MEDICINE INFORMATION

Fludarabine and melphalan conditioning

What to expect from a reduced-intensity donor transplant plan using fludarabine and melphalan, including mouth care and follow-up.

At a glance

Treatment	Fludarabine + Melphalan
When it may be used	This combination is one reduced-intensity conditioning option.
How it is given	Fludarabine and melphalan are given by drip into a vein before the donor stem cell infusion.
Before you start	Tell the team about kidney problems, recent infections and any pain in the mouth or teeth.

What this treatment is and how it works

The medicines prepare your marrow and immune system before stem cells from a donor are infused. This is called conditioning.

When it may be used

Reduced intensity refers to the strength of the conditioning treatment. You will still need close monitoring and support.

Before treatment

Ask about the admission calendar, fertility and mouth care before you start.

How treatment is given

The drugs are given through a vein before transplant day. Some units offer ice chips around melphalan to reduce mouth soreness. Ask whether this is suitable for you.

Tests and monitoring during treatment

The team checks counts, kidney and liver function, temperature and nutrition. They also monitor for infection and, after transplant, for problems caused by donor immune cells.

If you need a blood transfusion

Fludarabine and a donor stem cell transplant both affect which blood components you need. If you need red cells or platelets, tell the transfusion team about your treatment so they can arrange irradiated components. These are specially treated before transfusion to prevent a rare, serious reaction. Ask how long the precaution applies and whether you should carry a transfusion alert card or letter.

Side effects

Common or more frequent side effects

- **Very low blood counts.** There is a period after conditioning when the marrow makes few new blood cells. During this time the team watches for infection and bleeding and may give transfusions. Ask which blood counts the team is watching before discharge. Use the transplant unit's contact instructions even if your temperature is normal and you feel suddenly unwell.
- **Sore mouth or throat.** The lining of the mouth and throat can become sore enough to make drinking or swallowing medicine uncomfortable. Tell the ward early so it can offer pain relief and assess your intake. Your team may also use fluids or nutrition support for a period while the lining heals.
- **Diarrhoea, poor appetite and nausea.** Tell the nurses how many loose stools you are having and if you are drinking less. They may check for common causes and help replace lost fluid. Ask about foods that are easier to tolerate. After a donor transplant, persistently loose stools or abdominal cramping may also need an assessment for graft-versus-host disease.

Other reported side effects

Report pain swallowing early so the team can plan pain relief, fluids or nutrition support. Tell staff about new rash or pain passing urine.

Serious effects to recognise

- **Possible graft-versus-host disease after a donor transplant.** Contact the transplant unit for a spreading rash, watery diarrhoea or jaundice. These changes have several possible causes. The team can check for infection or donor immune cells reacting against tissues and decide which treatment is needed.

Infection and bleeding can become serious while your blood counts are low.

When to seek urgent help

Tell staff or call the transplant team urgently for fever, chills, persistent diarrhoea, rash, yellow eyes, bleeding or inability to drink. Follow your hospital's written temperature instructions. If you have no written threshold, call at 37.5°C (99.5°F) or above, or below 36°C (96.8°F). Call if you feel very unwell even when your temperature is normal.

Seek emergency care for severe breathing difficulty, swelling of the face or throat, chest pain, collapse or bleeding that will not stop.

Practical advice for this treatment

Prepare for sore mouth and throat

Melphalan can make the mouth lining sore. Ask the ward about its mouth-care routine and whether cooling the mouth with ice during melphalan is suitable. Tell the team if you are swallowing less because of pain, so it can offer relief and help maintain fluids or nutrition.

Understand what happens around the stem cells

Fludarabine and melphalan are given before donor cells. A different group of medicines may be given around or after the infusion to lower graft-versus-host disease risk. Check the calendar, especially if there are medicines you need to start or continue at home.

Speak up about changes in drinking and bowel habits

Let the team know about diarrhoea, vomiting, less urine or new dizziness. After transplant, diarrhoea can have several causes and may need tests. Use the unit number if symptoms occur between visits and check before taking anti-diarrhoea medicines on your own.

Medicines, interactions and vaccinations

Check with the transplant pharmacist before starting or stopping medicines. Ask what to take for infection prevention and when to restart vaccinations.

Everyday life

Ask about a mouth care kit and what to eat when swallowing hurts. Share the urgent number with anyone helping you after discharge.

Pregnancy, fertility and breastfeeding

Discuss fertility preservation before conditioning and get written advice for contraception and breastfeeding after the transplant.

After treatment

Ask how the team will follow the recovery of counts and donor cells, and which medicines you will need after going home.

Frequently asked questions

Does reduced intensity mean I can skip follow-up?

Close monitoring is important with every donor transplant. Follow the team’s planned checks.

How can I prepare for mouth soreness?

Ask about mouth care and whether ice chips around melphalan are suitable.

Why am I asked about diarrhoea after transplant?

Diarrhoea can have several causes, including infection and a reaction from donor cells.

Do I need transfusions?

Your team may recommend red cell or platelet transfusions while counts are low.

When can I eat and drink normally?

Ask for advice based on mouth symptoms, infection precautions and your transplant centre's guidance.

Who do I call after discharge?

Keep the transplant team's urgent number and discharge instructions where you can find them quickly.

How can I help staff prepare if I need a transfusion elsewhere?

Show your transplant card or letter and tell the team you received fludarabine and donor stem cells. Your transplant team can confirm which blood components need special preparation and how long this applies.

Individual medicine guides

- Fludarabine
- Melphalan

Sources and further reading

Read this guide alongside your hospital's plan. Ask your pharmacist to confirm the exact product dispensed in India and follow the instructions for that product.

Summary of Product Characteristics (SmPC) and prescribing information

- Fludarabine phosphate injection or infusion - Irish HPRA SmPC
- Melphalan injection - UK SmPC
- Fludarabine injection - US prescribing information

Clinical protocols and other references

- eviQ FluMel clinical protocol
- eviQ reduced-intensity fludarabine and melphalan conditioning
- British Society for Haematology guideline on irradiated blood components
- Canadian National Advisory Committee recommendations on irradiated blood components

Additional sources

- eviQ patient guide for fludarabine and melphalan

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