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Bwrdd Iechyd  
Addysgu Powys  
Powys Teaching  
Health Board

Bronllys Hospital, Bronllys, Brecon, Powys, LD3 0LU

This Patient Group Direction (PGD) must only be used by registered healthcare professionals who have been named and authorised by their organisation to practice under it. The most recent and in date final signed version of the PGD should be used. Health professionals should always access the PGD via the PTHB internet to ensure that they are always working to the most up to date version

**Patient Group Direction (PGD)**

for the administration and/or supply of

**Glyceryl Trinitrate (GTN) 400 micrograms per actuation Spray**

by Registered Nurses in Powys Teaching Health Board (PTHB) Minor Injury Units

to **individuals over 18 years old**

**for sudden onset chest pain of suspected cardiac origin**

**OR**

for the administration of

**Glyceryl Trinitrate (GTN) 400 micrograms per actuation Spray**

by Registered Nurses in PTHB Community Hospitals

to **individuals over 18 years old**


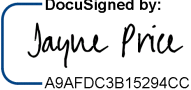

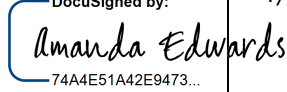
**for sudden onset chest pain of suspected cardiac origin**

**Version number: PGD 0005 H**

## Change history

Version number	Change details	Date
PGD0005	Initial issue	12/07/02
PGD0005-A	Review Issue	
PGD0005-B	Review Issue	15/09/08
PGD0005-C	Review Issue	01/12/10
PGD0005-D	Review Issue	01/12/16
PGD0005-E	New PTHB template and review issue	08/04/19
PGD0005-F	Review issue including minor wording changes, exclusion criteria and cautions updated, change in advice for patient, updated safeguarding contacts.	11/04/2022
PGD0005-G	Updated to refer to aspirin protocol MMPr 007 instead of aspirin PGD 0001, which has been withdrawn	23/5/22
PGD0005-H	<p>Review issue to ensure content is supported by current reference sources. Title and clinical condition clarified, to include administration in Community Hospitals, for consistency with protocol MMP 404 (aspirin 300mg for management of sudden onset chest pain of suspected cardiac origin).</p> <p>Exclusion criteria, cautions, interactions, adverse effects and patient information updated according to reference sources. Details of the medicine, dose, quantity to be administered/supplied, and maximum/minimum treatment period updated according to reference sources. Off-label use information added.</p> <p>Minor changes to format to promote consistency with other PTHB PGDs.</p>	10/04/2025

**PGD authorisation**

<b>Name</b>	<b>Job title and organisation</b>	<b>Signature</b>	<b>Date</b>
<b>Senior doctor</b> <b>Dr Kate Wright</b>	Lead doctor for PTHB	 1F267952823F473...	4/2/2025
<b>Senior Pharmacist</b> <b>Jayne Price</b>	Head of Community Services Medicines Management/Pharmacy	 A9AFDC3B15294CC...	4/8/2025
<b>Senior representative of professional group using the PGD</b> <b>Claire Roche</b>	Executive Director of Nursing and Midwifery for PTHB	 F07413E114E04B1...	4/8/2025
<b>Clinical Governance Lead</b> <b>Amanda Edwards</b>	Clinical Governance Lead for PTHB – Assistant Director for Innovation and Improvement	 74A4E51A42E9473...	4/8/2025

[Appendix A](#) provides a staff accreditation sheet. Individual practitioners must be authorised by name to work to this PGD.

Those using this PGD must ensure that it is organisationally authorised and signed by an appropriate authorising person, relating to the class of person by whom the product is to be supplied, in accordance with Human Medicines Regulations 2012 (HMR2012)<sup>1</sup>. **The PGD is not legal or valid without signed authorisation in accordance with [HMR2012 Schedule 16 Part 2](#).**

The final authorised copy of this PGD should be kept by PTHB for 8 years after the PGD expires.

<sup>1</sup> This includes any relevant amendments to legislation.

## Training and competency of registered health professionals

<p><b>Qualifications and professional registration</b></p>	<p>Practitioners must only work under this PGD where they are competent to do so.</p> <p>Practitioners working under this PGD must also be a registered professional listed in the legislation as able to practice under Patient Group Directions, with the following body:</p> <ul style="list-style-type: none"> <li>• Nurses currently registered with the Nursing and Midwifery Council (NMC) and working in a Minor Injury Unit or Community Hospital in PTHB</li> </ul> <p>Current contract of employment with PTHB.</p> <p>Practitioners must also fulfil the training and <a href="#">Additional requirements</a> listed below.</p> <p>Check <a href="#">Appendix A – Staff accredited to use the Patient Group Direction</a> to confirm whether all practitioners listed above have organisational authorisation to work under this PGD.</p>
<p><b>Initial training and knowledge requirements</b></p>	<ul style="list-style-type: none"> <li>• The administration/supply of GTN 400 microgram per actuation spray and knowledge of its uses, contraindications and adverse effects.</li> <li>• The assessment and management of sudden onset chest pain of suspected cardiac origin in line with NICE guidelines (<a href="#">CG95</a>) and <a href="#">MIU clinical guidelines</a> (if applicable).</li> </ul> <p>Additionally, practitioners:</p> <ul style="list-style-type: none"> <li>• must be authorised by name as an approved practitioner under the current terms of this PGD before working to it</li> <li>• must have undertaken appropriate training for working under PGDs for administration and supply of medicines. Recommended training <a href="#">eLfh PGD eLearning programme</a>. PTHB staff to access via <a href="#">ESR</a></li> <li>• must be competent in the use of PGDs (see <a href="#">NICE Competency framework</a> for health professionals using patient group directions)</li> <li>• must have completed locally required training (including updates) in safeguarding children, young people and vulnerable adults or a minimum of level 2 safeguarding or the equivalent.</li> <li>• must be familiar with the product and alert to changes in the <a href="#">BNF</a> and <a href="#">Summary of Product Characteristics</a></li> <li>• must have undertaken training appropriate to this PGD as required by local policy</li> <li>• must have received training and be competent in the recognition, management of, and reporting of recognised adverse reactions, including anaphylaxis. Must be</li> </ul>

Reference Number: PGD 0005H  
 Valid from: 10/04/2025  
 Review date: 10/04/2027  
 Expiry date: 09/04/2028

	<p>competent in the administration of adrenaline and have up to date Basic Life Support (BLS) skills as a minimum (according to the role).</p> <ul style="list-style-type: none"> <li>• must have access to the Patient Group Direction and associated online resources.</li> </ul> <p><b>THE PRACTITIONER MUST BE AUTHORISED BY NAME, UNDER THE CURRENT VERSION OF THIS PGD BEFORE WORKING ACCORDING TO IT.</b></p>
<p><b>Competency assessment</b></p>	<ul style="list-style-type: none"> <li>• Evidence of ongoing PGD training to be submitted to Line Manager annually- this should include an annual completion certificate of PGD e-learning or a dated screenshot of the PGD e-learning assessment results as proof of completion.</li> <li>• Practitioners must be competent, recognise their own limitations and personal accountability and act accordingly.</li> <li>• Staff operating under this PGD are encouraged to review their competency using the <a href="#">NICE Competency Framework for health professionals using patient group directions</a>.</li> <li>• Individuals operating under this PGD must be assessed as competent (see <a href="#">Appendix A</a>) and complete a self-declaration of competency in their Personal Appraisal and Development Review (PADR). The <b>personal development plan</b> (yellow) section of the PADR booklet should be used to record completion of Statutory and Mandatory training, including annual PGD e-learning.</li> <li>• Evidence of training in BLS (or higher level if appropriate to the role), anaphylaxis and safeguarding.</li> </ul>
<p><b>Ongoing training and competency</b></p>	<ul style="list-style-type: none"> <li>• Individuals operating under this PGD are personally responsible for ensuring they remain up to date with the use of all medicines and guidance included in the PGD - if any training needs are identified these should be discussed with the senior individual responsible for authorising individuals to act under the PGD and further training provided as required.</li> <li>• Update at least every 2 years, or earlier in response to new local/national guidance, on the use of PGDs and GTN 400 microgram per actuation spray and the assessment and management of sudden chest pain of cardiac origin.</li> <li>• Practitioners must ensure they are up to date with relevant issues and clinical skills and management of anaphylaxis, BLS/ILS, with evidence of appropriate Continued Professional Development (CPD).</li> <li>• Evidence of appropriate Continued Professional Development (CPD) must be retained and made available on request.</li> </ul>

	<ul style="list-style-type: none"> <li>• Compliance with all mandatory NHS training including safeguarding at the level relevant to the role.</li> <li>• Evidence of ongoing / refresher training to be submitted to line manager annually.</li> </ul> <p><b>It is the responsibility of the healthcare professional to maintain their own competency to practice within this PGD.</b></p> <p><b>THE DECISION TO ADMINISTER/SUPPLY ANY MEDICATION RESTS WITH THE INDIVIDUAL REGISTERED HEALTH PROFESSIONAL WHO MUST ABIDE BY THE PGD AND ANY ASSOCIATED ORGANISATIONAL POLICIES.</b></p>
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## Clinical Condition

<p><b>Clinical condition or situation to which this PGD applies</b></p>	<p><b>1.</b> Immediate management of sudden onset, non-traumatic chest pain of suspected cardiac origin in an individual aged 18 years and over.</p> <p>Refer to the <a href="#">MIU clinical guidelines</a> (if applicable) and follow the relevant <a href="#">NICE guidelines</a>. Use in conjunction with <a href="#">PTHB protocol MMP 404</a> (administration of a single dose of aspirin 300mg), if appropriate. This PGD may be used for patients in PTHB Community Hospitals who do not have a GTN spray already prescribed, when a doctor or independent prescriber is not available for the respective Community Hospital in a reasonable timeframe.</p> <p>In all cases urgent medical or paramedic support should be summoned by calling 999. Transfer the individual to a Coronary Care Unit (CCU) or A&amp;E as appropriate.</p> <p><b>NB.</b> If in any doubt about the cause of the chest pain arrange for urgent transfer to the nearest A&amp;E Department.</p> <p><b>OR</b></p> <p><b>2.</b> Individual (reviewed in MIU), aged 18 years and over, previously prescribed GTN spray who has no GTN spray remaining <b>and</b> all Community Pharmacies local to the MIU are closed.</p> <p><b>It is the responsibility of the administering/supplying nurse to ensure that the individual is within the inclusion criteria, and that there are no reasons for exclusion before proceeding with the treatment. If there is any reason for concern, seek medical advice.</b></p>
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Reference Number: PGD 0005H  
 Valid from: 10/04/2025  
 Review date: 10/04/2027  
 Expiry date: 09/04/2028

<p><b>Inclusion criteria</b></p>	<p><b>1.</b> Individuals aged 18 years and older presenting with a recent* history of sudden onset, non-traumatic chest pain of suspected cardiac origin and giving rise to clinical suspicion of one of the following acute coronary syndromes:</p> <ul style="list-style-type: none"> <li>• Non-ST elevation myocardial infarction (NSTEMI)</li> <li>• Acute ST elevation myocardial infarction (STEMI)</li> <li>• Unstable angina</li> </ul> <p><b>NB.*recent history means pain within last 12 hours.</b></p> <p><b>OR</b></p> <p><b>2.</b> Individual (reviewed in MIU), aged 18 years and over, <b>previously prescribed GTN spray</b> who has no GTN spray remaining <b>and all Community Pharmacies local to the MIU are closed.</b></p> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>• Medical and drug history taken, no reason for exclusion</li> <li>• Informed consent, from the individual or a person legally able to act on the person’s behalf, should be obtained prior to administration/supply and recorded appropriately. If the individual is unable to give consent due to a life-threatening situation, or if the individual’s representative is not present, GTN spray should be administered where treatment is judged to be in the best interests of the patient. Refer to <a href="#">PTHB Consent to Treatment and Examination Policy</a>.</li> </ul> <p><b>In the context of the clinical scenario described in this PGD the individual being treated may not be able to make an informed choice nor consent to treatment. Therefore, the clinician should act in the best interests of the patient at all times and within their professional competency and code of conduct.</b> In case of any doubt, contact medical team or emergency services.</p> <p>Any vulnerable adult or child protection concerns (Child Protection or Protection of Vulnerable Adults, POVA) should be referred to Safeguarding and the <a href="#">PTHB safeguarding policies</a> followed, where appropriate. Consider discussing with GP. Advise from the local Safeguarding team should be sought (see <a href="#">below</a>).</p> <p><b>It is the responsibility of the administering/supplying healthcare professional to ensure that the individual is within the inclusion criteria, and that there are no reasons for exclusion before proceeding with the</b></p>
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	<p><b>treatment. If there is any reason for concern, seek medical advice.</b></p>
<p><b>Exclusion criteria</b> (Exclusion under this PGD does not necessarily mean the medication is contraindicated, but it would be outside its remit and another form of authorisation will be required)</p>	<ul style="list-style-type: none"> <li>• Conditions outside of the clinical situations criteria.</li> <li>• Individual under 18 years of age.</li> <li>• Known hypersensitivity to nitrates or GTN spray or/and to any of the excipients in the medicinal product(s) – see relevant <a href="#">SPC</a>.</li> <li>• Severe hypotension (systolic blood pressure lower than 90 mmHg)</li> <li>• Hypovolaemia/ circulatory collapse</li> <li>• Hypotensive shock, acute circulatory failure (shock, collapse)</li> <li>• Cardiogenic shock unless a sufficiently high left ventricular end diastolic pressure is assured by intra-aortic balloon pump counterpulsation therapy or positive inotropic drugs</li> <li>• Primary pulmonary hypertension (since hyperaemia of hypoventilated alveolar regions may lead to hypoxia). Coronary patients are especially at risk in this respect</li> <li>• Toxic pulmonary oedema</li> <li>• Pericardial tamponade</li> <li>• Severe anaemia</li> <li>• Constrictive pericarditis</li> <li>• Extreme bradycardia</li> <li>• Acute myocardial infarction with low filling pressure</li> <li>• Left heart failure with low filling pressure</li> <li>• Cerebral haemorrhage or head/brain trauma (Possible increased intracranial pressure)</li> <li>• Aortic and/or mitral stenosis</li> <li>• Angina caused by hypertrophic obstructive cardiomyopathy</li> <li>• Concomitant use with (refer to <a href="#">Drug Interaction</a> section):             <ul style="list-style-type: none"> <li>• glyceryl trinitrate sublingual tablets already taken for this episode of chest pain</li> <li>• phosphodiesterase inhibitors, such as sildenafil, tadalafil, avanafil or vardenafil</li> <li>• riociguat (the soluble guanylate cyclase stimulator)</li> </ul> </li> </ul> <p>Refer to sections "<a href="#">Action to be taken if individual is excluded</a>" or "<a href="#">Action to be taken if individual declines treatment</a>".</p>

<p><b>Cautions /reasons for seeking further advice from a prescriber</b></p>	<p><b>Where a caution is present the practitioner should be aware of the possible effects of administration but should continue to administer where the benefit outweighs risk.</b></p> <p><b>The following are not contraindications for use of GTN in sudden onset, non-traumatic chest pain of suspected cardiac origin. However, they should be recorded in the patients notes as they may affect the response to treatment or increase the risk of an adverse reaction. Contact the local senior on call clinician for advice on the below, if required.</b></p> <ul style="list-style-type: none"> <li>• Lack of effect may indicate an early myocardial infarction</li> <li>• Heart failure due to obstruction</li> <li>• Tendency to dysregulation of orthostatic blood pressure</li> <li>• Individuals with cerebrovascular disease since symptoms may be precipitated by hypotension</li> <li>• Special caution and close medical control is required in individuals predisposed to postural hypotension</li> <li>• Diseases accompanied by an increase in intracranial pressure (so far further pressure increase has been observed solely in high doses of GTN)</li> <li>• Individuals with glaucoma (medical controls of the intraocular pressure of glaucoma-patients are advisable), or susceptibility to angle-closure glaucoma</li> <li>• Individuals with volume depletion from diuretic therapy, severe hepatic or renal impairment and/or hypothyroidism</li> <li>• Ventilation and perfusion abnormalities</li> <li>• Severe renal or hepatic impairment</li> <li>• Administer carefully to individuals with migraine</li> <li>• GTN increases the urinary excretion of catecholamines and VMA (vanillylmandelic acid)</li> <li>• Some brands may contain propylene glycol and may cause skin irritation -check individual <a href="#">SPC</a></li> <li>• Pregnancy - administration of GTN during pregnancy should only be considered if the expected benefit to the mother is greater than any possible risk to the foetus</li> <li>• Breastfeeding- it is not known whether GTN is excreted into human breast milk. Nursing should be discontinued during treatment with this product</li> <li>• Alcohol should be avoided because of the hypotensive effect.</li> <li>• Hypoxaemia – may be worsened in individuals with lung disease or cor pulmonale.</li> <li>• Arterial hypoxaemia due to severe anaemia (including G6PD deficiency induced forms).</li> <li>• Recent history of myocardial infarction</li> </ul>
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- Hypothermia
- Epilepsy and other nervous system diseases (the spray contains small amounts of alcohol and may be harmful to individuals with the above conditions)
- Malnutrition
- Individuals with complex multiple pathologies, polypharmacy or multiple allergies.
  - Check for any other medications that the individual is taking, including topical or inhaled products, food supplements and herbal or homeopathic products – see [interactions](#) section.

Continuous use may result in a tolerance to GTN and cross tolerance to other nitrates, reducing its effectiveness. If symptoms are not relieved, medical advice should be sought immediately.

Refer to [BNF/SPC](#) for full list of cautions.

Under Section 128 and 130 of the Social Services and Wellbeing (Wales) Act 2014, staff have a duty to inform the Local Authority if they have reasonable cause to suspect that an adult or child is at risk. Any vulnerable adult or child protection concerns should be referred to [Safeguarding](#) and [PTHB safeguarding policies](#) followed. Consider discussing with GP.

Any safeguarding concerns need to be directed to Safeguarding Hub:

- to generic email address:  
[PowysTHB.Safeguarding@wales.nhs.uk](mailto:PowysTHB.Safeguarding@wales.nhs.uk)

and

- Central Safeguarding number: 01686 252806
- Out of hours: 0345 0544847

Advice can also be sought from [local Safeguarding leads](#)

<p><b>Arrangements for referral for medical advice</b></p>	<ul style="list-style-type: none"> <li>• If clinically it is a cardiac episode, summon urgent medical or paramedic support and organise the transfer to the nearest Coronary Care Unit (CCU) or A&amp;E by calling 999.</li> <li>• Ensure paramedic and receiving hospital staff are aware if the patient has received GTN</li> <li>• Document advice given</li> <li>• If individual is not currently experiencing chest pain, it may be appropriate to refer to their GP</li> </ul>
<p><b>Action to be taken if individual is excluded</b></p>	<ul style="list-style-type: none"> <li>• Explain reason to individual/carer.</li> <li>• If clinically it is a cardiac episode and the individual is excluded from treatment under this PGD, call 999 and refer to nearest Coronary Care Unit (CCU) or A&amp;E for management as appropriate. Ensure that the reason for exclusion is included in the handover given to the paramedics and receiving hospital. Seek medical advice urgently.</li> <li>• Record reason for exclusion and any advice given.</li> </ul> <p><b>Note</b> while the exclusion criteria may mean that GTN 400 micrograms spray cannot be administered under this PGD, a prescriber may consider that the benefits of treatment with GTN spray outweigh the risk for an individual. They may authorise its administration via a PSD.</p>
<p><b>Action to be taken if individual / carer declines treatment</b></p>	<ul style="list-style-type: none"> <li>• If individual has capacity to consent and refuses treatment, then follow locally agreed pathway. Explain consequences of refusing treatment. Advise the individual/carer to seek immediate medical advice or emergency ambulance. Call 999 as appropriate.</li> <li>• In the unlikely situation, if an individual's carer/representative refuses treatment, the decision would be overridden by a <i>decision to treat</i> in the individual's best interests in accordance with the <a href="#">Mental Capacity Act 2005</a>.</li> <li>• Document refusal and any advice given. Complete a Discharge Against Advice Form if appropriate.</li> <li>• Refer to a prescriber/ follow local procedures as appropriate.</li> </ul>

**Details of the medicine**

<b>Name, form and strength of medicine</b>	Glyceryl Trinitrate (GTN) 400 micrograms/metered dose, sublingual spray, solution
<b>Legal category</b>	P: Pharmacy only medicine
<b>Indicate any off-label use</b>	Medicines should be stored according to the conditions detailed in the <a href="#">Storage section</a> in this document. However, in the event of an inadvertent or unavoidable deviation of these conditions the local pharmacy or Medicines Management team must be consulted. Where drugs have been assessed by pharmacy/Medicines Management in accordance with national or specific product recommendations as appropriate for continued use this would constitute off-label administration under this PGD. The responsibility for the decision to release the affected drugs for use lies with pharmacy/Medicines Management.
<b>Route/method of administration</b>	<p>Sublingual spray.</p> <p>Ideally the individual should sit upright when GTN is administered, due to the risk of symptomatic postural hypotension. Hypotension and syncope can be a particular problem with use of nitrates in the elderly.</p> <p>Hold the canister vertically with the valve head uppermost and the spray orifice as close to the mouth as possible. Press down the button firmly, to spray the dose under the tongue and close the mouth immediately after each dose. Do not inhale the spray.</p> <p>Refer to individual <a href="#">SPC</a> for specific administration details.</p>
<b>Information for administration</b>	<ul style="list-style-type: none"> <li>• Check expiry date of the spray.</li> <li>• Before using GTN for the first time, the individual should check that the spray is working by pressing the pump button a few times until it produces a fine mist of liquid into the air. If the individual does not use GTN very often, they should be advised to check the spray regularly to see that it still works properly.</li> <li>• Do not use the spray near naked flames (e.g. cigarettes) or incandescent materials.</li> </ul>

<p><b>Dose and frequency</b></p>	<ul style="list-style-type: none"> <li>• ONE or TWO sprays under the tongue (400 microgram to 800 microgram) and then close mouth while the breath is held.</li> <li>• The spray has a rapid onset of action- within 2 minutes of sublingual administration. Duration of action is about 30 minutes.</li> <li>• If symptoms do not resolve, (and the systolic BP remains &gt; 90mmHg) the dose may be repeated at 5 minute intervals, up to a <b>maximum of THREE sprays in total</b> (maximum of 1.2 mg within 15 minutes).</li> <li>• If the pain has not subsided after 3 sprays, if the pain is intensifying or the patient is unwell, then emergency paramedic transfer to an appropriate A&amp;E unit should be requested if this has not already been done. Seek urgent medical attention if symptoms have not resolved 5 minutes after the second dose, or earlier if the pain is intensifying or the person is unwell.</li> </ul>
<p><b>Quantity to be administered and/or supplied</b></p>	<p>Administration: for management of chest pain to an individual in MIU or to a patient in a PTHB community hospital, ONE to TWO sprays may be administered under the tongue. The dose may be repeated at 5 minute intervals if symptoms have not resolved, to a maximum of THREE sprays (1.2mg) in one episode of care.</p> <p>Supply: For individuals assessed in MIU, requiring an emergency supply, ONE new spray should be provided.</p>
<p><b>Maximum or minimum treatment period</b></p>	<p>Maximum of three sprays is recommended in one episode of care (with an interval of 5 minutes between consecutive doses)</p>
<p><b>Storage</b></p>	<ul style="list-style-type: none"> <li>• The spray should be stored in the original packaging protected from heat and light.</li> <li>• Do not store above 25°C, do not refrigerate or freeze.</li> <li>• Storage and application near open fire/naked flame and while smoking are forbidden</li> <li>• The spray should not be shaken.</li> <li>• For aerosol sprays- do not expose to a temperature of &gt;50°C and ensure that the canister is not pierced even when empty.</li> </ul>

<p><b>Drug interactions</b></p>	<p>All concomitant medications should be checked for interactions.</p> <p>Individuals taking the following are excluded from the PGD – see <a href="#">exclusion criteria</a> (and refer to a prescriber):</p> <ul style="list-style-type: none"> <li>• glyceryl trinitrate sublingual tablets already taken for this episode of chest pain</li> <li>• phosphodiesterase inhibitors, such as sildenafil, tadalafil, avanafil or vardenafil: GTN potentially increases the risk of hypotension (possibly resulting in collapse, unconsciousness and even death), manufacturer advises avoid.</li> <li>• riociguat (the soluble guanylate cyclase stimulator) since concomitant use can cause hypotension.</li> </ul> <p>Other interactions include:</p> <ul style="list-style-type: none"> <li>• Other nitrates- tolerance may occur</li> <li>• Alcohol may potentiate the hypotensive effect.</li> <li>• Vasodilators, antihypertensives, beta blockers, calcium antagonists, neuroleptics, tricyclic antidepressants, sapropterin and diuretics can increase nitrate-induced hypotension</li> <li>• Dihydroergotamine (the bioavailability may increase, resulting in vasoconstriction)</li> <li>• Heparin (the antithrombotic effect of heparin may decrease- regular monitoring is recommended)</li> <li>• Individuals pretreated with organic nitrates may require a higher dose of GTN to achieve the desired haemodynamic effect.</li> <li>• N-acetylcysteine may potentiate the vasodilator effects of GTN.</li> </ul> <p><b>NB.</b> This list is not exhaustive. A detailed list of drug interactions is available in the SPC, which is available from the electronic Medicines Compendium website: <a href="http://www.medicines.org.uk">www.medicines.org.uk</a></p> <p>Refer to a prescriber if any concern of a clinically significant drug interaction and document advice given.</p>
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**Identification, management and reporting of adverse effects**

The following side effects are listed in the [BNF](#) and/or [SPC](#) as **common or very common** (but may not reflect all reported side effects):

- Headache: may respond to paracetamol – if appropriate, refer to [PTHB Protocol 0005 Paracetamol](#). If the chest pain has subsided, rinsing the mouth with water (if appropriate) may help to remove any residual GTN and reduce the headache.
- Vertigo
- Asthenia
- Facial flushing
- Drowsiness
- Nausea/vomiting
- Hypotension and/or Dizziness: may be managed by elevation of the individual's legs and/or lowering of the head
- Arrhythmias
- Orthostatic hypotension
- Cerebral ischaemia

**Rare** serious side effects (may affect up to 1 in 1,000 people unless specified)- if these occur, the individual should stop taking GTN immediately and consult a doctor:

- An allergic skin reaction (with or without rash).
- Tongue blistering (may affect up to 1 in 100 people)
- Fainting
- A severe fall in blood pressure on standing up
- Worsening of the original angina symptoms.
- Failure of the blood circulation (decrease in blood pressure, may be followed by loss of consciousness and collapse)
- Transient hypoxaemia (deprived oxygen supply) (bluish colouration of the lips, hands or feet, may be followed by loss of consciousness)
- Individuals with coronary heart disease may experience a restriction in blood supply.

This list is not exhaustive. A detailed list of adverse reactions is available in the SPC, which is available from the electronic Medicines Compendium website: [www.medicines.org.uk](http://www.medicines.org.uk) and BNF <https://bnf.nice.org.uk>.

Report any suspected adverse reactions to a doctor. Record all adverse drug reactions (ADRs) in the individual's medical record and the individual's GP should be informed.

Healthcare professionals and individuals/carers are encouraged to report suspected adverse reactions to the Medicines and Healthcare products Regulatory Agency (MHRA) using the Yellow Card reporting scheme on: <http://yellowcard.mhra.gov.uk> or search for MHRA Yellow Card in the Google Play or Apple App Store. For established medicines, serious adverse events in adults or all suspected adverse reactions in children that may be attributable to the medication should be reported. Guidance on the yellow card system is available at the back of the BNF, or using the above link.

All significant adverse drug reactions and any administration errors must be recorded via the [Once for Wales Reporting System](#).

In case of an acute anaphylactic reaction occurring, adequate treatment provision must be available for immediate use: Anaphylaxis and resuscitation equipment including adrenaline (1 in 1000) injection and a working telephone must be available.

In case of anaphylaxis:

- Refer to [adrenaline PGD 0017](#) and [anaphylaxis procedure](#)
- Request medical assistance urgently. If the GP is not immediately available dial 999 to transfer to A&E
- Ensure reaction is fully documented in patient notes
- Ensure all patient records are marked **ALLERGIC TO GTN Spray**.
- The individual may be advised to wear a MedicAlert or similar device to alert other healthcare providers
- Report via [Once for Wales Reporting System](#)

<p><b>Records to be kept</b></p>	<p>Record consultation details as required by local procedures.</p> <p>Administration of any medication must be clearly recorded on the individual's medication record (for inpatients, this must be recorded on their medication record/chart).</p> <p>In addition, record:</p> <ul style="list-style-type: none"> <li>• That valid informed patient consent to treatment was obtained or a decision to treat was made in the individual's best interests in accordance with the <a href="#">Mental Capacity Act 2005</a>. Record name of representative who gave consent, if appropriate.</li> <li>• Name of individual, address, date of birth, GP contact details where appropriate.</li> <li>• Relevant past and present medical history, including medication history, any allergies and previous adverse events.</li> <li>• Any reasons for exclusion or referral, including actions taken, referral arrangements made, and advice given.</li> <li>• Any advice received from medical cover and advice given to individual / carer.</li> <li>• Examination finding/s, where relevant.</li> <li>• Printed name and signature of registered health professional responsible for administration/supply.</li> </ul> <p>For <u>administration</u>, record:</p> <ul style="list-style-type: none"> <li>○ Date and time of administration</li> <li>○ Name, form, strength and number of sprays of GTN administered</li> <li>○ Route of administration</li> <li>○ Expiry date(s)</li> <li>○ Details of any adverse reactions and actions taken</li> </ul> <p>For <u>supply</u>, record:</p> <ul style="list-style-type: none"> <li>○ Date and time of supply</li> <li>○ Name, form, strength, dose, route, frequency and quantity of medication supplied</li> <li>○ Expiry date of medicine supplied</li> <li>○ <b>HOW</b> every effort has been made to ascertain that this is a <b>current medication for the individual</b>, before issuing as an <b>emergency supply</b></li> <li>• Advice given about the medication including side effects, benefits, and when and what to do if any concerns.</li> <li>• Record that medication was administered/supplied via Patient Group Direction (PGD), record PGD title and version number</li> </ul> <p>The record must include the printed name and signature (or a password controlled e-records) of the healthcare professional responsible for administration/supply.</p>
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	<p>Records should be signed and securely kept for a defined period in line with local policy.</p> <p>All records should be clear, legible and contemporaneous. A record of all individuals receiving treatment under this PGD should also be kept for audit purposes in accordance with local policy.</p> <p>GP to be notified of administration/supply via usual communication channels</p>
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**Patient information**

<p><b>Written/verbal information to be given to individual or carer</b></p>	<ul style="list-style-type: none"> <li>• Provide Patient Information Leaflet (PIL) and draw the individuals/carers’ attention to the label and the PIL. Explain indication, contraindications, cautions, dose and possible adverse effects.</li> <li>• Advise:             <ul style="list-style-type: none"> <li>○ that this is an emergency treatment and further treatment may be necessary.</li> <li>○ the ability to react may be diminished because of the side effects or interactions due to the nitrates. This effect is potentiated by alcohol consumption, so consumption of alcoholic beverages during the use of this medicine is strictly forbidden.</li> <li>○ driving and/or using machines should be avoided during treatment with GTN.</li> <li>○ the individual to tell their healthcare professional that they are using this medicine if having blood or urine tests, as it may affect the results.</li> </ul> </li> <li>• If a supply has been made from MIU, advise on the following:             <ul style="list-style-type: none"> <li>○ Explain that the GTN spray is for sublingual use and should be sprayed under the tongue (the spray is ineffective if swallowed). Ideally, the individual should sit upright to use the GTN spray.</li> <li>○ A new spray or one that has not been used recently will need to be primed – see <a href="#">information for administration</a>.</li> <li>○ Explain that the spray should be held vertically with the valve head uppermost, and the button should be pressed firmly to release the dose. The individual should hold their breath while directing the spray under the tongue, then close their mouth but not inhale the spray.</li> <li>○ The individual should practice aiming the spray onto a tissue or similar item so that they will be able to aim it correctly under the tongue when they need to use it.</li> </ul> </li> </ul>
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Reference Number: PGD 0005H  
 Valid from: 10/04/2025  
 Review date: 10/04/2027  
 Expiry date: 09/04/2028

	<ul style="list-style-type: none"> <li>○ The individual should be instructed to familiarise themselves with the position of the spray orifice, which can be identified by the finger rest on top of the valve, in order to facilitate orientation for the administration at night.</li> <li>○ If the chest pain does not resolve after 3 sprays, then the individual should call 999 for an ambulance.</li> <li>○ The spray should be kept in its original packaging and kept away from sources of light and heat (Note: car glove boxes can get very hot during the summer months so would not be appropriate).</li> <li>○ The individual should be advised to keep a regular check on the expiry date of the spray.</li> <li>○ Individuals should keep a record of how often they need to use their GTN spray and should be advised to see their GP as soon as possible if there is any increase in frequency or the spray seems to be less effective.</li> <li>○ Advise not to use the spray near a naked flame (e.g., cigarettes) or any incandescent materials.</li> <li>○ Advise the individual to rest for a while after using the spray. Advise them to rise slowly when they stand up, as they may feel faint.</li> <li>○ Seek medical advice immediately if overdose occurs.</li> </ul>
<p><b>Follow-up advice to be given to individual or carer</b></p>	<ul style="list-style-type: none"> <li>● MIU staff to refer to <a href="#">MIU clinical guidelines</a>; if managing sudden onset, non-traumatic chest pain of suspected cardiac origin, organise transfer to the nearest Coronary Care Unit (CCU) or A&amp;E by calling 999.</li> <li>● Inform individual of possible side effects and their management.</li> <li>● Advise an individual that if symptoms do not improve or worsen, or they become unwell, or if an unexplained reaction occurs, they should seek medical advice immediately. Contact GP via surgery or emergency on call service, or call 999.</li> </ul>

## Key references

- [British National Formulary \(BNF\)](#) accessed 06/03/2025
- Electronic medicines compendium <http://www.medicines.org.uk/> accessed 06/03/2025
- [NICE guideline \[CG95\] – Recent-onset chest pain of suspected cardiac origin: assessment and diagnosis](#); last updated: 30 November 2016
- [NICE CKS Chest Pain](#) – last revised August 2022.



**Competency check list for manager or senior team lead to use as part of the authorising process for health professionals to work to a Patient Group Direction (PGD).** Review of authorisation will take place on each PGD update and at the individual’s annual PADR.

Name: Role:		Sign / Initial	Further training identified (Y/N) Specify in comments	Comments
1	The PGD sign off is for the following PGD:(document the exact title and PGD number)			
2	We have discussed the expiry of the PGD and are using a version accessed electronically			
3	The member of staff has the appropriate qualifications and professional registration as outlined in the PGD			
4	The Patient Group Direction has been read in full by the staff member			
5	The identified training has been completed as specified in the PGD and is in date			
6	We have discussed some examples of inclusion criteria and exclusion criteria			
7	The staff member is confident in the administration method and doses			

Staff member print & sign name		Date
Manager or senior team lead to print & sign name		Date

Please send a copy of this completed form to individual’s line manager and to the staff member, in conjunction with the PGD Appendix A authorisation sheet. A copy of this form should also be kept by service lead in the training file.