NHS England London

#AskAboutAsthma webinar: refresh and update of CYP asthma for primary care

Chaired by:
Dr Niamh McLaughlin
General Practitioner, Special Interest in Paediatrics and Women's Health,
Millbank Medical Centre

Housekeeping

Attendees are automatically muted with camera switched off during the webinar.

Use the group chat feature to ask questions and please like any questions that you would like answered.

This session is being recorded. A link will be available after the webinar with the slides.

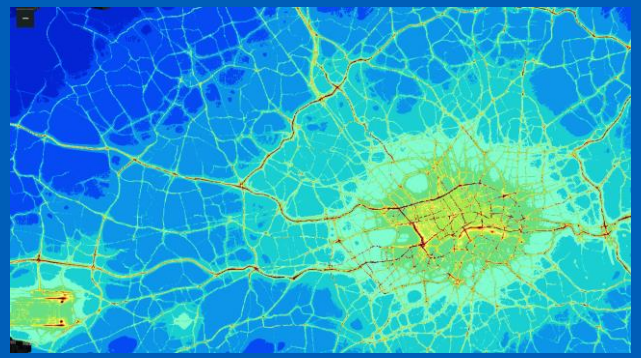
Agenda

#AskAboutAsthma webinar: refresh and update of CYP asthma for primary care
Tuesday 12 September 2023 1:00 – 2:00pm
Click here to join the meeting

Topic	Speaker
Chair: Niamh McLaughlin General Practitioner, Special Interest in Paediatrics and Women's Health Millbank Medical Centre	
Childhood asthma: #AAA update for primary care	**Stephen Goldring** Consultant Paediatrician, Hillingdon Hospital and North West London CYP Asthma Network lead
A collaborative approach: How Whipps Cross are using their 48-hour review pilot to support CORE20PLUS5	**Amutha Anpananthar** Consultant in Paediatric Emergency Medicine, Whipps Cross Hospital **Tonia Myers** GP Clinical Lead for Children and Young People, Waltham Forest
Q & A	**All**

NHS
North West London

Childhood asthma
#AAA update for primary care


Stephen Goldring
Consultant Paediatrician, Hillingdon Hospital
North West London CYP Asthma Network lead
No disclosures

Tier 3 asthma training

Key messages

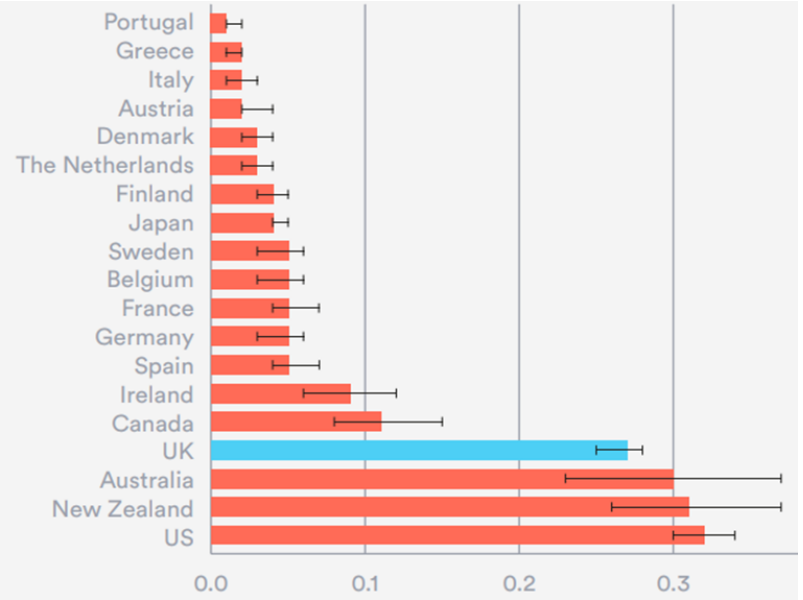
Childhood asthma is common and children still die

Asthma attacks are sentinel events that something is wrong, and something needs to change, and if that change doesn't lead to improvement, then refer

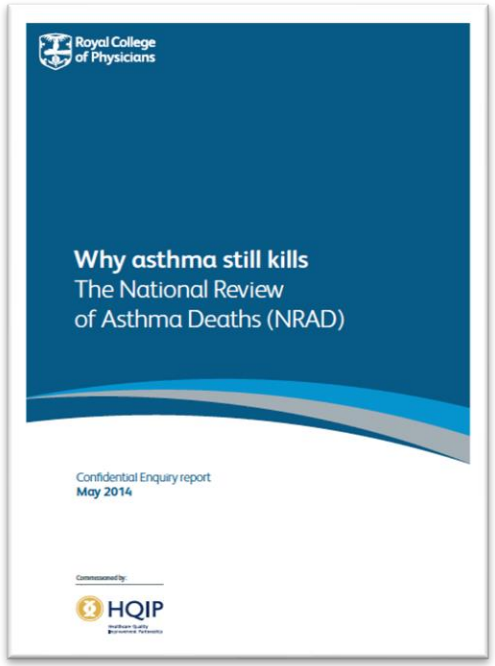
Concept of 'anti-inflammatory reliever'

Update on post-attack 'weaning plans'

The UK has one of the highest prevalence, emergency admission and death rates for childhood asthma[2]



Asthma mortality rate age 10-14 per 100,000
Global Burden of Disease study, 2016 (accessed January 2019).
95% confidence intervals
https://www.asthma.org.uk/about/media/facts-and-statistics
https://www.england.nhs.uk/2019/09/nhs-warning-to-parents-as-asthma-season-hits



UK Feb 2012 – Jan 2013
Review of 195 deaths - 28
childrenwww.rcplondon.ac.uk/NRAD

NHS
North West London

Wider determinants are really important

Air pollution a cause in girl's death, coroner rules in landmark case

Coroner says failure to reduce pollution levels to legal limits was factor in death of Ella Kissi-Debrah, who had severe asthma

Ella Kissi-Debrah lived within 30 metres of London's South Circular road. Photograph: PA

A coroner has made legal history by ruling that air pollution was a cause of the death of a nine-year-old girl.

Philip Barlow, the inner south London coroner, said Ella Kissi-Debrah's death in February 2013 was caused by acute respiratory failure, severe asthma and air pollution exposure.

He said she was exposed to nitrogen dioxide and particulate matter (PM) pollution in excess of World Health Organization guidelines, the principal source of which were traffic emissions.

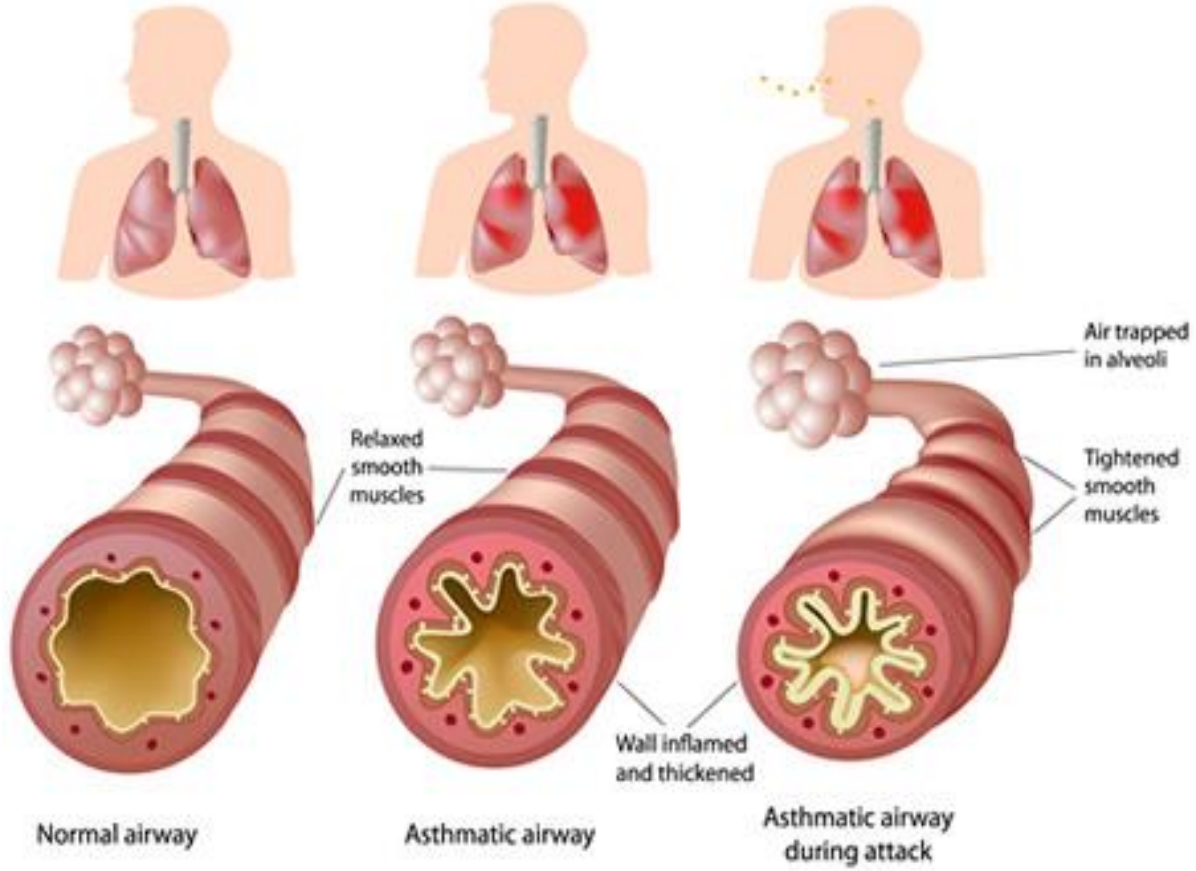
[Air pollution a cause in girl's death, coroner rules in landmark case | London | The Guardian]

Awaab Ishak: Toddler's death from mould triggers review of landlord guidance

[Government to deliver Awaab's Law - GOV.UK (www.gov.uk)]

NHS
North West London

Asthma definition



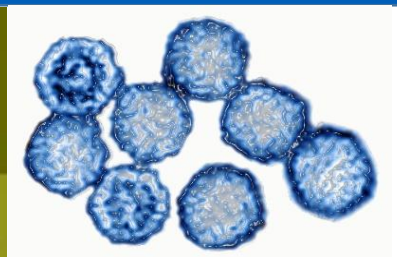
Recurrent symptoms
Reproducible triggers
Variable lung function
Airway inflammation
BTS/ NICE/ GINA

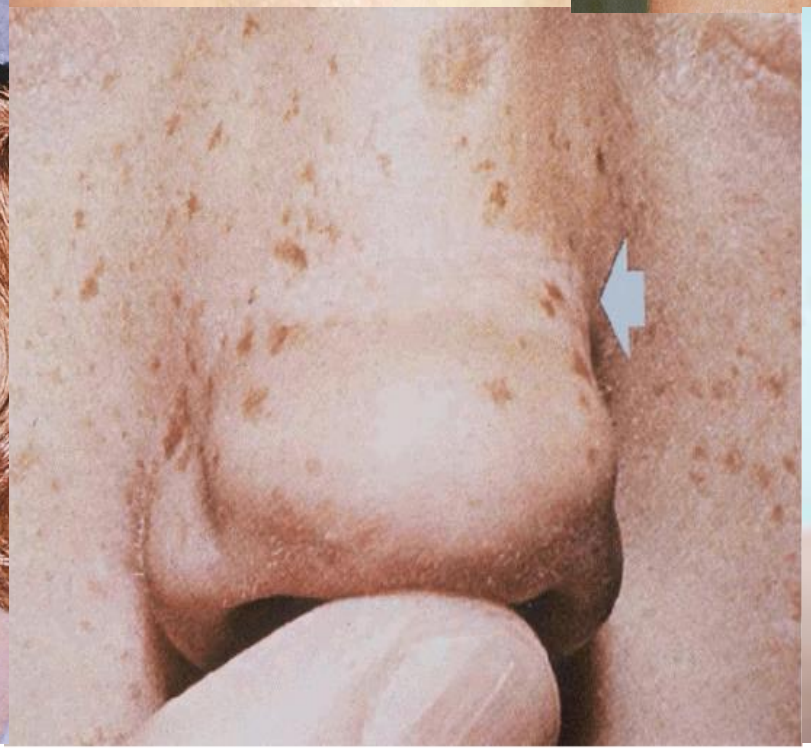
[Asthma Triggers: What Really Matters? - PMC (nih.gov)]

NHS North West London

Triggers

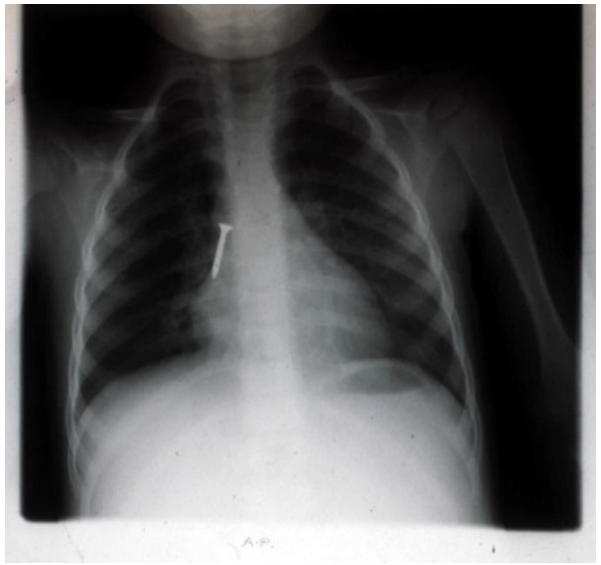

Pollen Calendar
Main release period
Peak
Pollen type
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Hazel (Corylus)
Yew (Taxus)
Alder (Alnus)
Elm (Ulmus)
Willow (Salix)
Poplar (Populus)
Birch (Betula)
Ash (Fraxinus)
Plane (Plantanus)
Oak (Quercus)
Pine (Pinus)
Lime (Tilia)
Grass (Poaceae)
Dock (Rumex)
Mugwort (Artemisia)
Nettle (Urtica)
Oilseed rape (Brassica Napus)
Plantain (Plantago)





NHS
West London

Clues to alternative diagnosis



Symptoms from birth
Chronic wet cough
Failure to thrive
Unilateral signs on chest
Sudden onset

Isolated cough
Absence of true wheeze
Paraesthesia, hyperventilation

There is no single gold standard diagnostic test for asthma

Best of three, twice daily for 2 weeks and calculate mean variability.

≥20% is a positive test.

Bronchodilator reversibility. Improvement in FEV1 of ≥12% is a positive test.

Regard a FeNO level of
- 35 ppb (NICE)
- 25 ppb (ERS)

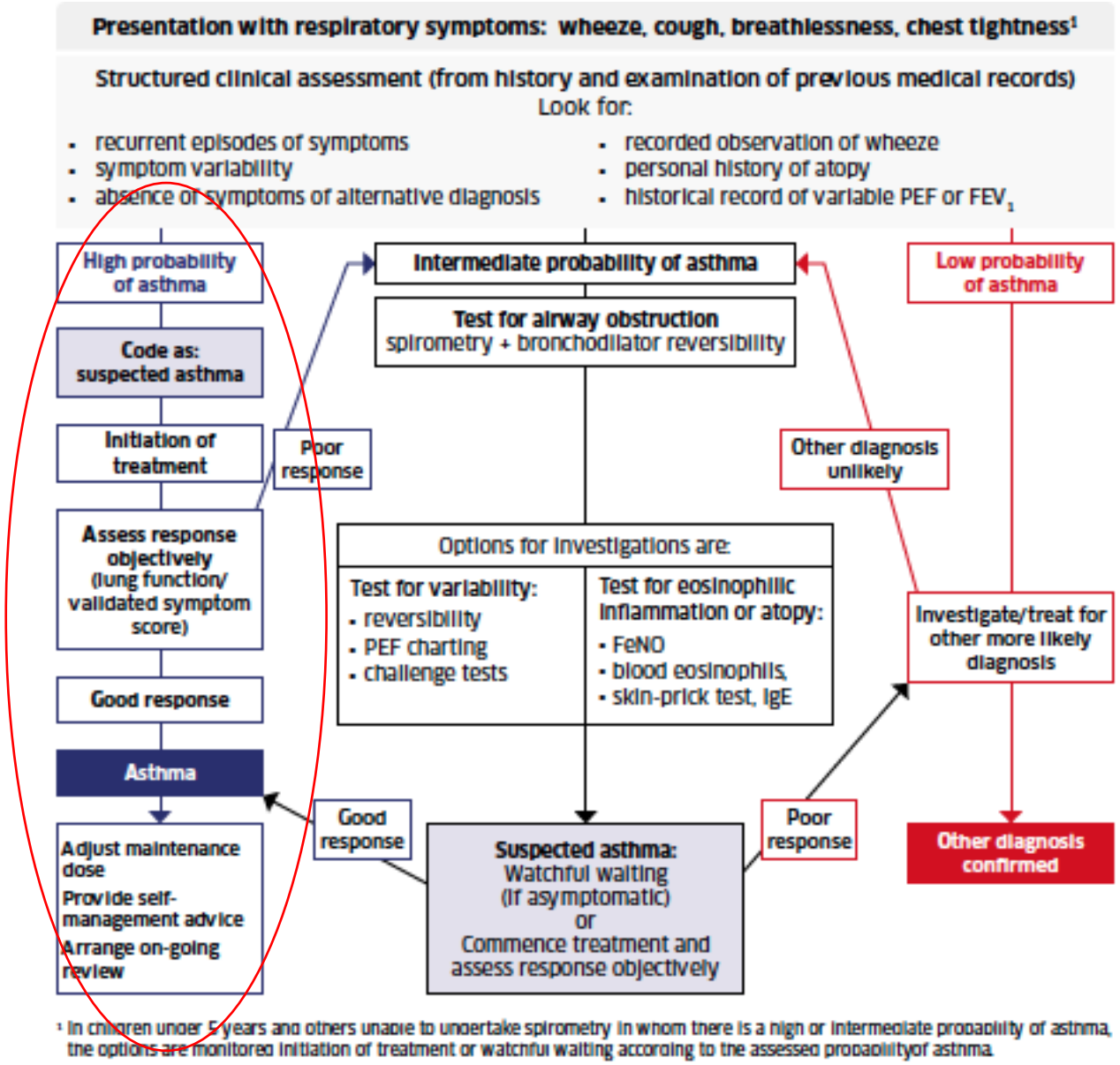
or more as a positive test.

National Asthma Bundle interim update May ‘23

Where objective testing is **not possible**, diagnosis should be based on clinical judgement and response to trial of treatment.

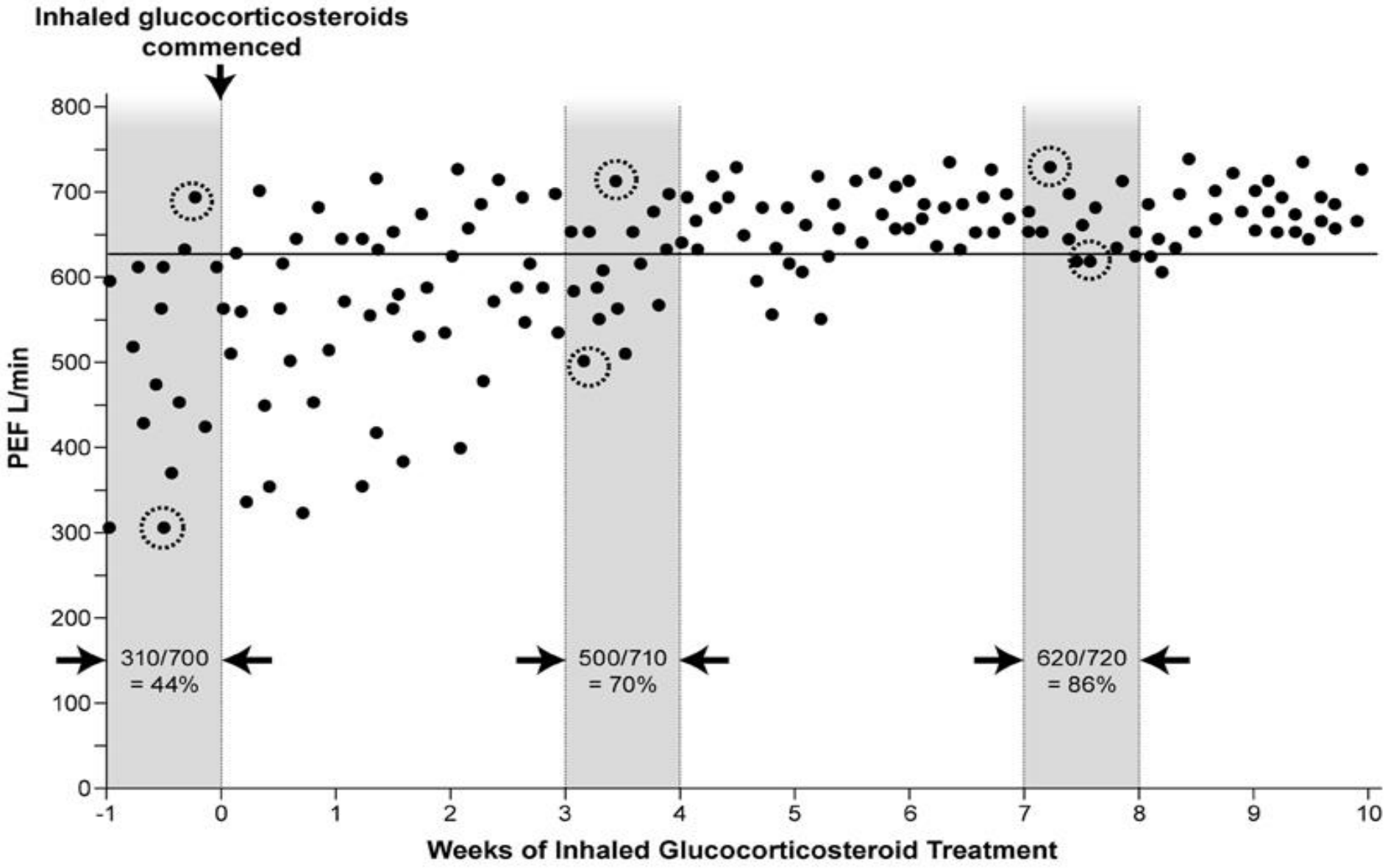
NHS
North West London

BTS diagnostic algorithm 2019

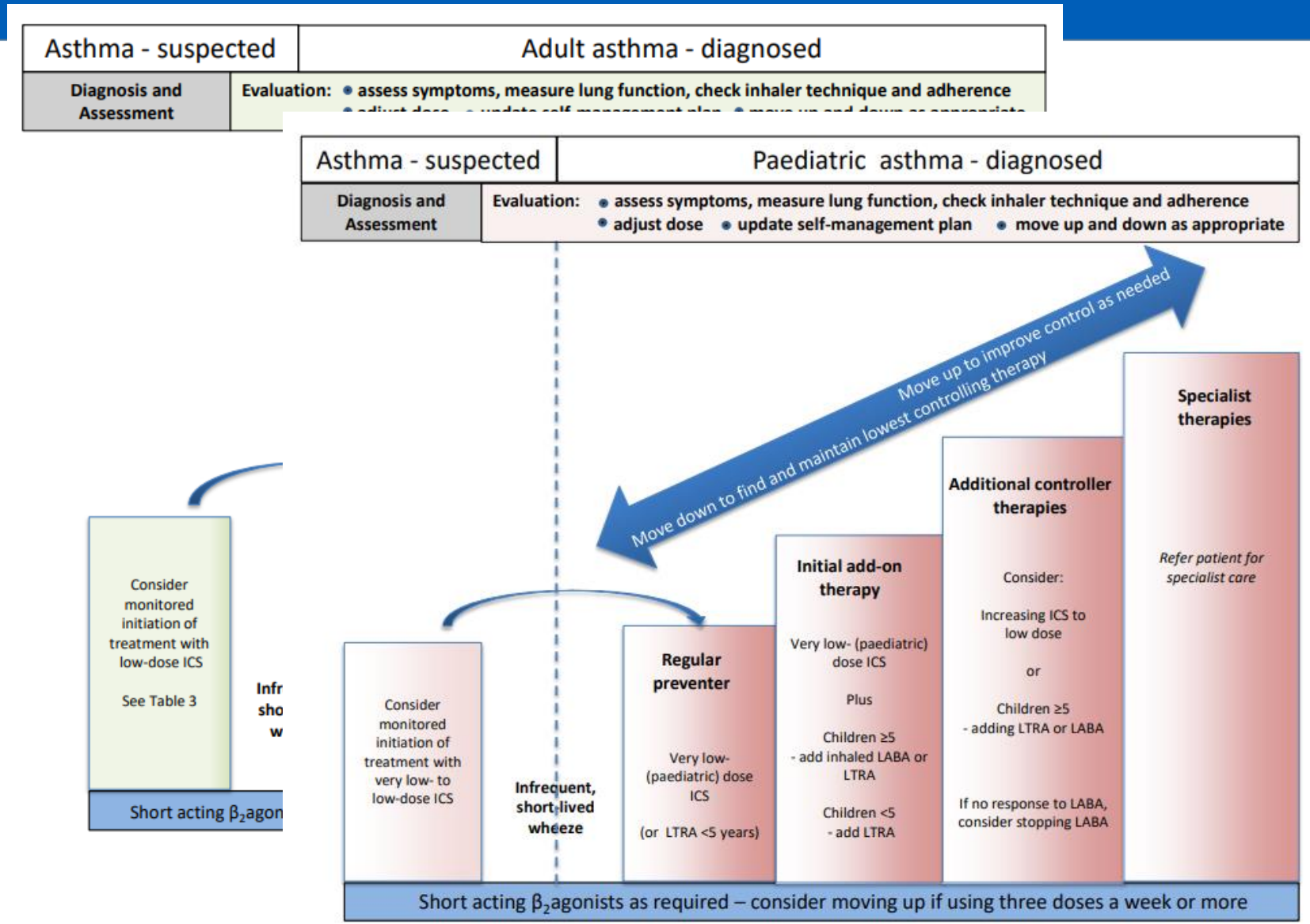


NHS
North West London

The treatment of asthma is inhaled corticosteroids



Medication – see your local guideline



NHS North West London

Poor adherence is the biggest reason for treatment failure

Reasons/ barriers

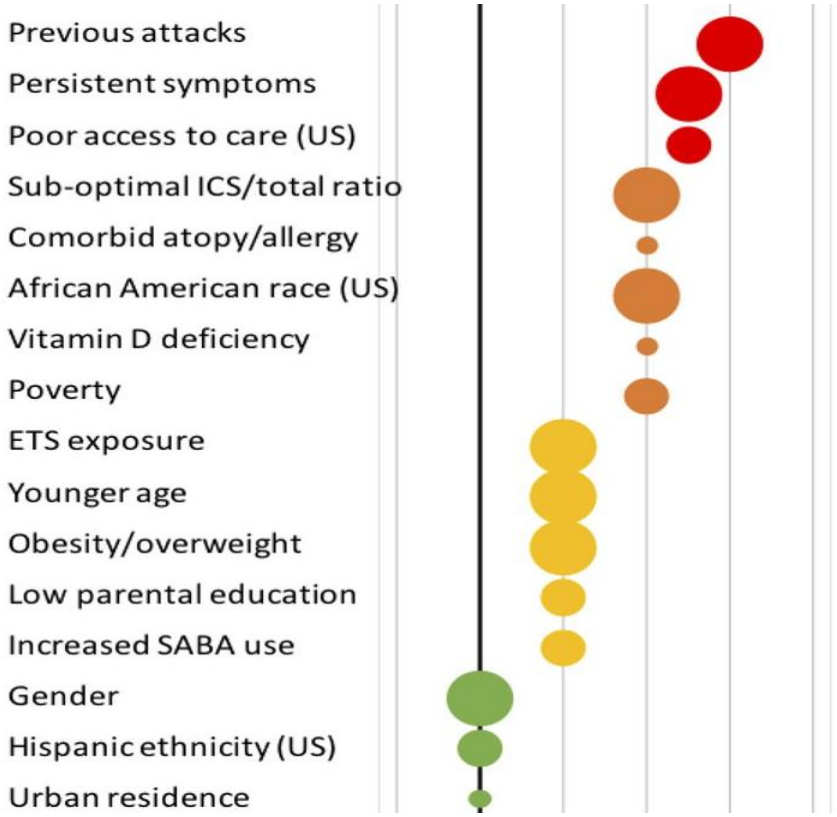
- Forgetfulness, chaotic lifestyle
- Poor supervision
- Regime complexity
- Not wanting to seem different
- Lack of understanding of correct usage
- Perceived immediate gratification, patient beliefs
- Concerns regarding side effects

Study of 93 children median age 12 years

- Inhaler use monitored electronically for median of 92 days
- Adherence poor in **two thirds of children**

Eur Respir J 2017; 50. pii: 1700910. doi: 10.1183/13993003.00910-2017

Background risk

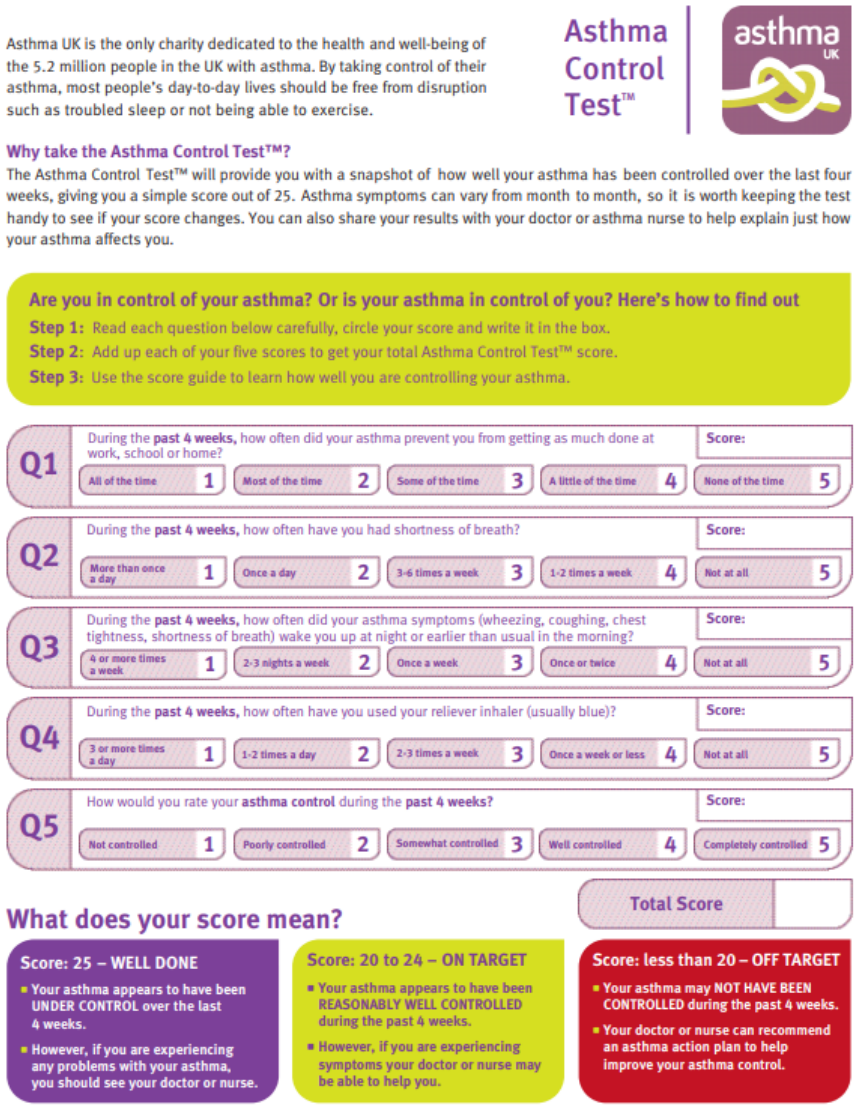


PICU admission - long term risk of severe asthma episodes

Buelo A, McLean S, Julious S the ARC Group*, et al* At-risk children with asthma (ARC): a systematic review *Thorax* 2018;**73:**813-824.

NHS
North West London

Asthma control – last 4 weeks



Asthma UK is the only charity dedicated to the health and well-being of the 5.2 million people in the UK with asthma. By taking control of their asthma, most people's day-to-day lives should be free from disruption such as troubled sleep or not being able to exercise.

Asthma Control Test™

asthma UK

Why take the Asthma Control Test™?

The Asthma Control Test™ will provide you with a snapshot of how well your asthma has been controlled over the last four weeks, giving you a simple score out of 25. Asthma symptoms can vary from month to month, so it is worth keeping the test handy to see if your score changes. You can also share your results with your doctor or asthma nurse to help explain just how your asthma affects you.

Are you in control of your asthma? Or is your asthma in control of you? Here's how to find out

Step 1: Read each question below carefully, circle your score and write it in the box.
Step 2: Add up each of your five scores to get your total Asthma Control Test™ score.
Step 3: Use the score guide to learn how well you are controlling your asthma.

Q1 During the **past 4 weeks,** how often did your asthma prevent you from getting as much done at work, school or home? — Score:

All of the time 1	Most of the time 2	Some of the time 3	A little of the time 4	None of the time 5

Q2 During the **past 4 weeks,** how often have you had shortness of breath? — Score:

More than once a day 1	Once a day 2	3-6 times a week 3	1-2 times a week 4	Not at all 5

Q3 During the **past 4 weeks,** how often did your asthma symptoms (wheezing, coughing, chest tightness, shortness of breath) wake you up at night or earlier than usual in the morning? — Score:

4 or more times a week 1	2-3 nights a week 2	Once a week 3	Once or twice 4	Not at all 5

Q4 During the **past 4 weeks,** how often have you used your reliever inhaler (usually blue)? — Score:

3 or more times a day 1	1-2 times a day 2	2-3 times a week 3	Once a week or less 4	Not at all 5

Q5 How would you rate your **asthma control** during the **past 4 weeks?** — Score:

Not controlled 1	Poorly controlled 2	Somewhat controlled 3	Well controlled 4	Completely controlled 5

Total Score

What does your score mean?

Score: 25 – WELL DONE
- Your asthma appears to have been UNDER CONTROL over the last 4 weeks.
- However, if you are experiencing any problems with your asthma, you should see your doctor or nurse.

Score: 20 to 24 – ON TARGET
- Your asthma appears to have been REASONABLY WELL CONTROLLED during the past 4 weeks.
- However, if you are experiencing symptoms your doctor or nurse may be able to help you.

Score: less than 20 – OFF TARGET
- Your asthma may NOT HAVE BEEN CONTROLLED during the past 4 weeks.
- Your doctor or nurse can recommend an asthma action plan to help improve your asthma control.

NHS
North West London

Identification of uncontrolled asthma in primary care

How many asthma attacks?
How many admissions to hospital?
How many courses of oral corticosteroids?
Number of relievers used?
Severity of episodes?

200 puffs/ MDI

1 inhaler/ year = 4 puffs a week

4 inhalers/year = 15 puffs a week

6 inhalers/year = 23 puffs a week

Number of preventers used?
If admitted, where they followed up by hospital?

200 doses/ MDI, 2 puffs BD

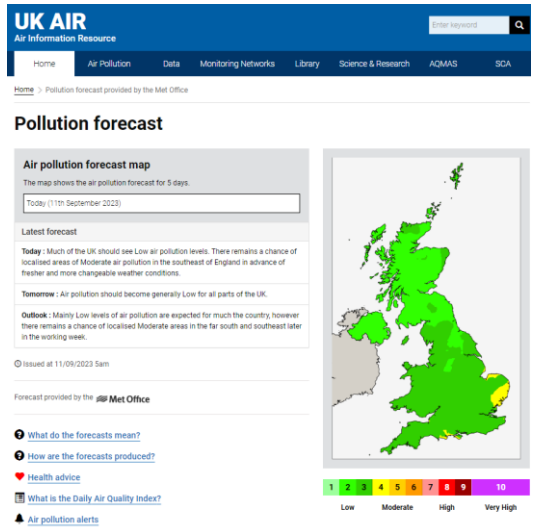
7 inhalers per year

120 doses/ MDI, 2 puffs BD

12 inhalers per year

NHS
North West London

Get the basics right



"Show me how you use your inhaler"

[Pollution forecast - Defra, UK]

[London Air Quality Network Mobile Apps]

- Address adherence!
- Environmental triggers (mould/ pollution)
- Smoke/ vaping exposure
- Psychosocial/ safeguarding issues

When to refer

Two or more courses of OCS per year
1 or more hospital admission/ ED attendance
4 or more SABA inhalers per year
Recurrent chronic symptoms with low ACT score
Health care professional concern
Parental concern
Other

If unable to gain control despite strategies to optimise, then refer

Source: Draft National Bundle Guideline May 2023

The ‘Anti-Inflammatory Reliever’ (AIR)

Budesonide 200mcg
Formoterol 6 mcg
(fast and long acting B_2 agonist)

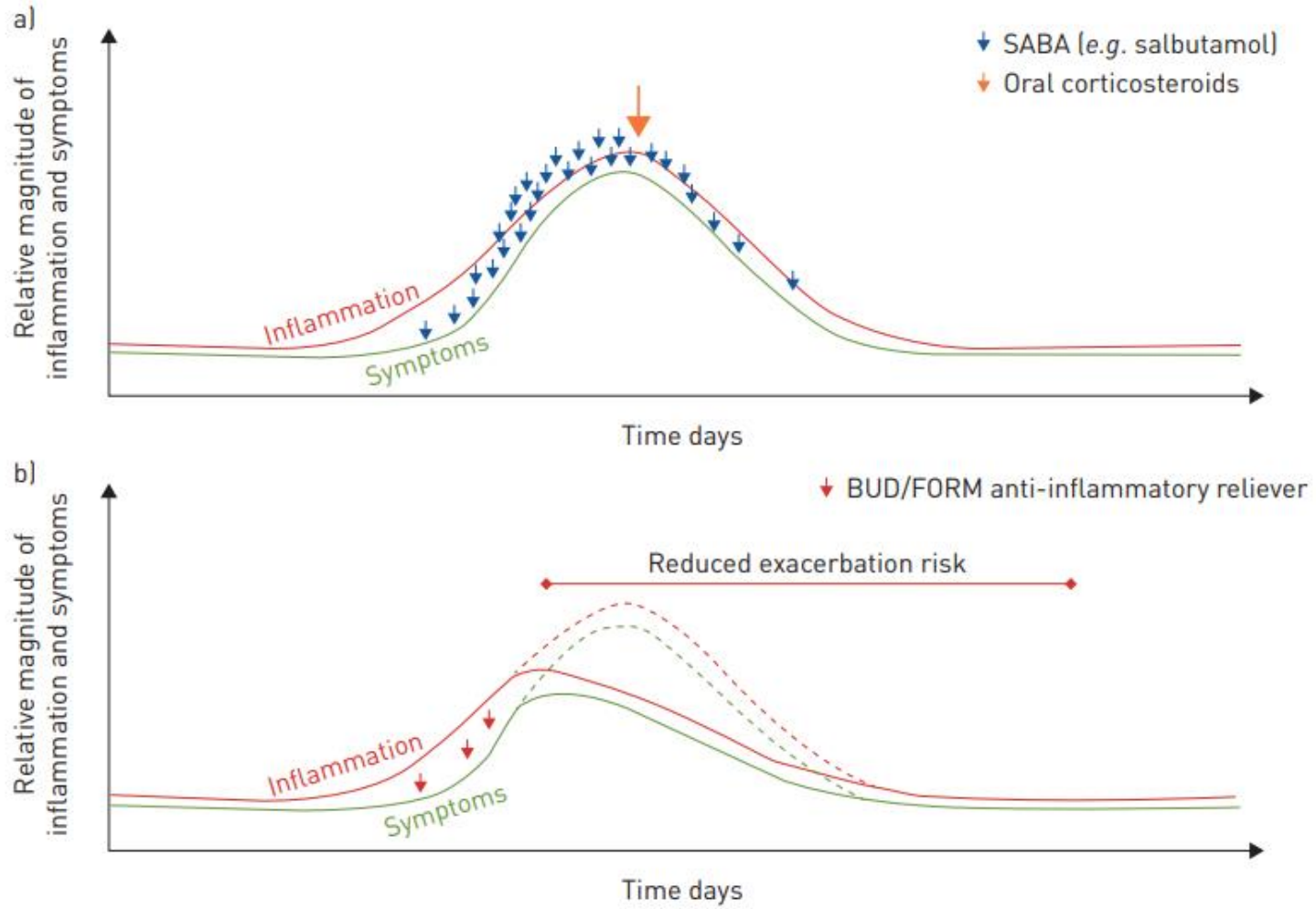
For CYP age 12+ with MILD ASTHMA
As-required symbicort 200/6

- Superior to SABA-alone
- Safe alternative to maintenance (daily) ICS +SABA PRN

“Take 1 inhalation as needed. Not more than 6 inhalations should be taken on any single occasion. If you need more than 8 puffs in any one day, seek medical review.”

Care needed with definition of ‘mild asthma’

[1]Combination fixed-dose beta agonist and steroid inhaler as required for adults or children with mild asthma. Cochrane Database of Systematic Reviews 2021, Issue 5 (5 studies, two including CYP 12+, n=9656)
[2]2023 GINA Main Report - Global Initiative for Asthma - GINA (ginasthma.org)



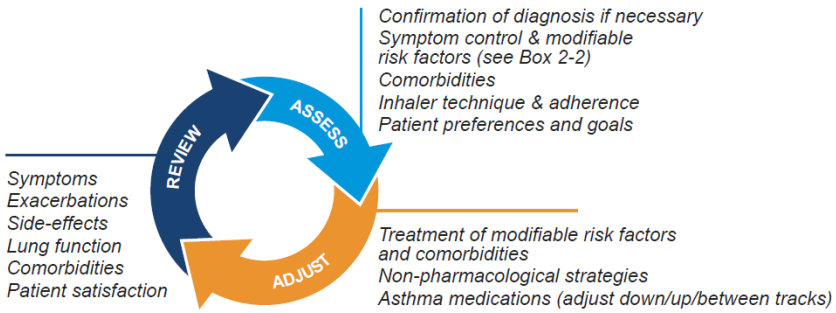
Proposed hypothesis of the mechanism of a) short-acting β2-agonist (SABA) reliever and b) as-needed budesonide/ formoterol as anti-inflammatory reliever therapy during worsening of asthma symptoms that precedes an exacerbation.

Variability in airway inflammation, symptoms, lung function and reliever use in asthma: anti-inflammatory reliever hypothesis and STIFLE study design (ersjournals.com)

NHS
North West London

GINA 2023 – Adults & adolescents 12+ years

Personalized asthma management
Assess, Adjust, Review
for individual patient needs



TRACK 1: PREFERRED CONTROLLER and RELIEVER
Using ICS-formoterol as the reliever* reduces the risk of exacerbations compared with using a SABA reliever, and is a simpler regimen

STEPS 1 – 2	STEP 3	STEP 4	STEP 5
As-needed-only low dose ICS-formoterol	Low dose maintenance ICS-formoterol	Medium dose maintenance ICS-formoterol	Add-on LAMA Refer for assessment of phenotype. Consider high dose maintenance ICS-formoterol, ± anti-IgE, anti-IL5/5R, anti-IL4Rα, anti-TSLP
RELIEVER: As-needed low-dose ICS-formoterol*			

See GINA severe asthma guide

TRACK 2: Alternative CONTROLLER and RELIEVER
Before considering a regimen with SABA reliever, check if the patient is likely to adhere to daily controller treatment

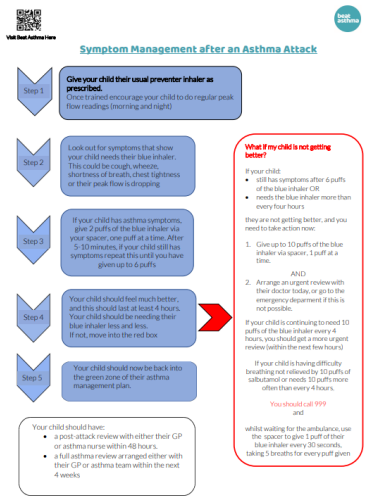
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Take ICS whenever SABA taken*	Low dose maintenance ICS	Low dose maintenance ICS-LABA	Medium/high dose maintenance ICS-LABA	Add-on LAMA Refer for assessment of phenotype. Consider high dose maintenance ICS-LABA, ± anti-IgE, anti-IL5/5R, anti-IL4Rα, anti-TSLP
RELIEVER: as-needed ICS-SABA*, or as-needed SABA				

Other controller options (limited indications, or less evidence for efficacy or safety – see text)	*Low dose ICS whenever SABA taken*, or daily LTRA, or add HDM SLIT*	*Medium dose ICS, or add LTRA, or add HDM SLIT*	*Add LAMA or LTRA or HDM SLIT, or switch to high dose ICS*	*Add azithromycin (adults) or LTRA. As last resort consider adding low dose OCS but consider side-effects*

*Anti-inflammatory reliever (AIR)

Box 3-12

Post-attack salbutamol plans
No more ‘weaning plans’



Symptom Management after an Asthma Attack

Step 1 — Give your child their usual preventer inhaler as prescribed. Once trained encourage your child to do regular peak flow readings (morning and night)

Step 2 — Look out for symptoms that show your child needs their blue inhaler. This could be cough, wheeze, shortness of breath, chest tightness or their peak flow is dropping

Step 3 — If your child has asthma symptoms, give 2 puffs of the blue inhaler via your spacer, one puff at a time. After 5-10 minutes, if your child still has symptoms repeat this until you have given up to 6 puffs

Step 4 — Your child should feel much better, and this should last at least 4 hours. Your child should be needing their blue inhaler less and less. If not, move into the red box

Step 5 — Your child should now be back into the green zone of their asthma management plan.

Your child should have:
- a post-attack review with either their GP or asthma nurse within 48 hours.
- a full asthma review arranged either with their GP or asthma team within the next 4 weeks

What if my child is not getting better?

If your child:
- still has symptoms after 6 puffs of the blue inhaler OR
- needs the blue inhaler more than every four hours

they are not getting better, and you need to take action now:

1. Give up to 10 puffs of the blue inhaler via spacer, 1 puff at a time.

AND

2. Arrange an urgent review with their doctor today, or go to the emergency deparment if this is not possible.

If your child is continuing to need 10 puffs of the blue inhaler every 4 hours, you should get a more urgent review (within the next few hours)

If your child is having difficulty breathing not relieved by 10 puffs of salbutamol or needs 10 puffs more often than every 4 hours,

You should call 999
and

whilst waiting for the ambulance, use the spacer to give 1 puff of their blue inhaler every 30 seconds, taking 5 breaths for every puff given

Step 2

Look out for symptoms that show your child needs their blue inhaler. This could be cough, wheeze, shortness of breath, chest tightness or their peak flow is dropping

Step 3

If your child has asthma symptoms, give 2 puffs of the blue inhaler via your spacer, one puff at a time. After 5-10 minutes, if your child still has symptoms repeat this until you have given up to 6 puffs

Step 4

Your child should feel much better, and this should last at least 4 hours. Your child should be needing their blue inhaler less and less.
If not, move into the red box

beatasthma.co.uk

NHS
th West London

Summary

Diagnosis - be pragmatic

Identify uncontrolled asthma

Get the basics right, and if not improving, refer

Tier	Level of care	Example profession	Knowledge and skills
1	Signposting 45 mins	• Social care • Education staff • Childcare providers • Leaders of children's clubs • GP receptionists • Health Care Assistants	Basic awareness of asthma, its management, inhaler use and basic modifiable risk factors. Able to signpost families to resources.
2	Supporting prescribed care 2.5 hours	• Practice, School, Community and ward nurses • Health visitors • Community pharmacist • AHPs • Ambulance staff	Greater understanding of the principles of asthma management and able to deliver prescribed care both routinely and in an emergency. Able to view asthma as a chronic condition and identify risk factors for poor control
3	Assessment and prescribing of care 6 hours	• General Practitioners • Emergency department doctors • Paediatricians • Doctors in training • Nurses with a special interest • Clinical pharmacist	Able to diagnose, assess and manage acute and chronic asthma. Able to address the factors that contribute to poor control

Access via e-learning for healthcare (e-lfh.org.uk)

NHS
North West London

NHS North East London

NHS Barts Health NHS Trust

A collaborative approach: How Whipps Cross are using their 48-hour review pilot to support CORE20PLUS5

Amutha Anpananthar : Consultant in Paediatric Emergency Medicine, Whipps Cross Hospital

Lidia Trup, Nicholas Fine, Patrick Robins: Paediatric/ED trainees Whipps Cross Hospital

Sheraz Younas: UCC at WX clinical lead/GP Federation, NEL

Tonia Myers: CCG lead, Waltham Forest

Prita Rughani & Eliza Magnusen: Paediatric cons with asthma interest, Whipps Cross Hospital

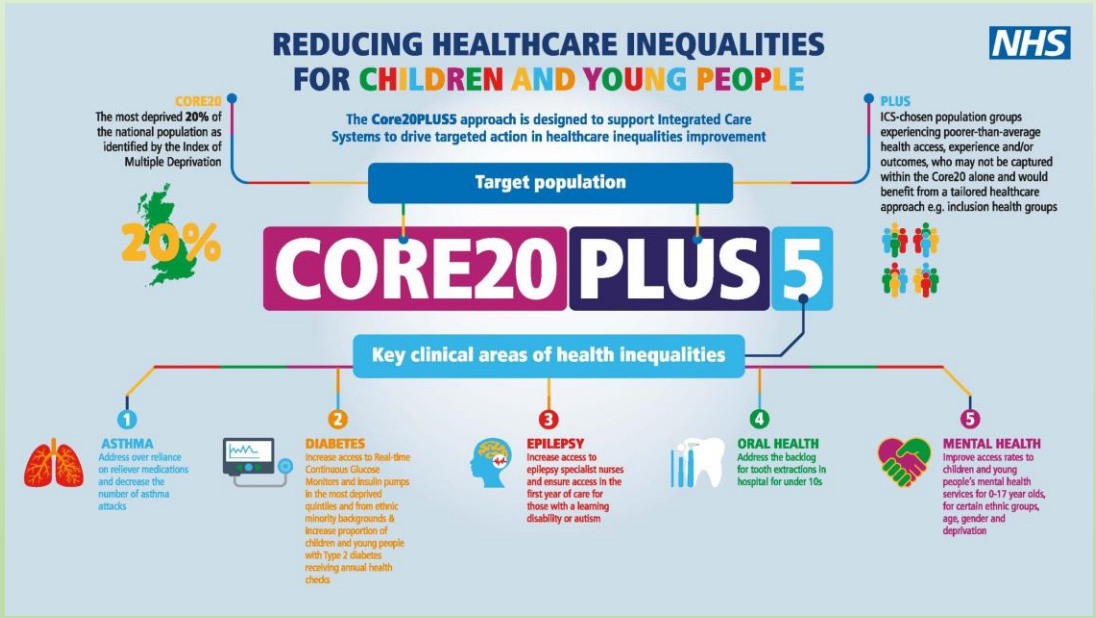
Zara Rippington: Asthma CNS Waltham Forest

Katy Briggs: Head of Integrated Commissioning (Children and Young People) NHS NEL

Helen Cochrane/Heather Sayers: Commissioning Support Officer NHS NEL

North East London Health & Care Partnership

Reducing healthcare inequalities for CYP



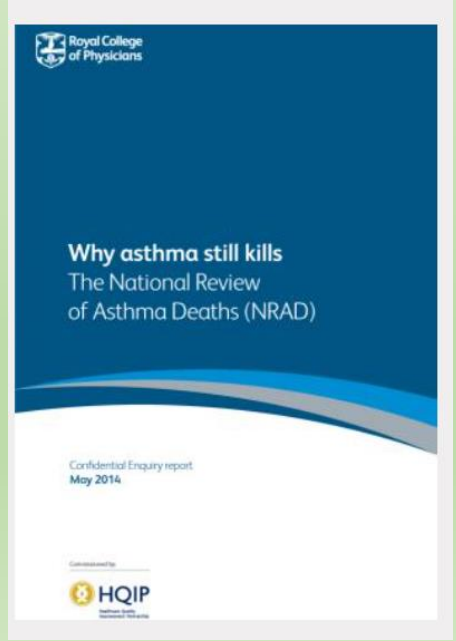
Asthma

1. Address over reliance on reliever medications
2. Decrease the number of asthma attacks

Aims

Does providing an easy access 48hr-GP follow-up appointment reduce reattendance to ED?

1. Review Pilot of new 48-hour follow-up GP hub
   - Review of 48-hour GP hub
2. Phase 2 of pilot



'Follow-up arrangements must be made after every attendance at an emergency department or out-of-hours service for an asthma attack'

48-hour follow-up with GP

Waltham Forest patients only

- Waltham Forest GP Federation (partnered with NELFT to provide Urgent Treatment Centre services in Whipps Cross Hospital)
- 4 x funded 'on the day' GP appointment slots
- Not funded specifically for wheeze f/u

ED pathway

Few admitted to ward

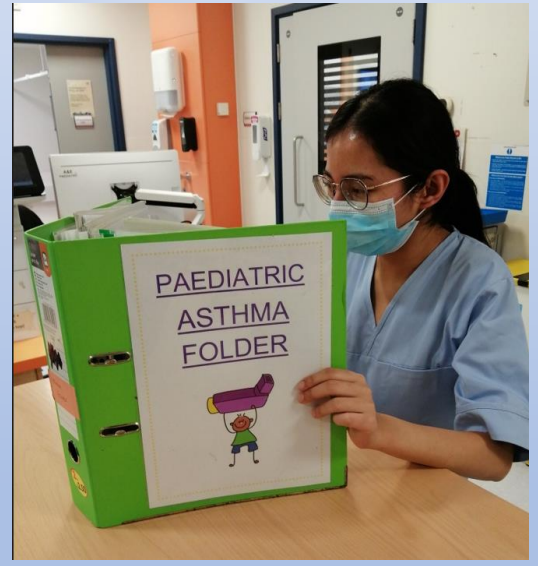
ED/ED day unit

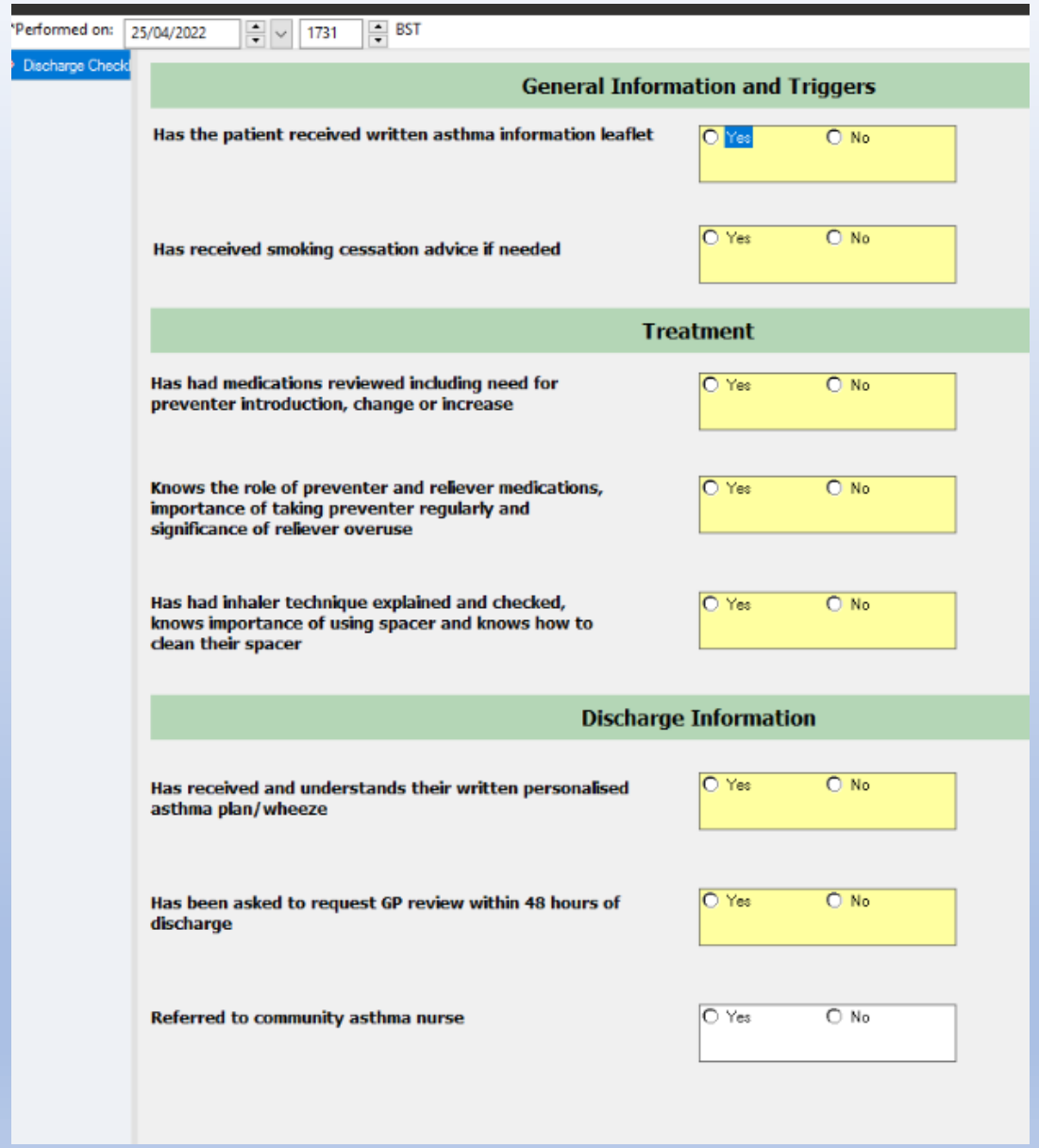
Discharge

GP hub telephone consultation

ED pathway

- Trust Asthma discharge checklist

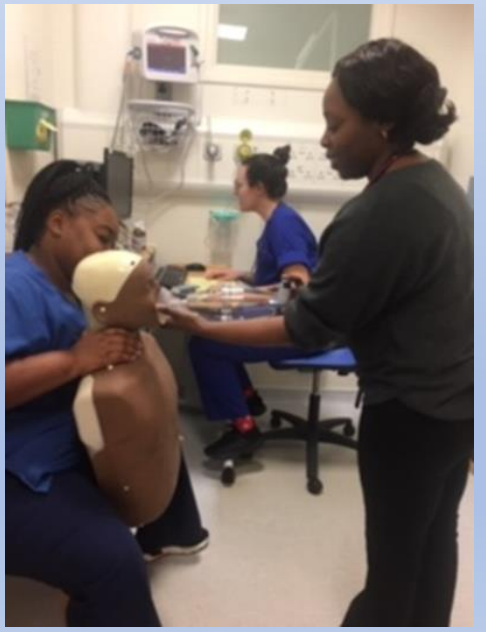




1. ED data: Snapshot Nov-Dec 2021

Qu 1: Was Trust discharge guidance followed and documented

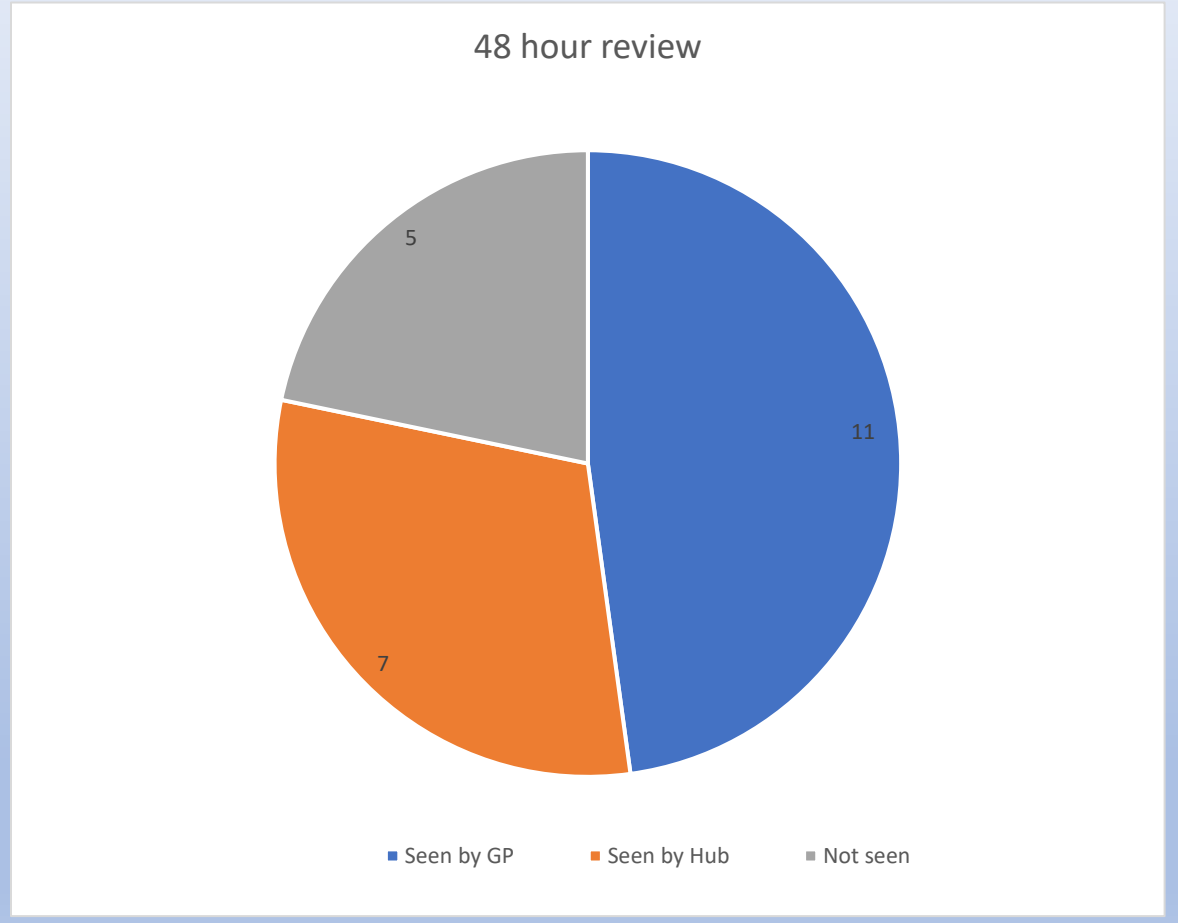
- 17 had a documented medication review (19%)
- 13 had a discussion covering the role of preventer (15%)
- 5 received a personalised asthma plan (6%)
- 7 were referred to asthma nurse (8%)
- 68 were advised to book with GP or Hub (76%)



Qu 2: Patient experience

- 23 families contacted

- Of those seen by the Hub, all rated booking system as excellent and all had phone consultations booked for them



Qu 2:Patient experience continued

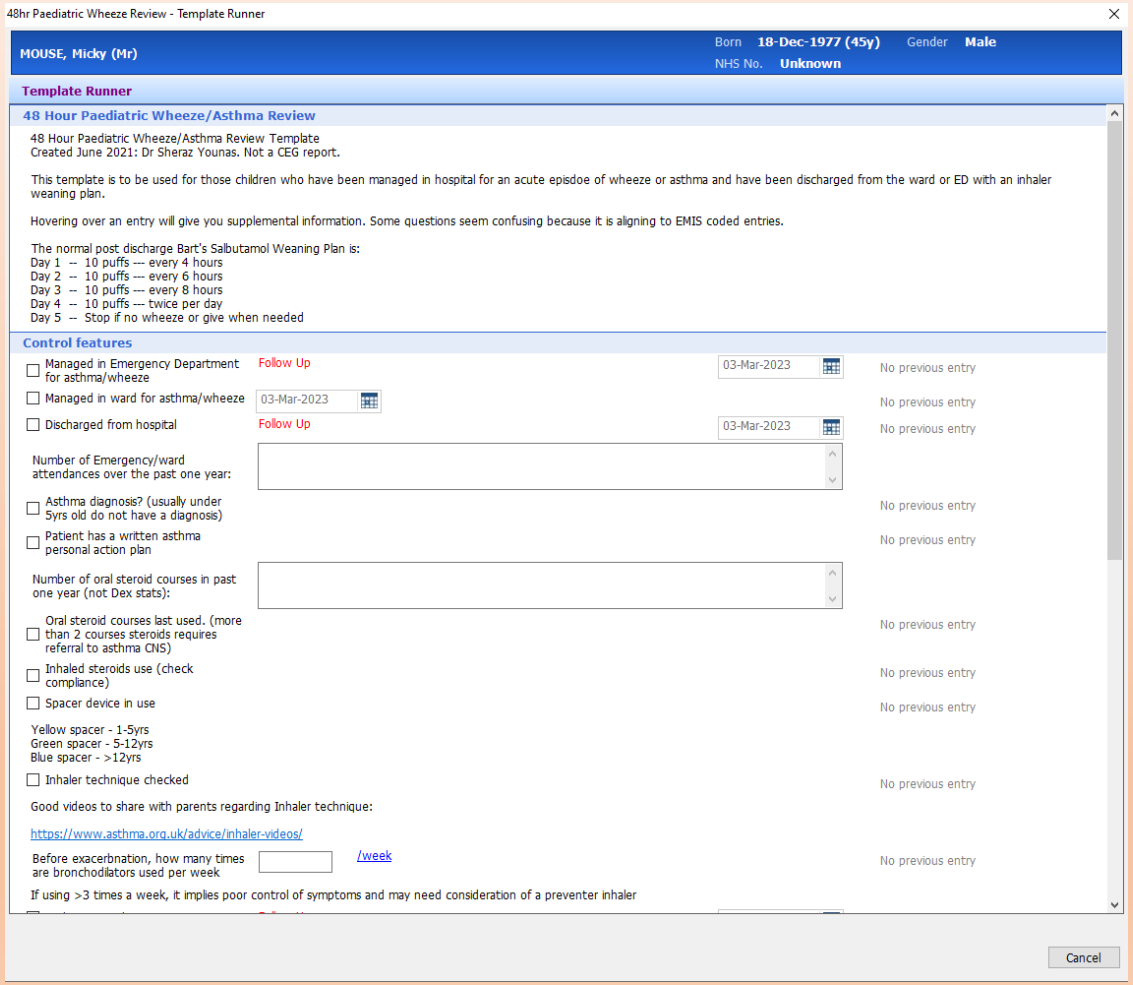
- Areas of patient dissatisfaction
  - Many patients struggled to contact own GP

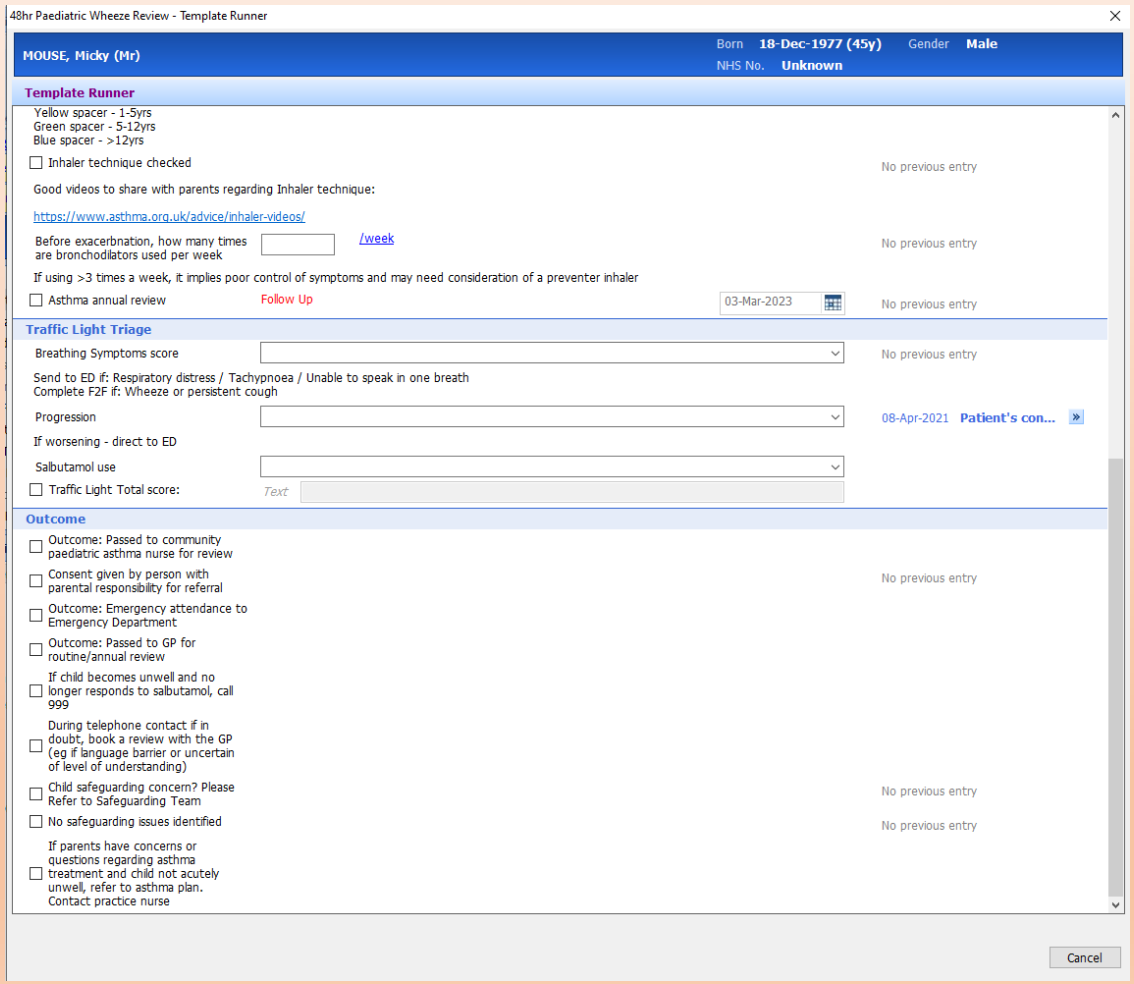
- Of the 7 seen by Hub
  - All were happy that an appointment was booked
  - 5 (71%) would have preferred own GP if access was easier, but they knew it would be difficult to get own

2. GP hub

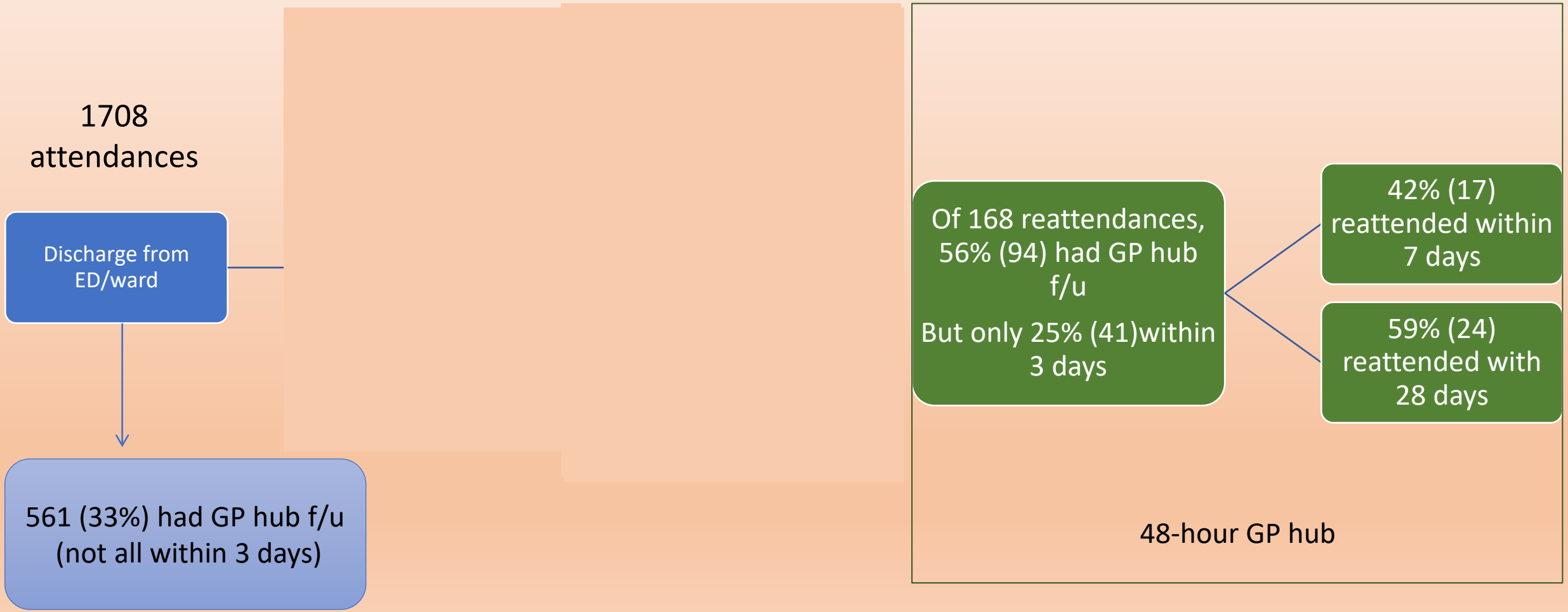
- Collaborative
- Telephone consult
- Proforma

Proforma


48hr Paediatric Wheeze Review - Template Runner
MOUSE, Micky (Mr)
Born 18-Dec-1977 (45y) Gender Male
NHS No. Unknown
Template Runner
48 Hour Paediatric Wheeze/Asthma Review
48 Hour Paediatric Wheeze/Asthma Review Template
Created June 2021: Dr Sheraz Younas. Not a CEG report.
This template is to be used for those children who have been managed in hospital for an acute episdoe of wheeze or asthma and have been discharged from the ward or ED with an inhaler weaning plan.
Hovering over an entry will give you supplemental information. Some questions seem confusing because it is aligning to EMIS coded entries.
The normal post discharge Bart's Salbutamol Weaning Plan is:
Day 1 -- 10 puffs --- every 4 hours
Day 2 -- 10 puffs --- every 6 hours
Day 3 -- 10 puffs --- every 8 hours
Day 4 -- 10 puffs --- twice per day
Day 5 -- Stop if no wheeze or give when needed
Control features
Managed in Emergency Department for asthma/wheeze
Follow Up
03-Mar-2023
No previous entry
Managed in ward for asthma/wheeze
03-Mar-2023
No previous entry
Discharged from hospital
Follow Up
03-Mar-2023
No previous entry
Number of Emergency/ward attendances over the past one year:
Asthma diagnosis? (usually under 5yrs old do not have a diagnosis)
No previous entry
Patient has a written asthma personal action plan
No previous entry
Number of oral steroid courses in past one year (not Dex stats):
Oral steroid courses last used. (more than 2 courses steroids requires referral to asthma CNS)
No previous entry
Inhaled steroids use (check compliance)
No previous entry
Spacer device in use
No previous entry
Yellow spacer - 1-5yrs
Green spacer - 5-12yrs
Blue spacer - >12yrs
Inhaler technique checked
No previous entry
Good videos to share with parents regarding Inhaler technique:
https://www.asthma.org.uk/advice/inhaler-videos/
Before exacerbnation, how many times are bronchodilators used per week
/week
No previous entry
If using >3 times a week, it implies poor control of symptoms and may need consideration of a preventer inhaler
Cancel


48hr Paediatric Wheeze Review - Template Runner
MOUSE, Micky (Mr)
Born 18-Dec-1977 (45y) Gender Male
NHS No. Unknown
Template Runner
Yellow spacer - 1-5yrs
Green spacer - 5-12yrs
Blue spacer - >12yrs
Inhaler technique checked
No previous entry
Good videos to share with parents regarding Inhaler technique:
https://www.asthma.org.uk/advice/inhaler-videos/
Before exacerbnation, how many times are bronchodilators used per week
/week
No previous entry
If using >3 times a week, it implies poor control of symptoms and may need consideration of a preventer inhaler
Asthma annual review
Follow Up
03-Mar-2023
No previous entry
Traffic Light Triage
Breathing Symptoms score
No previous entry
Send to ED if: Respiratory distress / Tachypnoea / Unable to speak in one breath
Complete F2F if: Wheeze or persistent cough
Progression
08-Apr-2021 Patient's con...
If worsening - direct to ED
Salbutamol use
Traffic Light Total score:
Text
Outcome
Outcome: Passed to community paediatric asthma nurse for review
Consent given by person with parental responsibility for referral
No previous entry
Outcome: Emergency attendance to Emergency Department
Outcome: Passed to GP for routine/annual review
If child becomes unwell and no longer responds to salbutamol, call 999
During telephone contact if in doubt, book a review with the GP (eg if language barrier or uncertain of level of understanding)
Child safeguarding concern? Please Refer to Safeguarding Team
No previous entry
No safeguarding issues identified
No previous entry
If parents have concerns or questions regarding asthma treatment and child not acutely unwell, refer to asthma plan. Contact practice nurse
Cancel

2. Reattendance to ED: Oct 2021-Oct 2022



2. Asthma CNS referrals

- No referrals received from GP-hub
- 14 met criteria but not referred
- 11 received from ED
- Others referred from ward/asthma cons
- Not in borough

Themes/Learning

- Why are 100% not referred to 48 hour-GP hub?
  - ED process
  - GP hub availability

- Why are patients reattending ED after GP-hub review (within 7 or 28 days)
  - Poor compliance already under specialists
  - Need more appropriate asthma CNS referrals

NHS North East London

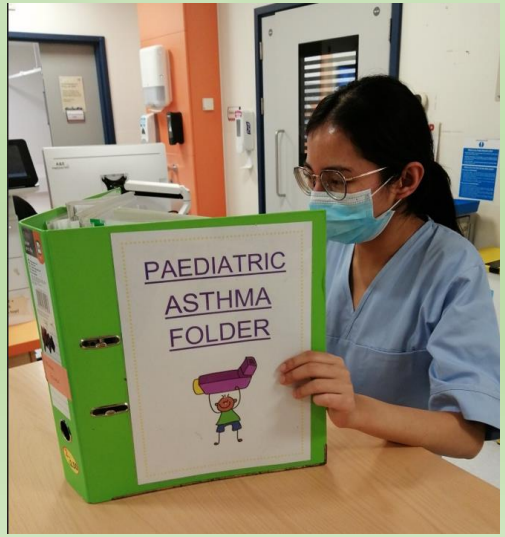
NHS Barts Health NHS Trust

Phase 2

- Business case for Band 3 in GP hub
  - Data
  - Refer any missed patients for GP hub
  - Refer to asthma CNS (all boroughs)
- ED: Continued training and awareness of asthma discharge

  ED Operational aspects

  Escalate frequent attenders
- GP Hub: Quality Assure (Tier 2 and 3 training)
  - Quality assure consultations
  - How to connect to existing community input
  - Role of F2F vs telephone consultation
  - Ask GPs how they want education (video vs F2F)
- Reaudit and compare reattendance data



Questions?