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Augtyro (*repotrectinib*)

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

What is Augtyro and what is it used for?

Augtyro is a cancer medicine which is used for:

- treating adults with advanced non-small-cell lung cancer (NSCLC). It is used when the cancer has a genetic abnormality called *ROS1* gene fusion, or;
- treating adults and adolescents 12 years and older with solid tumours (cancer growths in organs, bones, and soft tissues) that have a genetic abnormality called *NTRK* gene fusion. It is used in patients who have been treated previously with medicines that work in the same way as Augtyro (known as NTRK inhibitors), or if the patient has not been treated with such medicines and other treatment options have stopped working or offer limited benefits.

Augtyro contains the active substance repotrectinib.

How is Augtyro used?

Augtyro can only be obtained with a prescription and treatment should be started and supervised by a doctor who is experienced in the use of cancer medicines.

Augtyro is available as capsules taken once daily for the first 14 days and then twice daily. Treatment should continue until the medicine stops working. The doctor may reduce the dose, interrupt treatment or stop it altogether if the patient has certain side effects.

For more information about using Augtyro, see the package leaflet or contact your healthcare provider.

How does Augtyro work?

Cancers with *NTRK* gene fusion produce abnormal TRK proteins, while cancers with *ROS1* gene fusion produce abnormal ROS1 fusion proteins. These abnormal proteins cause an uncontrolled increase in cancer cells. Repotrectinib, the active substance in Augtyro, blocks the action of these proteins and so prevents the increase in cancer cells. This slows down cancer growth.

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What benefits of Augtyro have been shown in studies?

In an ongoing main study, 323 adults with advanced *ROS1*-positive NSCLC and 120 adults with advanced solid tumors with *NTRK* gene fusion were treated with Augtyro. Patients were followed up for at least 6 months and received Augtyro until it stopped working or caused unacceptable side effects. The study did not compare Augtyro with another medicine or placebo (a dummy treatment).

Non-small-cell lung cancer with *ROS1* gene fusion

The cancer shrank in around 77% (93 out of 121) of patients who had not received previous treatment with a medicine that blocks the ROS1 protein. This response lasted for an average of around 34 months. Among patients who had already received treatment with one medicine that blocks the ROS1 protein but not chemotherapy, the cancer shrank in about 49% of patients (52 out of 107), with an average response duration of around 15 months.

Solid tumours with *NTRK* gene fusion

The cancer shrank in around 59% (30 out of 51) of patients who had not received previous treatment with an NTRK inhibitor. It was not possible to determine the average duration of response in this group as, after an average follow-up of 6 months, the cancer had not worsened in a sufficient number of patients since their cancer had shrunk. Among patients who had already received treatment with an NTRK inhibitor, the cancer shrank in about 48% of patients (33 out of 69), with an average response duration of around 10 months.

Supporting studies evaluated how Augtyro behaves in the body, accounting for differences such as weight, age, and other factors that can affect how the medicine works. Results from these studies indicate that Augtyro is expected to work in the same way in adolescents aged 12 years and older with advanced solid tumours with *NTRK* gene fusion as it does in adults with the same disease.

What are the risks associated with Augtyro?

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

The most common side effects with Augtyro (which may affect more than 1 in 10 people) include dizziness, dysgeusia (taste disturbance), constipation, paraesthesia (sensations like numbness, tingling, pins and needles), anaemia (low levels of red blood cells) and dyspnoea (difficulty breathing).

Some side effects with Augtyro can be serious. The most frequent (which may affect up to 1 in 10 people) include pneumonia (infection of the lungs), dyspnoea, pleural effusion (fluid around the lungs), fever, muscle weakness, anaemia and pneumonitis (inflammation of the lungs).

Why is Augtyro authorised in the EU?

For patients with advanced *ROS1*-positive NSCLC, Augtyro was shown to reduce tumour size. For patients who have not received previous treatment with a medicine that blocks the ROS1 protein, the benefits of Augtyro were in line with those seen with other medicines from the same class. Although the response was lower in patients who had previously received treatment with medicines that block ROS1 proteins, the European Medicines Agency considered that the medicine provided a beneficial effect, especially for patients who are not suitable for chemotherapy which is the standard of care (treatment that medical experts consider most appropriate).

For patients with advanced solid tumors with an *NTRK* gene fusion, targeted treatment options are limited. Augtyro was shown to reduce tumor size in these patients, regardless of whether they had previously received treatment with NTRK inhibitors. For patients who had not received such treatment

before, the response seen with Augtyro is in line with that seen with other medicines from the same class. Although there are uncertainties regarding the duration of response, the company is expected to provide these data from the main study that is still ongoing. Overall, the safety profile of the medicine is considered manageable.

While there are some uncertainties about how well Augtyro works for different solid tumour types and abnormalities of the *ROS1* and *NTRK* gene fusion, as well as its effectiveness for those with disease that has spread to the brain and its long-term safety, data from the ongoing studies will provide more clarity on these aspects.

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

Augtyro has been given a conditional authorisation. This means that it has been authorised on the basis of less comprehensive data than are normally required because it fulfils an unmet medical need. The Agency considers that the benefit of having the medicine available earlier outweighs any risks associated with using it while awaiting further evidence.

The company must provide further data on Augtyro. It must submit the results from the ongoing studies on the effectiveness of Augtyro in adults with advanced *ROS1*-positive NSCLC or advanced solid tumors with *NTRK* gene fusion. The company must also submit data from an ongoing study in children on the effectiveness and long-term safety in children with solid tumors with *NTRK* gene fusion. 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 Augtyro?

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

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

Other information about Augtyro

Augtyro received a conditional marketing authorisation valid throughout the EU on 13 January 2025.

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

This overview was last updated in 01-2025.