disease is the abnormal growth of the hands and feet. The disease can result in serious complications, such as severe damage to the joints and problems affecting the cardiovascular (heart and blood vessels) and respiratory systems.

Acromegaly is a long-term debilitating disease that can be life threatening because of joint damage, risk of cardiovascular disease and reduced life expectancy.

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

At the time of designation, acromegaly affected approximately 1.3 in 10,000 people in the European Union (EU)[*]. This is equivalent to a total of 66,000 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 27), Norway, Iceland and Liechtenstein. This represents a population of 506,300,000 (Eurostat 2011).

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What treatments are available?

At the time of designation, several medicines were authorised in the EU to treat acromegaly, including bromocriptine and somatostatin analogues (medicines that block the release of growth hormone) such as octreotide and lanreotide, and pegvisomant (a medicine that blocks the effects of growth hormone). Other treatments include surgery and, in rare cases, radiotherapy (treatment with radiations).

The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with acromegaly because it works in a different way to existing treatments and early studies show that it might improve the treatment of patients with this condition. 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 consists of 'growth hormone releasing hormone' (GHRH) which has been linked to an enzyme called endopeptidase (which is derived from a bacterial toxin called botulinum toxin). The medicine is expected to block the secretion of growth hormone from the pituitary gland. It is expected to do this by attaching to GHRH receptors located on the surface of cells in the pituitary gland, and interfering with a protein which enables the release of growth hormone from the pituitary cells.

The medicine is expected to be given into a vein.

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 acromegaly had been started.

At the time of submission, the medicine was not authorised anywhere in the EU for acromegaly 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 9 November 2011 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:

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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 languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	Recombinant protein consisting of modified human growth hormone releasing hormone and the translocation and endopeptidase domains of botulinum toxin serotype D	Treatment of acromegaly
Bulgarian	Рекомбинантен протеин, състоящ се от модифициран човешки растежен хормон релийзинг хормон и домените на транслокация и ендопептидаза на ботулиновия токсин серотип D	Лечение на акромегалия
Czech	Rekombinantní protein skládající se z modifikovaného lidského hormonu uvolňujícího růstový hormon a translokační a endopeptidázové domény botulotoxinu sérotypu D	Léčba akromegalie
Danish	Rekombinant protein bestående af modificeret humant væksthormonudskillende hormon og translokations- og endopeptidase- domæner af botulinum toxin serotype D	Behandling af akromegali
Dutch	Recombinant proteïne bestaande uit gemodificeerd humaan groeihormoon-vrijstellend-hormoon en de translocatie- en endopeptidasedomeinen van botulinetoxine serotype D	Behandeling van acromegalie
Estonian	Rekombinantne valk, mis koosneb modifitseeritud inimese kasvuhormooni vabastavast hormoonist ning D-serotüübi botulismitoksiini translokatsiooni ja endopeptidaasi domeenidest	Akromegaalia ravi
Finnish	Yhdistelmäproteiini, joka koostuu muunnellusta ihmisen kasvuhormonin vapauttajahormonista ja serotyyppi D:n botulinumtoksiinin translokaatio- ja endopeptidaasidomeeneista	Akromegalian hoito
French	Protéine recombinante consistant en une forme modifiée de l'hormone libérant l'hormone de croissance humaine et en les domaines de translocation et endopeptidase de la toxine botulinique de sérotype D	Traitement de l'acromégalie

[1] At the time of designation

Language	Active ingredient	Indication
German	Rekombinantes Protein bestehend aus modifiziertem humanen Wachstumshormon-freisetzenden Hormon (GHRH) und den Translokations- und Endopeptidase-Domänen von Botulinumtoxin Serotyp D	Behandlung der Akromegalie
Greek	Ανασυνδυασμένη πρωτεΐνη που αποτελείται από τροποποιημένη ανθρώπινη εκλυτική ορμόνη της ανθρώπινης αυξητικής ορμόνης και τις περιοχές μετατόπισης και πρωτεϊνάσης της τοξίνης αλλαντίασης ορότυπου D	Θεραπεία της ακρομεγαλίας
Hungarian	Módosított humán növekedési hormont felszabadító hormonból és a D szerotípusú botulinum toxin transzlokációs és endopeptidáz doménjeiből álló rekombináns fehérje	Acromegália kezelésére
Italian	Proteina ricombinante costituita dall'ormone rilasciante l'ormone della crescita umano modificato e dai domini della traslocazione e dell'endopeptidasi della tossina botulinica sierotipo D	Trattamento dell'acromegalia
Latvian	Rekombinants proteīns, kas sastāv no modificēta cilvēka augšanas hormona atbrīvojoša hormona un D serotipa botulīntoksīna translokācijas un endopeptidāzes domēniem	Akromegālijas ārstēšana
Lithuanian	Rekombinacinis baltymas, kurį sudaro modifikuotas žmogaus augimo hormoną atpalaiduojantis hormonas ir translokacija bei botulino toksino D serotipo endopeptidazės domena	Akromegalijos gydymas
Maltese	Proteina rikombinanti li tikkonsisti minn ormon li jerħi ormon tat-tkabbir uman modifikat u l-oqsma ta' traslokazzjoni u ta' endopeptidase tat-tossina ta' Botulinum serotip D	Kura ta' l-akromegalija
Polish	Białko rekombinowane składające się z modyfikowanego hormonu uwalniającego ludzki hormon wzrostu oraz domen translokacyjnej i endopeptydazowej serotypu D toksyny botulinowej	Leczenie akromegalii
Portuguese	Proteína recombinante constituída pela modificação da hormona de libertação da hormona humana do crescimento e pelos domínios de translocação e endopeptidase do serótipo D da toxina botulínica	Tratamento da acromegália

Language	Active ingredient	Indication
Romanian	Proteină recombinantă care constă din hormonul de eliberare a hormonului uman de creştere modificat şi din domenii de translocare şi endopeptidazice ale toxinei botulinice de serotip D	Tratamentul acromegaliei
Slovak	Rekombinantný proteín pozostávajúci z modifikovaného hormónu uvoľňujúceho ľudský rastový hormón a translokáčnej a endopeptitázovej domény botulinotoxínu sérotypu D	Liečba akromegálie
Slovenian	Rekombinantna beljakovina, sestavljena iz spremenjenega hormona, ki sprošča človeški rastni hormon, in domen translokacije ter endopeptidaze botulinskega toksina serotipa D	Zdravljenje akromegalije
Spanish	Proteína recombinante que consiste en la hormona liberadora de hormona de crecimiento humana modificada y los dominios de translocación y endopeptidasa de la toxina botulínica de serotipo D	Tratamiento de la acromegalia
Swedish	Rekombinant protein bestående av modifierat humant tillväxthormonfrisättande hormon och domänerna för translokation och endopeptidas av botulinumtoxin serotyp D	Behandling av akromegali
Norwegian	Rekombinant protein som består av modifisert, humant veksthormonfrisettende hormon og translokasjons- og endopeptidasedomenene til botulinumtoksin serotype D.	Behandling af akromegali
Icelandic	Raðbrigða prótein sem samanstendur af umbreyttri manna vaxtarhormóna¬kveikju og yfirfærslu og endópeptíðasahneppum bótúlínumeitursins af sermisgerð D	Meðhöndlun æsavvaxtar