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EMA issues alert on the risk of dosing errors with the cancer medicine Trisenox

The European Medicines Agency (EMA) has recommended the approval of a new presentation of the injectable cancer medicine Trisenox (arsenic trioxide) that contains 2 mg/ml of the active substance in each vial. The new presentation will replace the existing one, which contains 1 mg/ml in each ampoule. In addition, the new vial contains a total volume of 6 ml (and a total content of 12 mg arsenic trioxide) whereas the existing ampoule contains 10 ml (and a total content of 10 mg).

The two strengths will temporarily coexist until the one containing 1 mg/ml has all been used. The Agency is concerned that the coexistence of the two strengths may result in healthcare professionals inadvertently giving their patients too much (overdose) or not enough (underdose) of the active substance. Whereas underdosing may result in an inadequate effect overdose can result in serious and potentially fatal complications such as bleeding, severe infections and cardiac arrest.

EMA is therefore alerting healthcare professionals using Trisenox of the risk of dosing errors and is reminding them to check the strength of the available presentation and follow the instructions for use carefully.

A letter with this information will be sent to healthcare professionals.

Information for healthcare professionals

- A new presentation of Trisenox (vial containing 2 mg/ml arsenic trioxide) will be introduced to replace the existing presentation (ampoule containing 1 mg/ml arsenic trioxide). In addition, the new presentation contains a total volume of 6 ml (and a total content of 12 mg) whereas the existing presentation contains 10 ml (and a total content of 10 mg).
- Both formulations will coexist until stocks of the one containing 1 mg/ml have all been used.
- To avoid any mix-ups while both presentations coexist, healthcare professionals must carefully check the concentration of the available presentation when calculating the volume of Trisenox to withdraw for dilution and infusion to ensure that the patient receives the correct dose of arsenic trioxide.
- To help differentiate between the two presentations, the packages have distinctive features shown below.

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Address for visits and deliveries Refer to www.ema.europa.eu/how-to-find-us
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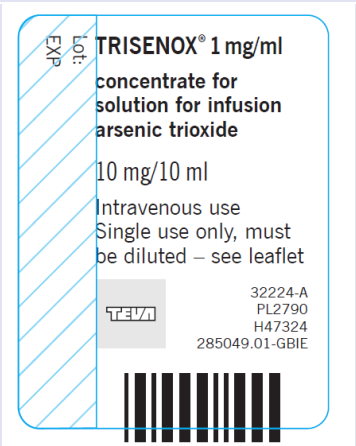
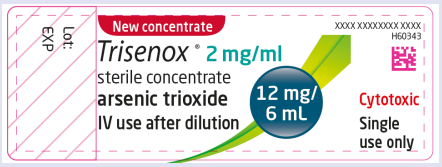
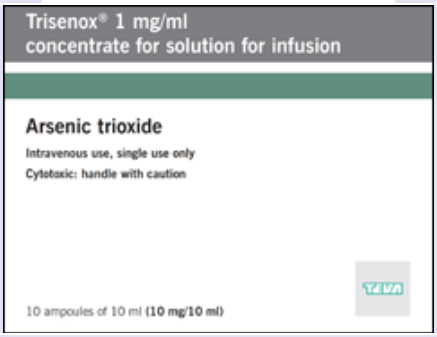
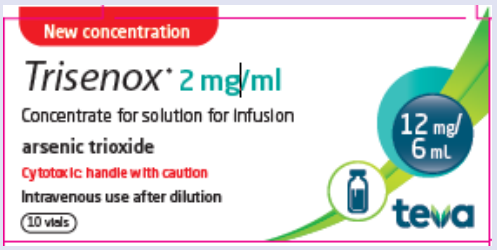
	Current presentation	New presentation
Strength	1 mg/ml	2 mg/ml
Presentation	Ampoule of 10 ml	Vial of 6 ml
Total content	10 mg	12 mg
Label of the immediate container		
Front of the carton		
Dilution	Both should be diluted with 100–250 ml of either glucose 50 mg/ml (5%) solution for injection **or** sodium chloride 9 mg/ml (0.9%) solution for injection	
Administration	After dilution Trisenox is given by an infusion (drip) into a vein over 1 to 2 hours.	

More about the medicine

Trisenox is a medicine used to treat adults with acute promyelocytic leukaemia (APL), a rare form of leukaemia (cancer of the white blood cells) caused by a genetic translocation (when there is a swap of genes between two chromosomes). It is available as a concentrate that is made up into a solution for infusion (drip) into a vein, and contains the active ingredient arsenic trioxide.

Trisenox has been authorised in the European Union since November 2016.

More information on Trisenox can be found on the Agency's website: ema.europa.eu/en/medicines/human/EPAR/trisenox