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Questions and answers on Novantrone and associated names (mitoxantrone 2 mg/ml concentrate for solution for infusion)

Outcome of a procedure under Article 30 of Directive 2001/83/EC

On 28 April 2016, the European Medicines Agency completed a review of Novantrone. The Agency's Committee for Medicinal Products for Human Use (CHMP) concluded that there is a need to harmonise the prescribing information for Novantrone in the European Union (EU).

What is Novantrone?

Novantrone is a medicine that is used in the treatment of cancers including breast cancer, non-Hodgkin's lymphoma (a cancer of the lymphatic system, which is part of the immune system) and certain types of blood cancer, as well as pain caused by prostate cancer. It is also used to treat patients with worsening multiple sclerosis when no alternative treatments are available.

Novantrone contains the active substance mitoxantrone and it is available as a concentrate to be made into a solution for infusion (drip) into a vein.

Novantrone is marketed in the following EU member states: Cyprus, Finland, France, Germany, Greece, Italy, Romania, Slovenia, Spain and Sweden, as well as Iceland and Norway. It is also available in the EU under the trade names Elsep and Ralenova.

The company that markets these medicines is MEDA.

Why was Novantrone reviewed?

Novantrone has been authorised in the EU via national procedures. This has led to divergences across Member States in the medicine's authorised uses, as seen in the differences in the summaries of product characteristics (SmPCs), labelling and package leaflets.

Novantrone was identified as needing harmonisation by the Co-ordination Group for Mutual Recognition and Decentralised Procedures – Human (CMDh).



On 1 October 2014, the European Commission referred the matter to the CHMP in order to harmonise the marketing authorisations for Novantrone in the EU.

What are the conclusions of the CHMP?

The CHMP, in the light of the data submitted and the scientific discussion within the Committee, considered that the SmPCs, labelling and package leaflets should be harmonised across the EU.

The areas harmonised include:

4.1 Therapeutic indications

The CHMP agreed that Novantrone can be used for the treatment of the following conditions:

- Metastatic breast cancer (breast cancer that has spread to other parts of the body);
- Non-Hodgkin's lymphoma;
- Acute myeloid leukaemia (cancer of a type of white blood cell called myeloid cells);
- 'Blast crisis' in chronic myeloid leukaemia (the final, rapidly progressive stage of another type of cancer of white blood cells);
- Relief of pain in patients with advanced prostate cancer;
- Highly active relapsing multiple sclerosis associated with rapidly evolving disability, in patients for whom no alternative treatments are available.

The CHMP also agreed that Novantrone should no longer be approved for the treatment of acute lymphocytic leukaemia (a cancer of a different type of white blood cells) and liver cancer.

4.2 Posology and method of administration

The CHMP also harmonised the recommendations on how to use Novantrone for the different indications. The recommended dose of Novantrone and the duration of treatment depend on the disease it is used for, whether it is used in combination with other medicines, on the height and weight of the patient, and on the response to treatment. Daily doses vary from 6 to 14 mg per square metre of body surface area (calculated using the patient's height and weight). Novantrone should only be given by infusion into a vein.

4.3 Contra-indications

Mitoxantrone, the active substance in Novantrone, passes into breast milk and has been detected in breast milk for up to one month after the medicine was discontinued. Therefore, to avoid potential serious side effects in breastfed infants, breastfeeding must be discontinued before starting treatment with Novantrone.

Additionally, Novantrone must not be used for the treatment of multiple sclerosis in pregnant women.

Other changes

The Committee also harmonised other sections of the SmPC including sections 4.4 (special warnings and precautions for use), 4.5 (interactions), 4.6 (fertility, pregnancy and lactation), 4.7 (effects on ability to drive and use machines), 4.8 (side effects) and 5.1 (pharmacodynamic properties).

A risk management plan will be developed to ensure that Novantrone is used as safely as possible. As part of this plan, the company will provide educational materials about the use of Novantrone in patients with multiple sclerosis. The educational materials will include a guide and checklist for

healthcare professionals informing of the risks of cardiotoxicity (harm to the heart) and leukaemia with the medicine, and how patients should be monitored. Patients will receive a guide to the risks and an alert card describing the signs and symptoms to watch out for. The company will prepare a survey for healthcare professionals to check how well these materials work.

The amended information to doctors and patients is available [here](#).

The European Commission issued a decision on this opinion on 24/06/2016.