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

# Patient group direction

for the administration of

## Salbutamol 2.5 milligrams/2.5 ml or 5 milligrams/2.5 ml. 100mcg metered dose inhaler (MDI) via a spacer device

by registered Paramedics / Advanced Nurse Practitioners for

Re-Pat Ltd

Version number:1.1

### Change history

| Version number | Change details | Date |
|---|---|---|
| 1.1 | Alteration to job titles on PGD development and authorisation page. | 6/8/25 |
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## Document details

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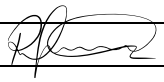
|---|---|
| **Reference number** | 2301773 |
| **Valid from** | 1/1/25 |
| **Renew date** | 31/12/2027 |
| **Expiry date** | 30/12/2027 |

# PGD development

### People responsible for PGD development

| Name | Job title and organisation | Signature | Date |
|---|---|---|---|
| Richard Drakeford | Director |  | 5/12/24 |
| Dr James Cronin | Consultant Intensivist | | |
| Neil Hayward | Pharmaceutical Consultant | | |
| Jordan Cronshaw | Specialist Paramedic | | |
| | | | |

# PGD Authorisation

### People responsible for PGD authorisation

| Name | Job title and organisation | Signature | Date |
|---|---|---|---|
| Dr James Cronin | Consultant Intensivist | | |
| Neil Hayward | Pharmaceutical Consultant | | |
| Jordan Cronshaw | Specialist Paramedic | | |
| | | | |

# Training and competency of registered Paramedics and Advanced Nurse Practitioners

### Requirements of working under the PGD

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| **Qualifications and professional registration** | Current registration with the HCPC as a Paramedic.<br>Current registration with the NMC as a Advanced Nurse Practitioner<br><br>While working for Re-Pat Ltd<br><br>Has successfully completed an approved university module in applied pharmacology, including individual applied pharmacology or other approved university modules that contain applied pharmacology as part of their content. |

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| **Initial training** | Has undertaken appropriate training and successfully completed the competencies to undertake clinical assessment of a patient leading to diagnosis of the conditions listed. |
| **Competency assessment** | Clinicians should declare their own competence to use PGDs.<br>Assure themselves that they have the necessary clinical skills and knowledge for the treatment of the conditions included and use of the drugs involved.<br>Demonstrate that they understand the legislation surrounding use of PGDs, and understand their responsibilities as a PGD user |
| **Ongoing training and competency** | The clinician must meet the requirements of the prevailing level of education required for PGD use at this level of practice. attending regular medicines management update training.<br>All ongoing regular training requirements (e.g. statutory and mandatory training) as required by Re-Pat Ltd for this role must be completed.<br>The clinician is responsible for keeping themself aware of any changes to the recommendations for the medicine listed. It is the responsibility of the individual to keep up to date with continued professional development and to work within the limitations of their own individual scope of practice. |

# Clinical condition

### Condition-specific information

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| **Clinical condition or situation to which this PGD applies** | Acute asthma attack where normal inhaler therapy has failed to relieve symptoms.<br>Expiratory wheezing associated with allergy, anaphylaxis, beta-blocker overdose, smoke inhalation or other lower airway cause.<br>Exacerbation of chronic obstructive pulmonary disease (COPD). |
| **Inclusion criteria** | Acute asthma attack where normal inhaler therapy has failed to relieve symptoms.<br>Expiratory wheezing associated with allergy, anaphylaxis, beta-blocker overdose, smoke inhalation or other lower airway cause.<br>Exacerbation of chronic obstructive pulmonary disease (COPD). |
| **Exclusion criteria** | None in the emergency situation |

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| **Cautions (including any relevant action to be taken)** | Salbutamol should be used with care in patients with: Hypertension Angina<br><br>Overactive thyroid<br><br>Late pregnancy (can relax uterus)<br><br>Bronchomalacia / laryngomalacia / tracheomalacia (abnormal softening of the bronchial tubes, larynx and trachea)<br><br>Severe hypertension may occur in patients on beta-blockers and half doses should be used unless there is profound hypotension.<br><br>If COPD is a possibility limit nebulisation with oxygen to 6 minutes. |
| **Arrangements for referral for medical advice** | Following discharge from Re-Pat, the patient will be offered a worsening care advise leaflet Arrangement for further assessment is the responsibility of the patient / guardian |
| **Action to be taken if patient excluded** | Alternative treatment plan will be explored, (ie ice pack, paracetamol) |
| **Action to be taken if patient declines treatment** | A verbal explanation should be given to the patient on: the need for the medication and any possible effects or potential risks which may occur as a result of refusing treatment<br>This information must be documented in the patients' health records<br>Any patient who declines care must have demonstrated capacity to do so<br>Where appropriate care should be escalated |

<table>
<tr><td>Name, form and strength of medicine</td><td>Nebules containing salbutamol 2.5 milligrams/2.5 ml or 5 milligrams/2.5 ml.</td></tr>
<tr><td>Legal category</td><td>Perscription Only Medication (POM)</td></tr>
<tr><td>Indicate any off-label use (if relevant)</td><td>N/A</td></tr>
<tr><td>Route/method of administration</td><td>Nebulised with 6–8 litres per minute of oxygen.<br>Nebulised – 2.5 milligrams in 2.5 ml<br><br>Nebulised with 6–8 litres per minute of oxygen.<br>Nebulised – 5 milligrams in 2.5 ml<br><br>MDI using a spacer device:<br>This route is the preferred option in children over 2years and adults with mild to moderate asthma.<br>Inhalers should be actuated into the spacer in individual puffs and inhaled immediately by tidal breathing.</td></tr>
<tr><td>Dose and frequency</td><td>Route: Nebulised with 6–8 litres per minute of oxygen.<br>Nebulised – 2.5 milligrams in 2.5 ml<br>Nebulised – 2.5 milligrams in 2.5 ml<br><br>
<table>
<tr><th>AGE</th><th>Adult</th><th>11 years</th><th>10 years</th><th>9 years</th><th>8 years</th></tr>
<tr><td>INITIAL DOSE</td><td>5 milligrams</td><td>5 milligrams</td><td>5 milligrams</td><td>5 milligrams</td><td>5 milligrams</td></tr>
<tr><td>REPEAT DOSE</td><td>5 milligrams</td><td>5 milligrams</td><td>5 milligrams</td><td>5 milligrams</td><td>5 milligrams</td></tr>
<tr><td>DOSE INTERVAL</td><td>5 minutes</td><td>5 minutes</td><td>5 minutes</td><td>5 minutes</td><td>5 minutes</td></tr>
<tr><td>CONCENTRATION</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td></tr>
<tr><td>VOLUME</td><td>5 ml</td><td>5 ml</td><td>5 ml</td><td>5 ml</td><td>5 ml</td></tr>
<tr><td>MAX DOSE</td><td>No limit</td><td>No limit</td><td>No limit</td><td>No limit</td><td>No limit</td></tr>
</table>
<table>
<tr><th>7 years</th><th>6 years</th><th>5 years</th><th>4 years</th><th>3 years</th></tr>
<tr><td>5 milligrams</td><td>5 milligrams</td><td>2.5 milligrams</td><td>2.5 milligrams</td><td>2.5 milligrams</td></tr>
<tr><td>5 milligrams</td><td>5 milligrams</td><td>2.5 milligrams</td><td>2.5 milligrams</td><td>2.5 milligrams</td></tr>
<tr><td>5 minutes</td><td>5 minutes</td><td>5 minutes</td><td>5 minutes</td><td>5 minutes</td></tr>
<tr><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td><td>2.5 milligrams in 2.5 ml</td></tr>
<tr><td>5 ml</td><td>5 ml</td><td>2.5 ml</td><td>2.5 ml</td><td>2.5 ml</td></tr>
<tr><td>No limit</td><td>No limit</td><td>No limit</td><td>No limit</td><td>No limit</td></tr>
</table>
<br>Route: Nebulised with 6–8 litres per minute of oxygen.<br>Nebulised – 5 milligrams in 2.5 ml<br>Nebulised – 5 milligrams in 2.5 ml</td></tr>
</table>

| AGE | Adult | 11 years | 10 years | 9 years | 8 years |
|---|---|---|---|---|---|
| INITIAL DOSE | 5 milligrams | 5 milligrams | 5 milligrams | 5 milligrams | 5 milligrams |
| REPEAT DOSE | 5 milligrams | 5 milligrams | 5 milligrams | 5 milligrams | 5 milligrams |
| DOSE INTERVAL | 5 minutes | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| CONCENTRATION | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml |
| VOLUME | 2.5 ml | 2.5 ml | 2.5 ml | 2.5 ml | 2.5 ml |
| MAX DOSE | No limit | No limit | No limit | No limit | No limit |

| 7 years | 6 years | 5 years | 4 years | 3 years |
|---|---|---|---|---|
| 5 milligrams | 5 milligrams | 2.5 milligrams | 2.5 milligrams | 2.5 milligrams |
| 5 milligrams | 5 milligrams | 2.5 milligrams | 2.5 milligrams | 2.5 milligrams |
| 5 minutes | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml | 5 milligrams in 2.5 ml |
| 2.5 ml | 2.5 ml | 1.25 ml | 1.25 ml | 1.25 ml |
| No limit | No limit | No limit | No limit | No limit |

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| **Administration notes** | In acute severe or life-threatening asthma ipratropium should be given after the first dose of salbutamol. In acute asthma or COPD unresponsive to salbutamol alone, a single dose of ipratropium may be given after salbutamol.<br><br>Salbutamol often provides initial relief. In more severe attacks, however, the use of steroids by injection or orally and further nebuliser therapy will be required. Do not be lulled into a false sense of security by an initial improvement after salbutamol nebulisation.<br><br>Nebules should be protected from light after removal from the foil overwrap pouch. They should be disposed of after a reduced period of expiry, indicated on the pouch.<br><br>Salbutamol is not indicated in bronchiolitis. It will not benefit the condition and the resultant tachycardia may confuse subsequent clinical assessment in hospital.<br><br>**In life-threatening or acute severe asthma:** undertake a **TIME CRITICAL** transfer to the **NEAREST SUITABLE RECEIVING HOSPITAL** and provide nebulisation en-route.<br><br>If COPD is a possibility limit nebulisation with oxygen to 6 minutes.<br><br>The pulse rate in children may exceed 140 after significant doses of salbutamol; this is not usually of any clinical significance and should not usually preclude further use of the drug.<br><br>Repeat doses should be discontinued if the side effects are becoming significant (e.g. tremors, tachycardia >140 beats per minute in adults) – this is a clinical decision by the ambulance clinician. |
| **Maximum or minimum treatment period** | No Limit to dosage – However the patient should be time critical and transferred to the emergency department without delay |
| **Adverse effects** | Tremor (shaking).<br>Tachycardia.<br>Palpitation.<br>Headache.<br>Feeling of tension.<br>Peripheral vasodilatation.<br>Muscle cramps.<br>Rash. |
| **Records to be kept** | The administration of any medication given under a PGD must be recorded within the patient's medical records |

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# Details of the medicine

### Medicines information

# Patient information

### Information for patients

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| **Written information to be given to patient or carer** | Verbal information must be given to patients and or carers for all medication being administered under a PGD |
| **Follow-up advice to be given to patient or carer** | If symptoms do not improve or worsen or you become unwell, seek medical advice immediately<br>. |

# Appendices

## Appendix A: key references

Joint Royal College of Ambulance Liaison Committee (JRCALC)

BNF: https://bnf.nice.org.uk/drugs/salbutamol/

## Appendix B: Paramedics / Advanced Nurse Practitioners agreement to practise

I have read and understood the patient group direction and agree to administer this medicine only in accordance with this PGD.

### Details of participating individual

| Name | Signature | Senior authorising representative | Date |
|---|---|---|---|
| | | | |