

Safe prescribing of Heparin Sodium IV Flush 100units/mL and Sodium Chloride 0.9% to maintain patency of Totally Implanted Venous Access Devices or ports.

Background

A number of patients in the BaNES community have a totally implanted venous access device (TIVAD) or 'port'. Port is a generic name; the devices may be known by brand names e.g. Portacath®.

The port stays in place indefinitely and requires flushing and locking with 20mLs sodium chloride 0.9% and with 3mLs (for an arm or small chest port) or 6mLs (for a large chest port) of heparin sodium IV flush solution 100units/mL every month and after each event the port is accessed to maintain patency. Patency is important to reduce the discomfort and expense of port replacement and to reduce the risk of clots forming in the lumen.

Patients receiving support in their home from a district nursing service, rather than attending an IV clinic for treatment, will need Heparin IV Flush Solution 100units/mL and Sodium Chloride 0.9% ampoules prescribed by their GP on FP10.

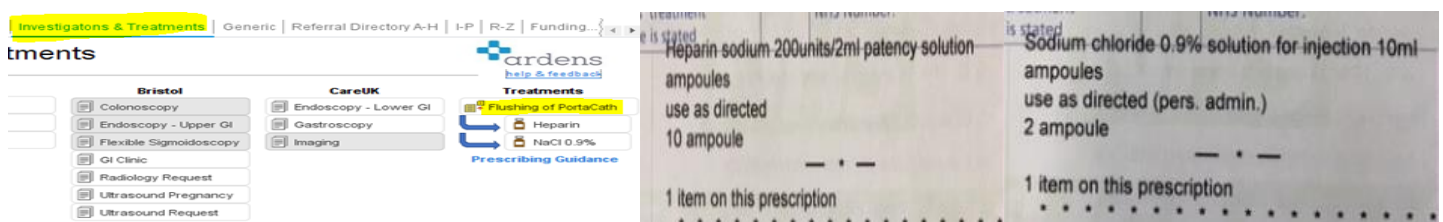
Risks associated with heparin products¹

- Risks with heparin flushes are not well recognised by practitioners.
- Heparin products are rarely prescribed or dispensed in primary care leading to unfamiliarity with these products.
- Risk of harm to patients can be caused by mis-selection for other poorly differentiated commercial medicine products – including concentrated heparin solutions.
- Unnecessary exposure to heparin should be avoided as there are risks and disadvantages in using these products including: ♦ Allergic reactions ♦ Potential for bleeding complications ♦ Risk of heparin induced thrombocytopenia

Safety – Correct product selection - Prescribing

For correct product selection for this indication, **prescribe using the 'Flushing of Portacath' template in 'Investigations & Treatments' in Ardens** (click on 'Orange Arrow' icon under patient's name or use 'flushing' in search box bottom left of SystemOne).

- Heparin sodium **200units/2mL patency solution ampoules** (10 x 2mL ampoules)
- **AND** Sodium chloride 0.9% solution for injection 10mL ampoules (1 x 10mL ampoules)



Directions should read: **To be used for flushing and locking of implanted venous access devices e.g. PortaCaths ONLY as per PSD.** The Patient Specific Direction (PSD) (Appendix 1 of this document and also included in the Ardens template) needs printing and signing by the GP as this authorises administration by the community nurse.

Safety – Correct product selection - Dispensing

To aid correct product selection, community pharmacists should closely scrutinise all prescriptions for heparin products.

In BaNES, only the **100units/mL (2mL ampoules) Heparin IV Flush Solution²** should be prescribed in primary care. This is an AMBER TRAFFIC LIGHT DRUG suitable for GP prescribing after specialist recommendation (In this case IV Nurse Specialist).



This picture displays the correct product² used as a flushing solution for maintenance of patency of Ports.

Note the correct strength 100units/mL

Pharmacists should take extreme care when dispensing:

- **Dispense in the original container**
- **Ensure the dispensing label does not obscure product information**
- **Use a double checking system e.g. an independent check by another practitioner.**

In BaNES, all **concentrated heparin products (1000units/mL, 5000units/mL, 25000units/mL) are RED TRAFFIC LIGHT DRUGS** and not for prescribing in primary care. A lower strength heparin flushing solution (10units/mL) is also available but is **not** used locally for this indication. Any FP10s received in primary care for any of these products should be queried with the original prescriber.

Safety – Correct product selection - Administration

District/community nurses should be aware that heparin products are rarely prescribed or dispensed in primary care leading to unfamiliarity.

Nurses should use a double checking system e.g. an independent check by another practitioner before flushing and locking ports to **ensure heparin 100units/mL has been dispensed and the product states IV flush solution or patency solution.**

References and Further Information

1. <https://www.sps.nhs.uk/articles/npsa-alert-intravenous-heparin-flush-solutions-2008/>
 2. <https://www.medicines.org.uk/emc/product/2119/smpc>
- VirginCare IV Nurse Specialists - Emma Moxham 07515 187607 Kim Bushill 07872 423474
 - General information on Ports <https://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/chemotherapy/how-you-have/into-your-vein/portacath>

Appendix 1 - Patient Specific Direction (PSD) for the Administration of Heparin Sodium Lock and Flushing of Ports

TO BE PRINTED AND SIGNED BY THE GP AND ISSUED ALONGSIDE THE FP10

Patient Specific Direction for the Administration of Heparin Sodium Lock and Flushing of PortaCath.
Health Access team 01225 396 000 | IV Nurse Specialists: Emma Moxham 07515 187 607 / Kim Bushill 07872 423 474

Patient Name:	Allergies:
Address:	Date of Birth:
Post Code:	NHS No:

Drug Name	Dose and route	Indication	Frequency
Sodium Chloride 0.9%	20 mls via PORT	To maintain patency of implanted central venous device "Portacath"	As required pre and post drug administration Or as monthly maintenance flush
Heparin Sodium 100iu/ml	3mls Arm Port 6mls Chest Port Delete as required	To maintain patency of implanted central venous device "Portacath"	As required pre and post drug administration Or as monthly maintenance flush

I 'The Prescriber' authorise the treatment described above to be administered to the above named patient

Prescriber Name:	Contact no.:
Signature:	Date:

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All details to be documented as administration of medication by a community nurse. To be used in conjunction with Patient Specific Direction

Patient Name: Date of Birth: NHS No:	Patient specific direction of treatment of: Allergies (or state not known):
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Date	Time	Drug	Expiry date	Dose	Route	Signature	Print