NHS Grampian NHS Orkney NHS Shetland NHS Tayside NHS Eileanan Siar Western Isles

Patient Group Direction For The Administration Of Sodium Chloride 0.9% w/v Solution For Injection For Flushing Intravenous Catheters/Cannulae By Approved Healthcare Professionals Working Within NHS Grampian, Orkney, Shetland, Tayside and Western Isles

Lead Author: Medicines Management Specialist Nurse NHSG	**Consultation Group**: See relevant page in the PGD	**Approver:** NoS PGD Group **Authorisation:** NHS Grampian

Signature: 		**Signature:** 

NoS Identifier: NoS/PGD/NaClflush/ MGPG1121	**Review Date:** October 2022 **Expiry Date:** October 2023	**Date Approved:** October 2020

NHS Grampian, Orkney, Shetland, Tayside and Western Isles have authorised this Patient Group Direction to help individuals by providing them with more convenient access to an efficient and clearly defined service within the NHS Boards. This Patient Group Direction cannot be used until Appendix 1 and 2 are completed.

Uncontrolled when printed

Version 1

Revision History:

Reference and approval date of PGD that has been adapted and/or superseded	New PGD Adapted from/Supersedes NHSG/PGD/NaClflush/ MGPG902 Version 6.1.	
Date of change	**Summary of Changes**	**Section heading**
August 2020	New NoS PGD created to replace previous NHSG PGD.	

NoS Identifier: NoS/PGD/NaClflush/MGPG1121
Keyword(s): PGD Patient Group Direction Sodium Chloride, Flush, Cannula

Policy Statement: It is the responsibility of the individual healthcare professionals and their line managers to ensure that they work within the terms laid down in this PGD and to ensure that staff are working to the most up to date PGD. By doing so, the quality of the services offered will be maintained, and the chances of staff making erroneous decisions which may affect individual, staff or visitor safety and comfort will be reduced. Supervisory staff at all levels must ensure that staff using this PGD act within their own level of competence.

The lead author is responsible for the review of this PGD and for ensuring the PGD is updated in line with any changes in clinical practice, relevant guidelines, or new research evidence.

Review date: The review date for a PGD needs to be decided on a case-by-case basis in the interest of safety. The expiry date should not be more than 3 years, unless a change in national policy or update is required.

Document:	Drafted:	August 2020
	Completed:	September 2020
	Approved:	October 2020 (published – November 2020)
	Amended:	

Organisational Authorisations

This PGD is not legally valid until it has had the relevant organisational authorisation.

PGD Developed/Reviewed by;

Medical practitioner	**Name:** Philip Short **Health Board:** NHST **Title:** Consultant Respiratory Physician **Contact email:** philip.short2@nhs.scot **Signature:** .....
Senior representative of the professional group who will provide care under the direction	**Name:** Lesley Gow **Health Board:** NHSG **Title:** Nurse Manager **Contact email:** lesley.gow@nhs.scot **Signature:** .....
Lead author	**Name:** Frances Adamson **Health Board: NHSG** **Title :** Medicines Management Specialist Nurse **Contact email:** frances.adamson@nhs.scot **Signature:** .....
Pharmacist	**Name:** Craig Rore **Health Board:** NHSG **Title :** Medicines Information Lead Pharmacist **Contact email:** craig.rore@nhs.scot **Signature:** .....

Approved for use within NoS Boards by;

North of Scotland (NoS) PGD Group Chair	Signature	Date Signed
Lesley Coyle		October 2020

Authorised and executively signed for use within NoS Boards by;

NHS Grampian Chief Executive	Signature	Date Signed
Professor Caroline Hiscox		November 2020

Management and Monitoring of Patient Group Direction

PGD Consultative Group

The consultative group is legally required to include a medical practitioner, a pharmacist and a representative of the professional group who will provide care under the direction.

Name:	Title:
Frances Adamson	**Lead Author:** Medicines Management Specialist Nurse NHSG
Craig Rore	**Pharmacist:** Medicines Information Lead Pharmacist NHSG
Dr Philip Short	**Medical Practitioner:** Consultant Respiratory Physician NHST
Lesley Gow	**Senior Representative:** Nurse Manager NHSG
Gillian McKenzie-Murray	Professional and Practice Development Facilitator NHSG
Laura Farquharson	Superintendent MRI Radiographer, NHSG
Jane Raitt	Chief Midwife NHSG
Mary McFarlane	Principal Pharmacist NHSS

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Clinical indication to which this PGD applies

Definition of situation/ Condition	This Patient Group Direction (PGD) will authorise approved healthcare professionals as detailed in the characteristics of staff authorised to work under this PGD to administer sodium chloride 0.9% w/v solution for injection for flushing intravenous catheters/cannulae. The use of sodium chloride 0.9% flushes between medicines prevents potential incompatibilities and ensures that the full dose is received by the patient and not retained within the dead space of the catheter. Sodium chloride 0.9% flush may also be administered to maintain patency of intravenous catheters/cannulae and also to confirm placement and patency of newly inserted catheters/cannulae. This PGD should be used in conjunction with the recommendations in the current British National Formulary (BNF), British National Formulary for Children (BNFC), and the individual Summary of Product Characteristics (SmPC).
Inclusion criteria	• Patients who require insertion or re-siting of a peripheral intravenous cannula or who have a peripheral intravenous cannula in situ. Prior to the supply/administration of the medicine, valid consent to receiving treatment under this PGD must be obtained. Consent must be in line with current individual NHS Boards consent policy.
Exclusion criteria	Patients may be administered sodium chloride 0.9% w/v solution for injection under this PGD unless: • They are suffering from thrombophlebitis. • They are patients in the neonatal unit. • The cannula insertion site is red and/or inflamed. • Sodium chloride 0.9% w/v solution for injection is incompatible with the intravenous medicine to be administered. • Where there is no valid consent.
Precautions and special warnings	None known.

Action if excluded from treatment	Medical advice must be sought – refer to relevant medical practitioner. Document the reason for exclusion under the PGD and any action taken in the individual's appropriate clinical records.
Action if treatment is declined	Inform/refer to the relevant medical practitioner if individual/person with parental responsibility declines treatment. Document that the administration was declined, the reason and advice given in appropriate clinical records.

Description of treatment available under the PGD

Name form and strength of medicine	Sodium chloride 0.9% w/v solution for injection. **Note:** There are various strengths of sodium chloride solution for injection, ensure only 0.9% ampoules are used.
Legal status	Sodium chloride 0.9% w/v solution for injection is a Prescription-only Medicine (PoM).
Dosage/Maximum total dose	**Adults**: Up to 5-10mL as a single dose for flushing: • At the time of cannulation. • Before and after the administration of each intravenous medication. • Up to twice a day to maintain cannula patency. **Children**: 2-10mL for the above indications depending on the age, size and condition of patient.
Frequency of dose/Duration of treatment	The frequency of administration will vary according to the indication.
Maximum or minimum treatment period	N/A
Route/Method of administration	**Intravenous** The preparation of injections in near patient areas should be carried out in a suitable environment using safe procedures, i.e. clean, uncluttered and free from interruption and distraction.

	Standard Flushing Technique • Administer over 3-5 minutes, or if a flush after a medicine, at the same prescribed rate of the medicine. • 10mL syringes must be used when flushing. • The flush should be administered using a push-pause and positive pressure method. • The pulsated flush creates turbulence within the catheter lumen, removing debris from the internal catheter. • Positive pressure within the lumen of the catheter should be maintained to prevent reflux of blood.
Quantity to be administered	The quantity to administer will vary according to the indication.
Storage requirements	Do not store above 25°C
Follow-up (if applicable)	N/A
Advice (Verbal)	Inform the patient of the reason for the flush and obtain consent. Advise individual/person with parental responsibility what to expect and what to do for minor and major reactions. If serious adverse or persistent effects occur, the individual/ person with parental responsibility should be advised to contact their GP/Accident and Emergency department/NHS24.
Advice (Written)	The Patient Information Leaflet (PIL) contained in the medicine(s) should be made available to the individual/person with parental responsibility. Where this is unavailable, or unsuitable, sufficient information should be given in a language that they can understand.
Identifying and managing possible adverse reactions	Adverse events are unlikely due to the small volume use. **Please also refer to current BNF/BNFC and manufacturers SmPC for details of all potential adverse reactions.** **BNF/BNFC**: https://www.bnf.org/products/bnf-online/ **SmPC/PIL/Risk Minimisation Material:** https://www.medicines.org.uk/emc/ http://www.mhra.gov.uk/spc-pil/index.htm https://www.medicines.org.uk/emc/rmm-directory

	If an adverse reaction does occur give immediate treatment and inform relevant medical practitioner as soon as possible. Report any severe reactions using the Yellow Card System. https://yellowcard.mhra.gov.uk/
Facilities and supplies required	The following are to be available at sites where the medicine is to be supplied/administered: • Appropriate storage facilities. • An acceptable level of privacy to respect individual's right to confidentiality and safety. • Basic airway resuscitation equipment (e.g. pocket mask, bag valve mask, supraglottic airway). • Immediate access to adrenaline (epinephrine) 1 in 1000 injection. • Access to a working telephone. • Another competent adult, who can summon urgent emergency support if required should ideally be present. • Access to medical support (this may be via the telephone). • Approved equipment for the disposal of used materials • Clean and tidy work areas, including access to hand washing facilities or alcohol hand gel. • A copy of this current PGD in print or electronically.

Characteristics of staff authorised to administer medicine(s) under PGD

Professional qualifications	Those registered healthcare professionals that are listed and approved in legislation as able to operate under Patient Group Directions, and as identified and included in individual Board delivery plans.
Specialist competencies	**Approved by the organisation as:** • Competent to assess the individual/person with parental responsibilities' capacity to understand the nature and purpose of the medicine administration in order to give or refuse consent. • Aware of current treatment recommendations and be competent to discuss issues about the medicine with the individual. • Having undertaken appropriate training to carry out clinical assessment of individuals identifying that treatment is required according to the indications listed in the PGD. • Competent to undertake administration of the Medicine. • Competent to work under this PGD.

Ongoing training and competency	**All professionals working under this PGD must:** • Have undertaken PGD training as required/set out by each individual Health Board. • Have attended basic life support training either face to face or online and updated in-line with individual Board requirements. • Have undertaken NHS e-anaphylaxis training or equivalent (including annual updates) which covers all aspects of the identification and management of anaphylaxis. • Maintain their skills, knowledge and their own professional level of competence in this area according to their individual Code of Professional Conduct. • Have knowledge and familiarity of the following; o SmPC for the medicine(s) to be administered in accordance with this PGD.
Responsibilities of professional manager(s)	**Professional manager(s) will be responsible for:** Ensuring that the current PGD is available to all staff providing care under this direction. Ensuring that staff have received adequate training in all areas relevant to this PGD and meet the requirements above. Maintaining an up to date record of all staff authorised to administer the medicine(s) specified in this Direction.

Documentation

Authorisation of administration	Qualified Health Professionals working within NHS Grampian, Orkney, Shetland, Tayside and Western Isles can be authorised to administer the medicine specified in this PGD in accordance with local delivery plans and by agreement at individual Board level as per the following: Nurses, midwives and health visitors can be authorised by their line manager. Radiographers can be authorised by a Consultant Radiologist. Physiotherapists can be authorised by their Head of Service. Podiatrists can be authorised by their Head of Service. Dental hygienists or dental therapists can be authorised by their Head of Service.

	Paramedics working in GMED Services within NHS Grampian **only** can be authorised to administer the drug specified in this PGD by their GMED Line Manager or GMED Medic. All authorised staff are required to read the PGD and sign the Agreement to Administer Medicines Under PGD (Appendix 1). A Certificate of Authorisation (Appendix 2) signed by the authorising professional/manager should be supplied. This should be held in the individual health professional's records, or as agreed within the individual Health Board.
Record of administration	An electronic or paper record for recording the screening of individuals and the subsequent administration, or not of the medicine(s) specified in this PGD must be completed in order to allow audit of practice. This should include as a minimum: • Date and time of administration • Individuals name and CHI • Exclusion criteria, record why the medicine was not administered (if applicable) • Record that valid consent to treatment under this PGD was obtained • The name, dose, form, route (batch number, expiry date and site where appropriate for injectable medicines) of the medicine administered • Advice given, including advice given if excluded or declined treatment under this PGD • Signature and name in capital letters of the healthcare professional who administered the medicine • Record of any adverse effects (advise individuals GP/relevant medical practitioner). Depending on the clinical setting where administration is undertaken, the information should be recorded manually or electronically, in one (or more) of the following systems, as appropriate: • Individual service specific systems.
Audit	All records of the medicine(s) specified in this PGD will be filed with the normal records of medicines in each practice/service. A designated person within each practice/service where the PGD will be used will be responsible for annual audit to ensure a system of recording medicines administered under a PGD.
References	Electronic Medicines Compendium http://www.medicines.org.uk. Sodium Chloride 0.9% w/v Solution for Injection (Hameln) – Date of revision of text 01/04/20 accessed 18/08/20.

	British National Formulary and British National Formulary for Children https://www.bnf.org/products/bnf-online/ accessed 18/08/20.

NHS Grampian NHS Orkney NHS Shetland NHS Tayside NHS Eileanan Siar Western Isles

Appendix 1

Healthcare Professional Agreement to Administer Medicine(s) Under Patient Group Direction

I: _____ (Insert name)

Working within: _____ e.g. Area, Practice

Agree to administer the medicine(s) contained within the following Patient Group Direction:

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I have completed the appropriate training to my professional standards enabling me to administer the medicine(s) under the above direction. I agree not to act beyond my professional competence, nor out with the recommendations of the direction.

Signed: _____

Print Name: _____

Date: _____

Profession: _____

Professional Registration number/PIN _____

NHS Grampian NHS Orkney NHS Shetland NHS Tayside NHS Eileanan Siar Western Isles

Appendix 2

Healthcare Professionals Authorisation to Administer Medicine(s) Under Patient Group Direction

The Lead manager/Professional of each clinical area is responsible for maintaining records of all clinical areas where this PGD is in use, and to whom it has been disseminated.
The Senior Nurse/Professional who approves a healthcare professional to administer the medicine(s) under this PGD is responsible for ensuring that he or she is competent, qualified and trained to do so, and for maintaining an up-to-date record of such approved persons.
The Healthcare Professional that is approved to administer the medicine(s) under this PGD is responsible for ensuring that he or she understands and is qualified, trained and competent to undertake the duties required. The approved person is also responsible for ensuring that administration is carried out within the terms of the direction, and according to his or her individual code of professional practice and conduct.
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Local clinical area(s) where the listed healthcare professionals will operate under this PGD:

Name of Healthcare Professional	Signature	Date	Name of Manager	Signature	Date

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Name of Healthcare Professional	**Signature**	**Date**	**Name of Manager**	**Signature**	**Date**