19 May 2015
EMA/COMP/207644/2015
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Recombinant monoclonal IgG1 antibody against T-cell immune response cDNA 7 for the prevention of graft rejection following solid organ transplantation

On 24 April 2015, orphan designation (EU/3/15/1479) was granted by the European Commission to Nekonal S.a.r.l., Luxemburg, for recombinant monoclonal IgG1 antibody against T-cell immune response cDNA 7 for the prevention of graft rejection following solid organ transplantation.

What is graft rejection following solid organ transplantation?

Graft rejection following solid organ transplantation is a problem that can occur when the recipient's body rejects the transplanted organ. Graft rejection is caused by the patient's immune system (the body's natural defences) recognising the transplanted graft as 'foreign' and attacking it. This results in inflammation and damage to the organs.

Graft rejection following solid organ transplantation is a life-threatening condition because the transplanted organ may fail and because medication is required to suppress the patient's immune system, which can result in infections and cancer.

What is the estimated number of patients at risk of developing the condition?

At the time of designation, the number of patients at risk of graft rejection following solid organ transplantation was estimated to be approximately 0.6 people in 10,000 in the European Union (EU). This was equivalent to a total of around 31,000 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 at risk of developing 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 512,900,000 (Eurostat 2015).

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What methods of prevention are available?

At the time of designation, several medicines to suppress the immune system in order to prevent rejection after transplantation were authorised in the EU. These include the antibodies basiliximab and antithymocyte immunoglobulin, calcineurin inhibitors such as ciclosporin or tacrolimus, azathioprine, mycophenolate mofetil and corticosteroids such as prednisolone or methylprednisolone.

The sponsor has provided sufficient information to show that this medicine might be of significant benefit for patients at risk of graft rejection following solid organ transplantation because studies in experimental models showed that it might improve survival when used in combination with tacrolimus. 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?

This medicine is a monoclonal antibody (a type of protein) that has been designed to recognise and attach to a protein called 'T-cell immune response cDNA 7' (TIRC7), which is present on the surface of T cells. T cells are part of the immune system and are involved in causing the inflammation and damage seen in graft rejection. By attaching to TIRC7, the medicine is expected to block the activation of T cells, thus limiting the development of inflammation and damage, and helping to prevent rejection of the graft.

What is the stage of development of this medicine?

The effects of the medicine have been evaluated in experimental models.

At the time of submission of the application for orphan designation, no clinical trials with the medicine in patients at risk of graft rejection following solid organ transplantation had been started.

At the time of submission, the medicine was not authorised anywhere in the EU for prevention of graft rejection following solid organ transplantation 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 19 March 2015 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 monoclonal IgG1 antibody against T-cell immune response cDNA 7	Prevention of graft rejection following solid organ transplantation
Bulgarian	Рекомбинантно моноклонално IgG1 антитяло срещу Т-клетъчния cDNA 7 протеин на имунния отговор	Предотвратяване на отхвърляне на присадката след трансплантация на солиден орган
Croatian	Rekombinantno monoklonsko protutijelo IgG1 protiv proteina imunološkog odgovora T-stanica cDNA 7	Prevencija odbacivanja presatka nakon transplantacije solidnih organa
Czech	Rekombinantní monoklonální IgG1 protilátka k T- buněčné imunitní odpovědi cDNA7	Prevence rejekce štěpu po transplantaci solidního orgánu
Danish	Rekombinant monoklonal IgG1 antistof mod T-cell immunrespons cDNA 7	Forebyggelse af graftafstødning efter organtransplantation
Dutch	Recombinant monoclonal IgG1 antilichaam gericht tegen T-cel immuunantwoord cDNA 7	Preventie van transplantaatafstoting na soliede orgaantransplantatie
Estonian	Rekombinantne monoklonaalne IgG1 antikeha T-raku immuunvastuse cDNA7 vastu	Siirdorgani äratõukamise ennetamine pärast soliidorgani siirdamist
Finnish	Rekombinantti monoklonaalinen IgG1 vasta-aine T-solujen immuunivasteelle cDNA 7	Siirrännäisen hylkimisreaktion ehkäisy elinsiirron jälkeen
French	Anticorps IgG1 recombinant monoclonal dirigé contre l'ADNc 7 à réponse immunitaire des lymphocytes T	Prévention du rejet de greffe suite à la transplantation d'organes solides
German	Rekombinanter monoklonaler IgG1 Antikörper gegen T-Zell Immunantwort cDNA 7	Prävention einer Abstoßungsreaktion nach Organtransplantation
Greek	Ανασυνδυασμένο μονοκλωνικό IgG1 αντίσωμα έναντι του cDNA 7 της ανοσοαπάντησης των Τ-κυττάρων (*TCIRG1*)	Πρόληψη της απόρριψης μοσχεύματος μετά την μεταμόσχευση στερεών οργάνων
Hungarian	"T-cell immune response cDNA 7" fehérje elleni rekombináns monoklonális IgG1 antitest	Szervtranszplantációt követő graft kilökődés megelőzése
Italian	Anticorpo monoclonal IgG1 recombinante diretto contro il cDNA7 della risposta immune a cellule T	Prevenzione del rigetto di trapianto in seguito a trapianto di organi solidi
Latvian	Rekombinanta monoklonālā IgG1 antiviela pret T-šūnu immūnās atbildes cDNS 7	Transplantāta atgrūšanas profilaksei pēc orgāna transplantācijas
Lithuanian	Recombinantinis monokloninis IgG1 antikūnas prieš T-ląstelių imuninio atsako cDNR 7	Transplantato atmetimo prevencija po parenchiminio organo transplantacijos
Maltese	Antikorp IgG1 monoklonali rikombinanti kontra cDNA 7 ta' reazzjoni immunitarja taċ-ċelluli T	Prevenzjoni ta' rifjut ta' trapjant wara trapjant ta' organu solidu

[1] At the time of designation

Language	Active ingredient	Indication
Polish	Rekombinowane przeciwciało monoklonalne klasy IgG1 przeciw cDNA 7 limfocytow T odpowiedzi immunologicznej	Zapobieganie odrzuceniu przeszczepu po transplantacji narządów litych
Portuguese	Anticorpo monoclonal recombinante de tipo IgG1 contra resposta imunitária ADNc 7 de células T	Prevenção da rejeição de enxertos após transplante de órgãos sólidos
Romanian	Anticorp monoclonal recombinant IgG1 împotriva cDNA7 produs de răspunsul imun al celulelor T	Prevenirea rejetului de grefăpost transplant de organe solide
Slovak	Rekombinantná monoklonálna IgG1 protilátka proti imunitnej odpovedi sprostredkovanej cDNA 7 T-bunkami	Prevencia odvrhnutia štepu po transplantácii solidného orgánu
Slovenian	Recombinantno monoklonsko protitelo IgG1 proti T-celični cDNA 7 imunskega odziva	Preprečevanje zavrnitve presadka po transplantaciji čvrstih organov
Spanish	Anticuerpo monoclonal recombinante de tipo IgG1 contra la repuesta imunitaria ADNc 7 de células T	Prevención del rechazo de injerto después de trasplante de órgano sólido
Swedish	Rekombinant monoklonal IgG1 antikropp mot T-cell-immunförsvar cDNA 7	Förebyggande av transplantatrejektion efter solid organtransplantation
Norwegian	Rekombinant monoklonalt IgG1 antistoff mot T-celle immunrespons cDNA 7	Forebygging av transplantatavstøtning etter transplantasjon av solid organ
Icelandic	Raðbrigða einstofna IgG1 mótefni gegn T-frumu ónæmissvari cDNA	Til að koma í veg fyrir höfnun eftir líffæraígræðslu