Liposomal daunorubicin + cytarabine

Liposomal daunorubicin + cytarabine is a combination of medicines that can be used to treat some people with acute myeloid leukaemia (AML).

Summary

- Liposomal daunorubicin + cytarabine is a combination of chemotherapy medicines. They are used to treat some adults with acute myeloid leukaemia (AML).
- You have treatment in cycles that take 5 to 8 weeks. You have two or three doses of liposomal daunorubicin + cytarabine during the first week of each cycle.
- You have it through a drip into a vein.
- You will have regular blood tests to check how well the treatment is working and how your body is coping with it.
- You may get some side effects while you are having liposomal daunorubicin + cytarabine. Some people have very few side effects, whereas other people experience more serious side effects.
- Some side effects can be serious if not treated promptly. Contact your haematology team straight away if:
    - You have a high temperature (38°C or higher).
    - You have a sore throat, sneezing, blocked or runny nose or cough.
    - You have an itchy nose, throat and eyes.
    - You have a headache or pain around your eyes, nose and forehead.
    - You have burning or stinging when you pee, or are peeing more often.
    - You have painful, hot, red swollen areas of skin, blistering or peeling skin. This may look different on black or brown skin.
    - You have coldsores around your lips, mouth or tongue.
    - You have red patches, ulcers, loss of taste or pain, burning or swelling in your mouth.
    - You have dizziness, an irregular heartbeat, shortness of breath, chest pain or swelling in your legs, ankles and feet.
    - You get unexpected bruising or bleeding like nosebleeds, bleeding gums, blood spots or rashes.

Download our leaflet about liposomal daunorubicin + cytarabine

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Helpline: 08088 010 444

About liposomal daunorubicin + cytarabine

Liposomal daunorubicin + cytarabine is a combination of two medicines. They are packaged together in tiny droplets of fat. This helps the medicines stay in your bone marrow for longer and helps them enter and kill the cancer cells.

The brand name for liposomal daunorubicin + cytarabine is Vyxeos. You might hear some people call it liposomal DA, L-DA or CPX351.

Your haematology team might recommend it for you if:

- You are able to have high intensity treatment **AND**
- You have AML caused by previous treatments (therapy-related AML) **OR**
- You have AML with certain changes in your bone marrow (AML with myelodysplasia-related changes)

Daunorubicin

Daunorubicin is a chemotherapy medicine. It blocks an enzyme that cells need to divide and grow. Blocking this enzyme can help stop cancer cells from growing and dividing.

Cytarabine

Cytarabine is a chemotherapy medicine. It stops your cancer cells from making and repairing DNA. This can stop cancer cells from growing and dividing.

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Before having this treatment

Before you start treatment, your medical team will carry out tests to make sure it is suitable for you.

These might include:

- Blood tests to measure your blood counts
- Blood tests to check your liver and kidney function
- A pregnancy test
- A heart tracing (ECG) to check the electrical activity of your heart
- A heart scan

Things to tell your haematology team

Before starting treatment, you should let your haematology team know if you:

- Are taking any other medicines or herbal supplements
- Are due to have any vaccines
- Have ever had a heart attack or heart problems
- Have ever had problems with your kidneys or liver
- Have ever had a condition known as Wilson's disease or other copper-related disorder
- Are or think you might be pregnant

> **Studies in animals found that liposomal daunorubicin + cytarabine may affect sperm. Scientists do not know if this is the same for humans. If you were born male and you may want to have children in the future, tell your medical team. They can give you advice on sperm storage before starting treatment.**

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Having your treatment

You have liposomal daunorubicin + cytarabine through a drip into a vein. You may have it through a central line if you have one.



A central line is a long, thin plastic tube that enters the skin in your arm or your chest. It runs underneath your skin and ends in a large vein near your heart. It can be used to give treatments straight into your veins, and to take blood samples.

A doctor or nurse will give you the drip. It usually takes around 90 minutes to have each dose.

You will have treatment in cycles, with time in between for your bone marrow to recover. This usually takes 5 to 8 weeks. The number of doses you have and when you have them depends on how many cycles you have had.

You usually stay in hospital to have your first cycle of treatment. You usually have the rest of your cycles as an outpatient.

- Induction: You have treatment on day 1, day 3 and day 5
- Second induction (if you need it): You have treatment on day 1 and day 3
- Consolidation (if you need it): You have treatment on day 1 and day 3

Dose

Your haematology team will work out the best dose of liposomal daunorubicin + cytarabine for you. Your dose will be based on your height, weight and how well you respond to treatment. They will tell you what dose they recommend for you.

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Precautions

Liposomal daunorubicin + cytarabine may make you feel tired. You may also feel weak or find it difficult to concentrate. Take care if you are driving or using tools or machinery.

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Pregnancy, breastfeeding and fertility

Liposomal daunorubicin + cytarabine may harm unborn babies.

- If you could get pregnant, it is important to use effective contraception. You need to do this while you are having treatment and for 6 months after you stop.
- If you could make someone pregnant, it is important to use effective contraception. You need to do this while you are having treatment and for 6 months after you stop.
- If you think you might be pregnant, tell your haematology team as soon as possible. They may recommend stopping treatment for a while. They could also recommend switching to a different treatment.
- If you are planning to get pregnant, or make someone pregnant, tell your haematology team. They can discuss your treatment options with you.

Breastfeeding

Scientists are not sure if liposomal daunorubicin + cytarabine passes into breast milk. If it does, it could be a risk for breastfed babies or children. You should not breastfeed when having liposomal daunorubicin + cytarabine.

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Monitoring

During your treatment you will have blood tests:

- Before you start your treatment
- After each treatment course
- Regularly throughout your treatment, possibly several times a week

You may also have bone marrow tests, heart tests and other tests. Your medical team will let you know what tests you need and how often.

Your medical team will use the results of these tests to:

- Check how well liposomal daunorubicin + cytarabine is working for you
- Make sure your blood counts have not dropped too low
- Check how well your heart is working
- Check how well your liver and kidneys are working
- Check the level of uric acid in your blood

Tumour lysis syndrome

Chemotherapy kills cancer cells. When lots of cancer cells breakdown quickly, they can release a large amount of chemicals into your blood. This is known as tumour lysis syndrome. It can affect how well your kidneys work. It can also cause changes to your heartbeat and sometimes cause fits (seizures).

If you have a very high leukaemia cell count before treatment, you might have medicine to help prevent tumour lysis syndrome. Your medical team will also monitor you closely. If tumour lysis syndrome develops, they can treat it quickly.

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How long to have this treatment

The number of cycles you have depends on how you respond to treatment and how well your body is coping with it. You have a maximum of two induction and two consolidation cycles.

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Side effects

You may get some side effects while you are having liposomal daunorubicin + cytarabine. Some people may have very few side effects, whereas other people may experience more serious side effects.

> **Tell your haematology team if you get any side effects. They may be able to suggest things to help.**

If you are getting side effects that are difficult to cope with, your medical team might suggest:

- Temporarily stopping your treatment
- Lowering your dose of liposomal daunorubicin + cytarabine
- Changing the timing of your treatment courses

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Serious side effects

> **The following side effects may be serious and require urgent treatment. Contact your doctor or nurse straight away if you have any of these side effects.**

The most common serious side effects for people having liposomal daunorubicin + cytarabine include:

- Infections. Signs of infection include:
    - A high temperature (38°C or higher)
    - Sore throat, sneezing, blocked or runny nose or cough
    - Itchy nose, throat and eyes
    - Headache or pain around your eyes, nose and forehead
    - Shortness of breath
    - Burning or stinging when you pee, or peeing more often than usual
    - Painful, hot, red swollen area of skin, blisters or peeling of skin (this may look different on black or brown skin)
    - Coldsores around your lips, mouth or tongue
    - Red or white patches, ulcers, loss of taste or pain, burning or swelling in your mouth
    - Diarrhoea or tummy aches
- Heart damage. You may get symptoms like:
    - Dizziness
    - An irregular, fast heartbeat
    - Shortness of breath
    - Chest pain
    - Swelling, due to a build-up of fluid, in your legs, ankles and feet
- Unexpected bruising or bleeding like nosebleeds, bleeding gums, blood spots or rashes

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Very common side effects

Very common side effects affect more than 10 in every 100 people who are having liposomal daunorubicin + cytarabine.

Very common side effects include:

- A high temperature (higher than 38°C) with a low white blood cell count (febrile neutropenia). You might also feel shivery or generally unwell.

- An allergic reaction. You may get a rash, dry, itchy skin, swelling, wheezing, or itchy and watery eyes.
- Sleep problems. You might find it hard to get to sleep or stay asleep. This can lead to you feeling irritable or having trouble concentrating.
- Anxiety.
- Confusion, drowsiness and memory problems.
- Headache.
- Dizziness.
- Problems with your vision.
- An irregular, fast or slow heartbeat.
- Chest pain.
- Low blood pressure.
- High blood pressure.
- Shortness of breath.
- Cough.
- A build-up of fluid around your lungs. This can cause chest pain, cough, fever and chills, shortness of breath and rapid breathing.
- Feeling sick or being sick.
- Diarrhoea.
- A dry or sore mouth, mouth ulcers.
- Constipation.
- Tummy pain.
- Decreased appetite.
- Itchy skin.
- Excessive sweating.
- Pain in your muscles, bones and joints.
- Kidney failure. Symptoms include fatigue, feeling sick, being sick, swelling, peeing more often, cramps and loss of appetite.
- Swelling due to a build-up of fluid.
- Fatigue.
- Chills.
- Fever.

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Common side effects

Common side effects affect more than 1 but less than 10 out of every 100 people who are having liposomal daunorubicin + cytarabine.

Common side effects include:

- A low platelet count. This might lead to unexpected bruising or bleeding like nosebleeds, bleeding gums, blood spots or rashes.
- A low white blood cell count. This can make you more likely to get infections. And any infections you get might be more serious.
- A low red blood cell count (anaemia). This can cause you to feel tired, dizzy or short of breath.
- Tumour lysis syndrome.
- Indigestion.
- Night sweats.
- Hair loss.

If you are worried about any side effects or symptoms you have, contact your medical team.

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If this treatment does not work

If liposomal daunorubicin + cytarabine are not working well, your medical team might suggest:

- Altering your treatment cycle
- Altering your dose
- Stopping treatment if your blood counts drop

If this is not suitable for you, or does not work, they will talk to you about your treatment options.

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Sources we used to develop this information

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Need support?

You are not alone. We're here for you whether you have a diagnosis yourself or know someone who has. If you'd like advice, support, or a listening ear, call our freephone helpline on 08088 010 444 or send a WhatsApp message to 07500 068 065.

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Page last reviewed: 31 January 2025
Updated February 2026
Next review due: 31 January 2028

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