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Adzynma (*rADAMTS13*)

An overview of Adzynma and why it is authorised in the EU

Adzynma is a medicine used to treat children and adults with congenital thrombotic thrombocytopenic purpura (cTTP), an inherited disease caused by mutations (changes) in the *ADAMTS13* gene. Patients with this disease have acute episodes in which thrombosis (blood clots) are formed in small blood vessels throughout their body. The clots can hamper the blood flow to the organs and cause damage. The increased clotting results in a shortage of platelets in the blood (thrombocytopenia), increasing the risk of bleeds. Patients also have small bleedings under the skin that appear as purple spots (purpura). cTTP also causes the body to break down red blood cells faster than the body can make them, lowering the level of red blood cells (microangiopathic haemolytic anaemia), with symptoms including fatigue, weakness and shortness of breath.

cTTP is rare and Adzynma was designated an 'orphan medicine' (a medicine used in rare diseases) on 3 December 2008. Further information on the orphan designation can be found on the EMA [website](#).

Adzynma contains the active substance rADAMTS13.

How is Adzynma used?

The medicine can only be obtained with a prescription and treatment should be started by a physician experienced in haematological (blood-related) diseases.

Adzynma is given as an injection into a vein. For the prevention of TTP episodes, it is given once a week or every two weeks. For the on-demand treatment of acute TTP episodes (characterised by thrombocytopenia and microangiopathic haemolytic anaemia) it is given once a day; treatment of acute episodes should start on the first day of the episode and end 2 days after it has ended.

Patients or their carers may be able to inject Adzynma themselves once they have been trained to do so.

For more information about using Adzynma, see the package leaflet or contact your doctor or pharmacist.

How does Adzynma work?

Patients with cTTP have too little of an enzyme (a type of protein) called ADAMTS13 in their blood. This enzyme breaks down large proteins in the blood called von Willebrand factor. When these large

proteins are not removed, they clump with blood platelets and form blood clots. The active substance in Adzynma is a version of ADAMTS13 (rADAMTS13) that is produced in a laboratory. It replaces the missing ADAMTS13 enzyme and breaks down von Willebrand factor, thus preventing the formation of blood clots, bruising, bleeding and anaemia.

What benefits of Adzynma have been shown in studies?

The benefits of Adzynma as a preventative treatment for TTP episodes were assessed in a main study involving 48 children and adults aged up to 70 years with severe cTTP. The study was divided in three periods of 6 months. During the first period, patients were either given Adzynma or their usual treatment (often fresh frozen plasma) to prevent TTP episodes. Depending on their previous treatment schedule, they received treatment either once a week or every two weeks. During the second period, patients first given their usual treatment switched to Adzynma and those initially given Adzynma now received their usual treatment. During the third period, all patients took Adzynma.

One acute TTP episode occurred in the group of patients given their usual treatment during the study and none in the group taking Adzynma; because this number was low, it was not possible to conclude if Adzynma can treat acute TTP episodes. However, the study showed that other symptoms of the disease, such as thrombocytopenia and microangiopathic haemolytic anaemia events, were seen less often in patients given Adzynma than in patients given their usual treatment.

The study also involved 5 patients with cTTP who were given on-demand Adzynma or their usual treatment when they had an acute TTP episode. In the study, one acute TTP episode was treated successfully with Adzynma and one with the patient's usual treatment. Both acute episodes were resolved within 3 days of treatment.

What are the risks associated with Adzynma?

For the full list of side effects and restrictions with Adzynma, see the package leaflet.

The most common side effects with Adzynma (which may affect more than 1 in 10 people) include headache, diarrhoea, dizziness, upper respiratory tract (nose and throat) infection, nausea (feeling sick) and migraine.

Why is Adzynma authorised in the EU?

At the time of approval, no satisfactory treatment was available for patients with cTTP. Adzynma aims to replace the missing ADAMTS13 with a similar version of this enzyme made in the laboratory. Although study data do not provide sufficient evidence that the medicine is effective at preventing acute TTP episodes, there is information available from laboratory studies, knowledge of how the medicine behaves in the body and data showing a reduction in cTTP symptoms in patients taking Adzynma. These all indicate that the treatment could be effective. The side effects of Adzynma were considered acceptable.

The European Medicines Agency therefore decided that Adzynma's benefits are greater than its risks and that it can be authorised for use in the EU.

Adzynma has been authorised under 'exceptional circumstances'. This is because it has not been possible to obtain complete information about Adzynma due to the very low number of acute TTP events in cTTP patients. The company must provide further data on Adzynma. It must submit the complete results of 3 studies on the safety and effectiveness of Adzynma. Every year, the Agency will review any new information that becomes available.

What measures are being taken to ensure the safe and effective use of Adzynma?

The company that markets Adzynma will provide a guide to healthcare professionals and an alert card to patients including information on how to manage allergic reactions to Adzynma when the medicine is injected at home.

Recommendations and precautions to be followed by healthcare professionals and patients for the safe and effective use of Adzynma have also been included in the summary of product characteristics and the package leaflet.

As for all medicines, data on the use of Adzynma are continuously monitored. Suspected side effects reported with Adzynma are carefully evaluated and any necessary action taken to protect patients.

Other information about Adzynma

Adzynma received a marketing authorisation under exceptional circumstances valid throughout the EU on 1 August 2024.

Further information on Adzynma can be found on the Agency's website:
ema.europa.eu/medicines/human/EPAR/adzynma.

This overview was last updated in 08-2024.