

Intravenous diuretics

Information and advice for patients

Community Heart Failure Service

What are intravenous diuretics?

An intravenous diuretic is a medication given through a small plastic tube (cannula) into a vein in your hand or arm, to reduce the amount of fluid that has built up in your body. The fluid build-up occurs when your heart is not pumping properly (heart failure), and can build up in two places:

1. Your lungs (pulmonary oedema) – this makes you breathless.
2. The soft tissues (peripheral oedema) – this makes your ankles, legs and sometimes genitals and abdomen swell.

This treatment was previously only offered in hospital but patients with heart failure can now receive this treatment at home.

The most common diuretics are Furosemide, Bumetanide, Spironolactone, Eplerenone, Metolazone and Bendroflumethiazide.

The intravenous diuretic we use is Furosemide.

What are the benefits of intravenous diuretics?

The benefit of diuretics is that they get rid of the extra fluid that has built up in your body by making you pass more urine.

You will already be taking a diuretic tablet but this is not working well enough. The benefit of having the medication intravenously (into one of your veins) is that it can be more effective than taking it as a tablet.

What are the risks of intravenous diuretics?

A full list of the possible risks and side effects of the medication can be found in the manufacturer's leaflet that comes with it. The most common risks are:

- Dizziness when you stand up due to a drop in blood pressure (postural hypotension).
- Changes in the levels of electrolytes (such as sodium and potassium) in your blood.
- Soreness, bruising and/or infection at the cannula site.
- Less common side effects include:
 - Increased uric acid levels in your blood, which could lead to gout.
 - Ringing in the ears (tinnitus). This is reversible.
 - Skin rash, itching and increased sensitivity to sunlight
 - Nausea (feeling sick)
 - Diarrhoea
 - Abdominal pain

Intravenous diuretics

Information and advice for patients

Community Heart Failure Service

If you experience any of the above, please contact your nurse as the treatment may need to be altered.

There is also a risk that the treatment may not be effective enough.

What are the risks of not having the treatment?

If you do not have this treatment, or the treatment does not work, you may need to be admitted to hospital for further treatment, or have some of your medication changed by your consultant. If your heart failure is very advanced, further hospital treatment may not be helpful and you may prefer to stay at home and have medicines to keep you comfortable and relieve your symptoms.

Are there any alternatives to intravenous diuretics?

There are very few alternatives to intravenous diuretics. Alternative treatment would involve being admitted to hospital. Your nurse can give you more information.

How will the intravenous diuretics be given?

Your consultant cardiologist will direct your intravenous diuretic management and a prescription will be completed by a doctor or senior heart failure nurse indicating the dose and schedule. The treatment is usually prescribed for up to five days to start with.

You will have a cannula inserted into a vein in your arm or back of your hand for the treatment; this will either be done in hospital or at home. It is inserted using a fine needle which is then removed. The cannula will then be secured with a clear waterproof dressing.

A heart failure nurse will visit you once a day while you are having this treatment. Each visit will last approximately one hour, depending on the dose you have been prescribed. During the visit the nurse will:

- assess you
- give the intravenous diuretics through an infusion pump
- check how well you are responding to treatment
- discuss any concerns

When the infusion has finished at the end of the visit, the nurse will disconnect the pump and put a sterile cap on the end of your cannula to reduce the risk of infection.

Your cannula can stay in place for up to 72 hours. When it needs to be removed, the nurse will remove it and place a dressing over the site, which can be removed after 24 hours.

Intravenous diuretics

Information and advice for patients

Community Heart Failure Service

Looking after yourself during the treatment

While you are having this treatment, you will need to rest as you would do in hospital, so it is important for you to understand that your daily routine may be altered.

Because the medication can reduce your blood pressure, this can increase your risk of falling so it is preferred that you have someone in the house to help you for at least four hours after each infusion.

The medication will make you pass more urine than usual, so make sure you have easy access to a toilet or commode.

The cannula can stay in place for up to 72 hours, but will need to be removed if the area becomes red or painful. You can have a bath or shower with the cannula in place but should keep the area dry. Avoid touching the cannula and don't let other people touch it. Avoid any heavy lifting or excessive arm movement and take care when dressing not to knock the cannula as this could cause it to become dislodged.

If the cannula becomes dislodged or comes out, apply pressure to it with a sterile dry dressing (which will be supplied by the nurse team) for three to five minutes or until it has stopped bleeding, and contact your nurse. If you are concerned, contact your heart failure nurse or district nurse team, as per contact details on the back of this form.

Storing your diuretics

Your intravenous diuretics will be dispensed from the hospital pharmacy; therefore, they will be either issued to you before discharge or the heart failure nurse will bring them to you with spare dressings and equipment to dress cannula site. This must be stored together in a cool, dry place.

Store the drugs and dressings safely out of the sight and reach of children. It is not safe to keep them in an easily accessible cupboard, drawer, bedside cabinet or wardrobe, etc. It is very important that no one else takes or has access to your medication and that you only use them as prescribed.

Symptoms to report

Please contact your nurse if the cannula comes out, the cannula dressing becomes loose, or you experience any of the symptoms mentioned under 'What are the risks of intravenous diuretics?'

Dial 999 if you experience unrelieved/ persistent/unusual symptoms for you:

- Increased shortness of breath
- Chest pain
- Wheezing or chest tightness at rest
- Increased or irregular heartbeat
- A change in your mental state or become confused

Intravenous diuretics

Information and advice for patients

Community Heart Failure Service

Contact details

Sandwell Community Heart Failure Service Monday–Friday, 8am–6pm 0121 507 2664 option 3, then option 4, and then option 2.

Saturday, Sunday and Bank Holidays 8am–4pm call service mobile: 07580 325 439

Outside of these hours please contact 111 for advice or 999 in an emergency.

For more information about our hospitals and services please see our website www.swbh.nhs.uk, follow us on Twitter @SWBHnhs and like us on Facebook www.facebook.com/SWBHnhs.

Sources used for the information in this leaflet

- Clinical Knowledge Summaries (2023) *Heart failure – chronic: managing diuretics*. [Online] London: NICE. Available from: <https://cks.nice.org.uk/topics/heart-failure-chronic/prescribing-information/diuretics/> [Accessed 17 October 2023].
- National Institute for Health and Clinical Excellence (2018). *Chronic heart failure*. [NICE Guideline NG106]. [Online]. London: NICE. Available from: <https://www.nice.org.uk/guidance/ng106> . [Accessed 17 October 2023].
- Map of Medicine Healthguides, Heart failure, 2011 – No longer available
- European Society of Cardiology (2021). *2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: ESC clinical practice guidelines*. [Online]. Available from: <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Acute-and-Chronic-Heart-Failure>. [Accessed 17 October 2023].
- British National Formulary (2023). *Treatment summary – Diuretics*. [Online]. Available from: <https://bnf.nice.org.uk/treatment-summaries/diuretics/> [Accessed 17 October 2023].

All staff will:

- Act in a professional manner and treat you with dignity and respect.
- Keep your information confidential, accurate and secure at all times. Only share information with your permission or when it will benefit your healthcare.
- Assess your needs and discuss the potential for you to participate in self-care, providing a care/management plan to support you until you, or with support of family/carers, are capable and confident in all aspects of your self-care.

Intravenous diuretics

Information and advice for patients

Community Heart Failure Service

Any concerns?

Staff will deal with your concerns professionally and responsibly and can be contacted by telephoning

.....
If you are unhappy with the care you are being provided and discussions with staff have not put this right, then you can contact:

PATIENT ADVICE AND LIAISON SERVICE (PALS)

Monday–Friday, 10am–4pm **0121 507 5836**

Please leave a message if the line is engaged or if you are calling outside these times.

Email: swb-tr.pals@nhs.net

PALS aim to:

- Provide the right advice and support, and signpost as appropriate
- Listen to and help resolve any concerns that usually require intervention quite quickly, by liaising with staff on your behalf
- Provide advice on how to make a complaint
- Pass on positive feedback to the relevant members of staff

PALS CAN HELP TO RESOLVE ISSUES OF CONCERN AT A LOCAL LEVEL, BUT IS NOT PART OF THE FORMAL COMPLAINTS PROCESS

If you would like to suggest any amendments or improvements to this leaflet please contact SWB Library Services on ext 3587 or email swbh.library@nhs.net.



A Teaching Trust of The University of Birmingham
Incorporating City, Sandwell and Rowley Regis Hospitals
© Sandwell and West Birmingham NHS Trust

ML5232
Issue Date: October 2023
Review Date: October 2026