 **Acute Asthma in Adults Standing Order**

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| Issue date: |  | Review date: |  |

This standing order is not valid after the review date. The review date is one year after the date the order was signed by the issuer.

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| **Standing Order Name** | Acute Asthma in Adults |
| **Rationale** | To rapidly and appropriately treat patients presenting with an acute episode of asthma. |
| **Scope (condition and patient group)** | All patients presenting with an acute episode of asthma needs to be treated according to the severity of the attack (mild/moderate or severe) |
| **Red Flags** | Peak flow < 33% predicted or best (or < 150 if best peak flow unknown)  O2 saturation < 92%  Silent chest, cyanosis, or feeble respiratory effort  Bradycardia or hypotension  Exhaustion, confusion, or coma |
| **Assessment** | 1. Take a brief history and perform a rapid examination.   * Decide whether asthma is the most likely diagnosis. * Exclude other diagnoses e.g., pneumonia, pneumothorax, or hyperventilation.   2. Measure peak flow and compare to best or predicted rates, respiratory rate, heart rate, blood pressure, temperature, and O2 saturation. If the patient is unable or they refuse to do a peak flow, treat as severe.  3. Decide on the severity of the asthma:   * Mild to moderate:   + peak flow > 50% predicted or best   + speech normal   + respiratory rate < 25   + heart rate < 110 * Severe:   + peak flow < 50% predicted or best   + cannot complete sentences   + respiratory rate > 25   + heart rate > 110   + O2 saturation < 94% |
| **Indication** | **Mild to moderate acute asthma attack** |
| **Medicine** | **Salbutamol** 100 microgram inhaler |
| **Dosage instructions** | Give ONE puff at a time, via spacer, shaking inhaler between each dose. Give 8 puffs in total.  Can be repeated at 10-15 minute intervals or sooner if not improving.  Give ipratropium at same time. |
| **Route of administration** | Inhaled |
| **Quantity to be given** | As needed to improve breathing or to ambulance arrives |
| **Contraindications** | None |
| **Precautions** | * High dose can lead to tachycardia, palpitations and arrhythmias- monitor |
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| **Indication** | **Mild to moderate acute asthma attack** |
| **Medicine** | **Ipratropium** 20 microgram inhaler |
| **Dosage instructions** | Give ONE puff at a time, via spacer, shaking inhaler between each dose. Give 4 puffs in total.  Give salbutamol at same time.  Do not repeat |
| **Route of administration** | Inhaled |
| **Quantity to be given** | 4 puffs |
| **Contraindications** | Hypersensitivity to atropine or its derivatives |
| **Precautions** | * Caution in patients with angle-closure glaucoma, prostate hypertrophy and bladder outflow obstruction |
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| **Indication** | **Severe acute asthma attack** |
| **Medicine** | **Salbutamol** 5 mg nebule |
| **Dosage instructions** | Give ONE nebule via nebuliser with oxygen at 8L/min  Repeat at 10-15 minute intervals or sooner if not improving, and repeat as required.  Give with ipratropium nebule |
| **Route of administration** | Nebulised |
| **Quantity to be given** | As needed until ambulance arrives |
| **Contraindications** | None |
| **Precautions** | * High dose can lead to tachycardia, palpitations and arrhythmias- monitor |
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| **Indication** | **Severe acute asthma attack** |
| **Medicine** | **Ipratropium** 0.5mg nebule |
| **Dosage instructions** | Give ONE nebule via nebuliser with oxygen at 8L/min.  Do not repeat.  Give with salbutamol nebule |
| **Route of administration** | Nebulised |
| **Quantity to be given** | Once only |
| **Contraindications** | Hypersensitivity to atropine or its derivatives |
| **Precautions** | * Acute angle-closure glaucoma has been reported with nebulised ipratropium, particularly when given with nebulised salbutamol -care needed to protect patient's eyes from nebulised drug or from drug powder |
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| **Indication** | **For life threatening acute asthma attack when patient is in imminent danger of arresting** |
| **Medicine** | **Adrenaline** 1:1000 injection (1mg/mL) |
| **Dosage instructions** | Give adrenaline 0.5 mg intramuscular (0.5 ml of 1:1000).  Repeat dose in 5 minutes if needed. |
| **Route of administration** | Intramuscular |
| **Quantity to be given** | 2 doses |
| **Contraindications** | None |
| **Precautions** | * Prepare to assist ventilation with a bag valve mask and prepare to intubate if able. |
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| **Indication** | **To reduce inflammation and risk of relapse after an acute asthma attack** |
| **Medicine** | **Prednisone** |
| **Dosage instructions** | 40mg ONCE daily for 5 days.  Give first dose asap, then advise patient to take subsequent doses in the morning. |
| **Route of administration** | Oral |
| **Quantity to be given** | 5 days |
| **Contraindications** | Systemic infection |
| **Precautions** | * Warn patients about potential mood and behaviour changes * Warn patients that they can be at increased risk of infections, especially chicken pox and measles. |
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| **Additional information** | Monitor closely by measuring and recording O2 saturation, peak flow, and heart rate.  Decide how long to monitor the patient or whether to admit to hospital by reviewing the severity of the attack and using clinical judgement.   * Consider how quickly the patient responded to the initial treatment. * Consider personal history including co-morbidities and previous admission history. * Gain IV access if patient not improving. * Consider facilities available to monitor and manage the patient. |
| **Follow-up** | A severe attack of asthma requires admission to hospital.  If a moderate attack of asthma that needs oxygen or is not responding to repeated doses of salbutamol requires admission to hospital.  Patients not admitted to hospital should have a follow-up appointment the next day.  All patients should have their asthma action plan updated. |
| **Countersigning and auditing** | Countersigning is not required. Audited **xx** % monthly.  **OR**  Countersigning is required within ***XX*** days. |
| **Competency/training requirements** | All nurses working under this standing order must be signed off as competent to do so by the issuer and have had specific training in this standing order. |
| **Supporting documentation** | Healthpathways at [www.healthpathways.org.nz](http://www.healthpathways.org.nz)  Best Practice Journal at [www.bpac.org.nz](http://www.bpac.org.nz)  New Zealand Formulary at [www.nzf.org.nz](http://www.nzf.org.nz)  Individual medicine data sheets at [www.medsafe.govt.nz](http://www.medsafe.govt.nz)  Standing Order Guidelines, Ministry of Health, 2012  Medicines (Standing Order) Regulations 2012 (Standing Order Regulations) |
| **Definition of terms used in standing order** | None |

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| **Medical Centre or Clinic:** |  |

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| **Signed by issuers** |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Nurses operating under this standing order** |

Only Registered nurses working within the above medical centre or clinic are authorised to administer medication under this standing order.

We the undersigned agree that we have read, understood and will comply with this standing order and all associated documents.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

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