



Improving Childhood Asthma Management (ICAM) Community of Practice – Key asthma updates

Wednesday 20th May 2026

The content in this session is valid at date of presentation

Acknowledgement of Country

In the spirit of reconciliation we acknowledge the Traditional Custodians of the lands on which we meet, the Wurundjeri people of the Kulin Nation.

We pay our respects to the Elders past and present, and extend that respect to all Aboriginal and Torres Strait Islander peoples today, for they are the safekeepers of memories, traditions and culture.

We recognise their connection to Country, land, sea and community, and the role in caring for and maintaining Country over thousands of years. May their strength and wisdom be with us today.



Photo credit: Koori Curriculum

Housekeeping – Zoom Meeting

All attendees are muted

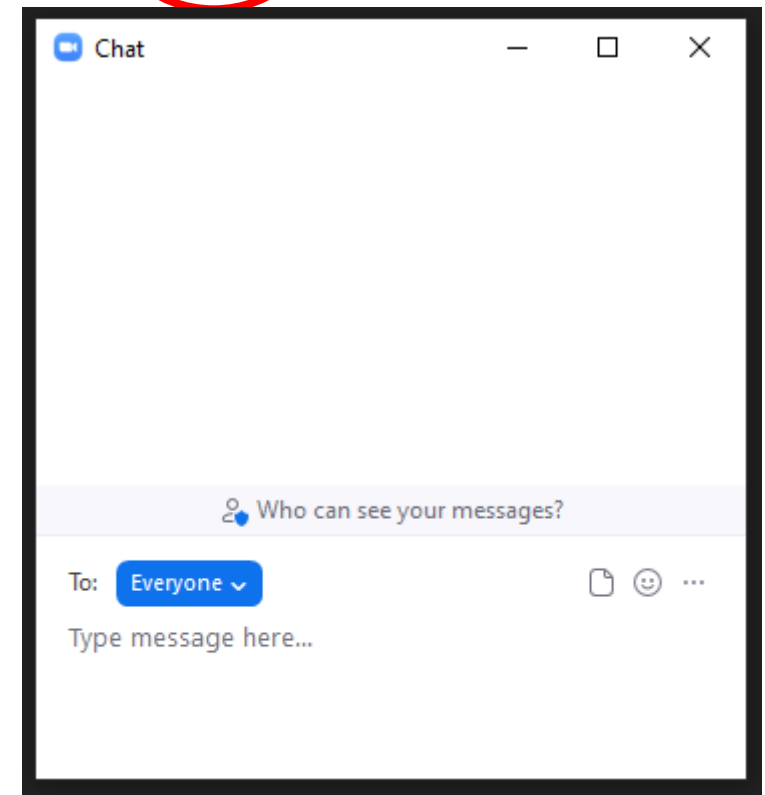
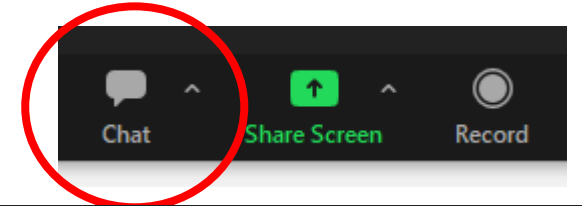
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Please ask questions via the Chat box

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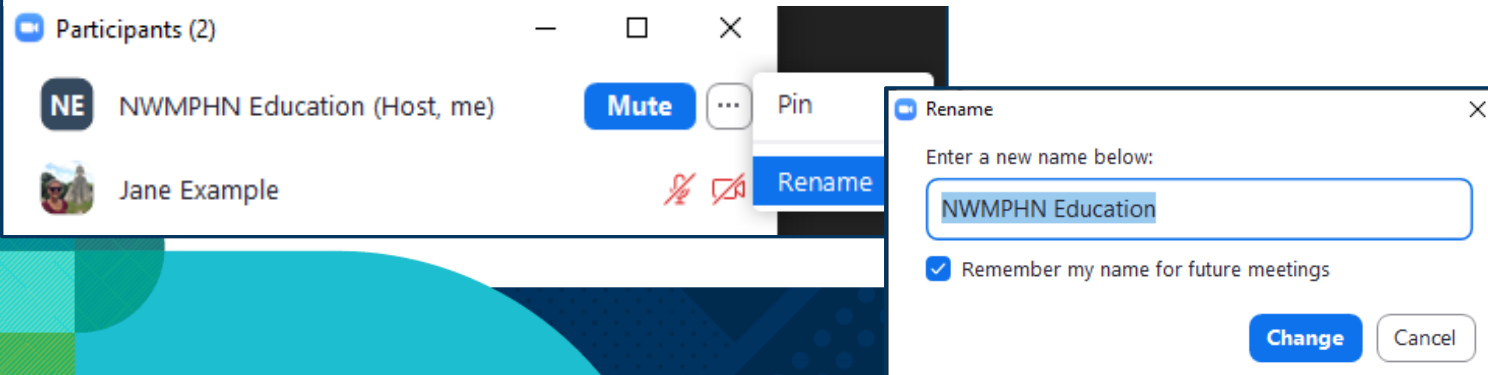
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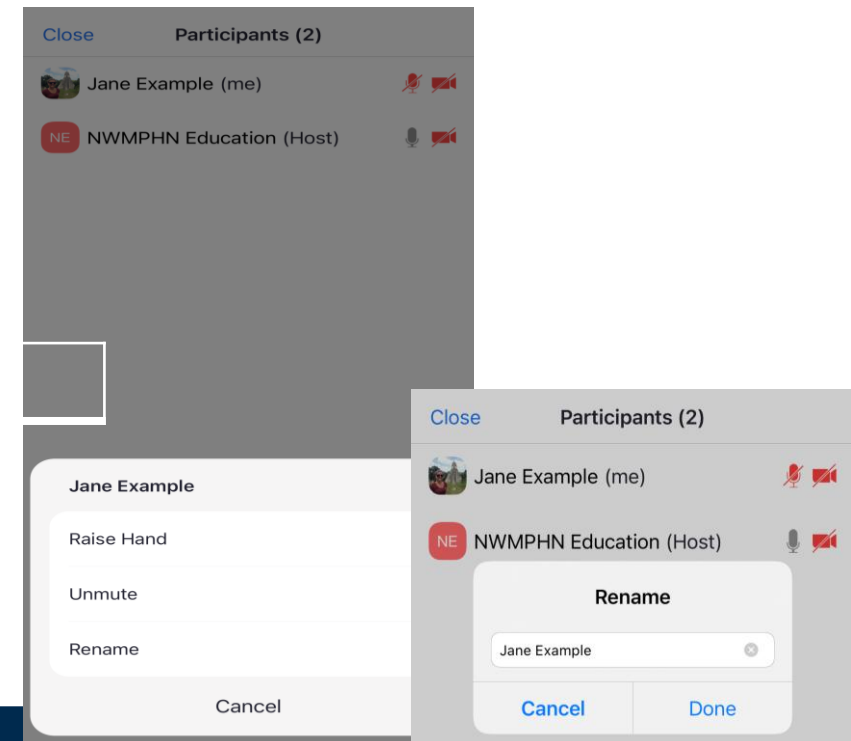
How to change your name in Zoom Meeting

1. Click on **Participants**
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 - Mac:** hover over your name and click More
3. Click on **Rename**
4. Enter the name you registered with and click **Done / Change / Rename**

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Learning Outcomes

By the end of this session, you will be able to:

- Implement best practice management for asthma in children
- Describe resources and local services available for children living with asthma
- Identify collaborative, multidisciplinary opportunities to improve care for children living with asthma
- Interpret local data and identify potential solutions to improve asthma care locally

Introducing your Facilitators



Dr Katherine Chen

General Paediatrician
Royal Children's Hospital



Dr Kirsty Tamis

General Practitioner
Forsyth Park Medical Centre

Introduce yourself in the chat



Agenda

Topic	Speaker
Welcome and introductions	Dr Katherine Chen
Updates in asthma	Dr Shivanthan Shanthikumar, RCH
AIR vs MART, Action Plans and acute management	Elizabeth Spiers, cohealth
Allergy control in asthma	Dr Kirsty Tamis
Vaping updates and discussion	Jarrod McMaugh, Pharmaceutical Society of Australia
HealthPathways & CAP	Dr Kirsty Tamis
Wrap Up	Dr Katherine Chen



Updates in asthma

**Associate Professor Shivanthan Shanthikumar,
Paediatric Respiratory Specialist, Royal Children's Hospital**

Disclosures

- Research funding and honoraria for speaking at educational events for Sanofi

Agenda

1. Preschoolers
2. Diagnosing Asthma in 6yrs +
3. Anti-inflammatory Reliever Therapy



*Poll
Question*



Scenario: You have a 18 month old who you see in outpatients clinic. They have had 2 emergency department presentations, with viral symptoms associated with wheeze. You can look at the ED notes and there is clear documentation that the child's wheeze and associated dyspnoea got better after a "burst". Both times admitted and given a course of oral steroids. Parents ask "what does my child have"

Please type in the chat what diagnostic label you have seen this presentation given

Preschool Asthma



Diagnosis of asthma in children aged 5 years and younger



All three criteria are needed for the diagnosis of asthma in children 5 years and younger

Acute wheezing episode: symptoms such as wheezing on expiration, accessory muscle use, or difficult, fast or heavy breathing, that from parent/caregiver report typically lasted for more than 24 hours or were seen and confirmed as wheezing by a health care worker.

Asthma-like symptoms between episodes (also called *interval symptoms*): symptoms such as dry cough or wheeze after running, laughing or crying, or during sleep, that occur between acute wheezing episodes

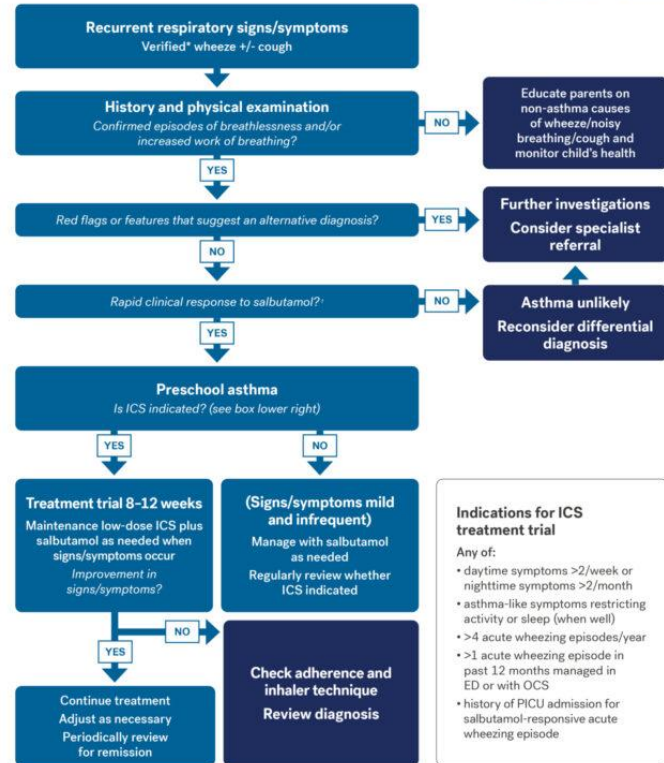
If only 1 or 2 criteria are met, describe as 'suspected asthma', and continue follow-up

A family history of asthma, or a personal or family history of allergic disease, may strengthen the diagnosis of asthma, but is not required, and is not specific for asthma

ICS: inhaled corticosteroid, OCS: oral corticosteroid, SABA: short-acting beta₂-agonist

Preschool Asthma

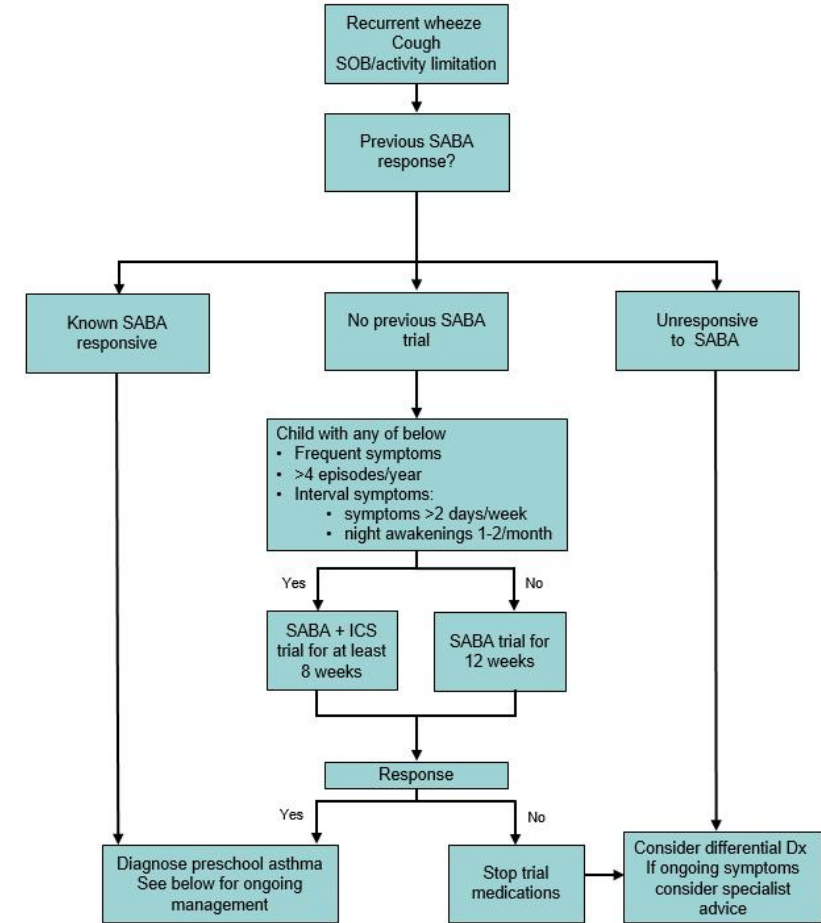
Diagnosis of asthma in children 1-5 years



ED: emergency department; ICS: inhaled corticosteroid; OCS: oral corticosteroid; PICU: paediatric intensive care unit; OCS: oral corticosteroid;
 * Wheeze verified by direct observation/auscultation or by audio recording
 † Resolution of signs/symptoms within minutes after administration of salbutamol via pressurised metered-dose inhaler plus spacer (± facemask) at home/in primary care or documented resolution of acute episode in emergency department, consistent with expected response to bronchodilator treatment

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Preschool asthma (1-5 years)





*Poll
Question*

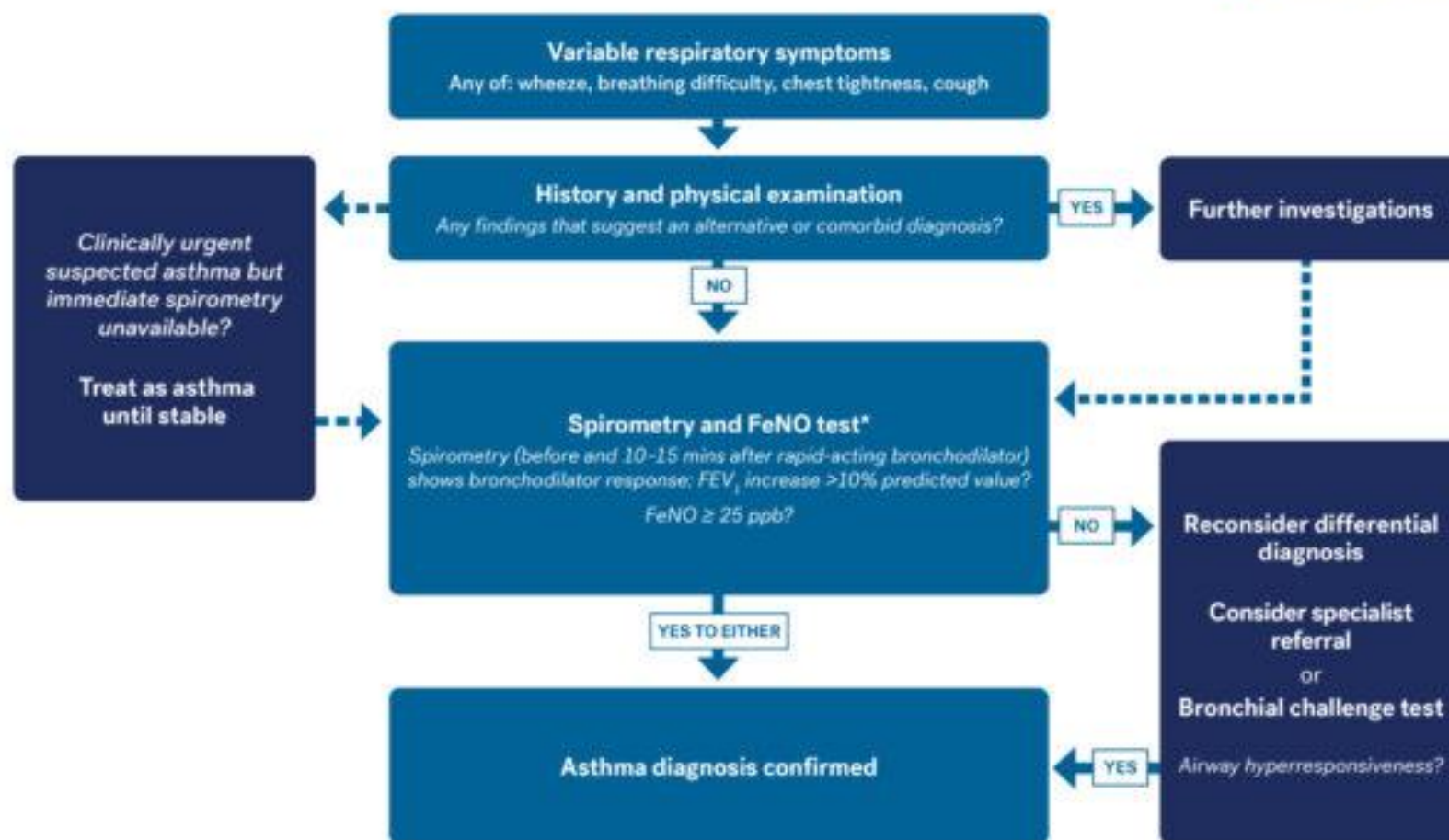


Scenario: You are seeing a 9 year old in outpatients via telehealth. They live on a remote farm so it would take 4 hours to get to you. They have symptoms typical of asthma ~5x times per week with reported good parent reported response to SABA. Not started on ICS as yet. Nothing to suggest an alternate diagnosis.

Would you diagnose asthma?



Diagnosis of asthma in children 6-11 years



FeNO: fractional exhaled nitric oxide; FEV₁: forced expiratory volume in one second
*If available when spirometry conducted in an accredited respiratory laboratory

This figure should be interpreted in context with relevant information from the Australian Asthma Handbook

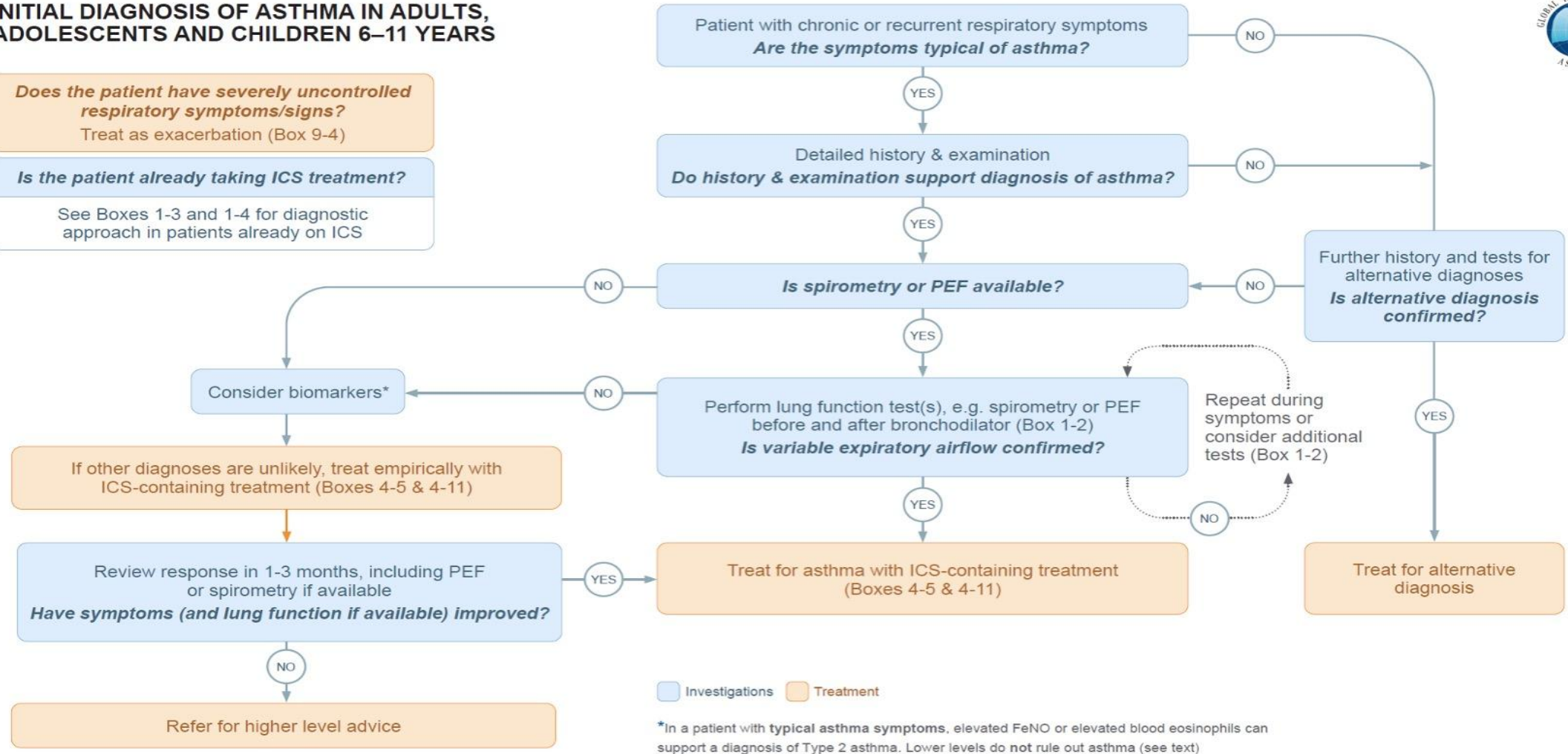
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INITIAL DIAGNOSIS OF ASTHMA IN ADULTS, ADOLESCENTS AND CHILDREN 6–11 YEARS

Does the patient have severely uncontrolled respiratory symptoms/signs?
Treat as exacerbation (Box 9-4)

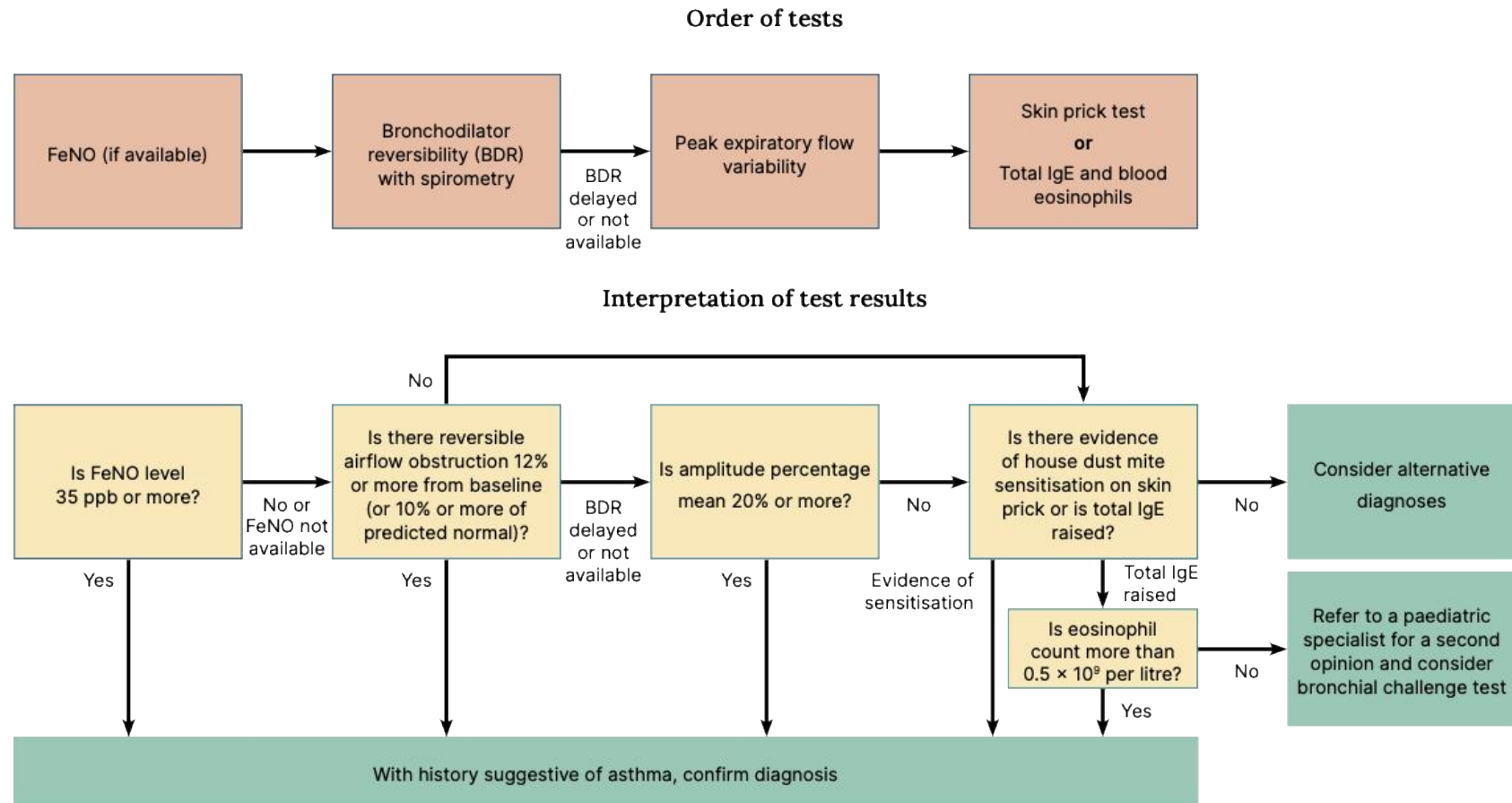
Is the patient already taking ICS treatment?
See Boxes 1-3 and 1-4 for diagnostic approach in patients already on ICS



FeNO: fractional exhaled nitric oxide; ICS: inhaled corticosteroids; PEF: peak expiratory flow

Algorithm B: Objective tests for diagnosing asthma in children aged 5 to 16 with a history suggesting asthma

BTS, NICE and SIGN guideline on asthma





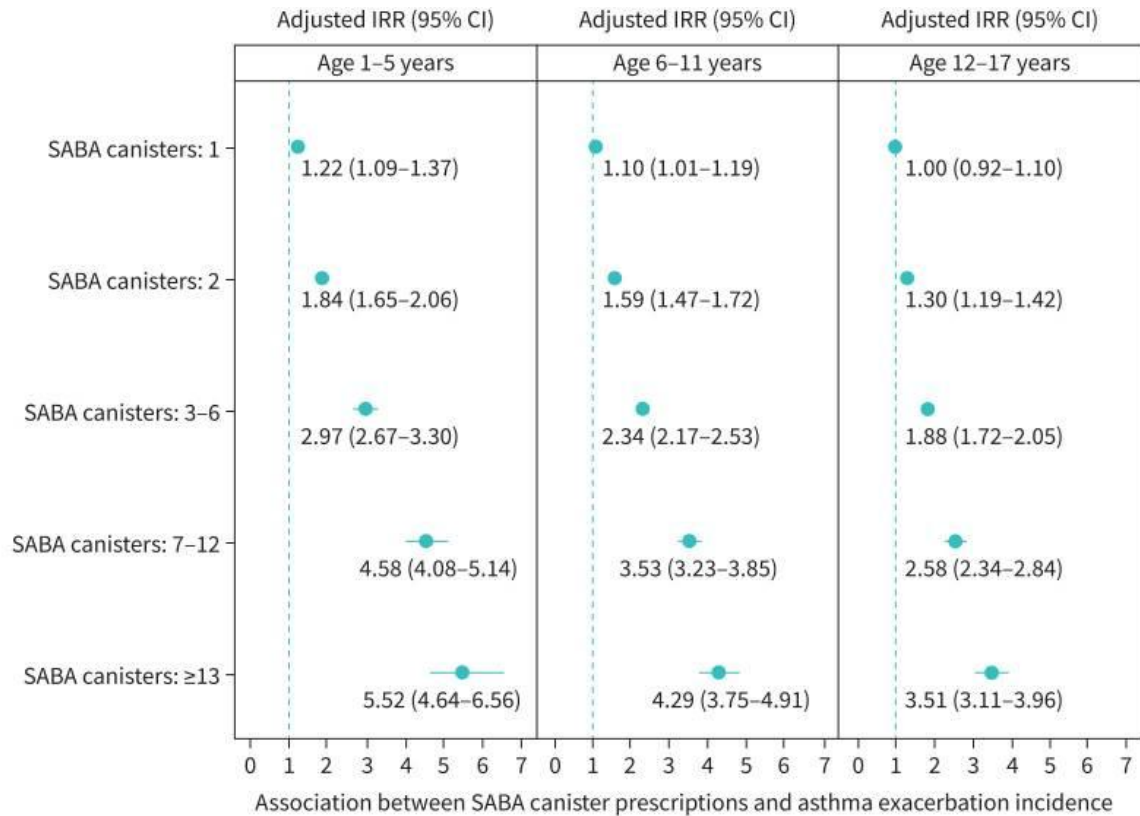
*Poll
Question*



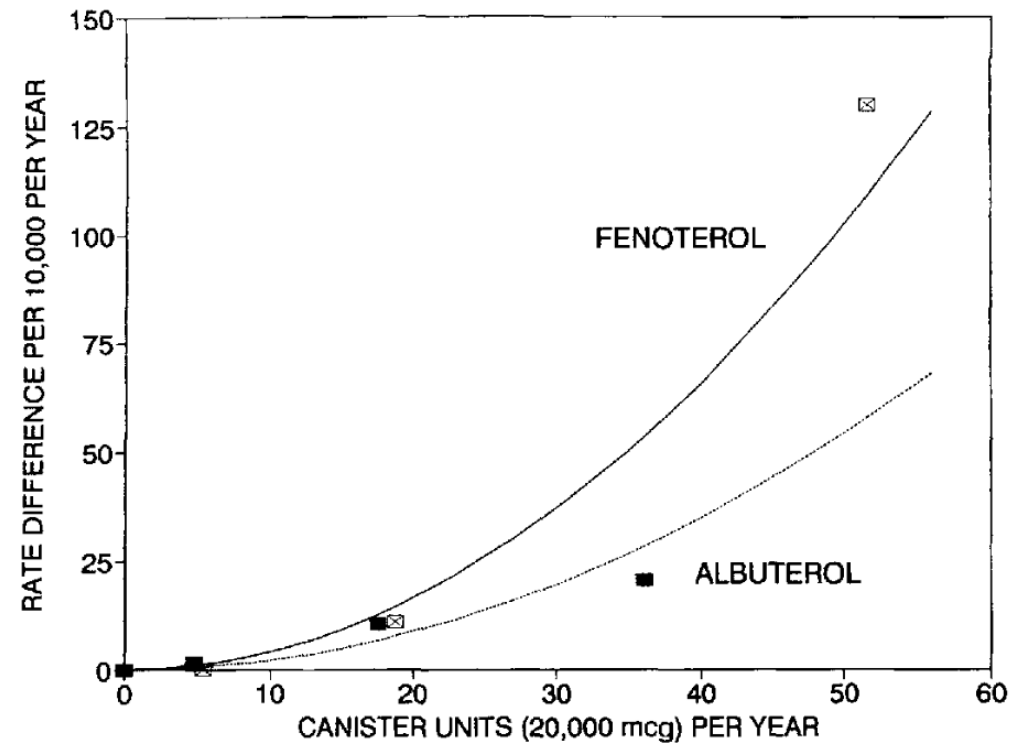
Scenario: Same 9 year old in outpatients from before. The parents ask you about the fact that their child uses SABA essentially daily. They realise that is a sign of poor asthma control. But they specifically want to know “Are there any harms from such regular SABA use”

How do you answer?

A decorative graphic in the bottom left corner consists of overlapping circles and squares in shades of purple, teal, and orange.



Cite this article as: Morgan A, Maslova E, Kallis C, et al. Short-acting β_2 -agonists and exacerbations in children with asthma in England: SABINA Junior. *ERJ Open Res* 2023; 9: 00571-2022 [DOI: 10.1183/23120541.00571-2022].



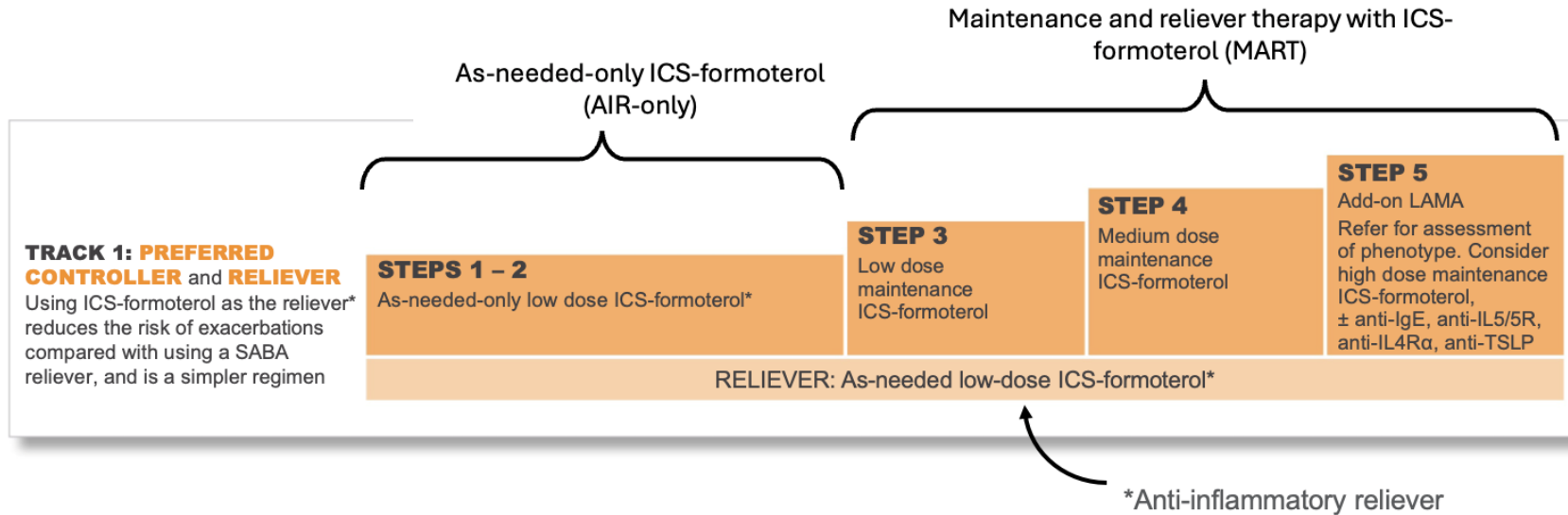
A Cohort Analysis of Excess Mortality in Asthma and the Use of Inhaled β -Agonists

SAMY SUISSA, PIERRE ERNST, JEAN-FRANCOIS BOIVIN, RALPH I. HORWITZ, BRIAN HABBICK, DONALD COCKROFT, LUCIE BLAIS, MARY McNUTT, A. SONIA BUIST, and WALTER O. SPITZER

AIR + MART



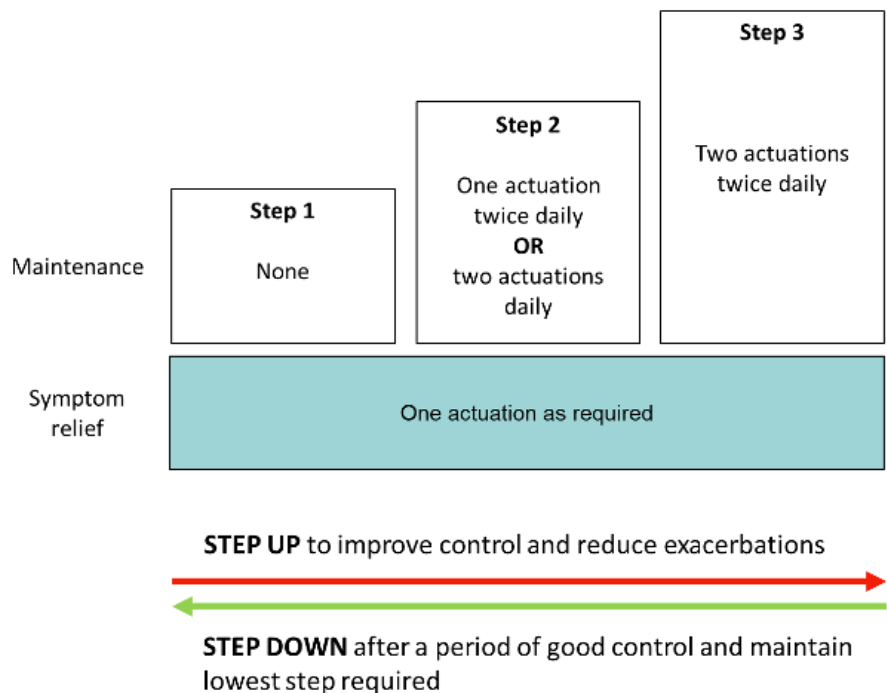
Nomenclature



Adolescents – AIR/MART



Anti-inflammatory reliever-based regimen (budesonide/formoterol 200 mcg/6 mcg)



Asthma treatment levels for adults and adolescents



Adapted from [Beasley R, et al¹](#) and [GINA Pocket Handbook 2021⁸](#)

Primary School – AIR/MART



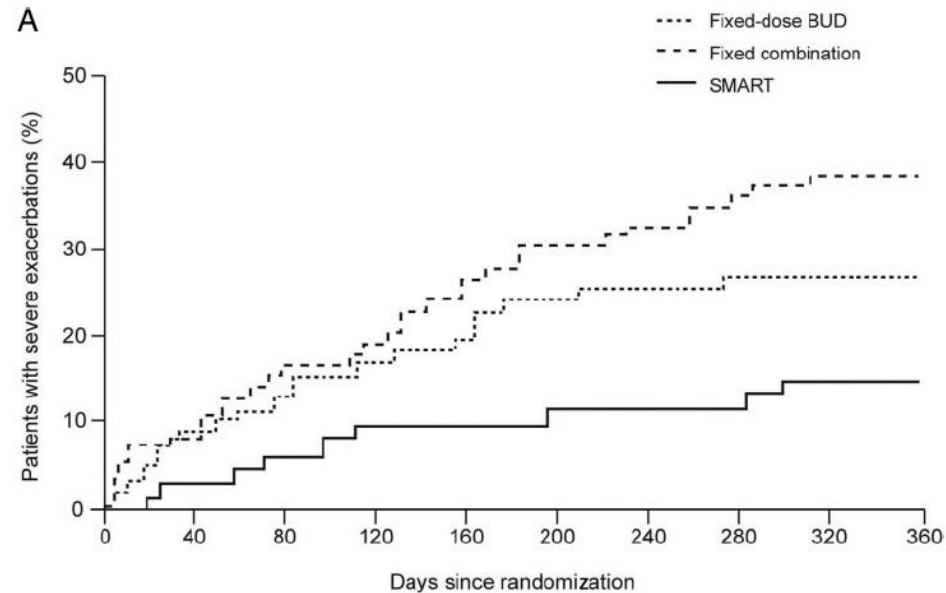
AIR/MART - Evidence Summary

12 or older	MILD ASTHMA	MODERATE – SEVERE ASTHMA
ICS + LABA	SYGMA 1, SYGMA 2, PRACTICAL, NOVEL START	STEAM, STEP, STAY, SMILE, COMPASS, AHEAD, SAKURA
ICS + SABA	BEST, BATURA	MANDALA

Primary School	MILD ASTHMA	MODERATE – SEVERE ASTHMA
ICS + LABA	CARE	Bisgaard et al
ICS + SABA	TREXA, ASIST	

Preschoolers	MILD ASTHMA	MODERATE – SEVERE ASTHMA
ICS + LABA		
ICS + SABA		

Evidence for MART (Primary School)



SMART vs fixed combination $p < 0.001$
 SMART vs fixed-dose BUD $p = 0.02$
 Fixed combination vs fixed-dose BUD $p = 0.12$

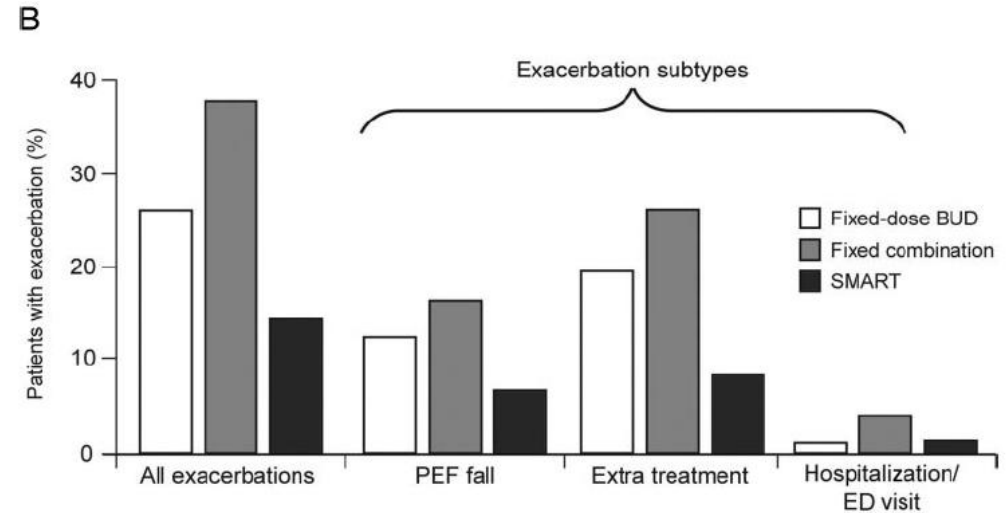


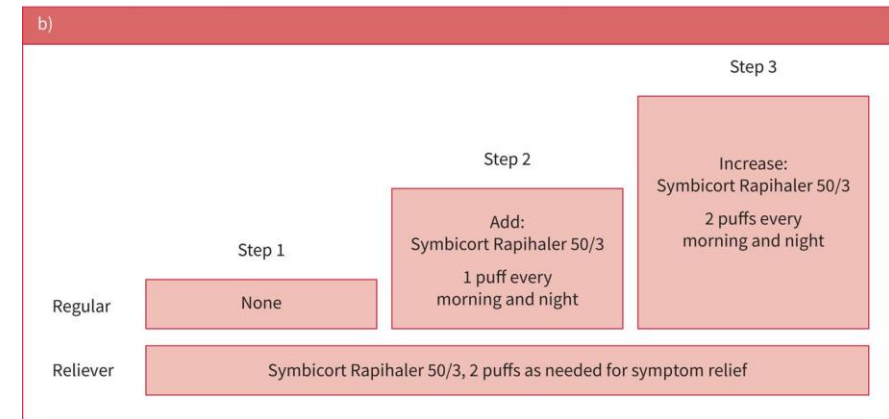
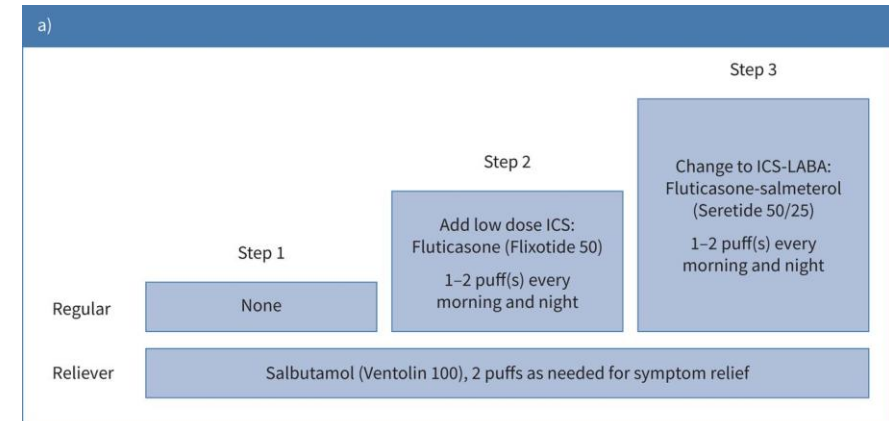
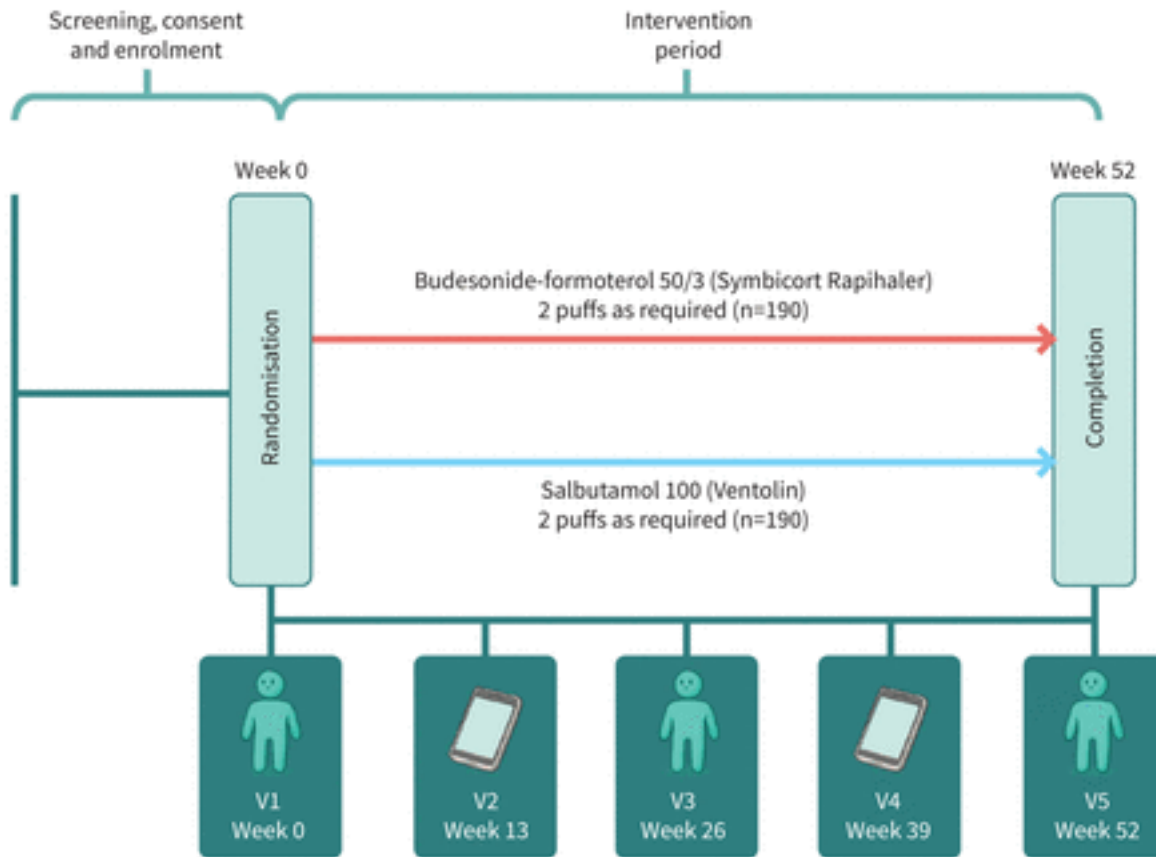
FIGURE 2. *Top, A:* Kaplan-Meier survival plot of time to first asthma exacerbation (defined as a deterioration in asthma resulting in any of: morning PEF $\leq 70\%$ of baseline on 2 consecutive days; treatment with oral steroids; an increase in inhaled corticosteroids [via a separate inhaler] and/or other additional treatment; or hospitalization/ED treatment). *Bottom, B:* Exacerbation incidence (percentage of patients with event) by subtype. Patients received either fixed-dose budesonide (320 μg qd), fixed combination (budesonide/formoterol 80/4.5 μg qd) or SMART (budesonide/formoterol 80/4.5 μg qd plus as needed). See Figure 1 for expansion of abbreviation.

Budesonide/Formoterol Maintenance Plus Reliever Therapy*

A New Strategy in Pediatric Asthma

Hans Bisgaard, MD, DMSci; Pascal Le Roux, MD; Ditlef Bjåmer, MD;
 Andrzej Dymek, MD; Jan H. Vermeulen, FCP (Paediatrics); and
 Christer Hultquist, MD†

Evidence for AIR (Primary School) – CARE STUDY (Hatter et al, Lancet, 2025)



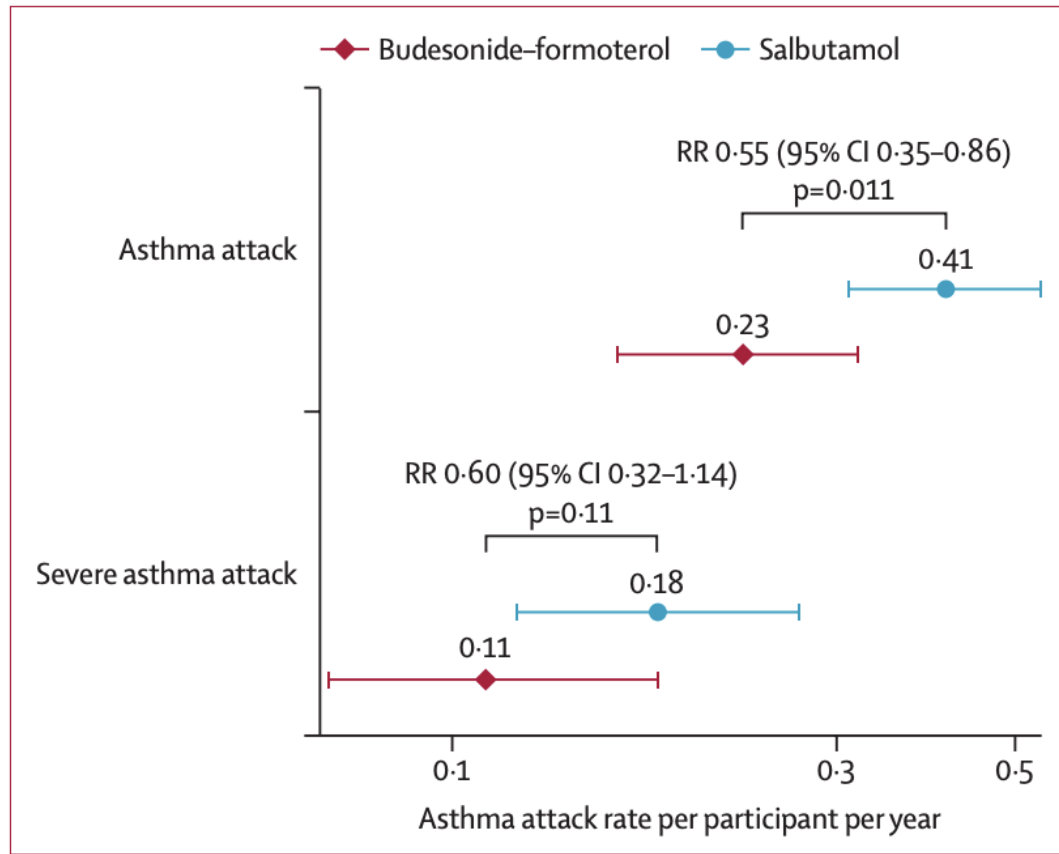


Figure 2: Annualised asthma attack rates

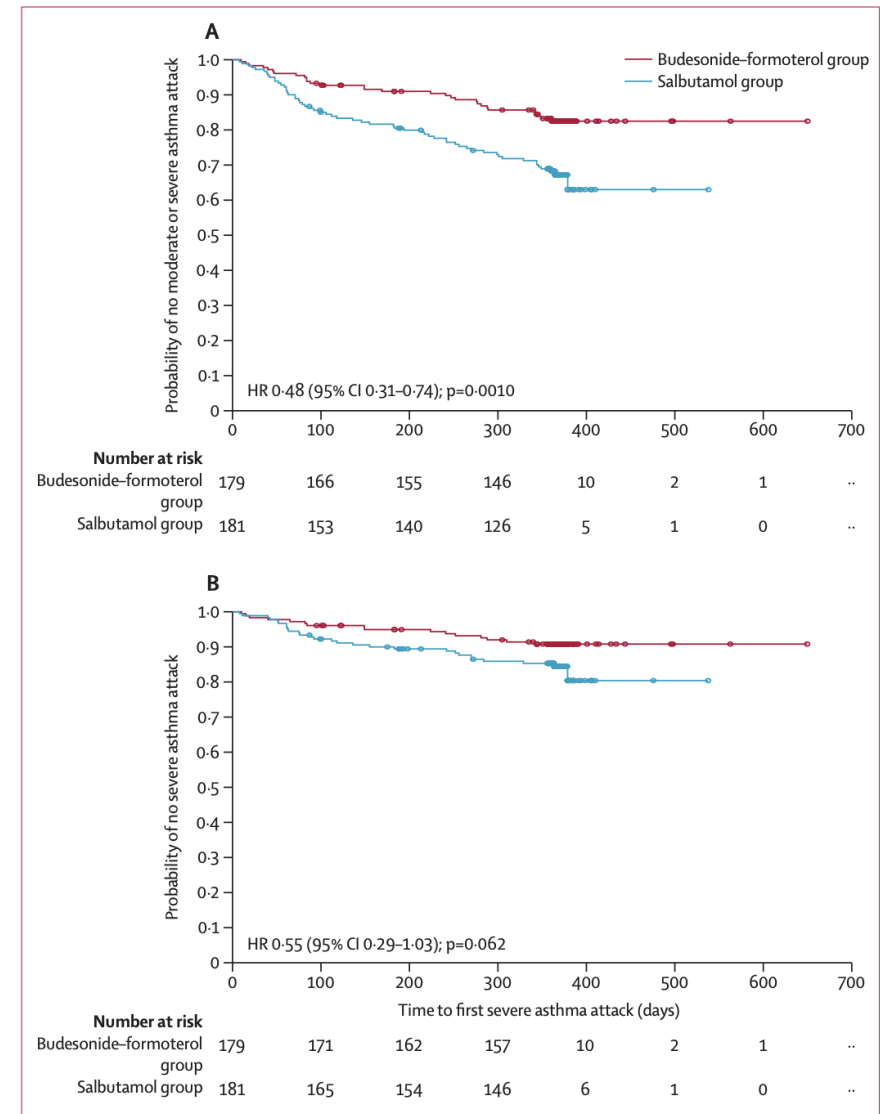


Figure 4: Estimates of the occurrence of asthma attacks in a time-to-event analysis

GINA 2026 Children 6–11 years

Personalized asthma management:
Assess, Adjust, Review

Symptoms
Exacerbations
Side-effects
Comorbidities
Lung function
Child and parent/caregiver satisfaction



Confirmation of diagnosis if necessary
Symptom control & modifiable risk factors
Comorbidities
Inhaler technique & adherence
Child and parent/caregiver preferences and goals

Treatment of modifiable risk factors and comorbidities
Non-pharmacological strategies
Asthma medication including ICS
Education & skills training, action plan

Asthma medication options:
Adjust treatment up and down for individual child's needs

PREFERRED CONTROLLER
to prevent exacerbations and control symptoms

Other controller options
(limited indications, or less evidence for efficacy or safety)

RELIEVER

	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
	<p>STEP 1</p> <p>AIR-only:* As-needed low dose ICS-formoterol or As-needed low dose ICS+SABA (combination or separate inhalers)</p>	<p>STEP 2</p> <p>Daily low dose inhaled corticosteroid (ICS)</p>	<p>STEP 3</p> <p>Medium dose ICS or Low dose ICS-LABA or Low dose ICS-formoterol maintenance-and-reliever (MART)*</p>	<p>STEP 4</p> <p>Medium dose ICS-LABA or Low dose ICS-formoterol MART* or Refer for expert advice</p>	<p>STEP 5</p> <p>Refer for phenotypic assessment</p> <p>Consider higher dose ICS-LABA or Add-on therapy e.g., LAMA, anti-IgE, anti-IL4Rα, anti-IL5</p>
		<p>As-needed low dose ICS-formoterol*, or as-needed low dose ICS-SABA* (combination or separate inhalers), or daily LTRA†</p>	<p>Low dose ICS + LTRA†</p>	<p>Add tiotropium or LTRA† to Step 3 preferred controller</p>	<p>Refer for expert advice</p>
	<p>As-needed low dose ICS-formoterol* or as-needed low dose ICS-SABA* or as-needed SABA (if AIR not available)</p>				

Key takeaway messages

1. Call it preschool asthma!
2. No right answer for use of objective tests – decide what works best for the case in front of you and review with time
3. AIR for everyone 12+ (and likely younger in future)

2

Paediatric Asthma Management: AIR vs MART, Action Plans & Acute Management

Libby Spiers

Paediatric Nurse Asthma Educator

Community Asthma Program – cohealth



LEARNING OBJECTIVES



By the end of this session, you will be able to:

- Differentiate between AIR & MART
- Apply AIR/MART action plans
- Manage acute asthma episodes using these plans
- Recognise when SABA is required

WHY AIR/MART WORKS



- One inhaler = preventer + reliever
- Treats inflammation with every dose
- Reduces exacerbations + ED visits
- Simpler > improves adherence

WHAT IS AIR?

AIR = Anti-Inflammatory Reliever

- ICS – formoterol used as needed only
- Treats symptoms and inflammation
- Suitable for mild asthma
- Example: Symbicort or Rilast (rapihaler or turbuhaler) PRN



WHAT IS MART?

**MART = Maintenance And Reliever
Therapy**

Same inhaler used for:

- Daily preventer
- Symptom relief

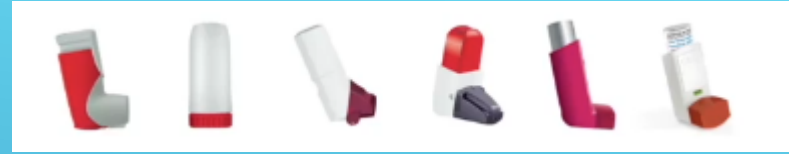
Example:

- ICS – formoterol, e.g. Symbicort or Rilast regular BD dose plus PRN doses

Benefits:

- Simpler regimen
- Earlier treatment escalation
- Reduced exacerbations

AIR vs MART



Feature	AIR	MART
Maintenance dose	No	Yes
Reliever	ICS-formoterol	ICS-formoterol
Best for	Mild asthma	Moderate asthma
Daily preventer required	No	Yes

ACTION PLANS

My Symbicort (budesonide/formoterol) Rapihaler 100/3 Asthma Action Plan

Anti-inflammatory Reliever
With or without Maintenance



Name: Hazel Nutt

Date: 18-May-2026

Plan discussed with: (name of health care professional)
Dr Kirsty Tamis

My usual best peak flow (if used) n/a l/min



Usual Medical Contact: Name and telephone number

Mum (Mary) 040000000

My Symbicort (budesonide/formoterol) Turbuhaler 200/6 Asthma Action Plan

Anti-inflammatory Reliever
With or without Maintenance



Name: Daisy Chains

Date: 18-May-2026

Plan discussed with: (name of health care professional)
Dr Kirsty Tamis

My usual best peak flow (if used) n/a l/min



Usual Medical Contact: Name and telephone number

Dad (Tom) 040000000

NORMAL MODE

MY SYMBICORT ASTHMA TREATMENT IS:

- Symbicort Rapihaler 100/3 mcg
- Use with a spacer

RELIEVER

I should take 2 separate puffs (1 at a time) of my Symbicort whenever needed for relief of my asthma symptoms

I should always carry my Symbicort with me to use as a reliever when needed

MY REGULAR MAINTENANCE TREATMENT EVERY DAY IS : (enter number of puffs or 0 if no regular daily treatment prescribed)

- Puffs in the morning (0, 2, 4)
- Puffs in the evening (0, 2, 4)

MY ASTHMA IS STABLE IF:

- I do not wake up at night or in the morning because of asthma
- My asthma has not interfered with my usual activities (e.g. housework, school, exercise)

OTHER INSTRUCTIONS
(e.g. what to do before exercise, when to see my doctor)

ASTHMA FLARE UP

IF OVER A PERIOD OF 2-3 DAYS:

- My asthma symptoms are getting worse or not improving
OR
- I am using more than 12 Symbicort reliever puffs a day
OR
- Peak flow below n/a (delete if not used)

I SHOULD:

- Continue to use my Symbicort to relieve my symptoms and my regular daily Symbicort (if prescribed) (up to a total maximum of 24 puffs in a day)
- Contact my doctor
- Start a course of prednisolone

COURSE OF PREDNISOLONE TABLETS:

Take _____ mg prednisolone tablets each morning for _____ days; OR

Contact VVED for advice - www.VVED.org.au

IF I NEED MORE THAN 24 SYMBICORT PUFFS (TOTAL) IN ANY DAY,

- I must see my doctor or go to hospital the same day

ASTHMA EMERGENCY

SIGNS OF AN ASTHMA EMERGENCY

- My asthma symptoms are getting worse quickly
- I am finding it very hard to breathe or speak
- My Symbicort is not helping

IF I HAVE ANY OF THE ABOVE DANGER SIGNS, I SHOULD DIAL 000 FOR AN AMBULANCE AND SAY I AM HAVING A SEVERE ASTHMA ATTACK.

WHILE I AM WAITING FOR THE AMBULANCE:

- Sit upright and keep calm
- I should keep taking my Symbicort as needed
- If only Ventolin® is available, take 4 puffs as often as needed until help arrives
- Even if my symptoms appear to settle quickly I should seek medical advice right away
- Use my adrenaline autoinjector

OTHER INSTRUCTIONS

If my Symbicort is not available or not giving me immediate relief I can use Ventolin (Salbutamol) 4 puffs every 4 minutes and seek medical advice whilst doing so.

NORMAL MODE

MY SYMBICORT ASTHMA TREATMENT IS:

- Symbicort Turbuhaler 200/6 mcg

RELIEVER

I should take 1 inhalation of my Symbicort whenever needed for relief of my asthma symptoms

I should always carry my Symbicort with me to use as a reliever when needed

MY REGULAR MAINTENANCE TREATMENT EVERY DAY IS : (enter number of inhalations or 0 if no regular daily treatment prescribed)

- Inhalation(s) in the morning (0, 1, 2)
- Inhalation(s) in the evening (0, 1, 2)

MY ASTHMA IS STABLE IF:

- I do not wake up at night or in the morning because of asthma
- My asthma has not interfered with my usual activities (e.g. housework, school, exercise)

OTHER INSTRUCTIONS
(e.g. what to do before exercise, when to see my doctor)

Take 1 inhalation of my Symbicort 10 minutes prior to exercise.

ASTHMA FLARE UP

IF OVER A PERIOD OF 2-3 DAYS:

- My asthma symptoms are getting worse or not improving
OR
- I am using more than 6 Symbicort reliever inhalations a day
OR
- Peak flow below N/A (delete if not used)

I SHOULD:

- Continue to use my Symbicort to relieve my symptoms and my regular daily Symbicort if prescribed (up to a maximum total of 12 inhalations in a day)
- Contact my doctor
- Start a course of prednisolone

COURSE OF PREDNISOLONE TABLETS:

Take _____ mg prednisolone tablets each morning for _____ days; OR

Contact VVED for advice - www.VVED.org.au

IF I NEED MORE THAN 12 SYMBICORT INHALATIONS (TOTAL) IN ANY DAY,

- I must see my doctor or go to hospital the same day

ASTHMA EMERGENCY

SIGNS OF AN ASTHMA EMERGENCY

- My asthma symptoms are getting worse quickly
- I am finding it very hard to breathe or speak
- My Symbicort is not helping

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COMPLETING ACTION PLANS

AIR/MART Action Plans:

- Fill in clear patient details
- **Green:** exact maintenance dose or as required
- **Orange:** early signs + increase dosing
- **Red:** clear emergency steps
- All plans should be reviewed regularly

DIFFERENCES BETWEEN TURBUHALER AND RAPIHALER

FEATURE	SYMBICORT TURBUHALER	SYMBICORT RAPIHALER
Device type	Dry powder inhaler	Metered dose inhaler
Spacer required	No	Yes
Reliever dose	1 inhalation as needed (no more than 6 at one time)	1-2 puffs (one at a time) as needed (no more than 12 at one time)
Maximum daily dose	12 inhalations	24 puffs
Best suited for	Older children/adolescents with good inspiratory effort	Younger children or those needing spacer support



CASE SCENARIOS

Case 1: Child using Symbicort 8-10 times/day

- What would you do?

Case 2: Child at school without their Symbicort

- What now?

Case 3: Severe breathlessness, minimal response to Symbicort

- When do you call 000?



ACUTE ASTHMA: KEY STEPS



- Assess severity quickly
- Give reliever early
- Escalate if not improving
- Hospital: salbutamol +/- additional medications
- Technique & timing matter

ASTHMA FIRST AID (AIR/MART)

ASTHMA FIRST AID



Anti-inflammatory Dry Powder Reliever

Bufomix Easyhaler 200/6, DuoResp Spiromax 200/6, Rilast Turbuhaler 200/6 or Symbicort Turbuhaler 100/6, 200/6



DIAL TRIPLE ZERO (000) FOR AN AMBULANCE IMMEDIATELY IF THE PERSON:

- is not breathing
- suddenly becomes worse or is not improving
- is having an asthma attack and a reliever is not available
- is unsure if it is asthma
- has a known allergy to food, insects or medication and has **SUDDEN BREATHING DIFFICULTY**, GIVE ADRENALINE AUTOINJECTOR FIRST (if available)

1



SIT THE PERSON UPRIGHT

- Be calm and reassuring
- Do not leave them alone

2



GIVE 2 INHALATIONS OF BUFOMIX OR DUORESP OR RILAST OR SYMBICORT

- Load the device
 - Easyhaler: Open, shake and click
 - Spiromax: Open and click
 - Turbuhaler: Open and twist around and back
- Breathe in quickly and deeply
 - Repeat until 2 separate inhalations have been taken

3



WAIT 4 MINUTES

- If breathing does not return to normal, give 2 more inhalations of Bufomix or DuoResp or Rilast or Symbicort

IF BREATHING DOES NOT RETURN TO NORMAL

4



DIAL TRIPLE ZERO (000)

- Say 'ambulance' and that someone is having an asthma attack
- Give 2 more inhalations of Bufomix or DuoResp or Rilast or Symbicort every 4 minutes until emergency assistance arrives
 - Don't wait 4 minutes if symptoms are severe. Keep repeating every few minutes until ambulance arrives



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ASTHMA FIRST AID



Anti-inflammatory Reliever

Rilast Rapihaler 100/3, Symbicort Rapihaler 50/3, 100/3



DIAL TRIPLE ZERO (000) FOR AN AMBULANCE IMMEDIATELY IF THE PERSON:

- is not breathing
- suddenly becomes worse or is not improving
- is having an asthma attack and a reliever is not available
- is unsure if it is asthma
- has a known allergy to food, insects or medication and has **SUDDEN BREATHING DIFFICULTY**, GIVE ADRENALINE AUTOINJECTOR FIRST (if available)

1



SIT THE PERSON UPRIGHT

- Be calm and reassuring
- Do not leave them alone

2



GIVE 4 PUFFS OF RILAST OR SYMBICORT

- Shake puffer
- Put 1 puff into spacer
- Take 4 breaths from spacer
 - Repeat until 4 separate puffs have been taken

If you don't have a spacer handy in an emergency, take 1 puff as you take 1 slow, deep breath and hold breath for as long as comfortable. Repeat until all puffs are given

3



WAIT 4 MINUTES

- If breathing does not return to normal, give 4 more puffs of Rilast or Symbicort through a spacer

IF BREATHING DOES NOT RETURN TO NORMAL

4



DIAL TRIPLE ZERO (000)

- Say 'ambulance' and that someone is having an asthma attack
- Give 4 more puffs of Rilast or Symbicort through a spacer every 4 minutes until emergency assistance arrives
 - Don't wait 4 minutes if symptoms are severe. Keep repeating every few minutes until ambulance arrives



1800 ASTHMA
(1800 278 462)
asthma.org.au

Supported by:
WHITE MAGIC
whitemagic.biz

Translating and
Interpreting Service
131 450

Dual Purpose Reliever:
Rapihaler (Orange) v12
©Asthma Australia 2025

IF IN DOUBT...

- Use Salbutamol (Ventolin)
- Follow 4x4x4 Asthma First Aid
- Call 000



ASTHMA FIRST AID

Blue Reliever

Airomir, Asmol, Ventolin or Zempreon and Bricanyl

Blue reliever medicines are unlikely to harm in an emergency, even if the person does not have asthma



DIAL TRIPLE ZERO (000) FOR AN AMBULANCE IMMEDIATELY IF THE PERSON:

- is not breathing
- suddenly becomes worse or is not improving
- is having an asthma attack and a reliever is not available
- is unsure if it is asthma
- has a known allergy to food, insects or medication and has **SUDDEN BREATHING DIFFICULTY**, GIVE ADRENALINE FIRST (if available)

1



SIT THE PERSON UPRIGHT

- Be **calm** and reassuring
- Do **not** leave them alone

2



GIVE 4 SEPARATE PUFFS OF RELIEVER PUFFER

- Shake puffer
- Put **1 puff** into spacer
- Take **4 breaths** from spacer
 - Repeat until **4 separate puffs** have been taken

If using Bricanyl (5 years or older)

- Do **not** shake. Open, twist around and back, and take a deep breath in
- Repeat until **2 separate inhalations** have been taken from the device

If you don't have a spacer handy in an emergency, take **1 puff** as you take **1 slow, deep breath** and hold breath for as long as comfortable. Repeat until all puffs are given

3



WAIT 4 MINUTES

- If breathing does not return to normal, give **4 more separate puffs** of reliever as above

Bricanyl: Give 1 more inhalation

IF BREATHING DOES NOT RETURN TO NORMAL

4



DIAL TRIPLE ZERO (000)

- Say **'ambulance'** and that someone is having an asthma attack
- Keep giving **4 separate puffs every 4 minutes** until emergency assistance arrives

Bricanyl: Give 1 more inhalation **every 4 minutes** until emergency assistance arrives

NATIONAL ASTHMA COUNCIL GUIDELINES

Asthma treatment levels for adults and adolescents



ICS: inhaled corticosteroids
 LABA: long-acting beta₂ agonist
 LAMA: long-acting muscarinic antagonist
 SABA: short-acting beta₂ agonist

⚠ Before stepping up, check that:

- symptoms are due to asthma
- inhaler technique is correct
- adherence is adequate

↑ Consider stepping up if good symptom control is not achieved despite good adherence and correct inhaler technique

↓ When asthma is stable and well controlled for 2-3 months, consider stepping down

← Consider switching to reduce severe exacerbation risk

QUESTIONS??

Thank you for your time tonight





3

Allergy control in asthma

Dr Kirsty Tamis

MBChB, RACGP, RCGP, RCPE, DCH

Case 1

- 8yo F known mild asthma presents with cough, rhinorrhoea, sneezing, itchy eyes in late October
- Increased ventolin use 2-3 times a week for cough
- No asthma symptoms 8 months prior to this, last was late last summer
- No admissions, oral steroid, abx
- PMH: egg allergy, eczema, hayfever
- Never had preventer, mostly uses ventolin in spring season PRN
- Non smokers/vape, cat at home
- Well no wheeze or examination findings
- Requests Asthma plan for school, allergy plan for egg at school

Where to go from here



Any further questions?



Next steps?



Asthma/Allergy Plan?



Referrals?

Next Patient Contact

- Mid November thunderstorm asthma event and admitted with acute Asthma
- Burst Therapy, oral steroid, mild O2 requirement, 2 day stay
- Booked in by whilst inpatient via MAGIC pathway to see GP 2 Days post discharge, advised 20min app

Follow up

- Review 2 weeks later
- No ventolin use, symptoms well controlled
- Education with CAP given regards to ventolin use
- GPCCMP to continue care: CAP and allergy service

Next Patient Contact

- Mid November thunderstorm asthma event and admitted with acute Asthma
- Burst Therapy, oral steroid, mild O2 requirement, 2 day stay
- Booked in by whilst inpatient via MAGIC pathway to see GP 2 Days post discharge, advised 20min app

Where to go from here



Any further questions?



Next steps?



Asthma Plan?



Referrals?

MAGIC (post discharge)

- Medication list
- Ascertain full history
- GP orientation
- Inhaler Technique
- Clarification

MAGIC (GP)

MEDICATION

- Weaning Ventolin requirement
- Now on Alvesco OD

ASCERTAIN HISTORY

- Had begun to cough again at night and in wind the week prior to admission with high pollen
- Parents has increased Ventolin to BD but hadn't had time to consult
- Acute SOB, wheeze, cough at school when high winds started
- School Nurse called 000

GP ORIENTATION

- Active listening, allowing parents and child to offload after traumatic experience, validating their fears, reassuring them on steps to prevent in future
- Providing and clarifying how and where to access information when symptoms escalate: CAP, VVED, 1800 Asthma
- Ensuring Asthma plan is up to date with new medication
- Linking back in with CAP, Phamarcy DMMR

MAGIC (GP)

INHALER TECHNIQUE

CLARIFICATION

PATIENT

- Parents want to know if will be on Alvesco long term and when they can stop
- Worried about another event and how she will react, will she have worse allergies now, is she higher risk forever?
- Should they get rid of the cat?
- How long should she stay on nasal steroid and antihistamine?

DOCTOR

- This was a thunderstorm asthma event
- Good asthma control and remaining on her preventer and allergy medication can help, review in 3months
- Preventative actions on high risk days can help: school and home to be aware
- This will not worsen her allergies but she is at risk of thunderstorm asthma in future
- The cat isn't related but testing is something we can discuss the pros and cons of

Where to go from here



Any further questions?



Next steps?



Asthma Plan?



Referrals?

Thunderstorm Asthma

Rare but Clinically Significant Events

2016 Event

- **Casualties:** Tragically, the event contributed to 10 deaths.
- **Emergency Presentations:** Over a 30-hour period, hospital emergency departments saw a 672% increase in respiratory-related presentations compared to the seasonal average. Approximately 12,723 patients presented to emergency departments across Victoria.
- **Intensive Care:** 35 individuals were admitted to the Intensive Care Unit (ICU).
- **Ambulance Strain:** Triple-0 (000) emergency dispatchers were overwhelmed, causing severe delays as callouts for breathing difficulties surged

Demographics and Risk Factors

Research published in The Lancet highlighted specific demographic vulnerabilities and risk factors observed during the event:

- Age: The mean age of affected individuals was 32 years, with 56% being male.
- Prior Diagnosis: Only 28% of those who presented to emergency departments had a current doctor-diagnosed asthma.
- Ethnicity: Individuals of Asian or Indian ethnicity were significantly over-represented in both emergency presentations (39% vs 25% of the general population) and fatalities.
- Medication: Of those admitted to the ICU, only 34% were actively using inhaled corticosteroids (preventer medications) at the time of the event

Clinical Risk Assessment

- Good, recurrent, active management of our asthma and allergy patients: 3monthly review, tied into CAP and pharmacy
- Adhere to guidelines in early preventer use and SMART
- Ensure good education on thunderstorm asthma in all asthma and allergy patients
- Advertise use of Melbourne Pollen App and Vic Emergency App, include on GPCCMP
- Encoporate Acute Asthma and Mass Asthma situation training as part of CPD learning in your Practice
- Consider ordering cardboard spacers to practice: [E-Chamber Eco Spacer | Bird Healthcare Australia](#)

Vaccination

- Flu vaccination for any child on preverter or under 5
- Intranasal option: \$50 private script in Victoria
- Effectiveness: Studies demonstrate that the intranasal Live Attenuated Influenza Vaccine (LAIV) reduces the likelihood of contracting the virus by 50% to 60%. It triggers a robust immune response (seroconversion) comparable to—and in some paediatric studies, potentially superior to—standard inactivated injections.
- Safety: Clinical trials and real-world monitoring indicate that serious adverse events are exceptionally rare. The most commonly reported side effects are mild and localized, including rhinorrhoea (runny nose), nasal congestion, and a mild sore throat.



4

Vaping update and discussion

Jarrod McMaugh

Pharmaceutical Society of Australia

- ▶ Access remains via Schedule 3 (below 20mg) and Schedule 4 (all strengths)
- ▶ SAS-C paperwork is required for both pathways; S4 can be accessed via Authorised Practitioner pathways (data less visible)
- ▶ Volume remains significantly lower than known illicit vape volumes
- ▶ Schedule 3 has most visible data
 - ▶ Roughly 2300 pharmacies have made at least one SAS-C application
 - ▶ Roughly 135000 notifications since October 2024
 - ▶ Some sources report S4 access to be as low as 13% of total volume

ACCESSABILITY

- ▶ Caveat: evidence of effectiveness is not specific to devices currently 'regulated' in Australia
- ▶ Cochrane in 2025 suggested that vapes are effective for quitting to at least 6 months, and are considered to be more effective than NRT
- ▶ Australian research by NDARC/UNSW suggests Vaping as a smoking cessation helps roughly 30% of people quit compared to 10% for NRT, in populations with identifiable social disadvantage
- ▶ Sponsors of TGO110 vapes need to translate this evidence and obtain an ARTG listing

EVIDENCE

- ▶ Unregulated vapes continue to have a wide variety of adulterants that are known to be toxic and/or carcinogenic
- ▶ New Australian research shows:
 - ▶ Vapes cause DNA damage & oxidative stress
 - ▶ Increased exposure to multiple known carcinogens
 - ▶ Vapes activate cancer-related cellular pathways
- ▶ What is not yet known:
 - ▶ Cancer incidence
 - ▶ Dose-response relationship
 - ▶ Long term comparison vs smoking
- ▶ Likely gradient of risk:
 - ▶ Smoking > dual use > vaping alone > abstinence

HARMS

- ▶ Nicotine mist buccal delivery methods are indicated in Australia for vaping cessation
- ▶ Coupled with psychosocial interventions (ie QUIT) improves success
- ▶ QUIT processes now include vaping-specific counselling
- ▶ Some emerging evidence for varenicline
 - ▶ Varenicline & bupropion PBS Authority funding is permitted for vaping cessation

QUIT VAPING

- ▶ 10 million vapes seized since 2024
 - ▶ More than 120 detections per day by customs or other law enforcement (TGA, ABP, AFP, state police)
 - ▶ Joint efforts are continuing in both illicit tobacco and illicit vaping products
 - ▶ Tens of thousands of advertisements removed / fines
-
- ▶ Access is still very easy
 - ▶ Snus are also prevalent in tobacco retailers
 - ▶ Loopholes that may have allowed a pathway to Snus being utilised as a health product has been closed.

SUPPLY REDUCTION



5

HealthPathways Melbourne and CAP

Dr Kirsty Tamis



Localised Clinical Pathways

(Evidence-based guidance adapted for Melbourne clinicians)



Referral Information

(Clear referral instructions for local health services and hospitals)



Regular Updates

(Pathways reviewed and updated regularly by Clinical Editors)



CPD Hours

(Track and record CPD activities directly through Pathway page)



Collaborative Development

(Created by GPs, specialists, allied health and other health professionals)



Easy Access

(Web-based platform, mobile-friendly for point-of-care use)



Streamlined Workflow

(Quick navigation with Assessment, Management and Referral sections all in one place)



Free for Clinicians

(No cost access for all health professionals in North Western and Eastern Melbourne PHN catchments)

Surgery - Child

Respiratory - Child

Assessing Respiratory Presentations in General Practice

Acute Respiratory Illness in Children

Asthma in Children

Acute Asthma in Children

Asthma in Adolescents (Aged 12 Years and Over)

Asthma in Primary School-aged Children (Aged 6 to 11 Years)

Wheeze and Asthma in Preschool Children (Aged 1 to 5 Years)

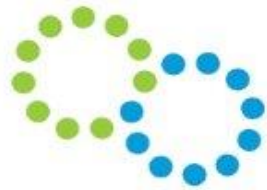
Bronchiolitis in Infants

Croup

Chronic Cough in Children

Influenza

Pertussis (Whooping Cough)



Melbourne

HEALTHPATHWAYS

Latest News

3 February

Health.vic

[Health alerts and advisories](#)

31 January

New Therapeutic Guidelines app on Android

The old mobile app will be decommissioned on 30 Jan 2025 and removed from Google Play. It will stop working by mid-February. The new app must be downloaded and authenticated. Update now to maintain access. See the [new user guide](#) for details.

Pathway Updates

Updated – 4 February

[Acute Angle-closure Glaucoma \(AACG\)](#)

Updated – 4 February

[Cataracts](#)

Updated – 4 February

[Open-Angle Glaucoma \(OAG\)](#)

Updated – 4 February

[Pterygium](#)

 ABOUT

 BETTE

 RACGP RE

 USEFUL WEBSITES & RESOURCES

 MBS ONLINE

 NPS MEDICINEWISE

Click 'Send Feedback' to add comments and questions about this pathway.




Pathways related to Asthma

- [Acute Respiratory Illness in Children](#)
- [Acute Asthma in Children](#)
- [Asthma in Adolescents \(Aged 12 Years and Over\)](#)
- [Asthma in Primary School-aged Children \(Aged 6 to 11 Years\)](#)
- [Wheeze and Asthma in Preschool Children \(Aged 1 to 5 Years\)](#)
- [Croup](#)
- [Chronic Cough in Children](#)
- [Influenza](#)
- [Community Asthma Education and Support](#)

Pathways related to Smoking and Vaping

- [Smoking and Vaping Cessation](#)
- [Lung Cancer Screening](#)
- [Nicotine Replacement Therapy \(NRT\)](#)
- [Prescribing Nicotine Vaping Products](#)

Other Related pathways

- [Anaphylaxis](#)
 - [Assessing Respiratory Presentations in General Practice](#)
 - [Bronchiolitis in Infants](#)
 - [Pneumonia in Children](#)
 - [Allergies and Allergy Testing](#)
 - [Immunology](#)
 - [Lung Function Testing](#)
 - [Skin Prick Testing](#)
 - [Spirometry Interpretation](#)
 - [Pertussis \(Whooping Cough\)](#)
 - [CPD Hours for HealthPathways Use](#)
- 

Referral Pathways

- [Non-acute Paediatric Immunology and Allergy referral](#)
- [Non-acute Paediatric Medicine Referral \(> 24 hours\)](#)
- [Acute Paediatric Medicine Referral or Admission \(Same-day\)](#)
- [Non-acute Paediatric Medicine Referral \(> 24 hours\)](#)
- [Immunology Referrals](#)

Asthma in Adolescents (Aged 12 Years and Over)

Management

Practice point

Plan for environmental triggers

Ensure step-up treatment before arrival of identified environmental triggers.

Ensure all adolescents are managed with an anti-inflammatory reliever-based regimen. This involves either:

- initiating the single maintenance and reliever therapy (SMART) regimen or
- continuing current existing [asthma action plan](#) ▼. This is preferred where:
 - the patient has severe or brittle asthma managed by a paediatrician or tertiary services.
 - other factors exist e.g., compliance, patient prefers to continue using spacer, patient unable to use dry powder inhalers (DPI).

Click on the drop-down arrow to view supplementary information

SMART regimen – anti inflammatory reliever based regimen

1. Initiate the SMART (single maintenance and reliever therapy) regimen using [Symbicort Turbuhaler 200/6](#) (PBS listed).
 - Symbicort ([budesonide/formoterol](#)) is the only inhaled corticosteroid (ICS)/long-acting beta-agonist (LABA) that can be prescribed as a reliever.
 - The long-acting beta-agonist [formoterol](#) has less tachyphylaxis and provides longer relief of symptoms compared to the LABA salmeterol found in Seretide.
2. Use the [stepped management guidelines](#) ▼ to ensure optimal management based on assessment.
 - Step 1 – [Symbicort](#) as reliever only ▼.
 - Step 2 – Symbicort as preventer – standard dose of 1 actuation twice per day.
 - Step 3 – Symbicort as preventer – high-dose of 2 actuations twice per day.
 - Consider adding [montelukast](#) ▼ 5 mg a day if breakthrough symptoms at maximal therapy.
3. Provide SMART [Symbicort Turbuhaler 200/6 action plan](#) ☑.
4. Ensure [correct use of dry powder inhaler](#) ▼.

Traditional regimen – separate reliever and preventer

1. Use the [traditional stepped management guidelines](#) ▼ to decide on optimal treatment based on assessment.
 - Step 1 – SABA [reliever](#) ▼ and standard dose [inhaled corticosteroids \(ICS\)](#) ▼.
 - Step 2 – standard dose [inhaled corticosteroids and long-acting beta agonists \(ICS/LABA\)](#) ▼
 - Step 3 – high dose [ICS/LABA](#) ▼
 - Add [montelukast](#) ▼ 5 mg a day if breakthrough symptoms at maximal therapy.
2. Provide and produce an [asthma action plan](#) ▼.

Asthma in Adolescents (Aged 12 Years and Over)

Additional management

1. Manage possible triggers including:

- [Allergens including thunderstorm asthma](#) ▼.
- Allergic rhinitis. See Australian Asthma handbook – [Managing Allergic Rhinitis in Children with Asthma](#) ☑.
- Exercise induced symptoms. Use either:
 - Symbicort (SMART) regime – one actuation before exercise, or
 - Short-acting beta agonist (SABA) reliever – salbutamol metered dose inhaler (MDI) 2 to 4 actuations fifteen minutes before exercise, or [terbutaline sulfate](#) ▼ dry powder inhaler (DPI) 1 to 2 actuations before exercise.
- Air pollution, including smoke from bushfires:
 - Advise keeping child indoors with windows and doors closed. Use recirculated air in the car.
 - Consider increasing preventer during this period.
 - Monitor local air quality using Environmental Protection Authority Victoria – [EPA AirWatch](#) ☑.

2. Educate about asthma:

- Advise that the goal is to be symptom free and asthma plans should be regularly reviewed to ensure this.
- Advise carers to start a [symptom diary](#) ☑ where patient has brittle or severe asthma.
- Consider referral for community asthma support:
 - [Improving Childhood Asthma Management \(ICAM project\)](#) ▲ specifically for inner west patients.

Improving Childhood Asthma Management (ICAM project)

- ICAM is a funded project for children aged < 18 years with asthma in [North-West Melbourne](#) ▼.
- For more information, see Cohealth – [Community Asthma Program](#) ☑.
- Asthma nurse educators can provide face-to-face or phone consults.
 - Carers and health professionals can refer by calling (03) 9448-6410 or emailing details to CAP@cohealth.org.au.
 - An online [referral form](#) ☑ is also available.
- Resources:
 - [Childhood Asthma Support](#) ☑ – information and resource for carers
 - [Childhood Asthma Management](#) ☑ – information and resources for health professionals in Melbourne's inner west

- [Asthma Australia](#) ☑.

3. Encourage immunisation against influenza and COVID-19.

Non-acute Paediatric Medicine Referral (> 24 hours)

Public

Public Hospitals

1. Check the [criteria](#)
2. Confirm that the referral is consistent with the patient or carer's wishes. If the patient is not competent to consent, refer to the [consent process](#) .
3. Prepare the [required referral information](#) and [mark the referral as urgent or routine](#) .

Required referral information

[Reason for referral](#)

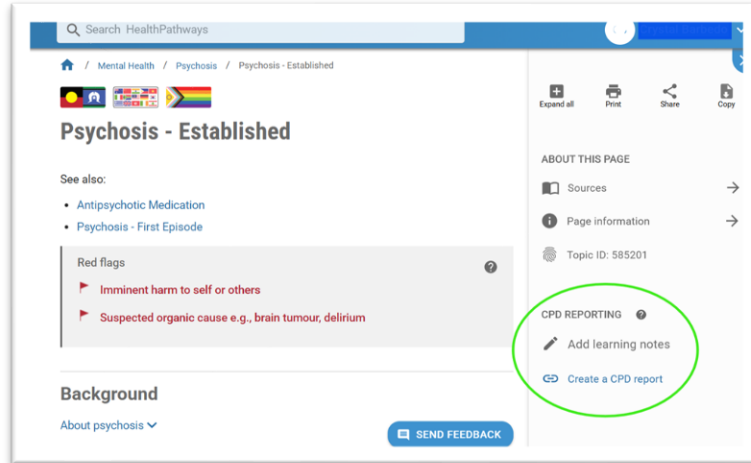
[Standard referral information](#)

4. Refer to the service.
 - If an urgent referral within 30 days is needed, page the on-call paediatric registrar via the [hospital switchboard](#) to discuss.
 - Specialist clinics may request referral to a named specialist or Head of Unit.
 - Consider:
 - [General Practice Referral Template](#)
 - [Hospital GP Liaison](#)
 - [Aboriginal Hospital Liaison Officer](#)
 - [Eastern Melbourne](#)
 - [North Western Melbourne](#)
 - [Statewide](#)
5. Advise the patient:
 - that providers may charge [fees](#) .
 - to advise of any change in circumstance as this may affect the referral.
 - that delays may be experienced due to capacity issues in the health system and to return to their general practitioner with any concerns while waiting for their specialist appointment.

North Western Melbourne

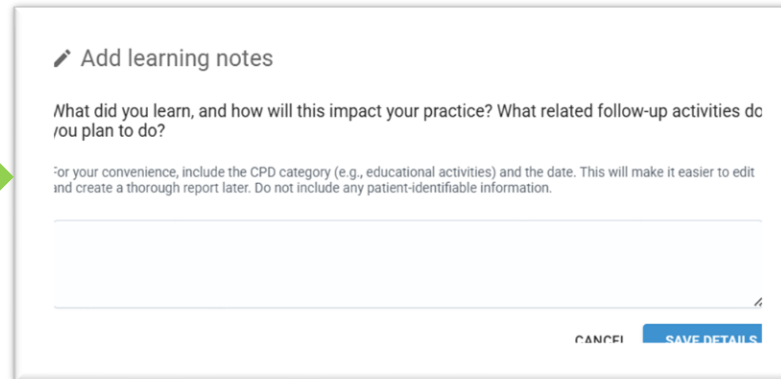
Mercy Health - Werribee Mercy Hospital Paediatric Medicine Clinic	Werribee, Wyndham	
Northern Health Paediatric Medicine Clinic	Epping, Whittlesea	
The Royal Children's Hospital Melbourne General Medicine Clinic	Parkville	
REFERRAL OPTIONS Fax (03) 9345-5034		Service-specific criteria Pre-referral link
		Information for referrer Administrative advice: Phone the Outpatients Department on (03) 9345-7060 (option 2).
The Royal Children's Hospital 50 Flemington Road Parkville 3052 VIC		Admin contact info Website Click here Appointment needed? Yes
		Service description General Medicine outpatient clinics include: <ul style="list-style-type: none"> • General Medicine • Contenance • Upper airways • Emergency review • Chronic fatigue • Immigrant health • Infectious diseases • Rheumatology • Immunisation • Dermatology Read less
The Royal Children's Hospital Melbourne Iron Infusion Day Medical Unit < 16 years	Parkville	
Administered at the Day Medical Care.		

Start using the HealthPathways CPD Reporting Tool



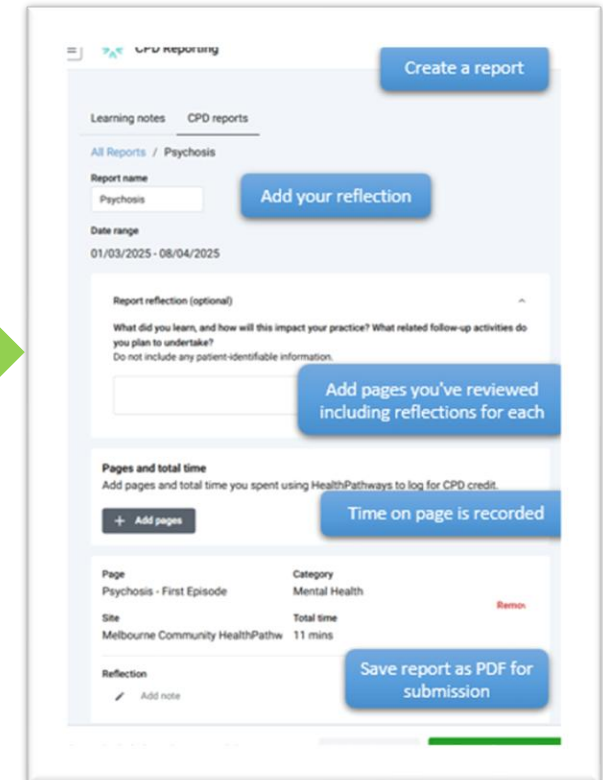
Step 1: Access a Pathway Page

- Navigate to a clinical pathway (e.g., *Psychosis – Established*).
- Click “**Add learning notes**” or “**Create a CPD report**” to begin tracking your CPD activity.



Step 2: Add Learning Notes

- Reflect on what you learned and how it will impact your practice.
- Include any planned follow-up activities.
- These notes are saved to your CPD record.



Step 3: Generate Your CPD Report

- Go to the **CPD Reporting** section.
- Add reflections, review pages, and confirm time spent.
- Export your report as a **PDF for submission**.

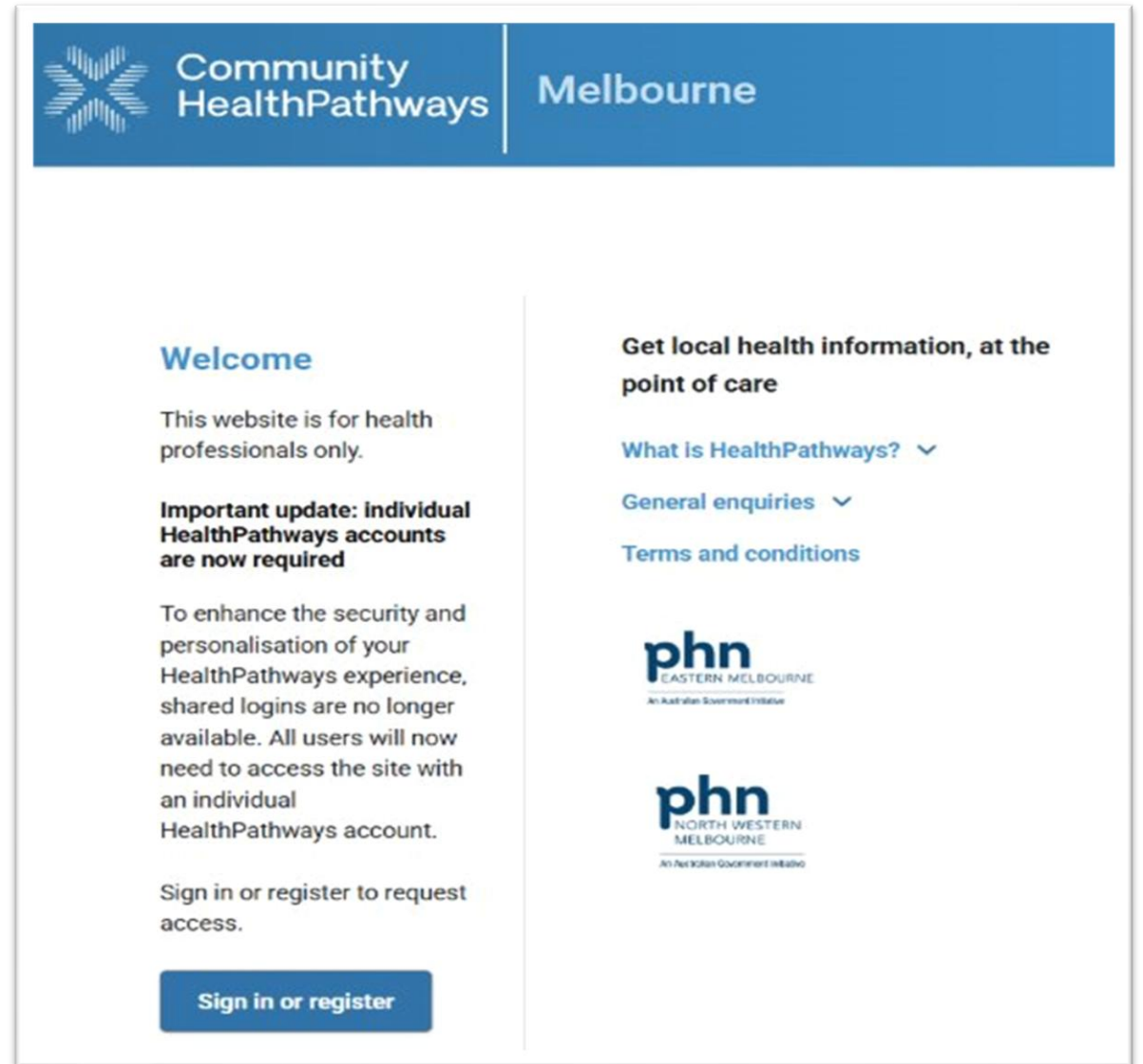
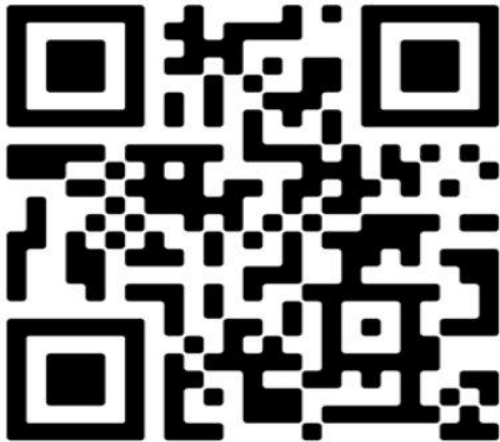
For further information on the CPD reporting tool, please see these videos:

- [How to create a CPD report](#)
- [How to add learning notes](#)

Register Now for HealthPathways Melbourne

Please click on the [Sign in or register](#) button to create your individual account or scan the QR code below.

If you have any questions, please email the team info@healthpathwaysmelbourne.org.au

A screenshot of the HealthPathways Melbourne website. The header is blue with a white starburst icon and the text "Community HealthPathways Melbourne". The main content area is white. On the left, there is a "Welcome" section with a heading "Welcome" and a paragraph stating "This website is for health professionals only." Below this is an "Important update: individual HealthPathways accounts are now required" section, followed by a paragraph explaining that shared logins are no longer available and individual accounts are required. At the bottom of this section is a blue button labeled "Sign in or register". On the right, there is a sidebar with the heading "Get local health information, at the point of care" and three links: "What is HealthPathways?", "General enquiries", and "Terms and conditions". Below the sidebar are two logos for "phn" (Public Health Network) for Eastern Melbourne and North Western Melbourne, both noted as Australian Government initiatives.

CAP is DHHS funded

(free service)



DPV
Health



*CAP Poll
Question*





6

Wrap up

Dr Kirsty Tamis

Keep the conversation going with the ICAM Social Pinpoint

Home Projects Log In / Join

Improving childhood asthma management (ICAM) Community of Practice

A group of health professionals and parents/carers looking to improve childhood asthma care in Melbourne's inner west.

+ Follow

Home / Improving childhood asthma management (ICAM) Community of Practice

The [Improving Childhood Asthma Management \(ICAM\)](#) program was developed by the Victorian Government to address increased rates of asthma-related emergency department presentations from children living in Melbourne's inner west compared to those living in other parts of Melbourne.

To remove barriers and ease the burden of diagnosing and managing asthma for children and their carers, North Western Melbourne Primary Health Network (NWMPHN) and Safer Care Victoria established a Community of Practice (CoP) in 2022.

The CoP brought health professionals together with parents/carers of children with asthma.

In May 2026, the final ICAM CoP was held. This page exists so carers and health professionals can continue to communicate, and access valuable resources.

To contribute to the forum and ensure you receive future updates, complete these quick steps:

1. Click 'Log in / Join' on the top right of this page, followed by 'Sign up today'
2. Complete registration.

Improving Childhood Asthma Management (ICAM) Community of Practice – Back to School 2026

Wednesday 28th January 2026
The content in this session is valid at date of presentation

ICAM Community of Practice sessions 2023-26

Visit the link here:

[Improving childhood asthma management \(ICAM\) Community of Practice | Engage North Western Melbourne PHN](#)

Feedback

Your feedback is important to us, and helps us to get the most out of the Community of Practice

- Please answer the survey questions via link in chat or the QR code
- Attendance certificates will be received within 4-6 weeks. RACGP CPD hours will be uploaded within 15 days
- Recording will be available on our website [here](#) within the next week



