NHS Grampian

Patient Group Direction For The Supply/Administration Of Emergency Medicines By Approved Healthcare Professionals Working Within NHS Grampian Out of Hours (OOH) Primary Care Service

Lead Author: Medicines Management Specialist Nurse NHSG	**Consultation Group**: See relevant page in the PGD	**Approver:** Medicines Guidelines and Policies Group **Authorisation:** NHS Grampian
Signature: 		**Signature:** 
NHSG Identifier: NHSG/PGD/OOH_ Emergency/MGPG1318	**Review Date:** October 2024 **Expiry Date:** October 2025	**Date Approved:** October 2022

NHS Grampian 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 Board. This Patient Group Direction cannot be used until Appendix 1 and 2 are completed.

Uncontrolled when printed

Version 4

Revision History:

Reference and approval date of PGD that has been adapted and/or superseded	PGD supersedes NHSG/PGD/GMED/MGPG975, Version 3	
Date of change	**Summary of Changes**	**Section heading**
December 2021	Review of PGD.	
December 2021	All medicine monographs updated in line with SmPCs.	
September 2022	GMED removed from title after service name change.	Throughout

NHGS Identifier: NHSG/PGD/OOH_Emergency/MGPG1318
Keyword(s): PGD Patient Group Direction OOH out of hours, Emergency, Nurse, Paramedic Practitioners

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:	December 2021
	Completed:	September 2022
	Approved:	October 2022 (published – November 2022
	Amended and re-authorised:	

Organisational Authorisations

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

PGD Developed/Reviewed by;

Medical Practitioner	**Name:** Dr Rudolph D'Costa **Health Board:** NHSG **Title:** Clinical Lead OOH (GMED) **Contact email:** rudolph.dcosta@nhs.scot **Signature** ..... **Date:** 02/11/2022
Senior representatives of the professional group who will provide care under the direction.	**Name:** Bridget Coutts **Health Board:** NHSG **Title** Lead Nurse OOH (GMED) **Contact email:** bridget.coutts@nhs.scot **Signature:** ..... **Date:** 02/11/2022
Senior representatives of the professional group who will provide care under the direction.	**Name:** Gordon Riley **Health Board:** NHSG **Title:** Paramedic Practitioner **Contact email:** gordon.douglas.riley@nhs.scot **Signature** ..... **Date:** 02/11/2022
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Pharmacist	**Name:** Lola Dabiri **Health Board:** NHSG **Title :** Clinical Pharmacist GMED **Contact email:** lola.dabiri3@nhs.scot **Signature** ..... **Date:** 02/11/2022

Approved and authorised for use within NHSG by;

Medicines Guidelines and Policies Group Chair	Signature	Date Signed
Lesley Coyle		02/11/2022

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
Lola Dabiri	**Pharmacist:** Clinical Pharmacist OOH (GMED)
Dr Rudolph D'Costa	**Medical Practitioner:** Clinical Lead OOH (GMED)
Bridget Coutts	**Senior representative Nurses:** Lead Nurse OOH (GMED)
Gordon Riley	**Senior representative Paramedics:** Paramedic Practitioner
Magda Polcik	Service Manager OOH (GMED)
Darren Johnson	Paramedic Practitioner
Suzanne Brittain	Antibiotic Pharmacist ARI

Patient Group Direction For The Supply/Administration Of Emergency Medicines By Approved Healthcare Professionals Working Within Grampian Out of Hours (OOH) Primary Care Service

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 who are working within the Out of Hours (OOH) service (formally GMED) to supply and/or administer medicines included in this PGD as listed in Appendix 3 to individuals who meet the criteria as described on each individual medicine monograph, according to diagnosis, disease state and concurrent medicines. **Note:** The medicines may only be used within individual medicine monograph recommendations and contra-indications. The medicines listed in this formulary must be used only for the condition specified in the monograph. 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	This PGD should be used for the supply/administration of the agreed medicines to; • Individuals who attend OOH centres during out of hours periods in NHS Grampian. • Individuals in their own homes, care homes or community hospitals within NHS Grampian who require visits from nurse and paramedic practitioners working in OOH during the out of hours period.
Exclusion criteria	Individuals may be supplied/administered a medicine specified in Appendix 3 - GMED Emergency Formulary under this PGD unless; • They have a known or suspected hypersensitivity to the medicine(s) or any of its ingredients • They have previously experienced an allergy/adverse reaction to the medicine(s) • They meet any of the exclusion criteria listed in the individual monographs. **In these cases, the individual should be referred to an OOH duty doctor.**

Precautions and special warnings	The medicines specified in Appendix 3 under this PGD must be used **only** for the specific indication(s) and age group listed in the individual medicine monographs. Individuals of a different age group, or who are suffering from a condition other than that specified in the monograph, must be referred to an OOH duty doctor; • If there is any concern about the appropriate use of the medicine then medical advice should be sought. • If there is any doubt about the correct diagnosis medical advice should be sought. Exclusions and precautions listed in the individual monographs must be taken into account. Nurses and paramedics must be aware of, and familiar with, **all** concurrent medication prior to administering a medicine from this PGD to an individual. They must be satisfied there are no clinically significant interactions before proceeding with supply/administration of the medicine. The medicine patient information leaflet (PIL) should be consulted and discussion had to ensure that the individual has not experienced a previous hypersensitivity reaction to any ingredients or excipients.
Action if excluded from treatment	If an individual is excluded from treatment under this PGD, medical advice should be sought immediately – refer to OOH Clinical Supervisor. 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/parent/carer declines treatment. Document that the administration/supply was declined, the reason and advice given in appropriate clinical records.

Description of treatment available under the PGD

Name form and strength of medicine	See individual medicine monographs.
Legal status	Medicines referred to in this PGD are GSL (General Sales List), P (Pharmacy only) or POM (Prescription Only Medicines).

	In accordance with the MHRA all medicines **supplied** under a PGD **must** either be from over-labelled stock, or be labelled appropriately in accordance with the regulatory body guidelines for the labelling of medicines for the professional providing the supply.
Dosage/Maximum total dose	See individual medicine monographs. See OOH (formally GMED) clinical handbook for specific protocols. Doses for children are expressed in specific age ranges, as per the BNF for Children, e.g. 5 years – 12 years refers to a child from their 5th birthday to the day before their 13th birthday. However a pragmatic approach should be applied and consideration should be given to a child's weight in particular if a child is small for their age. Mean values for weight and height are given in the back pages of the BNF for Children. If there is any doubt this should be discussed with the OOH duty doctor.
Frequency of dose/Duration of treatment	See individual medicine monographs.
Maximum or minimum treatment period	See individual medicine monographs.
Route/Method of administration	See individual medicine monographs.
Quantity to be supplied/ administered	See individual medicine monographs.
Storage requirements	See individual medicine monographs.
Follow-up (if applicable)	Individuals should not be discharged or left at home if they feel unwell after treatment with a medicine included in this PGD. If necessary an OOH doctor should be contacted for advice.
Advice (Verbal)	Advise individual/parent/carer what to expect and what to do for minor and major reactions. If serious adverse or persistent negative effects occur, the individual/parent/carer should be advised to contact their GP/Accident and Emergency department/NHS24. Should an individual experience difficulty breathing following the

	administration of a medicine or loss of consciousness an ambulance should be called by telephoning 999.
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	See individual medicine monographs. **This list is not exhaustive. Please also refer to current BNF/BNFC and manufacturers SmPC for details of all potential adverse reactions.** **BNF/BNFC**: BNF British National Formulary - NICE BNF for Children British National Formulary - NICE **SmPC/PIL/Risk Minimisation Material:** Home - electronic medicines compendium (emc) MHRA Products | Home RMM Directory - (emc) If an adverse reaction does occur, give immediate treatment and inform relevant medical practitioner as soon as possible. Document in accordance with locally agreed procedures in the individual's record. Report any suspected adverse reactions using the Yellow Card System. Yellow Card Scheme - MHRA
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. bag valve mask) • Immediate access to Epinephrine (Adrenaline) 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 supply/administer medicine(s) under PGD

Professional qualifications	Registered Nurses as recognised by the Nursing Midwifery Council (NMC). Registered Paramedic Practitioners as recognised by the Health Care Professions Council (HCPC).
Specialist competencies	**Approved by the organisation as:** • Competent to assess the individuals/parents/carer's capacity to understand the nature and purpose of the medicine supply/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 in the recognition and management of anaphylaxis or under the supervision of persons able to respond appropriately to immediate adverse reactions • Competent to undertake supply/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 NHSG • Have attended basic life support training either face to face or online and updated in-line with Board requirements • Have undertaken NHS e-anaphylaxis training or equivalent which covers all aspects of the identification and management of anaphylaxis in-line with Board requirements • Maintain their skills, knowledge and their own professional level of competence in this area according to their individual Code of Professional Conduct. **Note:** All practitioners operating under the PGD are responsible for ensuring they remain up to date with the use of the medicine. If any training needs are identified these should

	be discussed with those responsible for authorisation to act under the PGD • Have knowledge and familiarity of the following; ○ SmPC for the medicine(s) to be supplied/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. Maintain up to date record of all staff authorised to supply/administer the medicine(s) specified in this direction.

Documentation

Authorisation of supply/ administration	Nurses and Paramedic Practitioners working within OOH services in NHS Grampian can be authorised to supply/administer the medicines specified in this PGD by their Nurse Manager or OOH GP. All authorised staff are required to read the PGD and sign the Agreement to Supply and/or Administer Medicines Under PGD (Appendix 1). This should be held in the individual practitioners records, or as agreed locally. 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 locally.
Record of supply/ administration	An electronic or paper record must be completed to allow audit of practice. An electronic/HEPMA/ADASTRA record of the screening and subsequent supply/administration, or not of the medicine(s) specified in this PGD should be made in accordance with individual Health Board electronic/HEPMA/ADASTRA recording processes. If a paper record is used for recording the screening of individuals and the subsequent supply/administration, or not of the medicine(s) specified in this PGD. This should include as a minimum: • Date and time of supply/administration

	• Individuals name and CHI • Exclusion criteria, record why the medicine was not supplied/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/supplied • Advice given, including advice given if excluded or declined treatment under this PGD • Signature and name in capital letters of the healthcare professional who supplied/administered the medicine • Record of any adverse effects (advise individuals GP/relevant medical practitioner). Depending on the clinical setting where supply/administration is undertaken, the information should be recorded manually or electronically, in one (or more) of the following systems, as appropriate: • Individual's GP records if appropriate • Secondary Care Medical Notes • HEPMA • ADASTRA • Individual service specific systems.
Audit	All records of the medicine 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 supplied/administered under a PGD.

References

Electronic Medicines Compendium
http://www.medicines.org.uk

Medicine	Date of Revision	Date Accessed
Adrenaline 1 In 10,000 (1mg In 10mL) for Injection (Aguettant Ltd)	10/03/19	30/03/22
Aspirin 300mg Soluble Tablet (Accord brand)	15/09/21	04/10/22
Cefotaxime 1g for Injection (Bowmed Ibisqus)	14/03/17	30/03/22
Chlorphenamine Maleate 10mg Solution for Injection (Wockhardt Ltd)	10/11/17	30/03/22
Clopidogrel 75mg Tablets (Accord)	12/01/21	30/03/22
Co-trimoxazole 80mg/400mg tablets (Aspen)	July 2021	30/03/22
Dalteparin Sodium (Fragmin®)10,000IU/1mL Solution for Injection	August 2021	30/03/22
Dexamethasone 3.3mg/mL solution for injection (Hameln Pharma)	24/0/21	30/03/22
Dexamethasone 3.8mg/mL solution for injection (Aspen)	28/11/18	30/03/22
Diazepam RecTubes 5mg and 10mg (Wockhardt Brand)	14/01/20	30/03/22
Diclofenac Voltarol® Ampoules (Novartis)	09/10/21	30/03/22
Diclofenac Voltarol® 50mg Suppositories (Novartis)	09/10/21	30/03/22
Furosemide 10mg/mL (Accord)	15/09/16	30/03/22
Glucagon GlucaGen® HypoKit 1mg	May 2021	30/03/22
Glucose 10% for Infusion (Baxter Ltd)	March 2019	30/03/22
Glyceryl Trinitrate 400mcg metered dose Spray (Aspire)	12/01/20	30/03/22

Medicine	Date of Revision	Date Accessed
Hydrocortisone 100mg, powder for solution for injection/infusion (Panpharma)	01/02/21	30/03/22
Ipratropium Bromide 250micrograms/1mL Nebuliser Solution (Accord)	15/04/21	30/03/22
Metoclopramide 5 mg/mL Injection (Hameln)	22/07/20	30/03/22
Prednisolone 5mg Tablets (Wockhardt)	13/05/21	30/03/22
Prednisolone 5mg Soluble Tablets	01/11/17	30/03/22
Salbutamol 2.5mg/2.5mL Nebuliser Solution (Accord)	02/08/21	30/03/22
Sodium Chloride 0.9% Intravenous Infusion BP	December 2018	30/03/22
Syntometrine 500micrograms/5IU Solution for Injection	October 2019	30/03/22
Tenecteplase Metalyse 10,000 units powder and solvent for solution for injection	October 2017	30/03/22

Medicines and Healthcare Products Regulatory Agency (MHRA) MHRA Products | Home

Medicine	Date of Revision	Date Accessed
Aspirin 300mg Dispersible Tablets (Accord Ltd)	19/12/19	30/03/22
Ticagrelor 90mg Film-Coated Tablets	22/06/21	30/03/22

Glucose Oral Gel (Dextrogel®, Glucogel®, Rapilose®) 40% Glucose.

British National Formulary and British National Formulary for Children https://about.medicinescomplete.com/ accessed 29/12/21.

Appendix 1

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

I: _____ (Insert name)

Working within: _____ e.g. Area, Practice

Agree to supply/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 supply/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: _____

Appendix 2

Healthcare Professionals Authorisation to Supply/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 supply/administer the medicine(s) under this PGD is responsible for ensuring that they are 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 supply/administer the medicine(s) under this PGD is responsible for ensuring that they understand and are qualified, trained and competent to undertake the duties required. The approved person is also responsible for ensuring that supply/administration is carried out within the terms of the direction, and according to their individual code of professional practice and conduct.
Patient Group Direction For The Supply/Administration Of Emergency Medicines By Approved Healthcare Professionals Working Within NHS Grampian Out of Hours (OOH) Primary Care Service
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

Patient Group Direction For The Supply/Administration Of Emergency Medicines By Approved Healthcare Professionals Working Within NHS Grampian Out of Hours (OOH) Primary Care Service					
Name of Healthcare Professional	**Signature**	**Date**	**Name of Manager**	**Signature**	**Date**

Appendix 3

NHS Grampian - OOH Emergency Medicine Formulary

The information in these monographs is not exhaustive. They must be read in conjunction with the current issue of the British National Formulary, and the Summary of Product Characteristics for each medicine.

Adrenaline/Epinephrine 1 In 10,000 (1mg In 10mL) Injection (Administer)	
Medicine Legal Status	POM
Indication	• Cardiac arrest confirmed by monitoring and individual has no palpable pulse or heartbeat. As per training UK Resuscitation Council Guidelines for Adult Intermediate Life Support (ILS). Refer to OOH Primary Care (formally GMED) Clinical Handbook - Automated External Defibrillation. Clinicians should follow UK Resuscitation Council algorithm for Adult Advanced Life Support (ALS). **Note:** Arrange urgent transfer to hospital, by emergency ambulance if quickest means, (depending on OOH Primary Care service location) for all individuals who fall into inclusion/exclusion criteria.
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 16 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Individuals 16 years of age and over who have a Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) which has been signed previously • Allergy or hypersensitivity to any excipients of the injection • Under 16 years of age. **Contraindications are relative as this medicine is for use in life-threatening emergencies.** See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	IV route should be administered with extreme care by specialists. **Note:** Only OOH Service practitioners who have completed ALS and IV drug administration qualifications can administer this medicine under this PGD.

Adrenaline/Epinephrine 1 In 10,000 (1mg In 10mL) Injection (Administer)	
	Individuals who are given IV adrenaline require continuous monitoring of ECG, pulse oximetry and frequent blood pressure measurements as a minimum.
Dose/Maximum total dose	**Individuals 16 years of age and over:** 10mL of Adrenaline (epinephrine) 1 in 10,000 (1mg in 10mL) as an intravenous (IV) bolus repeated every 3-5 minutes until return of spontaneous circulation.
Maximum or minimum treatment period	See Frequency of dose/Duration of treatment section below.
Frequency of dose/Duration of treatment	Administer every 3 - 5 minutes without interrupting chest compressions until ambulance or resuscitation team arrive, or until further attempts at Cardiopulmonary Resuscitation (CPR) are deemed unnecessary.
Route/Method of Administration	Administer by IV bolus. Once cardiac arrest confirmed, additional help called for and emergency ambulance or resuscitation team called commence uninterrupted CPR immediately. 10mL of Adrenaline 1 in 10,000 to be administered during CPR every 3 - 5 minutes without interrupting chest compressions: • In asystole and Pulseless Electrical Activity (PEA) immediately IV access is achieved. • In Ventricular Fibrillation (VF) or pulseless Ventricular Tachycardia (VT) after the third shock once compressions are resumed. Do not stop CPR to administer adrenaline. • Repeat if necessary (after alternate shocks) every 3 - 5 minutes having assessed rhythm before administration (as per UK Resuscitation Council Guidelines 2010, Adult Advanced Life Support). • Following each administration flush with 10mL (20mL if peripheral line) 0.9% sodium chloride injection (refer to the NHSG Patient Group Direction for the administration of sodium chloride 0.9% injection for flushing IV catheters/cannulae).
Quantity to be administered	See Method of administration section above.

Adrenaline/Epinephrine 1 In 10,000 (1mg In 10mL) Injection (Administer)	
Potential Adverse Reactions	Anxiety, tremor, tachycardia, arrhythmias, headache, cold extremities, nausea and vomiting, hypertension (risk of cerebral haemorrhage), dyspnoea, pulmonary oedema (on excessive dosage or extreme sensitivity, anxiety, restlessness, angina, dizziness and hyperglycaemia. Refer to BNF and SmPC for other side-effects.
Storage	Store below 25°C. Protect from light.

Aspirin 300mg Soluble Tablets (Administer)	
Medicine Legal Status	GSL, P or POM dependant on pack size.
Indication	• Central chest pain of cardiac origin – confirmed by 12 lead ECG. • Clinical signs of acute coronary syndrome, i.e. unstable angina, acute NSTEMI or acute STEMI. **Note:** Arrange urgent transfer to hospital, by emergency ambulance if quickest means, (depending on GMED location) for all individuals who fall into inclusion/exclusion criteria. **Refer to OOH Primary Care Service (formally GMED) Clinical Handbook – Treatment of Myocardial Infarction and GMED Chest Pain (STEMI) Triage for PPCI.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 16 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 16 years of age • Allergy or hypersensitivity to aspirin or other NSAIDs or excipients of the tablets • Active peptic ulceration • Haemophilia, thrombocytopenia and other bleeding disorders • Suspected or known haemorrhagic stroke • Severe hepatic impairment • Severe renal impairment • If the individual has already taken aspirin for current episode of chest pain. **Contraindications are relative as this medicine is for use in life-threatening emergencies.** See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Aspirin may promote bronchospasm and asthma attacks or other hypersensitivity reactions. Risk factors are existing asthma, hay fever, nasal polyps or chronic respiratory diseases.

Aspirin 300mg Soluble Tablets (Administer)	
Dose/Maximum total dose	300mg chewed or dissolved in water. **Maximum total dose allowed under this PGD is 300mg.**
Frequency of dose/Duration of treatment	Once only
Maximum or minimum treatment period	Once only
Route/Method of Administration	Oral administration. Dissolve tablet in water or ask individual to chew. Should the individual be unconscious the tablet should be placed in the mouth where it will dissolve.
Quantity to be Administered	One 300mg soluble tablet
Potential Adverse Reactions	Bronchospasm and other hypersensitivity reactions. GI irritation or bleeding/ulceration. May cause indigestion, nausea or vomiting. Refer to BNF and SmPC for other side-effects.
Storage	Do not store above 25°C. Store in the original container in order to protect from moisture.

Cefotaxime Sodium 1g Powder For Injection (Administer)	
Medicine Legal Status	POM

Indication	• Suspected bacterial meningitis or suspected meningococcal septicaemia
	• Suspected sepsis – meeting the following criteria:
	  ○ Presence of clinical signs of infection of unidentified source
	  ○ National Early Warning Score (NEWS) ≥5
	  ○ Estimated time from assessment to hospital >1 hour
	
	Note: Arrange urgent transfer to hospital, by emergency ambulance if quickest means, (depending on OOH Primary Care service location) for all individuals who fall into inclusion/exclusion criteria.
	
	Refer to OOH (formally GMED) Clinical Handbook - Meningitis or Septicaemia Treatment Guidelines.
	
	Refer to the NHS Grampian Protocol For The Treatment of Common Infections in Primary Care and NHS Grampian Guidance Notes on the Treatment of Common Infections in Children in Primary Care.

Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 1 month of age or over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 1 month of age • Allergy or hypersensitivity to cephalosporins or any excipients of the injection • With a previous history of hypersensitivity to Lidocaine or other local anaesthetics of the amide type • Severe heart failure • Individuals who have a non-paced heart block. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**

Cefotaxime Sodium 1g Powder For Injection (Administer)	
Precautions and warnings	As with other antibiotics, the use of cefotaxime, especially if prolonged, may result in overgrowth of non-susceptible organisms. Repeated evaluation of the patient's condition is essential. If superinfection occurs during treatment, appropriate measures should be taken.
Dose/Maximum total dose	**Suspected bacterial meningitis or suspected meningococcal septicaemia:** 12 years of age and over: 1g 1 month - 11 years of age: 50mg/kg up to a maximum of 1g. **Suspected sepsis:** 18 years of age and over: 2g 12 years - 17 years of age : 1g 1 month - 11 years of age: 50mg/kg up to a maximum of 1g. **Maximum dose allowed under this PGD for Suspected bacterial meningitis or suspected meningococcal septicaemia is 1g.** **Maximum dose allowed under this PGD for Suspected sepsis is 2g.**
Frequency of dose/Duration of treatment	Once only
Maximum or minimum treatment period	Once only
Route/Method of Administration	Slow IV injection over 3 - 5 minutes. **Reconstitution Guidance:** IV: 1g dissolved in 4mL of water for injections BP. For 2g dose each 1g vial is reconstituted in 4mL water for injections BP. Shake well until dissolved and then withdraw the entire contents of the vial into the syringe. Discard any unused contents. The IV route is the preferred route as the IM route is less effective in a shocked individual. If venous access is not possible discuss with duty doctor.

Cefotaxime Sodium 1g Powder For Injection (Administer)	
Quantity to be administered	See dose section above.
Potential Adverse Reactions	Abdominal pain; diarrhoea; dizziness; eosinophilia; headache; leucopenia; nausea; neutropenia; pseudomembranous enterocolitis; skin reactions; thrombocytopenia; vomiting; vulvovaginal candidiasis. 0.5 to 6% of penicillin sensitive individuals will be allergic to cephalosporins. In individuals with a history of immediate hypersensitivity to penicillin and where treatment is essential use with caution. Refer to BNF/BNFC and SmPC for other side-effects.
Storage	Do not store above 25°C. Store in the original container in order to protect from moisture. Only freshly prepared solutions should be used.

Chlorphenamine 10mg/mL Solution For Injection (Administer)	
Medicine Legal Status	POM
Indication	• Severe anaphylaxis – following administration of adrenaline (epinephrine) 1 in 10,000 while waiting on transfer to hospital by ambulance. **Refer to OOH primary care service (formally GMED) Clinical Handbook – Emergency Treatment of Anaphylactic Reactions, Resuscitation Council UK.** **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 1 year of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 1 year of age • Allergy or hypersensitivity to chlorphenamine or any excipients of the injection • Currently taking: Monoamine oxidase inhibitors (MAOIs) or within the last 14 days, phenytoin, tricyclic antidepressants. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Chlorphenamine, in common with other drugs having anticholinergic effects, should be used with caution in epilepsy; raised intra-ocular pressure including glaucoma; prostatic hypertrophy; severe hypertension or cardiovascular disease; bronchitis; bronchiectasis and asthma; hepatic disease and thyrotoxicosis. Children and the elderly are more likely to experience the neurological anticholinergic effects.
Dose/Maximum total dose	12 years of age and over: 10mg 6 - 11 years of age: 5mg 1 - 5 years of age: 2.5mg. **Maximum dose allowed under this PGD is 10mg.**

Chlorphenamine 10mg/mL Solution For Injection (Administer)	
Frequency of dose/Duration of treatment	Once only dose by slow IV injection over 1 minute in anaphylaxis.
Maximum or minimum treatment period	Once only
Route/Method of Administration	The IV route is recommended. Injection by this route should be slow over a period of one minute, using the smallest adequate syringe. Administration by subcutaneous or IM injection can be given if no IV access can be obtained.
Quantity to be administered	See dose section above.
Potential Adverse Reactions	Drowsiness, blurred vision, psychomotor impairment, nausea, vomiting, diarrhoea, headache, dry mouth and transient hypotension. Sedating effects are enhanced by alcohol and other sedating medicines. Refer to BNF/BNFC and SmPC for other side-effects.
Storage	This medicinal product does not require any special storage conditions.

Clopidogrel 75mg Tablets (Administer)	
Medicine Legal Status	POM
Indication	• Clinical signs of acute coronary syndrome, i.e. unstable angina, acute NSTEMI or acute STEMI. **Note:** Arrange urgent transfer to hospital, by emergency ambulance if quickest means, (depending on OOH location) for all individuals who fall into inclusion/exclusion criteria. **Refer to OOH (formally GMED) Clinical Handbook – Treatment of Myocardial Infarction and OOH (formally) GMED Chest Pain (STEMI) Triage for PPCI and NHS Grampian Staff Guidelines for the In-Hospital Management of Unstable Angina and Non-ST-Segment – Elevation Myocardial Infarction Individuals (17years And Older)**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years old • Allergy/hypersensitivity to clopidogrel or any other constituents of tablet • Active bleeding • Moderate to severe hepatic impairment. **Contraindications are relative as this medicine is for use in life-threatening emergencies.** See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	• Severe hepatic impairment • Active pathological bleeding such as peptic ulcer or intracranial haemorrhage • Individuals at increased risk of bleeding from trauma or recent surgery • Pathological conditions that increase risk of bleeding • Concomitant use of medicines that increase risk of bleeding • Severe renal impairment.

Clopidogrel 75mg Tablets (Administer)	
Dose/Maximum total dose	300mg (4 x 75mg tablets) as a single dose **Maximum dose allowed under this PGD is 300mg.**
Frequency of dose /Duration of treatment	Once only
Maximum or minimum treatment period	Once only
Route/Method of Administration	Oral administration. Ask individual to swallow tablets with a drink of water or other fluid. **Note:** Inform Coronary Care Unit (CCU) dose has been given.
Quantity to be administered	300mg (4 tablets)
Potential Adverse Reactions	Diarrhoea; gastrointestinal discomfort; haemorrhage and skin reactions. Refer to BNF and SmPC for other side-effects.
Storage	This medicinal medicine does not require any special storage conditions.

Co-Trimoxazole (80mg Trimethoprim/400mg Sulfamethoxazole) Tablets (Supply)	
Legal Status	POM **Note:** The administration of co-trimoxazole for the indications included in this PGD is unlicensed and constitutes an off-label use of the medicine. As such the individual should be informed prior to the supply.
Indication	• Acute bacterial prostatitis • Pyelonephritis. Refer to the NHS Grampian Protocol For The Treatment of Common Infections in Primary Care and NHS Grampian Guidance Notes on the Treatment of Common Infections in Children in Primary Care.
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 12 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 12 years of age • Previous allergy or hypersensitivity to co-trimoxazole, sulphonamides, trimethoprim or any of the excipients of the tablets • Acute porphyria • Drug induced immune thrombocytopenia with use of trimethoprim and/or sulphonamides • Renal Impairment • Severe Hepatic Impairment • Pregnancy • Breastfeeding • Currently taking: amantadine, amiodarone, azathioprine, ciclosporin, clozapine, coumarins – warfarin or acenocoumarol, dapsone, digoxin, immunosuppressants, lamivudine, methotrexate, mercaptopurine, phenytoin, procainamide, repaglinide, rifampicin or zidovudine. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**

Co-Trimoxazole (80mg Trimethoprim/400mg Sulfamethoxazole) Tablets (Supply)	
Precautions and warnings	Particular care is always advisable when treating older patients because, as a group, they are more susceptible to adverse reactions and more likely to suffer serious effects as a result particularly when complicating conditions exist, e.g. impaired kidney and/or liver function and/or concomitant use of other drugs.
Dose/Maximum total dose	**Pyelonephritis:** 2 tablets (160mg/800mg) twice daily for 7 days (unlicensed) (supply 28 - GP to review as per culture sensitivities). **Prostatitis:** 2 tablets (160mg/800mg) twice daily for 14 days (unlicensed) (supply 28 – GP to review after 7 days). **Maximum supply of 28x80mg/400mg tablets allowed under this PGD.**
Frequency of dose/Duration of treatment	See Dose/Maximum total dose section above.
Maximum or minimum treatment period	See Dose/Maximum total dose section above.
Route/Method of Administration	Oral administration
Quantity to be supplied	Supply [1x28] Tablets.
Potential Adverse Reactions/ Cautions	Diarrhoea; electrolyte imbalance; fungal overgrowth; headache; nausea and skin reactions. Discontinue **immediately** if blood disorders or rash develops. Send MSU for culture in pyelonephritis and prostatitis. Refer to BNF/BNFC and SmPC for other side-effects.
Follow up (If applicable)	N/A
Storage	Store below 25°C. Keep container in the outer carton.

Dalteparin Solution For Injection 10,000 IU/1mL Pre-filled Syringe/Ampoule (Administer)	
Medicine Legal Status	POM
Indication	Treatment of venous thromboembolism (VTE) presenting clinically as deep vein thrombosis (DVT). **Note:** Arrange urgent transfer to hospital, by emergency ambulance if quickest means, (depending on OOH location) for all individuals who fall into inclusion/exclusion criteria. **STEMI (ST-segment Elevation Myocardial Infarction) individuals** should be referred to the CCU Decision Support or the cardiac cath lab for consideration of primary Percutaneous Coronary Intervention (PCI). If thrombolysis is appropriate to be administered (after discussion with a cardiologist) then dalteparin should be used in these individuals (please contact CCU or A&E at Dr Grays Hospital for thrombolysis and dalteparin administration guidance). **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years of age • Known hypersensitivity to fragmin or other low molecular weight heparins and/or heparins • Cancer (individual with weight <40kg) • Peptic ulcer • Serious coagulation disorders such as haemophilia • Acute bacterial septic endocarditis • Recent operations on nervous system or eyes • Thrombocytopenia (including history of heparin-induced thrombocytopenia) • Suffered a stroke in the last 3 months • If individual is established on an anticoagulant already (i.e. warfarin, dabigatran, apixaban, rivaroxaban or edoxaban) • Pregnancy • Breastfeeding. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines.

Dalteparin Solution For Injection 10,000 IU/1mL Pre-filled Syringe/Ampoule (Administer)	
	Medical advice should be sought immediately for any individual who is excluded from the PGD.
Precautions and warnings	Do not administer by the intramuscular route. Due to the risk of haematoma, intramuscular injection of other medical preparations should be avoided when the twenty-four hour dose of dalteparin exceeds 5,000IU.
Dose/Maximum total dose	**VTE** • <46kg - 7,500 units daily • 46 - 56kg - 10,000 units daily • 57 - 68kg - 12,500 units daily • 69 - 82kg - 15,000 units daily • >83kg - 18,000 units daily **Thrombolysis** Please contact CCU or A&E at Dr Grays Hospital for thrombolysis and dalteparin administration guidance. Please see clinical handbook for average dose per weight. Antithrombotic adjunctive therapy with Tenecteplase should be administered according to the clinical handbook for the management of individuals with ST-elevation MI. **Maximum total dose allowed under this PGD is as per unit dose above according to weight one dose only.**
Frequency of dose/Duration of treatment	Once only dose
Maximum or minimum treatment period	Once only dose
Route/Method of Administration	VTE – subcutaneous injection. Thrombolysis – IV administration followed by sodium chloride flush 0.9% w/v and subcutaneous injection as per the PGD 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.

Dalteparin Solution For Injection 10,000 IU/1mL Pre-filled Syringe/Ampoule (Administer)	
Quantity to be Administered	Dependant on the weight of the individual. See Dose/Maximum total dose section above.
Potential Adverse Reactions	Haemorrhage; heparin-induced thrombocytopenia and skin reactions. Refer to BNF and SmPC for other side-effects.
Storage	Store below 30°C.

Dexamethasone Solution For Injection 3.8mg/mL Or 3.3mg/mL (Administer)	
Medicine Legal Status	POM **Note:** Administration of dexamethasone injection orally for croup is an 'off-label' indication, i.e. use of the medicine out with the terms of the licence and this should be discussed with the person with parental responsibility prior to administration.
Indication	• Moderate to severe Croup. **Admission Criteria:** Admit to hospital immediately, any child with moderate to severe croup, or impending respiratory failure. Consider admission to hospital, any child with mild croup and when they: • Have previous history of severe croup or other airway obstruction • Are under 6 months old • Are immunocompromised • Have upper airway abnormality or where there is pre-existing narrowing of the upper airways (e.g. subglottic stenosis) • Are refusing fluids or has inadequate fluid intake • Has poor response to initial treatment • Have an uncertain diagnosis • Where there is significant parental anxiety, no transport, home distant from hospital, presents late evening or night. **Refer to OOH (formally GMED) Clinical Guidelines – Treatment of Croup.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 6 months of age up to 6 years of age.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 6 months of age • Over 6 years of age • Allergy or hypersensitivity to dexamethasone or any of the excipients of the preparation • Systemic infections unless anti-infective therapy is being given • Tuberculosis. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines.

<table>
<tr><th colspan="2">Dexamethasone Solution For Injection 3.8mg/mL Or 3.3mg/mL (Administer)</th></tr>
<tr><td></td><td>Medical advice should be sought immediately for any individual who is excluded from the PGD.</td></tr>
<tr><td>Precautions and warnings</td><td>Congestive heart failure; diabetes mellitus (including a family history of); diverticulitis; epilepsy; glaucoma (including a family history of or susceptibility to); history of steroid myopathy; history of tuberculosis or X-ray changes (frequent monitoring required); hypertension; hypothyroidism; infection (particularly untreated); long-term use; myasthenia gravis; ocular herpes simplex (risk of corneal perforation); osteoporosis; peptic ulcer; psychiatric reactions; recent intestinal anastomoses; recent myocardial infarction (rupture reported); severe affective disorders (particularly if history of steroid-induced psychosis); thromboembolic disorders and ulcerative colitis.</td></tr>
<tr><td>Dose/Maximum total dose</td><td>Dose: 150micrograms/kg body weight.

All children with mild, moderate, or severe croup should be given a single dose.

Note: Children with mild croup should be re-assessed after 1 hour.

Note: Dexamethasone injection is available from different manufacturers. The medicines are not interchangeable, dosage adjustment is required.

Aspen Brand - Each 1mL contains 3.8mg dexamethasone (as sodium phosphate) which is equivalent to 5.0mg dexamethasone sodium phosphate.

Hameln Brand - Each 1mL contains 3.32mg dexamethasone base (i.e. 6.6mg in 2mL) equivalent to 4mg/mL dexamethasone phosphate (as 4.37mg dexamethasone sodium phosphate)

Guidance on Doses:
<table>
<tr><th>Age (in years)</th><th>Weight (in kg)</th><th>Dose in mg (free dexamethasone)</th><th colspan="2">Volume in mLs</th></tr>
<tr><td></td><td></td><td></td><td>Aspen</td><td>Hameln</td></tr>
<tr><td>1</td><td>10</td><td>1.5mg</td><td>0.39mL</td><td>0.45mL</td></tr>
<tr><td>2</td><td>12</td><td>1.8mg</td><td>0.47mL</td><td>0.55mL</td></tr>
<tr><td>3</td><td>14</td><td>2.1mg</td><td>0.55mL</td><td>0.64mL</td></tr>
<tr><td>4</td><td>16</td><td>2.4mg</td><td>0.62mL</td><td>0.73mL</td></tr>
</table></td></tr>
</table>

<table>
<tr><th colspan="2">Dexamethasone Solution For Injection 3.8mg/mL Or 3.3mg/mL (Administer)</th></tr>
<tr><td></td><td>
<table>
<tr><th>Age (in years)</th><th>Weight (in kg)</th><th>Dose in mg (free dexamethasone)</th><th>Volume in mLs
Aspen</th><th>
Hameln</th></tr>
<tr><td>5</td><td>18</td><td>2.7mg</td><td>0.70mL</td><td>0.82mL</td></tr>
<tr><td>6</td><td>20</td><td>3.0mg</td><td>0.78mL</td><td>0.91mL</td></tr>
</table>
The required volume of dexamethasone solution may be drawn up in a syringe and administered (without the needle).

Maximum total dose allowed under this PGD is in accordance with weight as set out in the table above and administered as one dose only.
</td></tr>
<tr><td>Frequency of dose/Duration of treatment</td><td>Once only</td></tr>
<tr><td>Maximum or minimum treatment period</td><td>Once only</td></tr>
<tr><td>Route/Method of Administration</td><td>Administer orally. Oral steroids have an effect within 1 hour.</td></tr>
<tr><td>Quantity to be administered</td><td>Dependant on the weight of the individual.</td></tr>
<tr><td>Potential Adverse Reactions</td><td>Side-effects associated with dexamethasone are related to over-dosage or long-term use and are unlikely to be significant with a single dose.

Possible side-effects could include hypersensitivity reactions, nausea, vomiting, stomach pain and GI disturbance.

Refer to BNF/BNFC and SmPC for other side-effects.</td></tr>
<tr><td>Storage</td><td>Aspen - Store in a refrigerator (+2°C to +8°C). Do not freeze. Store in the original package.

Hameln - Keep container in the outer carton. Do not freeze. Store below 25°C. Any unused portion should be discarded immediately after use.</td></tr>
</table>

Diazepam 5mg/10mg (RecTubes®) Rectal Solution (Administer)	
Medicine Legal Status	POM **Note:** Administration of diazepam rectal to children under 1 year is an 'off-label' indication, i.e. use of the medicine out with the terms of the licence and this should be discussed with the person with parental responsibility prior to administration.
Indication	• Seizure greater than 5 minutes and where not secondary to hypoxia or hypoglycaemia (In seizures of less than 5 minutes look for an epilepsy identity card or bracelet, protect the individual from injury, when seizure stops check airway and manage any injury or admission as necessary). **In status epilepticus and seizures due to symptomatic cocaine toxicity arrange emergency admission to hospital immediately.** **Arrange emergency admission to hospital immediately:** • If the individual does not respond promptly to treatment • If the individual has responded to treatment but the seizure was prolonged or recurrent before treatment • If there is a high risk of recurring seizure • If there is difficulty monitoring ABCDE. Following seizure and administration of diazepam refer to OOH duty doctor for advice. **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 1 month of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 1 month of age • Allergy or hypersensitivity to benzodiazepines or any of the excipients of the rectal tubes • Myasthenia gravis • Severe renal or hepatic impairment • Severe respiratory insufficiency • Sleep apnoea syndrome • Phobic or obsessional states; chronic psychosis, hyperkinesis • Acute porphyria • Pregnancy

Diazepam 5mg/10mg (RecTubes®) Rectal Solution (Administer)	
	• Currently taking rifampicin or ritonavir. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Diazepam rectal tubes should not be used concomitantly with disulfiram due to its ethanol content. A reaction may occur as long as two weeks after cessation of disulfiram. Diazepam rectal tubes contains 15mg/mL benzyl alcohol. Benzyl alcohol may cause toxic reactions and anaphylactoid reactions in infants and children up to 3 years old. Diazepam rectal tubes, contains benzoic acid (E210) and sodium benzoate (E211) and it may be mildly irritating to the skin and mucous membranes. Diazepam rectal tubes, contains propylene glycol and may cause skin irritation.
Dose/Maximum total dose	Adults: 10 - 20mg, then 10 - 20mg after 10 minutes if required. Maximum dose is 30mg. Elderly >70 years of age or those considered to be frail: 5mg may be repeated once after 15 minutes if necessary. Maximum dose is 10mg. Child 2 - 11 years – 5 - 10mg, then 5 - 10mg after 10 minutes if required. Maximum dose is 20mg. Child 12 - 17 years - 10 - 20mg, then 10 - 20mg after 10 minutes if required. Maximum dose is 30mg. Child 1 month - 1 year: 5mg may be repeated once after 10 minutes if necessary. **Note:** The use of diazepam in this age group constitutes an off-label use of diazepam. Maximum dose is 10mg. **Maximum total dose allowed under this PGD is 30mg.**
Frequency of dose/Duration of treatment	Initial dose followed by a repeat dose after 10 minutes if necessary.

Diazepam 5mg/10mg (RecTubes®) Rectal Solution (Administer)	
Maximum or minimum treatment period	N/A
Route/Method of Administration	Before administration: • Protect individual from danger • Check and maintain the airway • Check breathing • Administer oxygen 100% • Check circulation • Check blood glucose levels • Check with individual/person with parental responsibility if there have been any recent doses of diazepam/midazolam administered. Administer contents of the tube into the rectum. Care must be taken when inserting nozzle of tube into rectum. Do not insert beyond marker line on tube. For children under 15kg, insert only half way. Squeeze tube by pressing with thumb and index finger, and continue to squeeze while withdrawing tube from rectum. Hold buttocks together for a few minutes to prevent seepage. After administration: • Place individual in recovery position • Do not attempt to move individual from supine position for 10 minutes • Monitor vital signs for respiratory depression. **Note:** Following administration of diazepam refer to OOH Primary Care Service duty doctor for advice.
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	The side-effects of diazepam are usually mild and infrequent. The most common are alertness decreased; anxiety; ataxia (more common in elderly); confusion (more common in elderly); depression; dizziness; drowsiness; dysarthria; fatigue; headache; hypotension; mood altered; muscle weakness; nausea; respiratory depression (particularly with high dose and intravenous use—facilities for its treatment are essential); sleep disorders; tremor and vision disorders.

Diazepam 5mg/10mg (RecTubes®) Rectal Solution (Administer)	
	Elderly or debilitated individuals are particularly susceptible to side-effects. Caution with alcohol, opioid analgesics, other hypnotics and anxiolytics and antidepressants as increased risk of respiratory depression and sedation. Refer to BNF/BNFC and SmPC for other side-effects.
Storage	Do not store above 25°C. Store in the original package in order to protect from light.

Diclofenac 75mg/3mL Ampoules For Injection Or 50mg Suppositories (Administer)	
Medicine Legal Status	POM
Indication	• Acute renal colic or acute biliary colic • Pain and inflammation in musculoskeletal disorders, rheumatic disease, acute gout, back pain and other painful conditions resulting from trauma. **Admission Criteria:** • If individual is in shock, fevered or signs of systemic infection • Dehydrated and cannot take fluids due to vomiting • Do not respond to treatment within 1 hour • At risk of loss of renal function (single or transplanted kidney, renal impairment or suspicion of bilateral kidney obstruction) • Abrupt sudden recurrence of pain • Individual over 60 years • No social support • Contact by telephone not possible. Individual may be allowed home provided there are no indications as above and the pain has resolved spontaneously or within 1 hour of treatment, social support is present, telephone contact is possible, they wish to go home and preferably they are under 60 years of age. **Discuss with OOH Duty doctor suitability of individual to go home/remain at home and need for simple analgesia.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years of age • Allergy or hypersensitivity to diclofenac, other NSAIDs including aspirin or any of the excipients of the injection • Active, gastric or intestinal ulcer, bleeding or perforation • History of gastrointestinal bleeding or perforation, relating to previous NSAID therapy • Active, or history of recurrent peptic ulcer/haemorrhage (two or more distinct episodes of proven ulceration or bleeding) • Last trimester of pregnancy

Diclofenac 75mg/3mL Ampoules For Injection Or 50mg Suppositories (Administer)	
	• Hepatic failure • Renal failure • Established congestive heart failure (NYHA II-IV), ischemic heart disease, peripheral arterial disease and/or cerebrovascular disease • Like other non-steroidal anti-inflammatory drugs (NSAIDs), diclofenac is also contraindicated in patients in whom attacks of asthma, angioedema, urticaria or acute rhinitis are precipitated by ibuprofen, acetylsalicylic acid or other nonsteroidal anti-inflammatory drugs • Individuals currently prescribed lithium, digoxin, diuretics and antihypertensive agents. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Undesirable effects may be minimised by using the lowest effective dose for the shortest duration necessary to control symptoms. Caution is indicated in the elderly on basic medical grounds. In particular, it is recommended that the lowest effective dose be used in frail elderly patients or those with a low body weight.
Dose/Maximum total dose	**Injection:** 75mg (once) **deep intragluteal injection** into the upper outer quadrant **Suppositories:** 50 - 100mg to be inserted rectally **Maximum total daily dose allowed under this PGD is 150mg.**
Frequency of dose/Duration of treatment	Once only
Maximum or minimum treatment period	Once only
Route/Method of Administration	Administer 75mg/3mL ampoules by IM Injection. Administer 50mg suppositories rectally. Check individual has taken no other form of diclofenac.

Diclofenac 75mg/3mL Ampoules For Injection Or 50mg Suppositories (Administer)	
	I.M. injection Caution in individuals with low muscle mass, e.g. elderly >70 years of age or those considered to be frail and palliative care individuals. The instructions for intramuscular injection should be strictly followed in order to avoid adverse events at the injection site, which may result in muscle weakness, muscle paralysis, hypoesthesia and injection site necrosis. **After administration discuss with doctor further pain management, treatment with anti-emetic and whether to admit individual or not.** **Advise individual:** • Contact NHS24 or own GP if they develop fever or rigors. If the pain worsens or there is a sudden recurrence of the pain • Not to take other NSAIDs if had maximum daily dose of diclofenac • Contact NHS24 or doctor if an adverse effect is suspected • Increase fluid intake.
Quantity to be administered	One 75mg/3mL ampoules Or 1 - 2 50mg suppositories.
Potential Adverse Reactions	Common or very common side-effects: With oral use: appetite decreased; diarrhoea; dizziness; gastrointestinal discomfort; gastrointestinal disorders; headache; nausea; rash (discontinue); vertigo; vomiting With parenteral use: appetite decreased; diarrhoea; dizziness; gastrointestinal discomfort; gastrointestinal disorders; headache; nausea; rash (discontinue); vertigo; vomiting Caution is recommended in patients receiving concomitant medications which could increase the risk of ulceration or bleeding, such as systemic corticosteroids, anticoagulants such as warfarin, selective serotonin-reuptake inhibitors (SSRIs) or anti-platelet agents such as acetylsalicylic acid.

Diclofenac 75mg/3mL Ampoules For Injection Or 50mg Suppositories (Administer)	
	Refer to BNF and SmPC for other side-effects.
Storage	Suppositories - store below 30°C. Ampoules - Do not store above 30°C.Store in the original package in order to protect from light.

Furosemide 50mg/5mL Ampoules For Injection (Administer)	
Medicine Legal Status	POM
Indication	• Oedema due to cardiac disease • Pulmonary oedema • Hypertensive crisis when oral administration is not feasible or efficient, or a rapid response is required.
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 16 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 16 years of age • Hypersensitivity to the active ingredient, sulphonamides or any excipients • Renal impairment • Hepatic impairment • Severe hypokalaemia • Severe hyponatraemia • Pregnancy • Breastfeeding • Currently taking: NSAIDs, Angiotensin Converting Enzyme (ACE) inhibitors, e.g. ramipril, lithium, sulphonamides or chloral hydrate. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Can exacerbate diabetes (but hyperglycaemia less likely than with thiazides); can exacerbate gout; hypotension should be corrected before initiation of treatment; hypovolaemia should be corrected before initiation of treatment; urinary retention can occur in prostatic hyperplasia.
Dose/Maximum total dose	**Congestive Heart Failure:** 40mg bolus dose. **Pulmonary Oedema:** The dose of 40mg to be administered intravenous (IV) as 4mg/minute. **Hypertensive crisis:** (in addition to other therapeutic measures).

Furosemide 50mg/5mL Ampoules For Injection (Administer)	
	The recommended initial dose in hypertensive crisis is 20mg to 40mg administrated in bolus by IV injection. This dose can be adapted to the response as necessary. **Elderly:** 40mg bolus dose. **Maximum total allowed dose under this PGD is 40mg.**
Frequency of dose/Duration of treatment	Usually 40mg administered once via IV. However, titrated doses up to a **maximum of 40mg** can be given in hypertensive crisis.
Maximum or minimum treatment period	Dependant on individual response and clinical indication.
Route/Method of Administration	Hypotension, hypovolaemia and electrolyte Imbalances should be corrected before administration. To achieve optimum efficacy and suppress counter-regulation a continuous infusion is preferred. IV administration rates should not exceed 4mg/min. For IV infusion, give continuously in sodium chloride 0.9%; infusion pH must be above 5.5 (glucose solutions are unsuitable).
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	May exacerbate gout and diabetes, electrolyte disturbances, dizziness; electrolyte imbalance; fatigue; headache; metabolic alkalosis; muscle spasms and nausea. Refer to BNF and SmPC for other side-effects.
Storage	Do not store above 25°C. Do not refrigerate. Keep the ampoules in the outer carton in order to protect from light.

Glucagon (GlucaGen HypoKit®) 1mg Powder And Solvent For Solution For Injection (Administer)	
Medicine Legal Status	POM
Indication	• Hypoglycaemia, determined by clinical symptoms and a blood glucose <4.0mmol/L, in a conscious individual unable to take oral glucose by mouth. • Hypoglycaemia, determined by clinical symptoms and a blood glucose <4.0mmol/L, in an individual with impaired consciousness. **Note:** Hypoglycaemia that causes unconsciousness or seizures is a medical emergency and immediate transfer to hospital should be arranged while continuing treatment. **Refer to OOH (formally GMED) Clinical Protocol – Management of Hypoglycaemia.** **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 2 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 2 years of age • Children aged 2-18 years of age who are not diabetic • Allergy or a hypersensitivity to glucagon or any of the excipients of the injection • Hypoglycaemia, determined by clinical symptoms and a blood glucose <4.0mmol/L, in an individual unresponsive to oral glucose **(refer to Glucose Gel Monograph)** • Phaeochromocytoma (glucagon may cause hypertensive crisis) • Hypoglycaemia induced by starvation • Adrenal insufficiency • Indometacin (glucagon may be ineffective or possibly cause hypoglycaemia). • Warfarin (glucagon may increase the anticoagulant effect of warfarin). See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**

Glucagon (GlucaGen HypoKit®) 1mg Powder And Solvent For Solution For Injection (Administer)	
Precautions and warnings	Due to the instability of GlucaGen in solution, the product should be given immediately after reconstitution and must not be given as an intravenous infusion. To prevent relapse of the hypoglycaemia, oral carbohydrates should be given to restore the liver glycogen, when the patient has responded to the treatment. Glucagon will not be effective in patients whose liver glycogen is depleted. For that reason, glucagon has little or no effect when the patient has been fasting for a prolonged period, or is suffering from adrenal insufficiency, chronic hypoglycaemia or alcohol induced hypoglycaemia. Glucagon, unlike adrenaline, has no effect upon muscle phosphorylase and therefore cannot assist in the transference of carbohydrate from the much larger stores of glycogen that are present in the skeletal muscle.
Dose/Maximum total dose	**For Child 2-8 years (body-weight up to 25 kg)** 500micrograms, if no response within 10 minutes intravenous glucose must be given. **For Child 9-17 years (body-weight 25 kg and above)** 1 mg, if no response within 10 minutes intravenous glucose must be given. **For Adult** 1 mg, if no response within 10 minutes intravenous glucose must be given.
Frequency of dose/Duration of treatment	Once only dose
Maximum or minimum treatment period	Once only dose
Route/Method of Administration	Intramuscular (IM) or subcutaneous (SC) injection. IM injection should be administered to anterior lateral aspect of the thigh or arm. **Note:** IM administration should be avoided if thrombolysis is likely to be required due to the increased risk of haemorrhage.

Glucagon (GlucaGen HypoKit®) 1mg Powder And Solvent For Solution For Injection (Administer)	
	If glucagon is not effective within 10 minutes IV glucose should be given. **Refer to Glucose 10% Monograph.** Provide clear documentation of time administered.
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	Nausea is the most commonly reported side-effect of glucagon administration. Hypoglycaemia caused by oral antidiabetic medicines may persist for many hours and the individual should be transferred to hospital immediately. If the individual is intoxicated or hypoglycaemia is suspected to be due to sepsis refer to doctor. If treatment is successful, ensure treatment is followed with a source of carbohydrate, e.g. sandwich, fruit, milk or biscuits, or the next meal if it is due, to restore body glycogen levels. Individuals should be advised to see their own GP for follow up after a hypoglycaemic episode, to identify possible cause. Refer to BNF/BNFC and SmPC for other side-effects.
Storage	GlucaGen® HypoKit should be stored at a temperature of +2°C to +8°C. Do not allow to freeze. GlucaGen® HypoKit can be stored at a temperature not exceeding 25°C for 18 months provided that the expiry date is not exceeded. Store in the original package in order to protect from light.

Glucose 10% W/V Solution For Infusion (Administer)	
Medicine Legal Status	POM
Indication	• Hypoglycaemia, determined by clinical symptoms and a blood glucose <4.0mmol/L, in a conscious individual unable to take oral glucose by mouth and not suitable for treatment with glucagon. **Hypoglycaemia with unconsciousness is a medical emergency and immediate transfer to hospital should be arranged.** **Refer to OOH (formally GMED) Clinical Protocol – Management of Hypoglycaemia.** **ABCDE assessment and treatment of individual should be followed.** Refer to OOH Duty doctor after administration to discuss suitability of individual to go home or need for hospital admission.
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 1 month of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 1 month of age • Uncompensated diabetes and diabetes insipidus • Hyperosmolar coma • Haemodilution and extracellular hyperhydration or hypervolemia • Hyperglycaemia and hyperlactatemia • Severe renal insufficiency (with oliguria/anuria) • Uncompensated cardiac failure • General oedema (including pulmonary and brain oedema) and ascitic cirrhosis. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**

Glucose 10% W/V Solution For Infusion (Administer)	
Precautions and warnings	Glucose intravenous infusions are usually isotonic solutions. In the body, however, glucose containing fluids can become extremely physiologically hypotonic due to rapid glucose metabolization. Children, women in the fertile age and patients with reduced cerebral compliance (e.g. meningitis, intracranial bleeding, and cerebral contusion) are at particular risk of the severe and life-threatening brain swelling caused by acute hyponatraemia. Particular caution is advised in patients at increased risk of water and electrolyte disturbances that could be aggravated by increased free water load, hyperglycaemia or possibly required insulin administration. Special clinical monitoring is required at the beginning of any intravenous infusion.
Dose/Maximum total dose	**12 years of age and over (including the elderly) (body weight over 40kg):** 100mL of 10% glucose solution by IV injection administered over 1 -2 minutes. May be repeated twice. **1 month -12 years of age:** 5mL/kg of 10% glucose solution (up to a maximum of 100mL) by slow IV injection administered over 1 - 2 minutes. Cannot be repeated. Glucose should be administered IV into a large vein through a large-gauge needle.
Frequency of dose/Duration of treatment	See Dose/Maximum total dose section above.
Maximum or minimum treatment period	See Dose/Maximum total dose section above.
Route/Method of Administration	IV infusion. The solution for infusion should be visually inspected before use. The solution should be administered with sterile equipment using an aseptic technique. The equipment should be primed with the solution in order to prevent air entering the system. Assess after administration and check blood glucose levels. Provide clear documentation of time administered. **Refer to OOH duty doctor after administration.**

Glucose 10% W/V Solution For Infusion (Administer)	
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	Fever, phlebitis, extravasation, thrombosis, pain at site of injection. Sodium retention, oedema and heart failure may be induced in individuals with severe under-nutrition. Wernicke's encephalopathy may be induced in individuals with thiamine deficiency unless thiamine is administered concurrently with the dextrose. Fluid and electrolyte imbalances including oedema, hypokalaemia hypomagnesaemia and hypophosphataemia. If hypoglycaemia is caused by long acting insulin continue to monitor blood glucose levels regularly until individual is transferred to hospital. Depending on the tonicity of the solution, the volume and rate of infusion and depending on a patient's underlying clinical condition and capability to metabolize glucose, intravenous administration of glucose can cause many side-effects (refer to SmPC and current BNF/BNFC for full list of side-effects).
Storage	This medicinal medicine does not require any special storage conditions.

Glucose Oral Gel (Dextrogel®, Glucogel®, Rapilose®) 40% Glucose In a 25g Tube (Administer)	
Medicine Legal Status	GSL
Indication	• Hypoglycaemia, determined by clinical symptoms and/or a blood glucose <4.0 mmol/L, in a conscious individual able to take glucose by mouth and where there is no risk of choking or aspiration. Person should be able to swallow • Hypogylcaemia that causes unconsciousness or seizures and is a medical emergency and immediate transfer to hospital should be arranged while continuing treatment. **Refer to OOH (formally GMED) Clinical Protocol – Management of Hypoglycaemia.**
Inclusion Criteria	Individuals 2 years of age and over
Exclusion Criteria	As per main PGD inclusion criteria and additionally; • Under 2 years of age • Unconscious individual. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	None.
Dose/Maximum total dose	**Note:** Each 25g tube of Glucose 40% contains 10g glucose **Adults:** 15 - 20g (1.5 to 2 tubes of glucose 40% oral gel**)** Repeat once after 15 minutes if no improvement on assessment of blood glucose. Up to maximum of 3 times **12 - 17 years of age:** 15g (1.5 tubes of glucose 40% oral gel) Repeat once after 15 minutes if no improvement on assessment of blood glucose. Up to maximum of 3 times **2 - 12 years of age:** Approximately 10g (1 tube of glucose 40% gel) Repeated once after 15 minutes if no improvement on assessment of blood glucose.

Glucose Oral Gel (Dextrogel®, Glucogel®, Rapilose®) 40% Glucose In a 25g Tube (Administer)	
Frequency of dose /Duration of treatment	See Dose/Maximum total dose section above.
Maximum or minimum treatment period	See Dose/Maximum total dose section above.
Route/Method of Administration	For buccal administration. The contents of one oral tube or part contents of oral tube to be applied to the inside cheeks and gently massaged from the outside. Check blood glucose 10 minutes after administration of each dose. **If no improvement after administration of second dose treat with glucagon or glucose 10% infusion and arrange transfer to hospital immediately.** **Note:** Refer to Glucagon Monograph and Glucose Monograph. Ensure individual follows initial treatment, if successful, with a source of carbohydrate, e.g. sandwich, fruit, milk or biscuits, or the next meal if it is due.
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	Children under 5 year of age may vomit if administered too quickly. Hypoglycaemia caused by oral antidiabetic medicines may persist for many hours and the individual should be transferred to hospital immediately. Refer to BNF/BNFC and SmPC for other side-effects.
Storage	Store below 25°C.

Glyceryl Trinitrate (GTN) 400microgram Metered Dose Sublingual Spray (Administer)	
Medicine Legal Status	P
Indication	• Central chest pain of cardiac origin or suspected cardiac origin. **Refer to OOH (formally GMED) Clinical Handbook – Treatment of Myocardial Infarction and OOH (formally GMED) Chest Pain (STEMI) Triage for PPCI.** Refer to OOH doctor for advice after administration.
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age or over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years of age • Allergy or hypersensitivity to nitrates or any excipients of the metered dose spray • Hypotension (systolic BP < 90mmHg) • Hypovolaemia • Head Trauma • Cerebral Haemorrhage • Unconscious individuals • Phosphodiesterase type-5 inhibitors, e.g. sildenafil, tadalafil and vardenafil. GTN should not be given to individuals who have used these medicines within the last 24 hour. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Glyceryl trinitrate should be used with caution in patients in whom adequate preload is important for maintaining cardiac output (e.g. orthostatic dysfunction) because administration of a vasodilator in these patients may worsen clinical status. Glyceryl trinitrate should be used with caution in patients with cerebrovascular disease since symptoms may be precipitated by hypotension.

Glyceryl Trinitrate (GTN) 400microgram Metered Dose Sublingual Spray (Administer)	
	Glyceryl trinitrate may worsen hypoxaemia in patients with lung disease or cor pulmonale. Arterial hypotension with bradycardia may occur in patients with myocardial infarction; this is thought to be reflexly mediated. Special caution and close medical control is required in patients predisposed to postural hypotension. This medicine should be administered carefully to patients with narrow angle glaucoma, or migraine. Individuals should be advised to avoid alcohol for 24 hours following administration.
Dose/Maximum total dose	One or two metered doses (puffs) (400 to 800micrograms glyceryl trinitrate) under the tongue, then close mouth. Dose may be repeated at 5 minute intervals if required. **Maximum three x 2 doses (6 puffs) (2400micrograms) under this PGD.**
Frequency of dose/Duration of treatment	One or two metered doses (puffs), to be administered no more than 3 x 2 doses (puffs).
Maximum or minimum treatment period	N/A
Route/Method of Administration	For sublingual administration. If using a new spray or one that has not been used recently the first three actuations should be sprayed into the air. Hold spray upright and spray into the mouth under the tongue, close the mouth immediately.
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	Throbbing headache, flushing, dizziness, drowsiness, postural hypotension, asthenia and tachycardia.

Glyceryl Trinitrate (GTN) 400microgram Metered Dose Sublingual Spray (Administer)	
	Refer to BNF and SmPC for other side-effects.
Storage	Store below 25°C, in the original package in order to protect from light and radiant heat. This medicinal product is flammable, explosive. Storage and application near open fire and while smoking are forbidden. Do not use it near to anyone that is smoking; or spray the product into a naked flame or onto a hot surface. Do not pierce or burn the canister after use.

Hydrocortisone 100mg Powder For Solution For Injection/Infusion (Administer)	
Medicine Legal Status	POM
Indication	• **Anaphylaxis** - in addition to and following treatment with adrenaline 1:1000 and chlorphenamine injection for severe or recurrent reactions while waiting on transfer to hospital by ambulance. **Refer to OOH (formally GMED) Clinical Protocol – Emergency Treatment of Anaphylactic Reactions, Resuscitation Council UK.** • **Acute severe asthma:** in individuals who are unable to swallow or retain oral prednisolone, in addition to and following treatment with oxygen and nebulised salbutamol. • **Life-threatening asthma:** in individuals who are unable to swallow or retain oral prednisolone. Individuals showing any signs of life threatening asthma should be administered IV hydrocortisone immediately before administration of nebulised salbutamol and ipratropium. In acute severe asthma or life-threatening asthma treatment should be started and immediate transfer to hospital arranged. Treatment should continue as per guidance until ambulance arrives. **Refer to current BNF Management of Acute Asthma and OOH (formally GMED) Clinical Protocols - Treatment of Severe Asthma in Children, Treatment of Severe Asthma in Adults (Adapted from BTS/SIGN 158 British Guideline on the Management of Asthma 2003 Revised January 2019).** **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 1 month of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 1 month • Allergy or hypersensitivity to hydrocortisone or to any excipients of the injection • Systemic fungal infections • Pregnancy • Breastfeeding.

Hydrocortisone 100mg Powder For Solution For Injection/Infusion (Administer)	
	See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Hydrocortisone may have an increased effect in patients with liver diseases since the metabolism and elimination of hydrocortisone is significantly decreased in these patients.
Dose/Maximum total dose	**Anaphylaxis:** 12 years of age and over: 200mg 6 - 11 years of age: 100mg 6 months - 5 years of age: 50mg 1 - 5 months of age: 25mg **Acute severe asthma/Life-threatening asthma:** 5 years of age and over: 100mg single dose 2 - 4 years of age: 50mg 1 month– 1 year of age: 25mg.
Frequency of dose/Duration of treatment	Once only.
Maximum or minimum treatment period	N/A
Route/Method of Administration	Slow IV injection (or IM injection if IV access not possible) over 2 minutes. To reconstitute prepare the solution by adding up to 2mL of sterile water for injections to the contents of one vial of hydrocortisone injection 100mg, shake and withdraw for use. Inspect visually for particulate matter and discolouration before use. After reconstitution, use immediately and discard the remainder. Hydrocortisone should be administered by slow IV injection over a minimum of 2 minutes or by IM injection if IV access not possible.

Hydrocortisone 100mg Powder For Solution For Injection/Infusion (Administer)	
	It should not be given IM if individual is likely to need thrombolysis as there is an increased risk of haemorrhage.
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	Since Hydrocortisone is normally employed on a short-term basis it is unlikely that side-effects will occur; however, the possibility of side-effects attributable to corticosteroid therapy should be recognised and common side-effects include: Anxiety; behaviour abnormal; cataract subcapsular; cognitive impairment; Cushing's syndrome; electrolyte imbalance; fatigue; fluid retention; gastrointestinal discomfort; headache; healing impaired; hirsutism; hypertension; increased risk of infection; menstrual cycle irregularities; mood altered; nausea; osteoporosis; peptic ulcer; psychotic disorder; skin reactions and sleep disorders; Refer to BNF/BNFC and SmPC for other side-effects.
Storage	Store in the original package in order to protect from light.

Ipratropium Bromide 250micrograms/1mL Nebuliser Solution (Administer)	
Medicine Legal Status	POM
Indication	• Life-threatening asthma and severe acute asthma. • Acute exacerbation of COPD non-responsive to initial treatment with salbutamol. **Refer to current BNF Management of Acute Asthma and OOH (formally GMED) Clinical Protocols - Treatment of Severe Asthma in Children, Treatment of Severe Asthma in Adults (Adapted from BTS/SIGN 158 British Guideline on the Management of Asthma 2003 Revised January 2019).** **Immediate transfer to hospital should be arranged immediately. Treatment should be started and continue as per guidance until ambulance arrives.** **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 2 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 2 years of age • Allergy or hypersensitivity to ipratropium or any excipients of the nebuliser solution. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Use of the nebuliser solution should be subject to close medical supervision during initial dosing. As with other inhalation therapy, inhalation induced bronchoconstriction may occur with an immediate increase in wheezing after dosing. This should be treated straight away with a fast acting inhaled bronchodilator. Ipratropium bromide should be discontinued immediately, the patient assessed and, if necessary, alternative treatment instituted. Caution is advocated in the use of anticholinergic agents in patients predisposed to or with narrow-angle glaucoma.

Ipratropium Bromide 250micrograms/1mL Nebuliser Solution (Administer)	
	Ipratropium bromide should be used with caution in patients with pre-existing urinary outflow tract obstruction (e.g. prostatic hyperplasia or bladder-outflow obstruction). As patients with cystic fibrosis may be prone to gastro-intestinal motility disturbances, ipratropium bromide, as with other anticholinergics, should be used with caution in these patients.
Dose/Maximum total dose	**Asthma** 2 - 11 years of age: 250micrograms via oxygen driven nebuliser at 6 - 9 litres per minute. 12 years and over: 500micrograms via oxygen driven nebuliser at 6 - 9 litres per minute. **COPD** In adults 500micrograms via air driven nebuliser. **Note:** Discuss with OOH Primary Care Service duty doctor COPD individuals and suitability to go home or need for hospital admission.
Frequency of dose/Duration of treatment	Once only.
Maximum or minimum treatment period	N/A
Route/Method of Administration	Inhalation via nebuliser. For individuals at risk of acute angle-closure protect their eyes from nebulised mist.
Quantity to be administered	See Dose/Maximum total dose section above.
Potential Adverse Reactions	Dry mouth is the most common side-effect. Gastric motility may be affected and there may be difficulty passing urine. Also, cough, headache, nausea and arrhythmias. Monitor for tachycardia and palpitations. Refer to BNF/BNFC and SmPC for other side-effects.

Ipratropium Bromide 250micrograms/1mL Nebuliser Solution (Administer)	
Storage	Do not store above 25°C. Keep vials in the outer carton. The ampoule should be opened immediately before use and any solution remaining after use should be discarded. The ampoule should be opened immediately before use and any solution remaining after use should be discarded.

Metoclopramide 5mg/1mL Solution For Injection (Administer)	
Medicine Legal Status	POM **Note:** Administration of metoclopramide IM or SC in hiccups in palliative care and SC in nausea and vomiting in palliative care is an 'off-label' indication, i.e. use of the medicine out with the terms of the licence.
Indication	• Nausea and vomiting. • Hiccup in palliative care. • Nausea and vomiting in palliative care. **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years of age • Hypersensitivity to metoclopramide or any of the excipients • Moderate to Severe Renal Impairment • Severe Hepatic Impairment • GI haemorrhage, obstruction or perforation • 3-4 days after GI surgery • Phaeochromocytoma • Epilepsy • Parkinson's disease • Pregnancy (third trimester) • Breastfeeding. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Extrapyramidal disorders may occur, particularly in children and young adults, and/or when high doses are used. These reactions occur usually at the beginning of the treatment and can occur after a single administration. Metoclopramide should be discontinued immediately in the event of extrapyramidal symptoms. These effects are generally completely reversible after treatment discontinuation, but may require a symptomatic treatment (benzodiazepines in children and/or anticholinergic anti-Parkinsonian medicinal products in adults).

Metoclopramide 5mg/1mL Solution For Injection (Administer)	
	The time interval of at least 6 hours should be respected between each metoclopramide administration, even in case of vomiting and rejection of the dose, in order to avoid overdose.
Dose/Maximum total dose	**For the symptomatic treatment of nausea and vomiting, including acute migraine induced nausea and vomiting and for the prevention of radiotherapy induced nausea and vomiting (RINV):** Weight under 60kg: 0.5mg/kg in 3 divided doses Weight 60kg and above: the recommended single dose is 10 mg, repeated up to three times daily. **Hiccup in palliative care:** 10mg every 6 - 8 hours **Nausea and vomiting in palliative care:** 30 - 100mg/ 24 hours.
Frequency of dose/Duration of treatment	Up to three times daily.
Maximum or minimum treatment period	N/A
Route/Method of Administration	IM, Slow IV injection or SC infusion or injection. Nausea and Vomiting: IM or slow IV injection. Hiccup in palliative care: IM or SC. Nausea and vomiting in palliative care SC infusion. IV doses should be administered as a slow bolus (at least over 3 minutes) in order to reduce adverse effects. A minimal interval of 6 hours between two administrations is advised. Special care should be taken when administering metoclopramide, particularly via the IV route to the elderly population, to individuals with cardiac conduction disturbances (including QT prolongation), individuals with uncorrected electrolyte imbalance, bradycardia and those taking other medicines known to prolong QT interval.
Quantity to be administered	See Dose/Maximum total dose section above.

Metoclopramide 5mg/1mL Solution For Injection (Administer)	
Potential Adverse Reactions	Extrapyramidal side-effects (discontinue immediately), parkinsonism, akathisia, confusion, diarrhoea, weakness, hypotension, rash, restlessness, drowsiness, depression, urticarial and visual disturbances. Refer to BNF and SmPC for other side-effects.
Storage	Do not store above 30°C. Keep the ampoules in the outer carton in order to protect from light.

Prednisolone 5mg Tablets/Soluble Tablets (Supply/Administer)	
Medicine Legal Status	POM
Indication	• Severe acute asthma • Life-threatening asthma • Moderate acute asthma • Acute exacerbation of COPD. **Refer to current BNF Management of Acute Asthma and OOH (formally GMED) Clinical Protocols - Treatment of Severe Asthma in Children, Treatment of Severe Asthma in Adults (Adapted from BTS/SIGN 158 British Guideline on the Management of Asthma 2003 Revised January 2019).** **If there is no response or poor response in moderate acute asthma or if individual relapses in 3-4 hours arrange immediate transfer to hospital.** **In severe acute asthma or life-threatening asthma immediate transfer to hospital should be arranged. Treatment should be started and continue as per guidance until ambulance arrives.** **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 2 years of age and over.
Exclusion Criteria	**In Severe Acute Asthma and Life-threatening Asthma:** Contraindications to prednisolone tablets are relative as these presentations are life-threatening emergencies. As per main PGD exclusion criteria and additionally; • Under 2 years of age • Allergy or hypersensitivity to prednisolone or any excipients of the tablets • Systemic infections unless specific anti-infective therapy is employed • Ocular herpes simplex because of possible perforation • Recent MI • Pregnancy • Breastfeeding

Prednisolone 5mg Tablets/Soluble Tablets (Supply/Administer)	
	• Individuals currently taking: coumarins, e.g. warfarin; antiepileptics, e.g. carbamazepine, phenytoin, primidone and barbiturates; antifungals e.g. itraconazole, ketoconazole, amphotericin; antivirals, ciclosporin, erythromycin or rifampicin. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines. **In Moderate Acute Asthma and Acute exacerbation of COPD medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Particular care is required when considering the use of systemic corticosteroids in patients with existing or previous history of severe affective disorders in themselves or in their first degree relatives. These would include depressive or manic-depressive illness and previous steroid psychosis.
Dose/Maximum total dose	**Administration dose for initial treatment of all acute asthma:** 12 years and over: 40mg dose 5 - 11years of age: 30mg dose 2 - 4 years of age: 20mg dose **Note:** If already on prednisolone tablets refer to a doctor. **Supply dose in moderate acute asthma that has responded to initial treatment:** 12 years and over: 40mg daily for 5 days, i.e. for further 4 days 5 - 11 years of age:30mg daily for 3 days, i.e. for further 2 days 2 - 4 years of age: 20mg for 3 days, i.e. for further 2 days **Administer/Supply dose for acute exacerbation of COPD:** 18 years and over: 30mg daily for 7 days (individual must arrange review with own GP after 7 days). After administration discuss with OOH duty doctor, if individual with moderate acute asthma or COPD who has responded to treatment, is able to go home/remain at home or requires further observation/hospital admission.

Prednisolone 5mg Tablets/Soluble Tablets (Supply/Administer)	
Frequency of dose/Duration of treatment	See Dose/Maximum total dose section.
Maximum or minimum treatment period	See Dose/Maximum total dose section.
Route/Method of Administration	For oral administration. For individuals who are unable to swallow the plain tablets, the soluble tablets may be administered by dissolving in a teaspoon of water.
Quantity to be Administered/ supplied	See Dose/Maximum total dose section. Pack sizes do not meet dose schedule. Sufficient packs should be supplied to individual to meet dose schedule and excess tablets should be removed from the over-labelled individual packs and returned to OOH service Aberdeen for return to pharmacy.
Potential Adverse Reactions	Anxiety; behaviour abnormal; cataract subcapsular; cognitive impairment; Cushing's syndrome; electrolyte imbalance; fatigue; fluid retention; gastrointestinal discomfort; headache; healing impaired; hirsutism; hypertension; increased risk of infection; menstrual cycle irregularities; mood altered; nausea; osteoporosis; peptic ulcer; psychotic disorder; skin reactions; sleep disorders and weight increase. It is important to be aware that contracting chickenpox during treatment with a corticosteroid or for a period afterwards can be dangerous. Advise the individual if a member of the family or a regular contact becomes infected with chickenpox it is important to contact a doctor immediately. Do not stop the treatment. It is also important the individual contacts a doctor if they contract chickenpox within a 3 month period after stopping treatment. Advise individual to take particular care to avoid contact with measles and to contact a doctor immediately if a member of the family or a regular contact becomes infected with measles. Issue steroid card to individual and advise them to follow the advice. Read the manufacturer's information leaflet. Refer to BNF/BNFC and SmPC for other side-effects.
Storage	For both tablets and soluble tablets: Store below 25°C.

Salbutamol 2.5mg/2.5mL Nebuliser Solution (Administer)	
Medicine Legal Status	POM
Indication	Management of chronic bronchospasm unresponsive to conventional therapy and the treatment of acute severe asthma. **Refer to current BNF Management of Acute Asthma and OOH (formally GMED) Clinical Protocols - Treatment of Severe Asthma in Children, Treatment of Severe Asthma in Adults (Adapted from BTS/SIGN 158 British Guideline on the Management of Asthma 2003 Revised January 2019).** **If there is no response or poor response in moderate acute asthma or if individual relapses in 3 - 4 hours arrange immediate transfer to hospital.** **In severe acute asthma or life-threatening asthma immediate transfer to hospital should be arranged. Treatment should be started and continue as per guidance until ambulance arrives.** **ABCDE assessment and treatment of individual should be followed**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 5 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 5 years of age • Hypersensitivity to the active substance salbutamol or to the excipients • Serious cardiac disorders, in particular recent MI • Coronary heart disease, hypertrophic obstructive cardiomyopathy and tachyarrhythmia (due to the positive ionotropic effect of β2 – agonists) severe and untreated hypertension • Aneurysm • Hyperthyroidism • Diabetes which is difficult to control • Pheochromocytoma • Currently taking non-selective beta blockers e.g. propranolol. See SmPC and current BNF/BNFC Appendix 1 for full details of contraindications and interaction with other medicines.

Salbutamol 2.5mg/2.5mL Nebuliser Solution (Administer)	
	Medical advice should be sought immediately for any individual who is excluded from the PGD.
Precautions and warnings	Salbutamol Nebuliser Solution must only be used by inhalation, to be breathed in through the mouth and must not be injected or swallowed. Patients being treated with Salbutamol Nebuliser Solution may also be receiving other dosage forms of short-acting inhaled bronchodilators to relieve symptoms. Increasing use of bronchodilators, in particular short-acting inhaled β2-agonists to relieve symptoms, indicates deterioration of asthma control. The patient should be instructed to seek medical advice if short-acting relief bronchodilator treatment becomes less effective or more inhalations than usual are required. In this situation patients should be assessed and consideration given to the need for increased anti-inflammatory therapy (e.g. higher doses of inhaled corticosteroid or a course of oral corticosteroid). Salbutamol should be administered cautiously to patients suffering from thyrotoxicosis. Salbutamol Nebuliser Solution should be used with care in patients known to have received large doses of other sympathomimetic drugs. Potentially serious hypokalaemia may result from β_2-agonist therapy, mainly from parenteral and nebulised administration. Particular caution is advised in acute severe asthma as this effect may be potentiated by hypoxia and by concomitant treatment with xanthine derivatives, steroids, and diuretics. Serum potassium levels should be monitored in such situations. In common with other β-adrenoceptor agonists, salbutamol can induce reversible metabolic changes such as increased blood glucose levels. Diabetic patients may be unable to compensate for the increase in blood glucose and the development of ketoacidosis has been reported. Concurrent administration of corticosteroids can exaggerate this effect. As with other inhalation therapy, paradoxical bronchospasm may occur with an immediate increase in wheezing after dosing. This should be treated immediately with an alternative presentation or a different fast-acting inhaled bronchodilator. Salbutamol Nebuliser Solution should be discontinued, and if necessary a different fast-acting bronchodilator instituted for on-going use.

Salbutamol 2.5mg/2.5mL Nebuliser Solution (Administer)	
Dose/Maximum total dose	**12 years of age and over:** 5mg initial dose. Treatment may be repeated up to four times a day **(maximum daily dose of 20mg).** **5 - 11 years of age:** The usual starting dose is 2.5mg as a single dose. This may be increased to 5mg. Treatment may be repeated up to four times a day **(maximum daily dose of 10mg - 20mg).**
Frequency of dose/Duration of treatment	Treatment may be repeated every 20 - 30 minutes as necessary up to the maximum stated doses as above.
Maximum or minimum treatment period	N/A
Route/Method of Administration	Inhalation via nebuliser. Should be administered by a suitable nebuliser, via a facemask or T piece or via an endotracheal tube. Salbutamol nebuliser solution is designed to be used undiluted. However, if a prolonged delivery time is indicated (more than 10 minutes) then dilution with sodium chloride solution (0.9%w/v) for nebulisation or sterile sodium chloride 0.9 w/v injection (normal saline) may be required. The administration of salbutamol in individuals with acute asthma may cause a further reduction of the O2 saturation.
Quantity to be administered	See Dose/Maximum dose section above. Monitor response 15 - 30 minutes after nebulisation; if any symptoms of acute asthma persist, arrange hospital admission. Dose may be repeated as per frequency of dose above. The individual should be advised to 'multi-dose' using their current inhalers. This must be discussed with the individual in relation to the inhaler that they are currently prescribed, and how to multi-dose.
Potential Adverse Reactions	Potentially serious hypokalaemia, hyperglycaemia and ketoacidosis.

Salbutamol 2.5mg/2.5mL Nebuliser Solution (Administer)	
	Hypersensitivity reactions such as rash, urticaria, dermatitis, pruritus and erythema. Taste alteration (bad, unpleasant and unusual taste) and application site reaction (mouth and throat irritation, burning sensation of the tongue), fine tremor (usually of the hands) nausea, sweating, restlessness, headache, dizziness, muscle cramps, paradoxical bronchospasm, tachycardia, palpitations and vomiting. Due to the hyperglycaemic effects of beta$_2$ – stimulants, additional blood glucose measurements are initially recommended when treatment with salbutamol nebuliser solution is started in diabetic individuals. The use of nebulised salbutamol in combination with nebulised anticholinergic agents has been reported to precipitate acute angle closure glaucoma. This combination should be used with caution, in particular in individuals with actual or potential glaucoma. Individuals should be warned. As nebulised doses are substantially higher than that given by an inhaler. Individuals should be warned that it is dangerous to exceed the prescribed dose and to seek medical advice if they fail to respond to the usual dose. Refer to BNF and SmPC for other side-effects.
Storage	Store below 25 °C. Store in the original packaging. Ampoules should be opened immediately before use and any solution remaining after use should be discarded. Write the date of opening on the foil pack, as this reduces the expiry to 6 months after opening.

Sodium Chloride 0.9% Intravenous Infusion (Administer)	
Medicine Legal Status	POM
Indication	• Dehydration where fluid replacement by mouth is not appropriate. • Hypovolaemia due to fluid or blood loss, only if loss of radial pulse. • Medical Emergencies e.g. suspected septicaemia, anaphylaxis. **Arrange urgent transfer to hospital, by emergency ambulance for all individuals in a medical emergency, e.g. suspected septicaemia or anaphylaxis.** **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals16 years of age and over.
Exclusion Criteria	**As per main PGD exclusion criteria and additionally;** • Under 16 years of age • Known hypernatraemia or hyperchloraemia. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Sodium Chloride 0.9% should be administered with particular caution to patients with or at risk of severe renal impairment. In such patients, administration of Sodium Chloride 0.9% may result in sodium retention.
Dose/Maximum total dose	250mL bolus while monitoring perfusion, radial pulse, respiratory rate and blood pressure. Individuals in shock typically require and tolerate infusion at the maximum rate. Slow the rate of infusion if the vital signs improve. If normal blood pressure is unknown aim for a systolic blood pressure of 100mmHg. If no improvement a further 250mL bolus may be repeated once while waiting on ambulance. Individuals with intravascular volume depletion without shock can receive infusion at a controlled rate, typically 500mL/h.

Sodium Chloride 0.9% Intravenous Infusion (Administer)	
Frequency of dose/Duration of treatment	See Dose/Maximum total dose section.
Maximum or minimum treatment period	N/A
Route/Method of Administration	To be administered by IV rapid infusion. Follow NHS Grampian guidelines on IV administration of medicines. Use only if the solution is clear, without visible particles and if the container is undamaged. Administer immediately following the insertion of infusion set. Do not use plastic containers in series connections. Such use could result in air embolism due to residual air being drawn from the primary container before the administration of the fluid from the secondary container is completed. The solution should be administered with sterile equipment using an aseptic technique. The equipment should be primed with the solution in order to prevent air entering the system. Discard any unused portion. Do not reconnect partially used bags. Do not remove unit from overwrap until ready for use.
Quantity to be administered	See Dose/Maximum total dose section.
Potential Adverse Reactions	Administration of excessive volumes may precipitate circulation overload and heart failure. Symptomatic evidence includes increased breathlessness, wheezing and distended neck veins. The individual should be admitted to hospital as rapidly as possible and be administered high concentration oxygen. Adverse reactions may be associated with the technique of administration including febrile response, infection at the site of injection, local pain or reaction, vein irritation, venous thrombosis or phlebitis extending from the site of injection, extravasation, and hypovolaemia.

Sodium Chloride 0.9% Intravenous Infusion (Administer)	
	Caution in congestive heart failure, renal insufficiency, cirrhosis of liver, cardiopulmonary disease and in individuals taking steroids. Refer to BNF and SmPC for other side-effects.
Storage	250 and 500mL bags: This medicinal product does not require any special storage conditions.

Syntometrine 500micrograms/5IU (Ergometrine Maleate 500micrograms and Oxytocin 5IU) Solution For Injection (Administer)	
Medicine Legal Status	POM
Indication	• The active management of the third stage of labour or to prevent or treat postpartum haemorrhage. **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years of age • Hypersensitivity to the active substances or to any of the excipients • Severe hepatic or renal impairment • Primary or secondary uterine inertia • Severe hypertension, pre-eclampsia, eclampsia • Severe cardiac disorders • Severe hepatic or renal impairment • Occlusive vascular disease • Sepsis • Currently taking: medication which prolongs the QTc interval, e.g. methadone; macrolide antibiotics e.g. erythromycin or HIV protease or reverse transcriptase inhibitors e.g. ritonavir. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	In breech presentations and other abnormal presentations, Syntometrine should not be given until after delivery of the child, and in multiple births not until the last child has been delivered. There have been reports of anaphylaxis following administration of oxytocin in women with a known latex allergy. Due to the existing structural homology between oxytocin and latex, latex allergy/intolerance may be an important predisposing risk factor for anaphylaxis following oxytocin administration.

Syntometrine 500micrograms/5IU (Ergometrine Maleate 500micrograms and Oxytocin 5IU) Solution For Injection (Administer)	
	Ergometrine can cause vasoconstriction and should therefore be used with caution in patients with Raynaud's phenomenon.
Dose/Maximum total dose	**Active management of third stage of labour:** IM injection of 1mL after delivery of the anterior shoulder, or at the latest, immediately after delivery of the child. Expulsion of the placenta, which is normally separated by the first strong uterine contraction, should be assisted by controlled cord traction. **Prevention and treatment of postpartum haemorrhage:** IM injection of 1mL following expulsion of the placenta, or when bleeding occurs. **Maximum total dose allowed under this PGD is 1mL.**
Frequency of dose/Duration of treatment	Once only
Maximum or minimum treatment period	Once only
Route/Method of Administration	To be administered by IM injection. In postpartum haemorrhage, if bleeding is not arrested by the injection of syntometrine, the possibility of retained placental fragments, of soft tissue injury (cervical or vaginal laceration), or of a clotting defect, should be excluded. Individuals should be warned of the possibility of dizziness and hypotension.
Quantity to be administered	See Dose/Maximum total dose section.
Potential Adverse Reactions	Abdominal pain, arrhythmias, bradycardia, chest pain, dizziness, dyspnoea, headache, hypertension, nausea, palpitation, pulmonary oedema, rash, tinnitus, vasoconstriction and vomiting. Refer to BNF and SmPC for other side-effects.
Storage	For prolonged periods store between +2° to +8°C. Protect from light. Syntometrine may be stored up to 25°C for 2 months when protected from light, but must then be discarded.

Tenecteplase Metalyse 10,000u Powder And Solvent For Solution For Injection (Administer)	
Medicine Legal Status	POM
Indication	• Thrombolytic treatment of suspected MI with persistent ST elevation. • Recent left bundle branch block within 6 hours after the onset of Acute Myocardial Infarction (AMI) symptoms. **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over up to 75 years of age.
Exclusion Criteria	As per main PGD exclusion criteria and additionally; • Under 18 years of age • Over 75 years of age (increased risk of bleeding) • Hypersensitivity to tenecteplase, any excipient or gentamicin (trace residue) • History of or DVT/PE suspected refer to GP • Current or previous severe bleeding disorder in the past 6 months • Increased risk of bleeding e.g. oesophageal varices, recent surgery or trauma • Acute pancreatitis • Severe uncontrolled hypertension • Severe hepatic impairment • Active peptic ulceration • History of cerebrovascular disease • Dementia • Anticoagulant treatment, e.g. warfarin • Pregnancy. See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines. **Medical advice should be sought immediately for any individual who is excluded from the PGD.**
Precautions and warnings	Coronary thrombolysis may result in arrhythmias associated with reperfusion. It is recommended that antiarrhythmic therapy for bradycardia and/or ventricular tachyarrhythmias (pacemaker, defibrillator) is available when tenecteplase is administered.

<table>
<tr><th colspan="2">Tenecteplase Metalyse 10,000u Powder And Solvent For Solution For Injection (Administer)</th></tr>
<tr><td></td><td>According to the SmPC the risk of tenecteplase therapy may be increased and should be weighed against the anticipated benefits in systolic blood pressure >160mm Hg.</td></tr>
<tr><td>Dose/Maximum total dose</td><td>
<table>
<tr><th>Individuals' body weight category (kg)</th><th>Tenecteplase (U)</th><th>Tenecteplase (mg)</th><th>Corresponding volume of reconstituted solution (mL)</th></tr>
<tr><td>< 60</td><td>6,000</td><td>30</td><td>6</td></tr>
<tr><td>≥60 to <70</td><td>7,000</td><td>35</td><td>7</td></tr>
<tr><td>≥70 to <80</td><td>8,000</td><td>40</td><td>8</td></tr>
<tr><td>≥80 to <90</td><td>9,000</td><td>45</td><td>9</td></tr>
<tr><td>≥ 90</td><td>10,000</td><td>50</td><td>10</td></tr>
</table>
Note: Tenecteplase Metalyse should be administered on the basis of body weight, with a maximum dose of 10,000 units (50mg tenecteplase). The volume required to administer the correct dose can be calculated from the above table.

Please see the Clinical Handbook for Thrombolysis Guidelines.

Antithrombotic adjunctive therapy with dalteparin should be administered according to the clinical handbook for the management of individuals with ST-elevation MI.

Maximum total dose allowed under this PGD is dependent on weight as set out in the table above.</td></tr>
<tr><td>Frequency of dose/Duration of treatment</td><td>Once only</td></tr>
<tr><td>Maximum or minimum treatment period</td><td>Once only</td></tr>
<tr><td>Route/Method of Administration</td><td>Tenecteplase Metalyse is to be administered to the individual by a single IV bolus over approximately 10 seconds. It should not be administered in a line containing glucose.</td></tr>
</table>

Tenecteplase Metalyse 10,000u Powder And Solvent For Solution For Injection (Administer)	
	Tenecteplase Metalyse should be reconstituted by adding the complete volume of water for injections from the pre-filled syringe to the vial containing the powder for injection. The reconstituted preparation results in a colourless to pale yellow, clear solution. Only clear solution without particles should be used. The reconstituted solution should be used immediately.
Quantity to be administered	See Dose/Maximum total dose section.
Potential Adverse Reactions	Anaphylactic reaction; angina pectoris; cardiac arrest; cardiogenic shock; chills; CNS haemorrhage; ecchymosis; fever; haemorrhage; haemorrhagic stroke; heart failure; hypotension; ischaemia recurrent (when used in myocardial infarction); nausea; pericarditis; pulmonary oedema and vomiting. Refer to BNF for other side-effects.
Storage	Do not store above 30°C. Keep the container in the outer carton in order to protect from light.

Ticagrelor 90mg Film-Coated Tablets (Administer)	
Medicine Legal Status	POM
Indication	• Prevention of atherothrombotic events in individuals with acute coronary syndrome. **ABCDE assessment and treatment of individual should be followed.**
Inclusion Criteria	As per main PGD inclusion criteria and additionally; Individuals 18 years of age and over.

Exclusion Criteria	As per main PGD exclusion criteria and additionally;
	• Under 18 years of age
	• Hypersensitivity to the active substance or any of the excipients
	• Active bleeding
	• History of intracranial bleeding
	• Moderate to severe hepatic impairment
	• Renal Dialysis
	• Individuals currently prescribed and taking any of the following medicines:
	  ○ Anticoagulants – warfarin, DOAC's e.g. rivaroxaban, apixaban
	  ○ Strong CYP3A4 inhibitors: ketoconazole, clarithromycin, ritonavir, atazanavir
	  ○ Rifampicin
	  ○ Antiepileptics: carbamazepine, phenytoin, primidone, phenobarbital.
	See SmPC and current BNF Appendix 1 for full details of contraindications and interaction with other medicines.
	Medical advice should be sought immediately for any individual who is excluded from the PGD.

Precautions and warnings	The use of ticagrelor in patients at known increased risk for bleeding should be balanced against the benefit in terms of prevention of atherothrombotic events. If clinically indicated, ticagrelor should be used with caution in individuals with the following: • A propensity to bleed (e.g. due to recent trauma, recent surgery, coagulation disorders, active or recent gastrointestinal bleeding). The use of ticagrelor is contraindicated in individuals with active pathological bleeding, in those with a history of intracranial haemorrhage, and in those with severe hepatic impairment.

Ticagrelor 90mg Film-Coated Tablets (Administer)	
	• Concomitant administration of medicinal products that may increase the risk of bleeding (e.g. non-steroidal anti-inflammatory drugs (NSAIDs), oral anticoagulants and/or fibrinolytics) within 24 hours of ticagrelor dosing. Platelet transfusion did not reverse the antiplatelet effect of ticagrelor in healthy volunteers and is unlikely to be of clinical benefit in individuals with bleeding. Since co-administration of ticagrelor with desmopressin did not decrease template-bleeding time, desmopressin is unlikely to be effective in managing clinical bleeding events. • Antifibrinolytic therapy (aminocaproic acid or tranexamic acid) and/or recombinant factor VIIa therapy may increase haemostasis. Ticagrelor may be resumed after the cause of bleeding has been identified and controlled.
Dose/Maximum total dose	Single 180mg loading dose. **Maximum total dose allowed under this PGD is 180mg.**
Frequency of dose /Duration of treatment	Once only
Maximum or minimum treatment period	Once only
Route/Method of Administration	To be administered orally. Can be administered with or without food. For individuals who are unable to swallow the tablet(s) whole, the tablets can be crushed to a fine powder and mixed in half a glass of water and drunk immediately. The glass should be rinsed with a further half glass of water and the contents drunk.
Quantity to be administered	See Dose/Maximum total dose section.
Potential Adverse Reactions	Constipation; diarrhoea; dizziness; dyspepsia; dyspnoea; gout; gouty arthritis; haemorrhage; headache hyperuricemia; hypotension; nausea; skin reactions; syncope and vertigo. Refer to BNF and SmPC for other side-effects.
Storage	This medicinal medicine does not require any special storage conditions.