EMA/384352/2019
EMEA/H/C/005300

Azacitidine Celgene (*azacitidine*)

An overview of Azacitidine Celgene and why it is authorised in the EU

What is Azacitidine Celgene and what is it used for?

Azacitidine Celgene is used for the treatment of adults with the following diseases, if they cannot have haematopoietic stem cell transplantation (when the patient receives stem cells to restore the bone marrow's ability to produce healthy blood cells):

- myelodysplastic syndromes, a group of conditions where too few blood cells are produced by the bone marrow. In some cases, myelodysplastic syndromes can lead to acute myeloid leukaemia (AML, a cancer affecting white blood cells called myeloid cells). Azacitidine Celgene is used in patients with an intermediate to high risk of progressing to AML or death;
- chronic myelomonocytic leukaemia (CMML, a cancer affecting white blood cells called monocytes). Azacitidine Celgene is used when the bone marrow consists of 10 to 29% abnormal cells and the bone marrow is not producing large numbers of white blood cells;
- AML that has developed from a myelodysplastic syndrome and the bone marrow consists of 20 to 30% abnormal cells;
- AML, when the bone marrow has more than 30% abnormal cells.

Azacitidine Celgene contains the active substance azacitidine.

This medicine is the same as Vidaza, which is already authorised in the EU. The company that makes Vidaza has agreed that its scientific data can be used for Azacitidine Celgene ('informed consent').

How is Azacitidine Celgene used?

Azacitidine Celgene is available as a powder to be made up into a suspension for injection. It can only be obtained with a prescription and treatment should be started and monitored under the supervision of a doctor experienced in the use of cancer medicines. Patients should be given medicines to prevent nausea (feeling sick) and vomiting before receiving Azacitidine Celgene.

The recommended dose of Azacitidine Celgene is 75 mg per square metre body surface area (calculated using the patient's height and weight). It is given as an injection under the skin of the upper arm, thigh or abdomen (tummy) every day for one week, followed by three weeks with no treatment. This four-week period is one 'cycle'. Treatment continues for at least six cycles and then for

as long as it benefits the patient. The liver, kidneys and blood should be checked before each cycle. If the blood counts fall too low or if the patient develops kidney problems, the next treatment cycle should be delayed or a lower dose should be used.

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

How does Azacitidine Celgene work?

The active substance in Azacitidine Celgene, azacitidine, belongs to the group 'antimetabolites' and can be incorporated into the genetic material of cells (RNA and DNA) instead of their natural building-block, cytidine. It is thought to work by altering the way the cell turns genes on and off and also by interfering with the production of new RNA and DNA. This helps to correct the problems with the maturation and growth of young blood cells in the bone marrow that cause myelodysplastic disorders, and to kill cancerous cells in leukaemia.

What benefits of Azacitidine Celgene have been shown in studies?

Azacitidine Celgene was shown to be more effective than conventional care in extending survival in two main studies. The first study involved 358 adults with intermediate to high-risk myelodysplastic syndromes, CMML or AML who were unlikely to go on to have a stem cell transplant. The patients' bone marrow contained up to 30% abnormal cells. In this study, patients receiving Azacitidine Celgene survived for an average of 24.5 months, compared with 15.0 months in patients receiving conventional care. The effect of Azacitidine Celgene was similar in all three diseases.

In the second study, which involved 488 patients with AML who could not have haematopoietic stem cell transplantation and whose bone marrow contained more than 30% abnormal cells, patients receiving Azacitidine Celgene survived for an average of 10.4 months, compared with 6.5 months in patients receiving conventional care.

What are the risks associated with Azacitidine Celgene?

The most common side effects of Azacitidine Celgene, which may affect more than 60% of patients with myelodysplastic syndromes, CMML or AML (20 to 30% abnormal cells), are blood reactions including thrombocytopenia (low platelet counts), neutropenia (low levels of neutrophils, a type of white blood cell) and leucopenia (low white blood cell counts), side effects affecting the stomach and gut including nausea and vomiting, and injection site reactions. Side effects were similar in AML patients with more than 30% abnormal cells.

Azacitidine Celgene must not be used in patients with advanced liver cancer or in women who are breastfeeding.

For the full list of side effects and restrictions of Azacitidine Celgene, see the package leaflet.

Why is Azacitidine Celgene authorised in the EU?

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

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

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

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

Other information about Azacitidine Celgene

Azacitidine Celgene received a marketing authorisation valid throughout the EU on 2 August 2019.

Further information on Azacitidine Celgene can be found on the Agency's website: www.ema.europa.eu/medicines/human/EPAR/azacitidine-celgene.

This overview was last updated in 08-2019.