

Chapter 17: Respiratory Conditions



NATIONAL DEPARTMENT OF HEALTH



AFFORDABLE MEDICINES DIRECTORATE
ESSENTIAL DRUGS PROGRAMME



PRIMARY HEALTHCARE STANDARD TREATMENT
GUIDELINES AND ESSENTIAL MEDICINES LIST
2025-2029 REVIEW CYCLE



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How to Use this Implementation Tool



This slide set highlights medicine amendments to this chapter of the PHC STGs & EML



THIS TOOL

- ✓ Highlights medicine amendments
- ✓ Use for quick implementation updates



STGs

- ✓ Remains the authoritative clinical guidance
- ✓ Always use the most recently published version



EVIDENCE

- ✓ Access the NEMLC report for detailed evidence (including rationale, references and costings) informing decision-making on medicine addition, amendments and deletions

**ACCESS THE LATEST
STGs & EML**
PHC Chapter 17: Respiratory
Conditions



NHI webpage:
<https://www.health.gov.za/nhi-edp-stgs-eml/>



Disclaimer

This slide set is an implementation tool and should be used alongside the most recently published STG available on the NHI Webpage as detailed above. This information does not supersede or replace the STG itself.



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Key Asthma Updates Overview



Only Asthma content has been updated for this chapter

01



Acute Asthma exacerbations

Adults and
Adolescents ≥ 12
years

02



Acute Asthma exacerbations

Children < 12 years

03



Chronic Asthma

Adults and
Adolescents ≥ 12
years
*Treatment
pathway updates*

04



Chronic Asthma

Children < 12 years
*Age specific
treatment updates*



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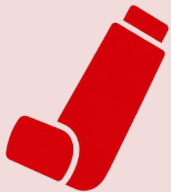
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Key Updates



1



Ipratropium Bromide MDI DELETED

- Withdrawn by local suppliers
- Nebulised solution remains available

2



Prednisone/ Prednisolone DOSING STANDARDISED

- Adults: 40mg once daily for 5 days
- Children: 1mg/kg once daily (max as per age group) for 5 days

3



ICS/Formoterol (AIR/MART) INTRODUCED

- New treatment strategy for chronic asthma in adults and adolescents ≥ 12 years
- Option added for children 6-11 years (hospital initiation only)

4



Paediatric Asthma GUIDANCE UPDATED

- Updated acute asthma management, dosing and age-specific treatment options

Changes in this Chapter



4

**MEDICINE
DELETIONS**



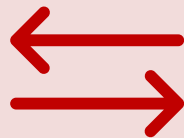
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**MEDICINE
ADDITIONS**



7

**MEDICINE
AMMENDMENTS**



4

**THERAPEUTIC INTERCHANGE
CONSIDERATIONS**



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Medicine Amendments

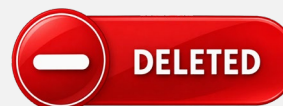


SECTION 17.1.1 Acute exacerbation of asthma & COPD, adults and adolescents ≥ 12 years

Medicine/ Management

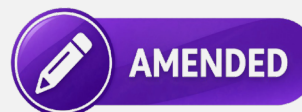
Decision

Ipratropium Bromide, MDI



- Removed from the EML for the management of acute exacerbations of asthma, following notification of its withdrawal by local suppliers
- Ipratropium bromide solution for nebulisation is retained in the STG as the alternative to the MDI

Prednisone/ Prednisolone, Oral



Dose standardised to 40mg once daily for 5 days



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Acute Asthma and COPD exacerbations



Adults and Adolescents ≥ 12 years

Table 17.1: Recognition and assessment of severity of asthma exacerbation severity in adults and adolescents ≥ 12 years

	Mild-Moderate	Severe	Life-Threatening
Oxygen saturation	≥ 90	$< 90\%$ on room air	$< 90\%$ on oxygen
Talks in	Phrases	Words	Unable to speak
Alertness	Normal	Usually agitated	Agitated, drowsy or confused
Respiratory rate	≤ 30 breaths/minute	> 30 breaths/minute	> 30 breaths/minute, OR feeble effort
Wheeze	Present	Present	Silent chest
Heart rate	60–120 beats/minute	> 120 beats/minute	< 60 beats/minute
PEFR (%)	$\geq 60\%$ of predicted	33–60% of predicted PEF	$< 33\%$ of expected, or unable to perform test



Severity Assessment clarified

- Severe: oxygen saturation $< 90\%$ on room air
- Life threatening: Oxygen saturation $< 90\%$ despite oxygen supplementation



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Medicine Amendments

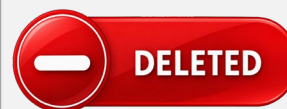


SECTION 17.1.2 Acute asthma exacerbation, children ≤ 11 years

Medicine/ Management

Decision

0.45% sodium chloride/5% dextrose , IV



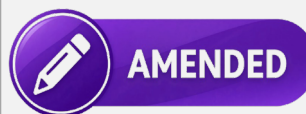
Aligned to the standard IV replacement fluid recommendation for children.

0.9% sodium chloride/5% dextrose, IV



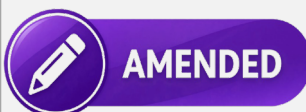
Aligned to the standard IV replacement fluid recommendation for children.

Prednisone/Prednisolone, oral



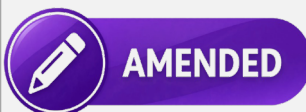
Standardised to 1mg /kg once daily (i.e. dose range of 1-2mg/kg has been removed)

Hydrocortisone, IM/Slow IV



Standardised to 4mg /kg (max 100mg) 6 hourly (i.e. dose range of 2-4mg/kg has been removed)

Oxygen Flow Rate



Oxygen flow rate has been amended from 5L/min to 8L/min to ensure adequate aerosol output and deposition efficiency

Salbutamol and Ipratropium nebulised therapy

Adapted from the BTS/SIGN guideline, and the Australian National Council Asthma Handbooks for children, in consultation with local paediatric experts.

Acute Asthma exacerbation < 12 years



Key Updates:



IV Fluids

- ~~0.45% Sodium chloride/ 5% dextrose~~
- Deleted
- 0.9% Sodium Chloride/ 5% dextrose
- Added



Prednisone/ Prednisolone

- 1mg/kg once daily for 5 days
- Maximum dose according to age group



Hydrocortisone IM/IV

- 4mg/kg (max 100mg)
- Immediately and every 6 hours thereafter



Nebulised Therapy

- Dose guidance updated (salbutamol & ipratropium bromide)
- Magnesium sulphate dose guidance updated



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Medicine Amendments



SECTION 17.1.3 Chronic Asthma, adults and adolescents ≥ 12 years

Medicine/ Management

Decision

Short-acting beta agonist (SABA) – asthma reliever/rescue therapy



Replaced with the use of corticosteroid/formoterol inhaled combination therapy for maintenance and/or reliever therapy for different degrees of asthma severity, as appropriate

Inhaled Corticosteroid (ICS) therapy- asthma controller therapy



Replaced with the use of corticosteroid/formoterol inhaled combination therapy for maintenance and/or reliever therapy for different degrees of asthma severity, as appropriate

ICS/formoterol combination inhaler for maintenance and reliever therapy (MART)

- ICS/formoterol 4.5mcg MDI or DPI: **Added**
- Budesonide 160mcg/formoterol 4.5mcg MDI: **Added** (as example from therapeutic class)

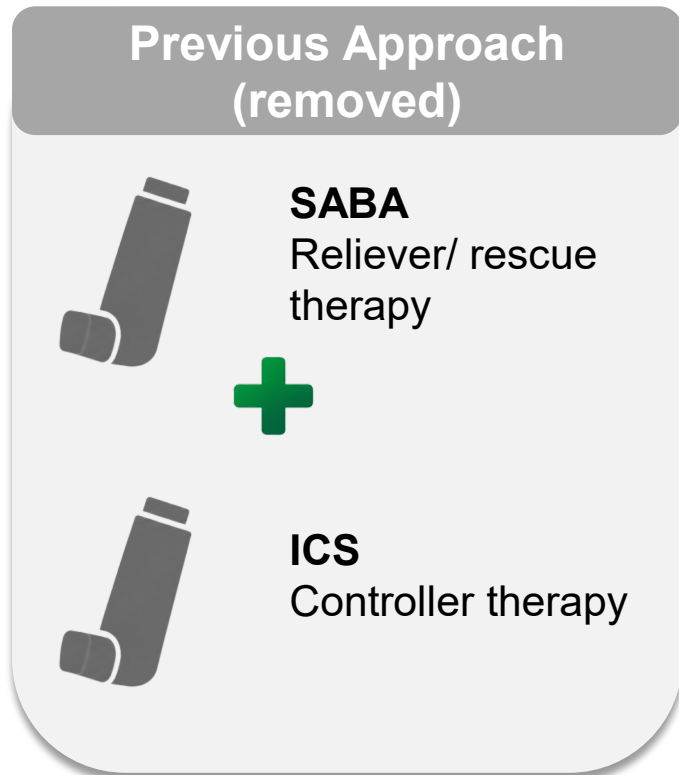
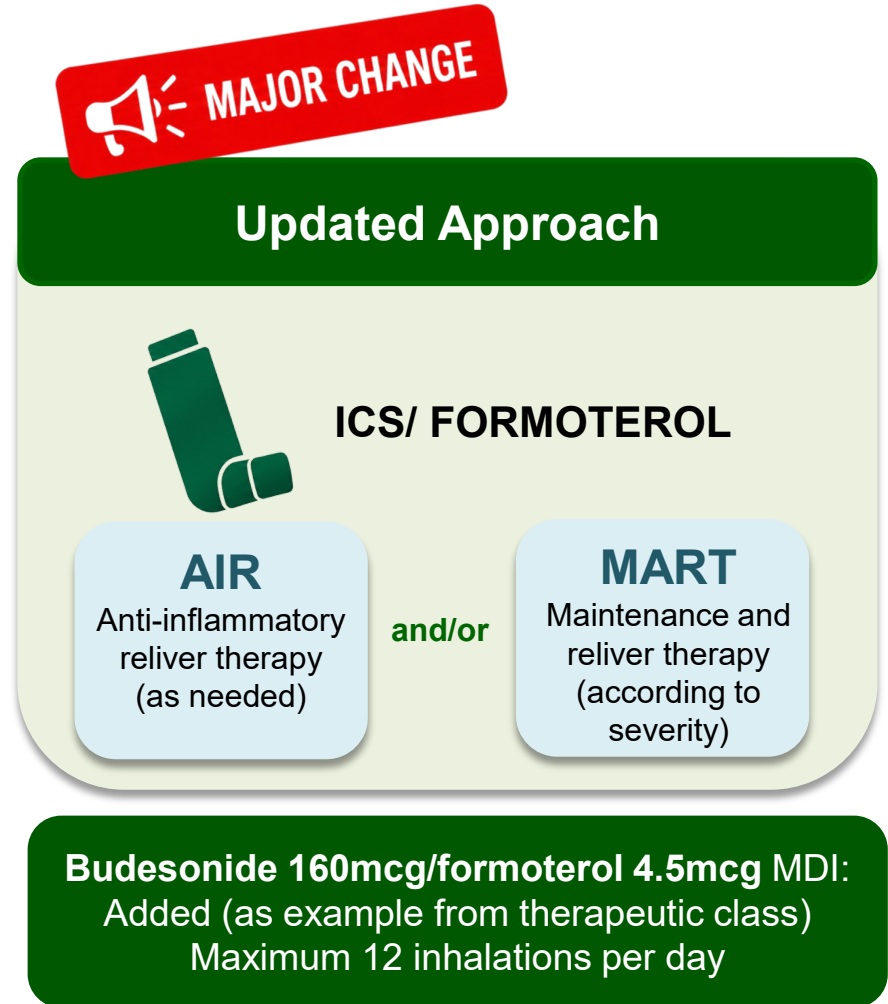


For further information refer to the [NEMLC Report](#)

Chronic Asthma, adults and adolescents ≥12 years



Major treatment pathway change:



CAUTION

Formoterol has a rapid onset of action and **CAN be used as reliever therapy BUT ONLY** in combination with an ICS.
Salmeterol is not rapid acting and **CANNOT** be used as reliever therapy.

Medicine Amendments



SECTION 17.1.3.1 Chronic Asthma, adults and adolescents ≥12 years

Medicine/ Management

Decision

Patients on Protease-inhibitor-based Antiretroviral Therapy

Short-acting beta agonist (SABA) – asthma reliever/rescue therapy for patients on protease inhibitors



Beclometasone 200mcg MDI HFA- asthma controller therapy for adults and adolescents ≥ 12 years on protease inhibitors



Beclometasone is the preferred ICS for people living with HIV and on protease inhibitor based antiretroviral therapy, as there are drug interactions between protease inhibitors and budesonide. For further information regarding dosing refer to the [NEMLC Report](#)

Note: Beclometasone 100 mcg MDI has been awarded on the most recent HP07 tender circular. Dosing guidance in the STG has therefore been aligned to the beclometasone 100mcg formulation.

Patients on PI based ART



Specific Considerations:



Do not simply apply the standard ICS/Formoterol pathway

There is an interaction between protease inhibitors and budesonide



SABA

Reliever/ rescue therapy
(retained)



Beclomethasone MDI

Preferred ICS for adults
and adolescents ≥ 12
years



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Medicine Amendments



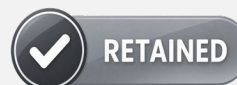
SECTION 17.1.3.2 Chronic Asthma, children <12 years

Medicine/ Management

Decision

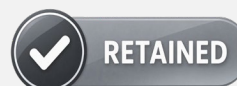
Children < 6 years

Short-acting beta agonist (SABA) – asthma reliever/rescue therapy



Retained for chronic asthma management Step 1.

Inhaled Corticosteroid (ICS) therapy- asthma controller therapy + SABA



Retained for chronic asthma management Steps 2 to 4.

Children 6-11 years

Inhaled Corticosteroid (ICS) therapy- asthma controller therapy + SABA



Retained for chronic asthma management Steps 1 to 4.

ICS/formoterol combination inhaler for AIR & MART

- Low dose ICS/formoterol MDI: **Added**
- Budesonide 80mcg/formoterol 4.5mcg MDI: **Added**



Added for maintenance and step-down therapy

Introduction of the AIR/MART chronic asthma treatment pathway is currently limited to initiation at Paediatric Hospital level of care, with maintenance and step-down therapy permitted at PHC level of care.

Chronic Asthma, children



Age specific updates:

Children < 6 years



SABA MDI Retained



ICS MDI Retained

Current
Approach of
SABA and ICS
Retained

Children 6-11 years



SABA MDI Retained



ICS MDI Retained

NEW

ICS/formoterol combination inhaler
for AIR & MART

- Low dose ICS/formoterol MDI: **Added**
- Budesonide 80mcg/formoterol 4.5mcg MDI: **Added**
- For Pediatric hospital level initiation **ONLY**



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Medicine Amendments



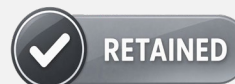
SECTION 17.1.3.2 Chronic Asthma, children <12 years

Medicine/ Management

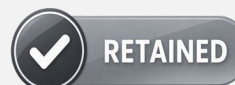
Decision

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PHC Appendices



PHC Appendix I

ASTHMA MONITORING



Asthma Monitoring
Appendix retained in
the PHC Appendix



PHC Appendix II

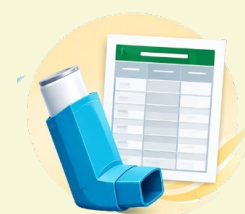
DEVICES FOR RESPIRATORY CONDITIONS



Nebuliser guidance amended:
minimum volume corrected

~~4 L~~ → 4 mL

*i.e. Ensure the nebuliser cup is filled
sufficiently to allow effective nebulisation
(approx. 4 mL minimum volume).*



PHC Appendix V

COMPARATIVE DOSING TABLES



Comparative dosing
across therapeutic
classes of inhaled
corticosteroids included in
a new PHC Appendix



THANK YOU



For any queries kindly email
SAEDP@health.gov.za



NHI Webpage

<https://www.health.gov.za/nhi-edp-stgs-eml/>



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