



This patient group direction (PGD) must only be used by registered health professionals who have been named and authorised by their organisation to practice under it. The most recent and in date final signed version of the PGD should be used.

Patient Group Direction (PGD)

For the administration or supply of

Furosemide 40mg intravenous injection

For use by air ambulance practitioners only

Neurological seizures after assessment

Throughout the Manx Care and those contracted by the Manx Care where appropriate within practice

PGD NUMBER 119

1. Change history

Version number	Change details	Date
1	Original PGD ratified	June 2021

2. Medicines practice guideline 2: *Patient group directions*

Refer to the relevant sections of NICE medicines practice guideline 2: *Patient group directions* as stated in the blank template notes. For further information about PGD signatories, see the NHS and Manx Care [PGD website FAQs](#)

3. PGD development

Refer to the [NICE PGD competency framework for people developing PGDs](#)

Job Title & organisation	Name	Signature	Date
Author of the PGD			
Member of the PGD working group			

4. PGD authorisation

Refer to the [NICE PGD competency framework for people authorising PGDs](#)

Job Title	Name	Signature	Date
Medical Director			
Chief Pharmacist/ Pharmaceutical Adviser			
Senior Paramedic			
Director of Nursing			
GP Adviser			
Senior Microbiologist (if PGD contains antimicrobials)			

5. PGD adoption by the provider

Refer to the [NICE PGD competency framework for people authorising PGDs](#)

Job title and organisation	Signature	Date	Applicable or not applicable to area

6. Training and competency of registered healthcare professionals, employed or contracted by the Manx Care, GP practice or Hospice

Refer to the [NICE PGD competency framework for health professionals using PGDs](#)

	Requirements of registered Healthcare professionals working under the PGD
Qualifications and professional registration	<ul style="list-style-type: none"> Registered healthcare professionals, working within or contracted by the Manx Care, GP practice or Hospice who are permitted staff groups outlined within the current PGD policy Pharmacists must be practising in Manx Care authorised premises i.e. contracted pharmacy premises
Initial training	<ul style="list-style-type: none"> Knowledge of current guidelines and the administration of the drug specified in this PGD/BNF and of the inclusion and exclusion criteria Training which enables the practitioner to make a clinical assessment to establish the need for the medication covered by this PGD Local training in the use of PGDs
Competency assessment	Staff will be assessed on their knowledge of drugs and clinical assessment as part the competency framework for registered health professionals using PGDs
Ongoing training and competency	The registered health care professionals should make sure they are aware of any changes to the recommendations for this medication; it is the responsibility of the registered health care professionals to keep up to date with continuing professional development. PGD updates will be held every two years

7. Clinical Conditions

Clinical condition or situation to which this PGD applies	Neurological seizures after assessment by the air ambulance practitioner
Inclusion criteria	<ul style="list-style-type: none"> • Patients over 16 years • Pulmonary oedema secondary to Left ventricular failure
Exclusion criteria	<ul style="list-style-type: none"> • Patients under 16 years of age • Patients with known allergy to furosemide • Patients in right sided heart failure • Patients not in heart failure
Cautions (including any relevant action to be taken)	<ul style="list-style-type: none"> • Hypokalaemia • Urine retention • Hypotension • Hypovolaemia • Renal failure • Right sided heart failure
Arrangements for referral for medical advice	Patient should be referred to a more experienced clinical practitioner for further assessment
Action to be taken if patient excluded	Patient should be referred to a more experienced clinical practitioner for further assessment
Action to be taken if patient declines treatment	<ul style="list-style-type: none"> • A verbal explanation should be given to the patient on: the need for the medication and any possible effects or potential risks which may occur as a result of refusing treatment • This information must be documented in the patients' health records • Any patient who declines care must have demonstrated capacity to do so • Where appropriate care should be escalated

8. Details of the medicine

Name, form and strength of medicine	Furosemide 40mg injection
Legal category	Prescription only medicine
Indicate any <u>off-label use</u> (if relevant)	None
Route/method of administration	Intravenous 4mg per minute
Dose and frequency	40mg once only
Quantity to be administered and/or supplied	40mg once only
Maximum or minimum treatment period	One dose
Storage	Room temperature

Adverse effects	<ul style="list-style-type: none"> • Low blood pressure making you feel faint or dizzy. It may also cause the feeling of pressure in the head, joint pain, blood clot formation, or collapse of your circulation (shock) • Low potassium levels in the blood. This can cause muscle weakness, tingling and numbness, slight inability to move a body part, being sick, constipation, increased gas in your gut, increased urine production, increased urge to drink, or slow or irregular heart rhythm. These problems are more likely if you have other diseases like liver or heart problems or too little potassium in your diet or if you take other medicines (see “Taking other medicines”) • Low sodium, calcium and magnesium levels in the blood. This may occur due to increased loss of sodium, calcium and magnesium with your urine. Low sodium levels typically cause a lack of interest, cramp in the calf, reduced appetite, weakness, sleepiness, being sick and confusion. Cramps can also be associated with low calcium levels or low magnesium levels in your body • Gout may occur or get worse • Existing problems passing water may be made worse • Diabetes may occur or get worse • Liver problems or changes in the blood may cause jaundice (yellow skin, dark urine, tiredness) • Reduced volume of body fluid especially in elderly patients. Sever fluid loss may lead to increased concentration of the blood with a tendency for the development of blood clots
Records to be kept	The administration of any medication given under a PGD must be recorded within the patient’s medical records

9. Patient information

Verbal/Written information to be given to patient or carer	<ul style="list-style-type: none"> • Verbal information must be given to patients and or carers for all medication being administered under a PGD • Where medication is being supplied under a PGD, written patient information leaflet must also be supplied • A patient information leaflet is available on request
Follow-up advice to be given to patient or carer	If symptoms do not improve or worsen or you become unwell, seek medical advice immediately

10. Appendix A

References
<ol style="list-style-type: none"> 1. British National Formulary (BNF) available online: https://bnf.nice.org.uk 2. Nursing and Midwifery (2018) “The code” available online: https://www.nmc.org.uk 3. Current Health Care Professions Council standards of practice 4. General Pharmaceutical Council standards 5. The General Optical Council 6. Electronic medicines compendium available online: https://www.medicines.org.uk

11. Appendix B

Health professionals agreed to practice

- Each registered healthcare professional will hold their own Competency framework which will be signed and agreed by their mentor
- A mentor is defined within the Manx Care policy as any ward/area managers, sisters, senior nurses, GPs, pharmacists or senior paramedics who has completed the PGD training themselves