
Low dose Cytarabine for Acute Myeloid Leukaemia (AML)

A Guide for
Patients

Introduction

Cytarabine (AraC, Cytosine arabinoside) is a drug used in the treatment of some types of Leukaemia, particularly Acute Myeloid Leukaemia (AML). It is supplied in a range of doses, generally referred to as 'high', 'intermediate' and 'low'. 'Low dose Cytarabine' refers to a dosing schedule that is commonly used as non-intensive/palliative chemotherapy treatment for AML.

Booklet compiled by one of our medical writers Saloua Najjam, PhD. and peer reviewed by one of our medical professionals who is specialised in leukaemia therapy, Dr Steven Knapper, University Hospital of Wales, Cardiff. We are also grateful to a leukaemia patient, Julie Quigley, for her valuable contribution.

If you would like any information on the sources used for this booklet, please email communications@leukaemiacare.org.uk for a list of references.

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About Leukaemia Care

Leukaemia Care is a national charity dedicated to ensuring that people affected by blood cancer have access to the right information, advice and support.

Our services

Helpline

Our helpline is available 9.00am - 10.00pm on weekdays and 9.00am - 12.30pm on Saturdays. If you need someone to talk to, call **08088 010 444**

Nurse service

We have two trained nurses on hand to answer your questions and offer advice and support, whether it be through emailing **nurse@leukaemicare.org.uk**, over the phone on **08088 010 444** or via LiveChat.

Patient Information Booklets

We have a number of patient information booklets like this available to anyone who has been affected by a blood cancer. A full list of titles – both disease specific and general information titles – can be found on our

website at **www.leukaemicare.org.uk/resources/filter-by-resource-type/information-booklets**

Support Groups

Our nationwide support groups are a chance to meet and talk to other people who are going through a similar experience. For more information about a support group local to your area, go to **www.leukaemicare.org.uk/our-support-groups**

Buddy Support

We offer one-to-one phone support with volunteers who have had blood cancer themselves or been affected by it in some way. You can speak to someone who knows what you are going through. For more information on how to get a buddy call **08088 010 444** or email **care@leukaemicare.org.uk**

Online Forum

Our online forum, www.healthunlocked.com/leukaemia-care, is a place for people to ask questions anonymously or to join in the discussion with other people in a similar situation.

Patient and carer conferences

Our nationwide conferences provide an opportunity to ask questions and listen to patient speakers and medical professionals who can provide valuable information and support.

Website

You can access up-to-date information on our website, www.leukaemicare.org.uk, as well as speak to one of our care advisers on our online support service, LiveChat (9am-5pm weekdays).

Campaigning and Advocacy

Leukaemia Care is involved in campaigning for patient well-being, NHS funding and drug and treatment availability. If you would like an update on any of the work we are currently doing or want to know how to get involved, email advocacy@leukaemicare.org.uk

Patient magazine

Our free quarterly magazine includes inspirational patient and carer stories as well as informative articles by medical professionals. To subscribe go to www.leukaemicare.org.uk/resources/subscribe-to-journey-magazine

What is Low dose Cytarabine?

Low dose Cytarabine is a drug treatment with a low concentration of the active ingredient, which is the Cytarabine itself.

Cytarabine is one of the major drugs in the treatment of acute myeloid leukaemia (AML) with the aim of inducing remission. Complete remission is when no trace of leukaemia cells can be found in the blood or bone marrow.

Cytarabine is a molecule that interferes with DNA replication leading to less growth and spread of cancer cells in the body (antineoplastic activity). It also has antiviral and immunosuppressant activities. Immunosuppressant activity is when a drug reduces the strength of your body's immune system.



Who receives Low dose Cytarabine?

Low dose Cytarabine can be used alone (monotherapy) or in combination with other antineoplastic drugs in the treatment of patients with Acute myeloid leukaemia (AML). It is virtually only used in palliative treatment of AML.

If you wish to have further information on AML, please view our collection of patient information booklets that are available on our website at www.leukaemiacare.org.uk



How is Low dose Cytarabine administered?

Before starting low dose Cytarabine treatment, your doctor will do a few clinical pre-assessments to confirm your diagnosis and fitness for chemotherapy such as:

- To run a full blood count (FBC) and a blood film.
- To perform a bone marrow aspiration and biopsy.
- For female patients, of childbearing potential a pregnancy test will be carried out to rule out pregnancy before each new chemotherapy course.
- To record your heart's rhythm, using an electrocardiogram (ECG) test to check that your heart is working normally.
- To explain the availability of facilities for management of complications.

You will then need to read and sign a consent form regarding the receipt of verbal and written

information in relation to your disease, treatment and potential side effects.

Low dose Cytarabine is a drug that can be given to patients as a solution through:

- Subcutaneous administration (injection under the skin - this is the most common route).
- Intravenous administration (by infusion or injection) directly into a vein.

The course of low dose Cytarabine

The most common schedule for administering low dose cytarabine is as a subcutaneous injection (under the skin) given twice-daily for 10 consecutive days. Sometimes it may be possible for these injections to be given in the patient's home by a district nurse or family member.

Generally, if the treatment is

well-tolerated by the patient, and it leads to a stabilisation or improvement in the underlying AML, then these 10-day courses are repeated at intervals of four to six weeks.

Low dose Cytarabine is rapidly broken down (metabolised). After intravenous administration of the drug, blood levels fall to unmeasurable levels within about 15 minutes in most patients. Some patients have been seen to circulate the drug around their body in as little as five minutes after injection.

Low dose Cytarabine is metabolised primarily by the liver and perhaps by the kidney to produce an enzyme known as arabinofuranosyl uracil. There is only about 6% of the active form which is excreted in urine within 12 to 24 hours.

What are the side effects of Low dose Cytarabine?

This treatment can have serious or possibly life-threatening side effects. Therefore, it is very important that you report side effects straight away.

Chemotherapy is the most commonly prescribed anti-cancer treatment but while you are having it, you are vulnerable to infections. Symptoms of infection like fever, shivering, discomfort when you pass urine, sweats, sore throat, diarrhoea, cough or breathless should be reported to your doctor or nurse to prevent them becoming life threatening if they are untreated.

Everyone will experience differently the side effects from this induction chemotherapy. Although you may experience them occasionally, it is important to report them, so your nurse is able to monitor them and where possible, have them treated. You will have a routine blood test to monitor the effects of the chemotherapy.

Very common side effects:

- Bruising and bleeding
- Anaemia confirmed by a low number of red blood cells

Common side effects:

- Nausea and diarrhoea
- General disorders like lethargy (feeling tired and lacking in energy)
- Skin irritation around the administration site
- Sore mouth
- Taste changes

What happens if Low dose Cytarabine doesn't work for me?

If the results after a few weeks of having your treatment are not promising, your consultant will consider alternatives. One of them will be to find similar drugs to Cytarabine that have the same function of killing leukaemia cells. Your doctor will discuss in more detail how the similar drug works, the way of having it administered and its side effects.

Other than Cytarabine, there are a range of licensed standardised drugs that could be given in the non-intensive treatment of AML including azacytidine, hydroxycarbamide and etoposide. There may also be clinical trials available.

Overall, following the outcome of your treatment with low dose Cytarabine, your consultant is the best person to discuss with and decide on the next step to take.

Leukaemia Care offers nationwide support groups for people affected by a diagnosis of a blood or lymphatic cancer. Visit www.leukaemiacare.org.uk, or call **08088 010 444**, to find out more and to find a group near you.

Glossary

Acute myeloid leukaemia (AML)

A blood cancer which affects the myeloid cells, which include red cells, platelets and some white blood cells.

Anaemia

A medical condition in which the red blood cell count or haemoglobin is less than normal.

Antineoplastic

A type of drug that inhibits or prevents the growth and spread of tumours or malignant cells.

Chemotherapy

A type of cancer treatment that uses one or more drugs with powerful chemical to kill growing cancer cells.

Leukaemia

A cancer of the blood with many different subtypes. Some forms are acute (develop quickly) and others are chronic (develop slowly). Leukaemia is an excess number of abnormal cells in the blood, usually white blood cells, which stop the bone marrow working properly.

Useful contacts and further support

There are a number of helpful sources to support you during your diagnosis, treatment and beyond, including:

- Your haematologist and healthcare team
- Your family and friends
- Your psychologist (ask your haematologist or CNS for a referral)
- Reliable online sources, such as Leukaemia Care
- Charitable organisations

There are a number of organisations, including ourselves, who provide expert advice and information.

Leukaemia Care

We are a charity dedicated to supporting anyone affected by the diagnosis of any blood cancer.

We provide emotional support through a range of support services including a helpline, patient and carer conferences, support group, informative website, one-to-one buddy service and high-quality patient information. We also have a nurse on our help line for any medical queries relating to your diagnosis.

Helpline: **08088 010 444**
www.leukaemiacare.org.uk
care@leukaemiacare.org.uk

Bloodwise

Bloodwise is the leading charity into the research of blood cancers. They offer support to patients, their family and friends through patient services.

020 7504 2200
www.bloodwise.org.uk

Cancer Research UK

Cancer Research UK is a leading charity dedicated to cancer research.

0808 800 4040
www.cancerresearchuk.org

Macmillan

Macmillan provides free practical, medical and financial support for people facing cancer.

0808 808 0000
www.macmillan.org.uk

Maggie's Centres

Maggie's offers free practical, emotional and social support to people with cancer and their families and friends.

0300 123 1801
www.maggiescentres.org

Citizens Advice Bureau (CAB)

Offers advice on benefits and financial assistance.

08444 111 444
www.adviceguide.org.uk

Leukaemia Care is a national charity dedicated to providing information, advice and support to anyone affected by a blood cancer.

Around 34,000 new cases of blood cancer are diagnosed in the UK each year. We are here to support you, whether you're a patient, carer or family member.

Want to talk?

Helpline: **08088 010 444**

(free from landlines and all major mobile networks)

Office Line: **01905 755977**

www.leukaemicare.org.uk

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Leukaemia Care
YOUR Blood Cancer Charity

