

Mesna for children and young people

An information guide for parents, carers and young adult patients

The purpose of this guide is to give information about the use of mesna to parents, carers and young people undergoing treatment for cancer.

Please read this guide carefully alongside any patient information provided by the manufacturer. We have written this guide to give you more information about the use of this medicine in children and young people. Keep it somewhere safe so you can read it again.

What is mesna?

Mesna is not a chemotherapy drug, but it is given together with cyclophosphamide or ifosfamide to protect the bladder from irritation and inflammation which can occur with these two drugs. This irritation can cause the bladder lining to bleed and this may be shown as blood in urine (wee). This is called 'haematuria'. Mesna is used together with intravenous (IV) fluids, as it is very important to encourage regular emptying of the bladder and reduce the risk of irritation.

Mesna is always given with ifosfamide. Mesna will only be needed with cyclophosphamide if the dose is high enough to cause bladder irritation. Your medical team will let you know when mesna is needed.

How is mesna given?

Mesna is usually given directly into a vein. This is called an 'intravenous' or 'IV' infusion. It is usually given through a central or PICC line, or implantable port. Your medical team will talk to you about which is most appropriate.

Mesna can be given as a short bolus injection, a short infusion or an infusion over 24 hours. Your medical team will discuss with you how mesna will be given.

Mesna is usually started before the ifosfamide or cyclophosphamide and will continue until 12 to 24 hours after the last dose. The fluids will be given alongside.

While mesna is being given with either ifosfamide or cyclophosphamide, wee will be tested for any signs of blood using dipsticks. If any blood is found in the wee, the dose of mesna may need to be changed and more intravenous fluids may be needed. Please inform your medical team if there is any blood in wee or any pain while weeing.

Mesna is not usually given with lower doses of cyclophosphamide. If problems with blood in wee and irritation of the bladder have happened with low doses of cyclophosphamide, your medical team may recommend mesna with further doses of cyclophosphamide.

In some cases mesna may be given as a tablet or liquid to drink. Your medical team will advise if this is suitable.

Mesna tablets contain lactose. It is important to tell your doctor about any lactose allergies.

Are there any side effects?

It is important to remember that everyone reacts differently to medication. Some will have very few side effects whilst others will have more. The side effects listed below will not affect everyone who is given mesna and may be different if more than one chemotherapy drug is given.

It is often difficult to know which side effects may be caused by mesna and which ones may be caused by the chemotherapy.

What are the common side effects?

Nausea (feeling sick) and vomiting (being sick)

Anti-sickness medicines will be given with the chemotherapy to reduce or prevent these symptoms. These medicines will continue throughout each treatment cycle containing chemotherapy.

If sickness or feeling sick continues, talk to your team as they may be able to change the anti-sickness medicines. It is very important to avoid becoming dehydrated, so if sickness or diarrhoea continue to be a problem once home, contact your medical team for advice.

Headaches

If headaches develop, contact your medical team for advice.

Feeling tired and achy

This treatment can cause more tiredness than usual. Tiredness may become worse towards the end of the treatment. Try to allow time to rest each day. Gentle exercise, like a short walk, can help.

There may be some aches and pains in muscles and joints. If this happens, speak to your medical team for advice. Taking pain relief can help.

Skin changes

Mesna can affect the skin. It can cause a rash which may be itchy.

Tell your medical team if this becomes a problem. They will be able to tell you what to use on sore or red skin.

Fever

Mesna can cause fever. If a high temperature occurs while having mesna, let your medical team know.

What are the less common side effects?

Allergic reaction

Some people having mesna may have an allergic reaction to the medicine. This reaction can range from mild to severe.

Signs of an allergic reaction may include skin rashes, itching, high temperature, shivering, swelling of face or mouth, redness of the face, dizziness or headache, breathing difficulties, and chest pain. If you notice any of these signs, please tell your medical team immediately.

Which tests/investigations may be needed?

No specific tests need to be done before mesna is given. Your medical team will explain the tests that will be needed before the chemotherapy plus mesna are given.

Does mesna interact with any other medicines?

Some medicines can affect how well mesna works, so aways tell your doctor about any other medication being taken. Check with your doctor or pharmacist before taking any other medicines. This includes supplements, herbal and complementary medicines.

Pregnancy

If a person is sexually active while taking anti-cancer medicines or drugs, it is important to use contraception such as condoms, the pill or coil to avoid pregnancy. A pregnancy test may be needed before taking this medicine. Contraception should continue for a while after treatment finishes. Your team will advise how long contraception should continue for.

Fertility

Depending on the type, dose and combination of medicines given during your treatment, it is possible that fertility may be affected. For girls, this means that it may be harder for them to become pregnant in the future. For boys, this may mean that their sperm is less fertile, which can affect their chance of having children in the future. If you would like more information about this please discuss with your medical team.

If you have any questions about mesna, please contact your treating hospital. This guide only gives general information.

Always discuss individual treatment with your medical team. Do not rely on this guide alone for information about treatment.

Useful information

CCLG: The Children & Young People's Cancer Association publishes a variety of free resources to order or download at www.cclg.org.uk/publications



Scan to order or download this factsheet or any other CCLG publications FREE of charge.

Young Lives vs Cancer provides practical support and advice for children and young people affected by cancer and their families.

www.younglivesvscancer.org.uk

Macmillan Cancer Support offers support and advice to those affected by cancer. www.macmillan.org.uk

EMC (Electronic Medicines Compendium) offers up to date, approved and regulated information for licensed medicines.

www.medicines.org.uk



The Children & Young People's **Cancer Association**

Century House, 24 De Montfort Street Leicester LE1 7GB 0333 050 7654 info@cclg.org.uk | www.cclg.org.uk





CCLG and The Children & Young People's Cancer Association are operating names of The Children's Cancer and Leukaemia Group, registered charity in England and Wales (1182637) and Scotland (SC049948).

© CCI G 2025

This edition: November 2025 Next review date: November 2028



This factsheet was written by Tasneem Khalid, Senior Oncology Pharmacist, The Christie, Manchester and reviewed by Rachel Greer, Paediatric Oncology Pharmacist, Leeds Children's Hospital and the Neonatal and Paediatric Pharmacists Group (NPPG) Paediatric Oncology Pharmacists Steering Committee on behalf of the CCLG Information Advisory Group, comprising parents, survivors and multiprofessional experts in the field of children and young people's cancer.

We are CCLG: The Children & Young People's Cancer Association, a charity dedicated to creating a brighter future for children and young people with cancer. Powered by expertise, we unite the children and young people's cancer community, driving collective action and progress.

We fund and lead pioneering research, provide trusted information and guidance for children and young people with cancer and their families, and bring together professionals to improve treatment, care and outcomes.

Our expert information helps children and young people, and everyone supporting them, to navigate the challenges of cancer and its impact, offering reassurance and clarity when it's needed most.

We make every effort to ensure that this information is accurate and up to date at the time of printing. Information in this publication should be used to supplement appropriate professional or other advice specific to your circumstances.

Our work is funded by donations. If you would like to help, visit www.cclg.org.uk/donate or text 'CCLG' to 70085 to donate £3. You may be charged for one text message at your network's standard or charity rate. CCLG will receive 100% of your donation.



We want our information resources to be relevant and useful. Tell us what you think by scanning this code to complete a short survey or contact us at publications@cclg.org.uk