MEDICINE INFORMATION

VDC chemotherapy for Ewing sarcoma

What to expect from VDC, including how it can alternate with IE for Ewing sarcoma and when to report constipation or nerve symptoms.

At a glance

Treatment	Vincristine + Doxorubicin + Cyclophosphamide
When it may be used	VDC is used in some Ewing sarcoma treatment plans, often alternating with ifosfamide and etoposide (IE).
How it is given	Vincristine, doxorubicin and cyclophosphamide are all given through a vein.
Before you start	Tell the team about heart or bladder problems, previous chemotherapy, constipation and numbness or weakness.

What this treatment is and how it works

VDC uses three chemotherapy medicines. They disrupt cell division or damage the genetic material that cells need to grow.

When it may be used

Ask where surgery or radiotherapy fits for you.

Before treatment

Ask if you need a baseline heart scan and for a bowel plan.

How treatment is given

Your calendar shows which visits are for VDC or IE. The team may give fluids, bladder protection and a white-cell support injection according to your plan.

Tests and monitoring during treatment

Blood counts and kidney and liver tests are checked. The team can repeat a heart scan and ask about bowel movements, nerve symptoms and bladder changes.

Side effects

Common or more frequent side effects

- **Changes in blood counts.** Treatment can lower the white cells that fight infection, the red cells that carry oxygen and the platelets that stop bleeding. You may feel tired or get breathless sooner than usual. Let the unit know about nosebleeds, new bruises or small red or purple spots. Fever or shaking chills needs a call to the urgent number even if your next blood test is already booked.
- **Constipation and nerve symptoms.** Some drugs in this regimen can slow your bowel and affect nerves. Write down how often you pass stools, and tell the team about tingling, weakness or a change in your balance. Ask about a bowel plan if you already take medicines that contribute to constipation. With severe belly pain, vomiting or a swollen abdomen, call urgently.
- **Urine colour after doxorubicin.** Doxorubicin can colour the urine red or orange temporarily. Pain, clots or urine that stays red need an assessment. Call the team if you are unsure whether the colour is from the medicine or if you see blood. The team will want to know when you last received the infusion.
- **Sore mouth and changes in eating.** Your mouth may feel tender or dry, and some foods may sting. A soft toothbrush and the mouth care your unit recommends can help. Tell the team about ulcers, a white coating, or trouble swallowing so it can assess for mouth infection and help with pain. If you cannot drink enough, contact the unit promptly.

Other reported side effects

Doxorubicin can briefly turn urine pink or red. Report blood in urine, pain passing urine or a persistent change. Tell the nurse about stinging or swelling at the drip site.

Serious effects to recognise

- **Pain or swelling at the infusion site.** Some of the medicines used in this regimen can damage skin and tissue if they leak outside a vein. Tell staff immediately about burning, stinging, tightness, leaking fluid or swelling during a drip. Contact the unit if the site changes after you go home.
- **Effects on heart function.** Doxorubicin can affect the way the heart pumps during or after treatment. Tell the team about swelling, shortness of breath when lying flat or becoming more breathless doing usual activities. Check whether you need a heart scan or follow-up even when you feel well.

Severe constipation, bladder symptoms or signs of infection require prompt advice.

When to seek urgent help

Call your hospital’s 24-hour cancer care number straight away for fever, chills, severe constipation with pain or vomiting, blood in urine, bleeding or new breathlessness. 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

Make the alternating plan clear

For Ewing sarcoma, VDC often alternates with ifosfamide and etoposide (IE). Keep both names in your calendar so you can check which prevention medicines and tests apply to each visit. Ask your sarcoma team how surgery or radiotherapy fits in and which doctor will explain changes to the plan.

Report nerve and bowel symptoms early

Vincristine can cause tingling, weakness and constipation. Tell the team about tripping, weak ankles, problems with handwriting or a change in bowel movements. Ask which laxative to use if one is needed. Severe belly pain with vomiting or a swollen abdomen needs prompt assessment.

Check urine and the drip site

Doxorubicin can change urine colour temporarily. Cyclophosphamide can irritate the bladder. Call for blood, clots or pain on urinating, particularly if you are unsure about the cause. During the drip, report burning, swelling or pain at the line promptly.

Medicines, interactions and vaccinations

Ask before taking new medicines, including laxatives or supplements. Check with the team before vaccines. Let them know if someone prescribes an antifungal medicine.

Everyday life

Let the team know if numbness affects writing, gripping, walking or school activities. Ask whether a dietitian, physiotherapist or school support team can help.

Pregnancy, fertility and breastfeeding

Talk about fertility preservation before treatment. Ask for the written contraception and breastfeeding advice where relevant.

After treatment

Ask what monitoring continues after VDC, especially heart checks and assessment of nerve symptoms. Keep a record of which cycles you received.

Frequently asked questions

What is IE on the calendar?

It means ifosfamide and etoposide, a different block that may alternate with VDC.

Should I report constipation before it becomes painful?

Yes. Ask for help early because vincristine can slow the bowel.

Why do I need a heart scan?

Doxorubicin can affect the heart. A scan before treatment shows how well it pumps, and another may be needed during or after treatment. Tell your team about earlier doxorubicin or chest radiation so it can plan monitoring.

What if my urine turns red?

Doxorubicin may briefly change its colour. Call for pain, visible blood or a persistent change.

Why might I need a white-cell injection?

If prescribed, it supports recovery of the cells that fight infection.

Which nerve symptoms should I mention?

Tingling, numbness, new weakness, falls or trouble using your hands.

Individual medicine guides

- Vincristine
- Doxorubicin
- Cyclophosphamide

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

- Vincristine injection - UK SmPC
- Conventional doxorubicin injection - UK SmPC
- Cyclophosphamide injection - UK SmPC

Clinical protocols and other references

- eviQ VDC clinical protocol
- eviQ VDC protocol for Ewing sarcoma

Additional sources

- eviQ patient guide for VDC
- Cancer Research UK patient information for VDC/IE

Editorially approved by Dr (Prof) Vijay Agarwal

Professor and Lead Consultant - Medical Oncology

Review record updated: 14 November 2026 · Editorial review policy