



Evaluation and Impact of Cytarabine High Dose Interactions for Patients with Acute Leukemia

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DESCRIPTION

Cytarabine is a type of chemotherapy drug and is also known as Ara-C. It kills cancer cells by preventing them from making and repairing the DNA they need to grow and multiply. Cytarabine injections should be supervised by a physician experienced in administering cancer chemotherapy drugs. Cytarabine can cause a sharp decrease in blood cell counts in the bone marrow. Cytarabine belongs to a group of drugs called antimetabolites. It can also be used to treat other types of cancer. Cytarabine inhibits the growth of cancer cells and eventually destroys them. Cytarabine injection can be administered subcutaneously or intrathecally as an intravenous infusion or injection. Some patients experience thrombophlebitis at the site of drug injection or infusion and rarely do patients experience pain and inflammation at the subcutaneous injection site. Cytarabine syndrome may occur about 6 to 12 hours after taking this drug. Cytarabine (also known as Ara-C, Cytosar-U[®]) was first isolated from sponges and is known to kill cancer cells by blocking DNA polymerase function. In 1969, the FDA approved this drug to treat leukemia.

Cytarabine can also affect normal somatic cell growth. Some of these can be serious and should be reported to healthcare professionals. This drug is usually given by a medical professional by injecting it into a vein. It can also be administered by other injection methods depending on the medical condition. The dosage depends on medical condition, height, and response to treatment. Cytarabine is an injectable solution that is usually given intravenously by a hospital veterinarian. It may also be injected subcutaneously. A positive effect can be seen within a few days after administration, and the full effect is seen only after a few weeks. It usually begins on the fifth day after treatment and can last up to a week.

Cytarabine can be administered as an intermittent intravenous dose of 3 to 5 mg/kg daily for 5 consecutive days. This course of treatment can be repeated at intervals of 2-9 days until treatment response or toxicity is demonstrated. Cytarabine is a very high dose, usually given over 5 days. Repeat this about every 4 weeks

for a total of 3-4 cycles. People who received the targeted drug midostaurin (Rydapt) at induction are usually continued during consolidation therapy.

Approximately 23% of fevers were observed within the first 24 hours. The duration of fever is up to 3 days, but there are individual differences. The ara-C injection can cause a syndrome consisting of fever, myalgia, abdominal pain, malaise, and rash. This drug is not recommended for use during pregnancy. Especially the first three months of pregnancy can harm the fetus. An initial dose of Cytarabine is administered by the patient or caregiver and monitored by an outpatient department nurse. Three additional doses of Cytarabine for home administration, along with a supply kit for administration and safe disposal.

The frequency and severity of side effects vary from person to person. It also depends on other treatments. For example, side effects can be worse if a patient is also receiving other drugs or radiation therapy. Each of these effects affects more than 10 out of 100 people (more than 10%). Certain medicines should not be used before or after eating or eating certain types of foods as interactions can occur. The use of alcohol or tobacco and certain drugs can also cause interactions. Cytarabine may also be used to treat certain types of non-Hodgkin's lymphoma (a type of cancer that usually starts in a white blood cell that fights infections). The amount of medicine the patient is taking depends on the strength of the medicine. Also, the number of daily doses, intervals between doses, and duration of use depend on the medical problem for which the drug is being used.

Nausea, vomiting, loss of appetite, diarrhea, headache, dizziness, pain/swelling/redness at the injection site may occur. Nausea and vomiting may become severe. In some cases, drug therapy may be needed to prevent or relieve nausea and vomiting. Not eating before treatment can reduce vomiting. Dietary changes, such as eating smaller portions or limiting activity, can help alleviate some of these effects. If any of these effects persist or worsen, seek immediate medical attention or consult a pharmacist.

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