



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

8 March 2017
EMA/14165/2017
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation (6aR, 10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydro-cannabinol-9- carboxylic acid for the treatment of systemic sclerosis

On 12 January 2017, orphan designation (EU/3/16/1808) was granted by the European Commission to TMC Pharma Services Ltd, United Kingdom, for (6aR, 10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydro-cannabinol-9-carboxylic acid (also known as JBT-101 or resunab) for the treatment of systemic sclerosis.

What is systemic sclerosis?

Systemic sclerosis, also known as scleroderma, is a complex disease in which the immune system (the body's natural defences) is overactive, causing inflammation and excessive production of some proteins, particularly collagen. The reason why the immune system is overactive is not known. Collagen is an important component of connective tissue (the tissue that supports the skin and internal organs).

Overproduction of collagen leads to abnormal growth of connective tissue, causing the skin to become thick and hard. Initial symptoms include swelling of fingers and hands, followed by a thickening of the skin over the arms, legs, face and trunk. The disease can also damage the walls of blood vessels of internal organs such as the heart, lungs and kidneys. This makes it more difficult for the blood to flow, causing tissue damage and circulation problems.

Systemic sclerosis is a long-lasting, debilitating disease and may be life threatening because of its possible effects on the gut, heart, lungs and kidneys.

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

At the time of designation, systemic sclerosis affected approximately 3.5 in 10,000 people in the European Union (EU). This was equivalent to a total of around 180,000 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?

At the time of designation, there were no treatments for systemic sclerosis that could stop the build-up of collagen and abnormal growth of connective tissue. Treatments authorised in the EU were aimed at relieving the symptoms of the disease and limiting the damage it causes. Several medicines were used to reduce inflammation and circulation problems. Bosentan has been authorised in the EU specifically to treat patients with systemic sclerosis in whom poor blood circulation caused by the disease has led to the development of digital ulcers (sores on the fingers and toes).

The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with systemic sclerosis because early laboratory studies show that it may reduce the abnormal growth of connective tissue, an effect not seen with the currently authorised treatment. 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 attaches to receptors called cannabinoid type 2 receptors (CB2) found on immune cells. By attaching to these receptors, it is expected to control the body's immune system better in patients with systemic sclerosis, reducing inflammation and abnormal growth of connective tissue, and so improving symptoms of the condition.

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, clinical trials with the medicine in patients with systemic sclerosis were ongoing.

At the time of submission, the medicine was not authorised anywhere in the EU for systemic sclerosis. Orphan designation of the medicine had been granted in the United States for this condition.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 8 December 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	(6aR, 10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydro-cannabinol-9-carboxylic acid	Treatment of systemic sclerosis
Bulgarian	(6aR,10aR)-3-(1',1'-диметилхептил)-делта-8-тетраhydro-канабинол-9-карбоксилова киселина	Лечение на системна склероза
Croatian	(6aR,10aR)-3-(1',1'-dimetilheptil)-delta-8-tetrahydro-kanabinol-9-karboksilna kiselina	Liječenje sistemske skleroze
Czech	(6aR,10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydro-kanabinol-9-karboxylová kyselina	Léčba systémové sklerodermie
Danish	(6aR,10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydro-cannabinol-9-carboxylsyre	Behandling af systemisk sklerose
Dutch	(6aR,10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydro-cannabinol-9-carbonzuur	Behandeling van systeem sclerose
Estonian	(6aR,10aR)-3-(1',1'-dimetüülheptüül)-delta-8-tetrahydrokannabinool-9-karboksüülhape	Süsteemse sklerodermia ravi
Finnish	(6aR,10aR)-3-(1',1'-dimetyyliheptyyli)-delta-8-tetrahydrokannabinoli-9-karboksyylihappo	Systemisen skleroosin hoito
French	Acide(6aR,10aR)-3-(1',1'-diméthylheptyl)-delta-8-tétrahydro-cannabinol-9-carboxylique	Traitement de la sclérodémie systémique
German	(6aR,10aR)-3-(1',1'-Dimethylheptyl)-delta-8-tetrahydrocannabinol-9-carbonsäure	Behandlung der systemischen Sklerose
Greek	(6aR,10aR)-3-(1',1'-διμεθυλεπτυλ)-δ-8-τετραhydro-κανναβινολ-9-καρβοξυλικό οξύ	Θεραπεία της συστηματικής σκλήρυνσης
Hungarian	(6aR,10aR)-3-(1',1'-dimetil-heptil)-delta-8-tetrahydrokannabinol-9-karbonsav	Szisztémás scleroderma kezelése
Italian	(6aR,10aR)-3-(1',1'-dimetil-epetil)-delta-8-tetraidro-cannabinol-9-acido carbossilico	Trattamento della sclerosi sistemica
Latvian	(6aR,10aR)-3-(1',1'-dimetilheptil)-delta-8-tetrahydrokannabinol-9-karbonskābe	Sistēmiskas sklerozes ārstēšana
Lithuanian	(6aR,10aR)-3-(1',1'-dimetilheptil)-delta-8-tetrahydrokanabinol-9-karboksirūgštis	Sisteminės sklerozės gydymas
Maltese	(6aR,10aR)-3-(1',1'-dimethylheptyl)-delta-8-tetrahydrocannabinol-9-carboxylic acid	Kura tas-sklerosi sistemika
Polish	Kwas(6aR,10aR)-3-(1',1'-dimetyloheptylo)-delta-8-tetrahydro-kanabinolo-9-karboksylowy	Leczenie twardziny narządowej
Portuguese	Ácido(6aR,10aR)-3-(1',1'-dimetilo-heptil)-delta-8-tetrahydro-canabinol-9-carboxílico	Tratamento da esclerose sistémica
Romanian	Acid(6aR,10aR)-3-(1',1'-dimetilheptil)-delta-8-tetrahydro-canabinol-9-carboxilic	Tratamentul sclerozei sistemice
Slovak	(6aR,10aR)-3-(1',1'-dimetylheptyl)-delta-8-tetrahydro-kanabinol-9-karboxylová kyselina	Liečba systémovej sklerózy

¹ At the time of designation

Language	Active ingredient	Indication
Slovenian	(6aR,10aR)-3-(1',1'-dimetilheptil)-delta-8-tetrahydro-kanabinol-9-karboksilna kislina	Zdravljenje sistemske skleroze
Spanish	ácido (6aR,10aR)-3-(1',1'-dimetilheptil)-delta-8-tetrahidrocannabinol-9- carboxílico	Tratamiento de la esclerosis sistémica
Swedish	(6aR,10aR)-3-(1',1'-dimetylheptyl)-delta-8-tetrahydro-cannabinol-9-karboxylsyra	Behandling av systemisk skleros
Norwegian	(6aR,10aR)-3-(1',1'-dimetylheptyl)-delta-8-tetrahydrokannabinol-9-karboksylsyre	Behandling av systemisk sklerose
Icelandic	(6aR,10aR)-3-(1',1'-dímetýlheptýl)-delta-8-tetrahýdró-kannabínól-9-karboxýlsýra	Meðferð við dreifðum herslismeinum