25 April 2014
EMA/COMP/270/2003 Rev.2
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Bosentan for treatment of systemic sclerosis

First publication	8 April 2003
Rev.1: information about Marketing Authorisation	29 May 2007
Rev.2: withdrawal from the Community Register	25 April 2014

Disclaimer

Please note that revisions to the Public Summary of Opinion are purely administrative updates. Therefore, the scientific content of the document reflects the outcome of the Committee for Orphan Medicinal Products (COMP) at the time of designation and is not updated after first publication.

Please note that this product was withdrawn from the Community Register of designated Orphan Medicinal Products in April 2014 on request of the Sponsor.

On 17 March 2003, orphan designation (EU/3/03/139) was granted by the European Commission to Actelion Registration Limited, United Kingdom, for bosentan for the treatment of systemic sclerosis.

What is systemic sclerosis?

Systemic sclerosis involves the abnormal growth of connective tissue, which supports the skin and internal organs. The abnormal growth is due to too much production of a protein called collagen. The disease not only includes the skin, but also involves the tissues around the blood vessels and major organs. Systemic sclerosis is typically broken down into *diffuse* and *limited* disease. In diffuse form, the skin becomes thicker over much of the body, such as the upper arms, upper legs, chest, and stomach. Inside the body, the disease can damage key organs such as the heart, lungs, and kidneys. The limited form typically affects the skin only in certain areas: the fingers, hands, face, lower arms, and legs. Many people with limited disease have Raynaud's phenomenon (a condition in which the small blood vessels of the hands and/or feet contract in response to cold or anxiety: they turn white and cold, then blue) for years before the skin starts to become thicker. People with limited disease are more prone to develop hypertension of the heart-lung circulation (pulmonary hypertension) than people with diffuse disease. Due to the thicker skin and the damage to key internal organs, the disease is considered chronically debilitating.

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

At the time of designation, systemic sclerosis affected between 0.3 and 1.3 in 10,000 people in the European Union (EU). This was equivalent to a total of between 11,000 and 50,000 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?

There is no treatment that stops the build-up of collagen. Available treatment is aimed at relieving symptoms and limiting damage. Several products with anti-inflammatory activity (products that limit the reaction of tissues against damage) were authorised for the condition in some countries in the Community at the time of submission of the application for orphan drug designation. Bosentan might be of potential significant benefit for the treatment of systemic sclerosis in particular with regard to efficacy in specific disease related complications. This benefit will have to be confirmed at the time of marketing authorisation and will be necessary to maintain the orphan status.

How is this medicine expected to work?

Bosentan opposes the effect of a substance called endothelin-1. This substance can cause narrowing of blood vessels and may also play an important role in the disease process of systemic sclerosis. Therefore, bosentan could play an important role in treating major complications of the disease.

What is the stage of development of this medicine?

Bosentan has previously received orphan drug designation and has been authorised in the European Union to treat (pulmonary hypertension), which included patients with systemic sclerosis.

At the time of submission of the application for the current orphan designation, further clinical trials in patients with systemic sclerosis were ongoing.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 7 February 2003 recommending the granting of this designation.

Update: Bosentan (Tracleer) has been authorised in the EU since 22 March 2007 for the treatment of new digital ulcers in patients with systemic sclerosis and active digital ulcers.

More information on Tracleer can be found in the European public assessment report (EPAR) on the Agency's website: ema.europa.eu/Find medicine/Human medicines/European Public Assessment Reports

*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.
At the time of designation, this represented a population of 382,800,000 (Eurostat 2003).

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

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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	Bosentan	Treatment of systemic sclerosis
Bulgarian	Бозентан	Лечение на системна склероза
Czech	Bosentan	Léčba systémové sklerodermie
Danish	Bosentan	Behandling af systemisk sklerose
Dutch	Bosentan	Behandeling van Systeem Sclerose
Estonian	Bosentaan	Süsteemse sklerodermia ravi
Finnish	Bosentaani	Systeemisen skleroosin hoito
French	Bosentan	Traitement de la sclérose systémique
German	Bosentan	Behandlung der pr systemischen Sklerose
Greek	Bosentan	Θεραπεία της συστηματικής σκλήρυνσης
Hungarian	Bosentan	Szisztémás scleroderma kezelése
Italian	Bosentan	Trattamento della sclerosi sistemica
Latvian	Bosentāns	Sistēmiskas sklerozes ārstēšana
Lithuanian	Bosentan	Sisteminės odos sklerozės gydymas
Maltese	Bosentan	Kura tas-sklerosi sistemika
Polish	Bozentan	Leczenie twardziny narządowej
Portuguese	Bosentan	Tratamento da esclerose sistémica
Romanian	Bosentan	Tratamentul sclerozei sistemice
Slovak	Bosentan	Liečba systémovej sklerózy
Slovenian	Bosentan	Zdravljenje sistemske skleroze
Spanish	Bosentán	Tratamiento de la esclerosis sistémica
Swedish	Bosentan	Behandling av systemisk skleros

[1] At the time of marketing authorisation