MEDICINE INFORMATION

IVA chemotherapy for rhabdomyosarcoma

A guide for patients and caregivers on IVA, including bladder protection, constipation and treatment alongside surgery or radiotherapy.

At a glance

Treatment	Ifosfamide + Vincristine + Dactinomycin
When it may be used	IVA is used in some treatment plans for rhabdomyosarcoma.
How it is given	Your child receives ifosfamide, vincristine and dactinomycin through a vein.
Before you start	Tell your team about constipation, numbness or weakness, kidney or bladder problems and past reactions to chemotherapy.

What this treatment is and how it works

IVA combines three chemotherapy medicines. Dactinomycin is also called actinomycin D.

When it may be used

The team considers the tumour site, test results and other treatments when deciding the schedule.

Before treatment

Tell your team about constipation, numbness or weakness, kidney or bladder problems and past reactions to chemotherapy. Ask who coordinates surgery or radiotherapy.

How treatment is given

The medicines are given through a vein. Ifosfamide is given with fluids and mesna, which helps protect the bladder. Ask how many days the treatment visit takes.

Tests and monitoring during treatment

Blood counts, kidney and liver tests, urine and alertness may be checked. Report fewer bowel movements, changes in hand use or balance, and new pain passing urine.

Side effects

Common or more frequent side effects

- **Changes in blood counts.** A child with fewer white blood cells can develop an infection quickly. Children may seem unusually quiet, shake with cold or refuse food before they can say what hurts. Acute bleeding, unexplained bruising or marked tiredness can also reflect low platelets or red cells. Agree who will call the unit if your child becomes unwell when you are not with them.

- **Constipation and changes in movement.** Vincristine can slow the bowel or affect nerves in the hands and feet. A child might avoid walking or stop enjoying usual activities. Let the team know about constipation, weakness, tripping or jaw pain. Ask whom to call if there is severe tummy pain, vomiting or visible swelling of the belly.
- **Urine changes.** During ifosfamide, your child's team may check urine and give fluids and mesna to protect the bladder. Report pain or blood when your child passes urine, even after mesna. Call if your child passes much less urine or develops swelling.
- **Sore mouth and changes in eating.** Your child's mouth may become sore or dry. A soft toothbrush and the mouth care recommended by the team may help. Tell the team about ulcers, white patches, difficulty swallowing or drinking less than usual.

Other reported side effects

Tell the nurse promptly about burning or swelling around the drip site. The team may adjust dactinomycin around radiotherapy.

Serious effects to recognise

- **Changes in alertness or behaviour.** Ifosfamide can affect the brain. Tell staff immediately if your child becomes confused, unusually sleepy or sees things that are not there. Note when symptoms began. A seizure or difficulty waking needs emergency care.
- **Pain or swelling at the infusion site.** Tell the nurse immediately if your child reports burning or stinging, or if you notice fluid leaking or new swelling near the line. Call the unit if the site changes after you take your child home.

Contact the team urgently if your child has severe constipation with vomiting or a swollen tummy.

When to seek urgent help

Call your hospital's 24-hour cancer care number straight away for fever, chills, unusual sleepiness, confusion, blood in urine, or severe constipation with a swollen belly or vomiting. Follow the written temperature instructions from your child's team. If the team has given you no written threshold, call at 37.5°C (99.5°F) or above, or below 36°C (96.8°F). Call if your child seems very unwell even when their 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

Ask how chemotherapy fits around local treatment

For some rhabdomyosarcoma plans, IVA is coordinated with surgery and radiotherapy. Check who reviews response and when appointments for those treatments are expected. Tell the team about travel, school or childcare concerns early, because ifosfamide may require a long visit or admission.

Keep an eye on fluids, urine and behaviour

Mesna helps protect the bladder during ifosfamide. Follow the prescribed timing and report painful urination or blood in the urine. Alert the team immediately if your child becomes unusually sleepy, confused or seems to see things that are not there. Make sure a second caregiver knows who to call.

Report constipation, weakness and swelling at the line

Vincristine can affect walking, finger movements and bowel habits. Ask about managing constipation before it causes pain. While dactinomycin is being given, report any stinging, redness or swelling at the line immediately.

Medicines, interactions and vaccinations

Ask before giving your child new sedatives, antifungals, laxatives or supplements. Check with the team before vaccines.

Everyday life

Ask for a bowel plan and tell other caregivers what unusual sleepiness can look like. Keep a copy of the calendar and mesna instructions.

Pregnancy, fertility and breastfeeding

Ask about fertility preservation and age-appropriate contraception precautions. If relevant, get written breastfeeding advice.

After treatment

Ask when tests will guide surgery, radiotherapy or further chemotherapy. Report any ongoing nerve, kidney or bladder problems.

Frequently asked questions

What is the difference between IVA and VAC?

IVA uses ifosfamide. In the rhabdomyosarcoma VAC guide, cyclophosphamide is used instead. Both include vincristine and dactinomycin. The written plan tells you which drug is given and the schedule for bladder protection and urine checks.

Why is my child given mesna?

It protects the bladder from some effects of ifosfamide.

Which changes in alertness matter?

Unusual sleepiness, confusion or seeing things that are not there need immediate assessment.

Why are my child’s bowel movements monitored?

Vincristine can slow the bowel and constipation is easier to manage early.

Can dactinomycin affect radiotherapy side effects?

It can. Ask how your two teams coordinate treatment.

What if I see blood in my child’s urine?

Call the unit urgently or tell a nurse immediately if your child is in hospital.

Individual medicine guides

- Ifosfamide
- Vincristine
- Dactinomycin

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

- Ifosfamide injection - UK SmPC
- Vincristine injection - UK SmPC
- Dactinomycin (Cosmegen) - UK SmPC
- Mesna injection - UK SmPC
- Mesna tablets - UK SmPC

Additional sources

- NCI rhabdomyosarcoma treatment evidence

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