

The NHS logo, consisting of the letters 'NHS' in white on a blue rectangular background.

England

London

#AskAboutAsthma nursing webinar

NHS England – London

Babies, Children and Young People's Programme

Housekeeping



Attendees should stay 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.



Please share what you learn on social media using the hashtag #AskAboutAsthma

Agenda

#AskAboutAsthma nursing webinar

Wednesday 11 September 2024 13:00 – 14:00pm

[Click here to join webinar](#)

Topic	Speaker
	Chair: Alison Summerfield Nurse Consultant - Paediatric Respiratory & Allergy The Hillingdon Hospitals NHS Foundation Trust
Dysfunctional breathing in paediatric asthma	Madeline Jeffries Highly Specialist Paediatric Respiratory Physiotherapist, Difficult Asthma, The Royal Brompton Hospital
SUOS: Safe use of salbutamol in North East London	Laura King Senior Children & Young People's Asthma Practitioner for North-East London, NHS North East London / Young Barts Health
Diagnostic pathways for children and young people's asthma	Carol Stonham Respiratory Nurse Advisor and CYP Asthma Lead, Gloucestershire Integrated Care Board
Q & A	All

Dysfunctional Breathing in Paediatric Asthma

Madeline Jeffries

Highly Specialist Paediatric Respiratory
Physiotherapist, Difficult Asthma, The Royal
Brompton Hospital



#AskAboutAsthma 2024



Learning Objectives

01

Dysfunctional Breathing

What is DB, in CYP with Asthma

03

How to Recognise Clinical history and assessment of DB in CYP with Asthma

02

The Evidence

Physiotherapy for CYP with DB and Asthma

04

What you can do
Everyday management of DB and Asthma



Terminology

CYP

Children and
Young People

DB

Dysfunctional
Breathing

EID

Exercise-
induced
Dyspnoea

EIB

Exercise-
induced
Bronchoconstric-
tion

EILO

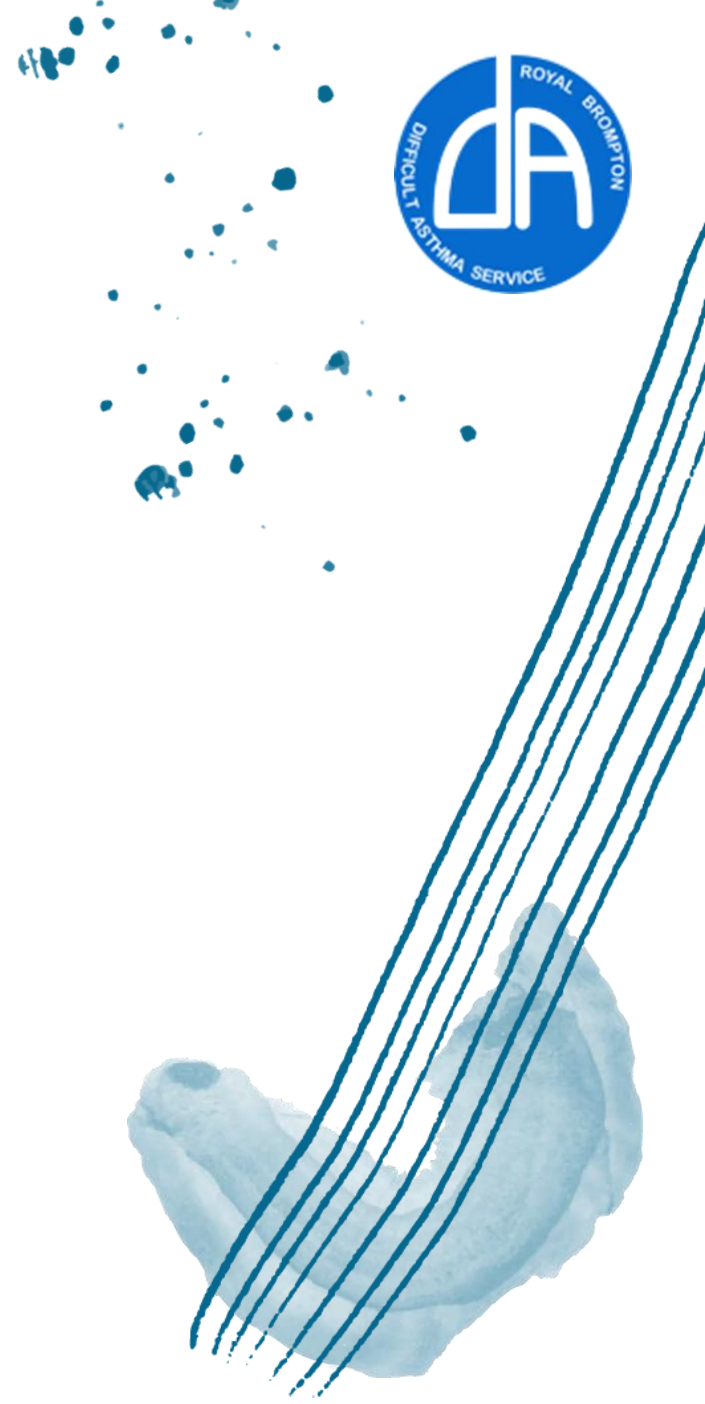
Exercise-
induced
Laryngeal
Dysfunction



01

Dysfunctional Breathing

What is DB, in CYP with Asthma



DB and Asthma

DB is highlighted as clinically relevant co-morbidity in paediatric asthma.

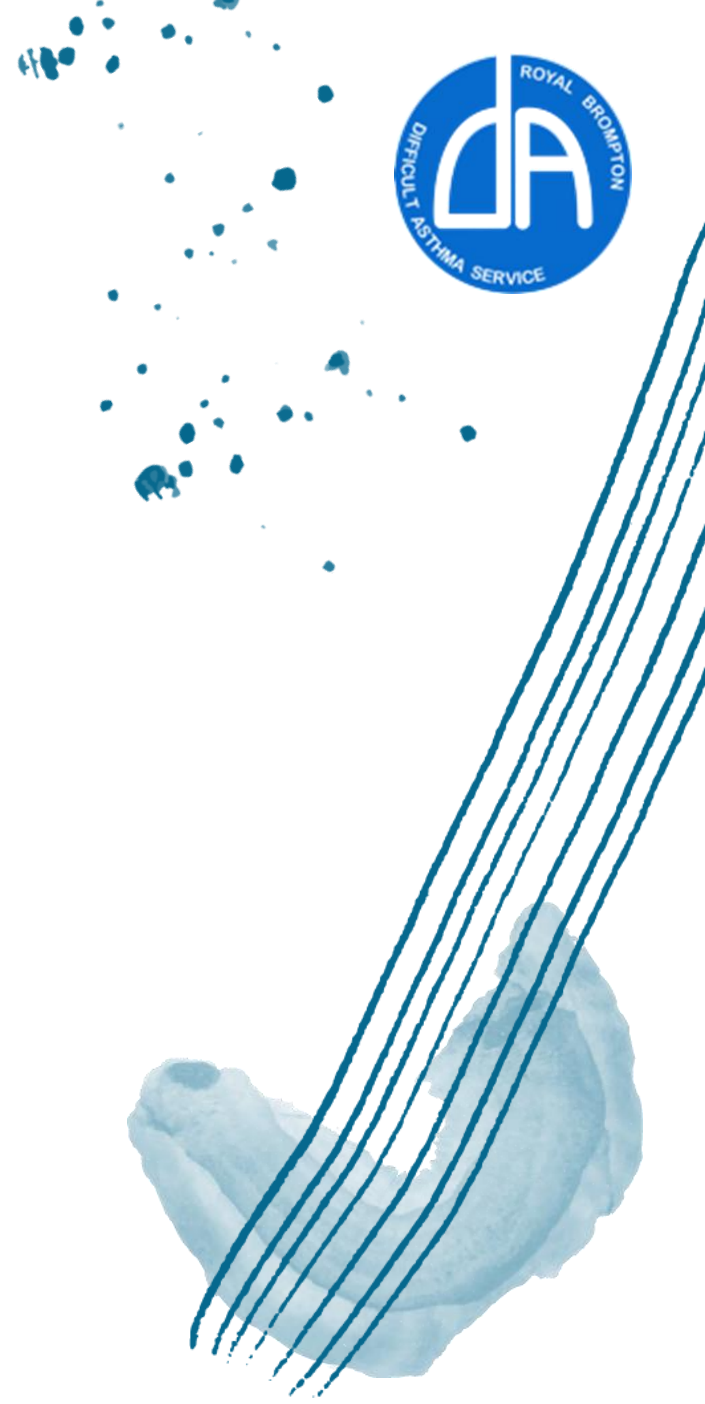




02

The Evidence

Physiotherapy for
CYP with DB and
Asthma





Asthma Guidelines



GLOBAL
INITIATIVE
FOR ASTHMA

NICE National Institute for
Health and Care Excellence



British
Thoracic
Society


*'The British Thoracic Society and Scottish
Intercollegiate Guideline Network (BTS/SIGN, 2016),
Global Initiative for Asthma (GINA, 2018) and
National Institute for Clinical Excellence (NICE,
2018) asthma guidelines, all recommend
physiotherapy for children with asthma, particularly
for DB.'*

(Kid's Cornerstone
Collaborative, Wells et al,



Physiotherapy Services: CYP with Asthma and DB

The impact of a dedicated physiotherapist clinic for children with dysfunctional breathing


Nicola J. Barker ¹, Heather Elphick¹ and Mark L. Everard²

Lennon, Marley and the paediatric asthma physiotherapist: all things we lost in the 1980s


Charlotte Wells
Claire Hepworth
Nicki Barker

ORIGINAL ARTICLE: ASTHMA

Assessing the impact of breathing retraining on asthma symptoms and dysfunctional breathing in children

Claire Hepworth BSc (Hons)¹  | Ian Sinha PhD² | Gemma L. Saint PhD³ | Daniel B. Hawcutt MD⁴

Severe asthma in children

ANDREW BUSH,  LOUISE FLEMING AND SEJAL SAGLANI

Paediatric Respiratory Medicine, National Heart and Lung Institute, Imperial College and Royal Brompton Harefield NHS Foundation Trust, London, UK

03 How to recognise DB

Clinical history and assessment of
DB in CYP with Asthma

- DB can be observed as upper chest breathing, irregularity of respiratory pattern, excessive sighing, mouth breathing and higher respiratory rates.
- Can mimic or amplify asthma symptoms, frequently evident as EID and chest tightness.
- Importance of careful history taking and assessment to differentiate between DB, (Hepworth et al, 2019)
altered perception of (Wells et al, 2019)

Key features

- Accurate asthma history and recognition of the signs and symptoms of asthma.
 - Consider the differential diagnosis, including red flags.
- Symptoms before, during or after exercise.
- Difficulty with ‘in’ breath or other inspiratory symptoms.
- Difficulty ‘catching breath’.
- **Variable or no response to inhalers ($\beta 2$ Agonists).** (Hull et al, 2022)
(Wells et al, 2023)
(CYP Asthma Training for Tier 3 Providers, 2024)



Viral induced wheeze +

Recurrent upper respiratory tract infections +

ILO / Breathing pattern disorder +



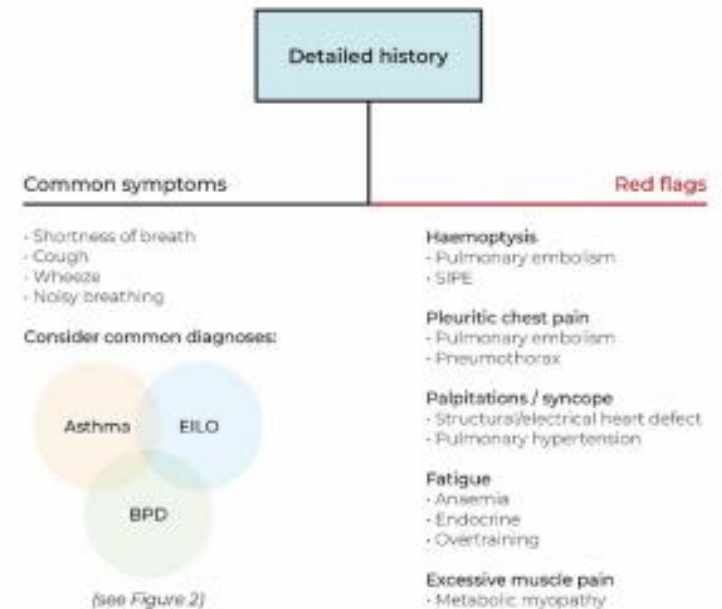
+ Anxiety

+ Cystic Fibrosis

+ Infection

+ Gastroesophageal reflux

Exercise-associated respiratory symptoms in athletes

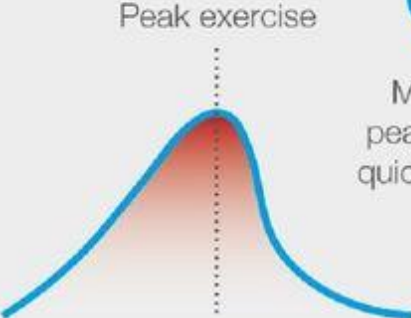

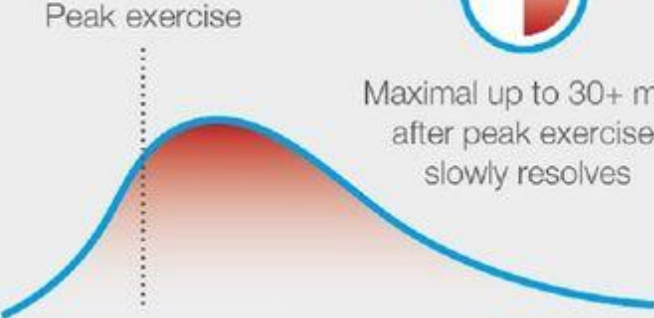

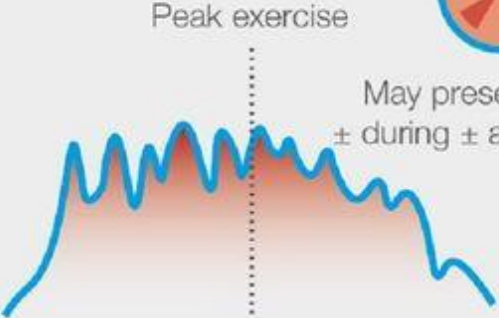






(Hull et al, 2022)

(CYP Asthma Training for Tier 3 Providers, 2024)

	EILO	EIB	BPD
Common Symptoms	Inspiratory breathing difficulties Coarse or high-pitch breath sounds Stridor Hyperpnoea Panic reactions Increased ventilatory requirement throughout exercise [14]	Polyphonic wheeze Lengthened exhalation New cough Chest tightness Chest pain	Extreme breathless Unsatisfied breath in or difficulty catching or controlling their breath Chest pain Symptoms of hyperventilation can include dizziness, palpitations, pins and needles/ tingling in hands, feet and face
Initiation of symptoms	Symptoms present with maximal or high intensity exercise	Symptoms start after peak exercise, or at the end of an exercise session	Symptoms may present before, during or after exercise
Duration of symptoms	Symptoms regress within a few minutes of stopping exercising	Symptoms can last up to 30 min to an hour after stopping exercising	Symptoms can ease gradually as exercise reduces in intensity
Treatment response	Symptoms do not respond to β -agonists	Symptoms improve with inhaled β -agonists [15]	Symptoms do not respond to β -agonists
Area of symptoms	Symptoms are predominantly in the throat or upper airways causing stridor and difficulty breathing in	Central chest or sternal area	Symptoms are diffuse in upper chest

Exercise Induced laryngeal Obstruction (EILO), Exercise Induced Bronchoconstriction (EIB), Breathing Pattern Disorder (BPD).

	EILO	EIB	BPD
Symptom intensity	 <p>Peak exercise</p>  <p>Maximal at peak exercise, quickly resolves</p> <p>Breathlessness and wheeze</p>	 <p>Peak exercise</p>  <p>Maximal up to 30+ min after peak exercise, slowly resolves</p> <p>Breathlessness and wheeze</p>	 <p>Peak exercise</p>  <p>May present before ± during ± after exercise</p> <p>Breathlessness</p>
Localisation and symptom quality	 <ul style="list-style-type: none"> • High-pitch or wheezing sound on inspiration • Throat tightness • Cough during or after exercise • Inhalers (β_2 agonists) do not work 	 <ul style="list-style-type: none"> • Inspiratory and expiratory symptoms • Chest tightness • Cough following exercise cessation • Inhalers (β_2 agonists) attenuate symptoms 	 <ul style="list-style-type: none"> • Inspiratory symptoms • Difficulty 'catching breath' • May have hyperventilation symptoms: dizziness, pins and needles, palpitations • Inhalers (β_2 agonists) do not work

(Hull et al, 2022)

Observing your breathing pattern: Practical

[Breathing
checklist
\(youtube.com\)](#)



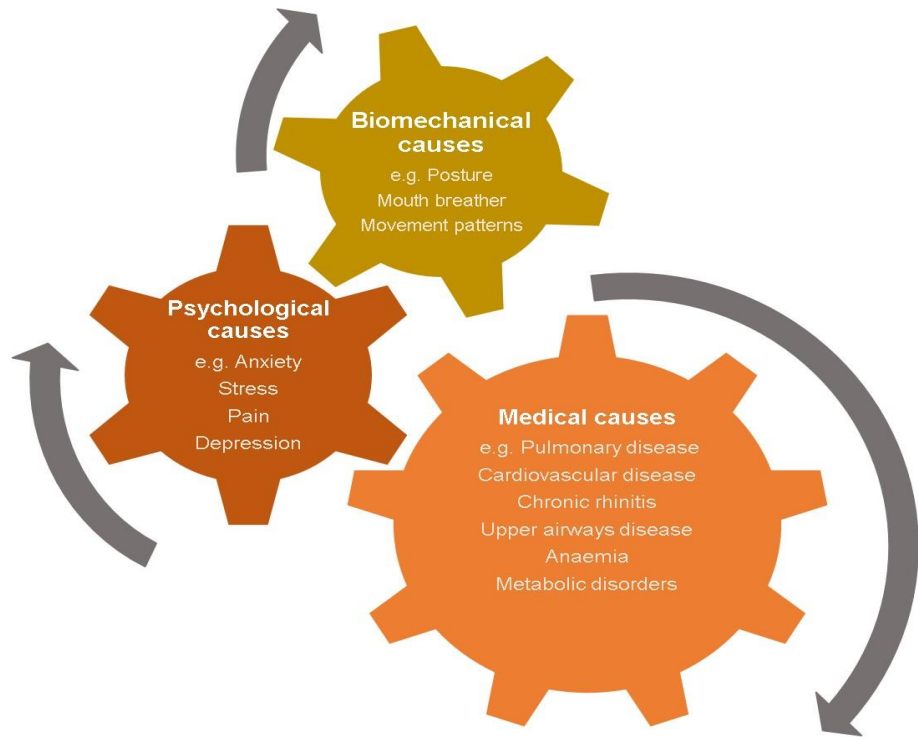
Observing your breathing pattern

Changed breathing pattern	Good breathing pattern
Breathing through your mouth (or combination of nose and mouth)	Nose breathing
Regular sighing, yawning or deeper breaths	Regular gentle rhythm to breathing
Breathing to the top of your chest	Breathing to the bottom of your chest
You can hear the breath in or out - faster noisy breathing	Slow silent breathing
Breath IN is longer than breath OUT	Breath OUT is longer than breath IN
Judders in breathing or breath holding	Flowing breath where one breath is similar to the next
Tummy muscles tight	Tummy muscles relaxed

04 What you can do

Everyday management of DB and Asthma

CYP with DB and Asthma



- Don't forget the basics! – optimise Asthma management.
 - Pharmacological therapy, adherence, inhaler technique, comorbidities, red flags, PAAP and education.
 - Importance of the asthma review, especially after an attack.
 - As per asthma guidelines.
 - National bundle of care for children and young people with asthma.



[How to Make a Lung Model With Kids - YouTube](#)



Education

The basics of breathing.

Sinus symptoms

Optimise sinus management, role of nose breathing and implications for the breathing pattern.

Self-Management

Symptom differentiation, self-management and support with adherence

Physiotherapy in the management of children with asthma and altered breathing patterns - resources

We have created some learning resources, including a series of videos featuring exercises and interactive demonstrations, that you can use with your child to help them learn about breathing patterns and breath training, techniques to help control asthma symptoms, and how exercise and physical activity can boost lung health and overall wellbeing.

Click on each heading below to see supportive information, handouts and videos.



The Basics of Breathing Control



Your good breathing checklist

Am I...?

- Sitting, standing or exercising with good posture?**
Check your back is straight, shoulders relaxed and down and chin is in.
- Breathing through my nose or mouth?**
Try to close your mouth and breathe through your nose.
You may need to use your nose sprays, blow your nose or use nasal rinsing to help keep your nose clear.
- Breathing quietly?**
Breathe slowly to make the breath quieter.
- Breathing down to the bottom of my lungs?**
Aim to get the breath down to your 'gills'. The top of your chest should be still.
- Breathing in and out like waves on a beach?**
First let all the air go from your chest, like letting go of a blown-up balloon. Then try and find a steady, gentle rhythm so your breaths flow in and out. Try and make your breath out a bit longer than your breath in.

Try all of these for 2 minutes to help settle your breathing

beam

Working in partnership with Royal Brompton Difficult Asthma Service

beamfeelgood.com

1. Posture
2. Nasal breathing
3. Quiet breathing
4. Diaphragmatic breathing
5. Rhythmical breathing

How to help a child when they have asthma or asthma-like symptoms.



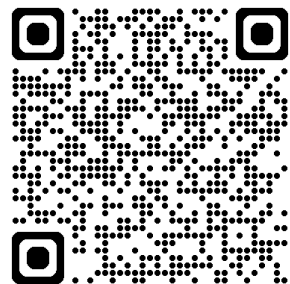
If symptoms escalate quickly or are severe, start at the bottom with the asthma action plan, and work in reverse, seeking further help if symptoms continue to persist.



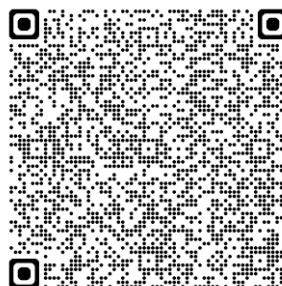
Personalised Action Asthma Action Plan (PAAP)



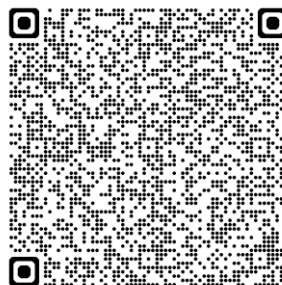
Resources



[Physiotherapy for breathing pattern disorders resources for physiotherapists \(physiotherapyforbpd.org.uk\)](https://physiotherapyforbpd.org.uk)



[Physiotherapy in the management of children with asthma and altered breathing patterns - resources | Royal Brompton & Harefield hospitals \(rbht.nhs.uk\)](https://rbht.nhs.uk)



[Asthma and difficulty breathing: resources for teenagers and young adults | Royal Brompton & Harefield hospitals \(rbht.nhs.uk\)](https://rbht.nhs.uk)





Thank you

m.jeffries2@nhs.net

#AskAboutAsthma 2024



Safe Use of Salbutamol in North East London

Laura King

Clinical Nurse Specialist CYP Asthma

Senior CYP Asthma Practitioner for NE London



North East London

Acute Asthma - burden on the UK

- One of the most common acute presentations in children and young people.
- >25,000 admissions to hospital each year
- Highest death rate from asthma in Europe.
- The National review of asthma deaths [NRAD] found that 46% of healthcare professionals involved in caring for patients who died from asthma **did not follow guidelines correctly.**

Bush, A (2017), NRAD (2014), RCP (2014)



Why do children / YP have attacks?

- Poor adherence to preventer medication
- Poor understanding of, or avoidance of, trigger factors
- Inability to recognise worsening symptoms
- Acute illness
- Increased airway inflammation for reasons other than asthma
- Stress/anxiety/psychological reasons

BTS/SIGN (2019)

Risk profiling in children's asthma

- Historically poorly controlled
- History of severe exacerbation
- Concurrent atopy (especially food allergies)
- Psychological issues
- **Poor parental understanding**
- Social deprivation

BTS/SIGN (2019)

When it goes wrong...

- Poor understanding of asthma
- Not considering acute attacks a failure – but also in context
- No review, no PAAP
- Poor adherence and poor inhaler technique
- Poor immediate response or poor understanding of what is an emergency

The medical management of this child's asthma attacks on the innumerable occasions she presented to her general practice and hospital was centred solely on treating the immediate presentation as an isolated acute event seeking its stabilisation and returning to the care of her family.	✗	✗	✗	✗	✗
No coordinated record of attendances	✗	✗	✗	✗	✗
No analysis of the frequency or circumstances of the asthma attacks	✗	✗	✗	✗	✗
No analysis of the underlying chronic asthma condition	✗	✗	✗	✗	✗
No appreciation of the risk factors for future attacks and death due to asthma in the child	✗	✗	✗	✗	✗
No long-term management plan for the care of this child despite innumerable attendances for attacks and failure of the parents to bring the child on occasions for routine hospital and practice appointments.	✗	✗	✗	✗	✗
No evidence of provision of a written personal acute asthma self-management plan recommended in the UK BTS/SIGN	✗	✗	✗	✗	✗

Where are we?

7 distinct boroughs
6 hospitals (1 tertiary centre)
3 acute Trusts

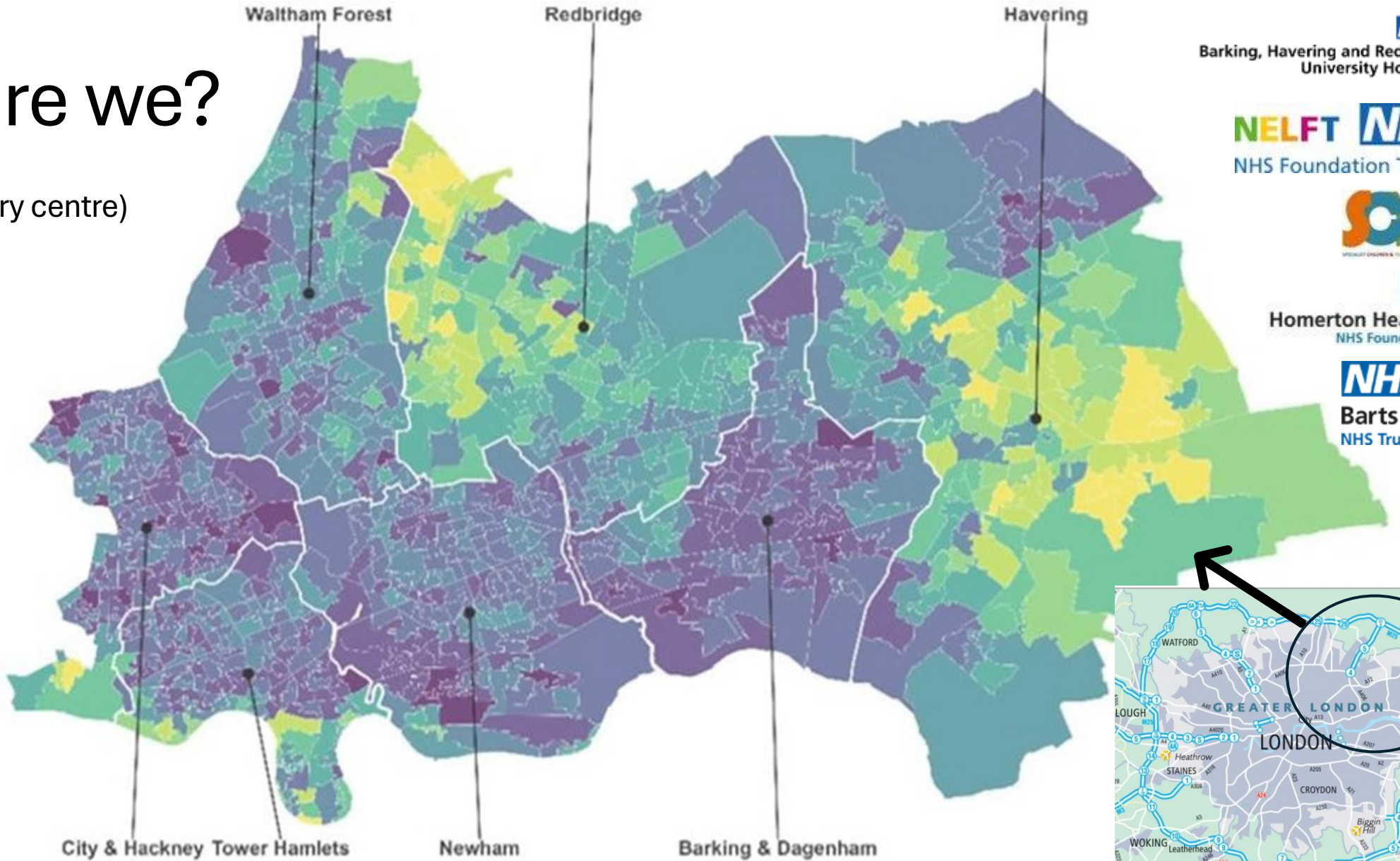
49 PCNs
283 Practices

Richly diverse
High deprivation
Poor health literacy
Poor air quality

Deprivation deciles across NEL

Most deprived

Least deprived



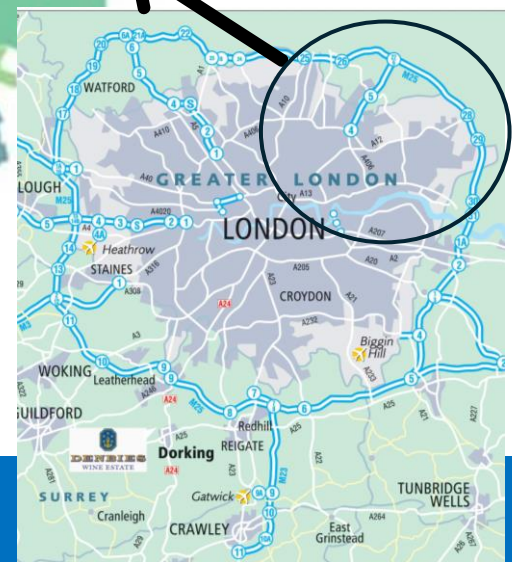
NHS
Barking, Havering and Redbridge
University Hospitals
NHS Trust

NELFT NHS
NHS Foundation Trust

SOAPS
Specialist Outpatient & Triage Service

NHS
Homerton Healthcare
NHS Foundation Trust

NHS
Barts Health
NHS Trust

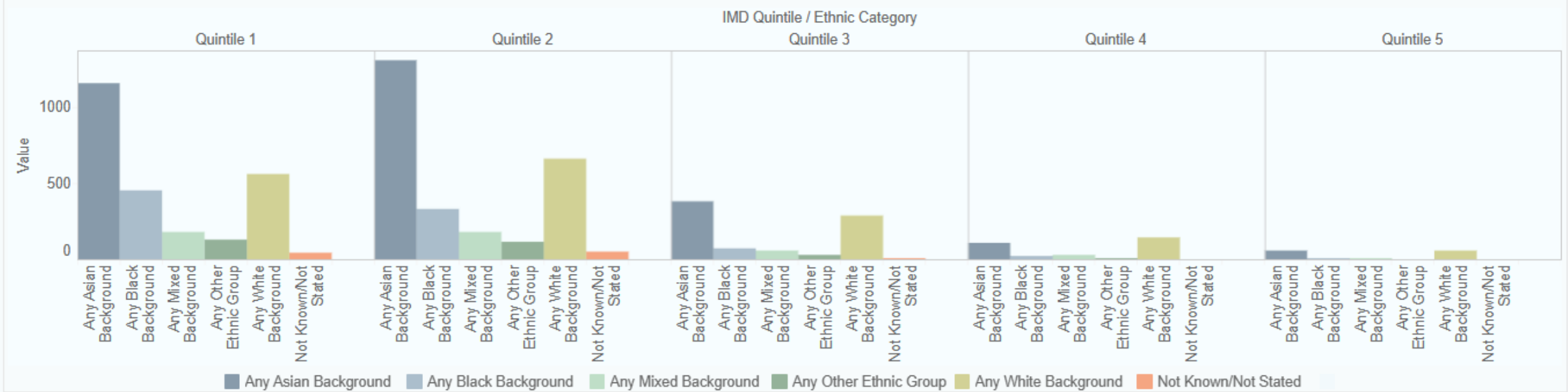


ED attendances - Asthma

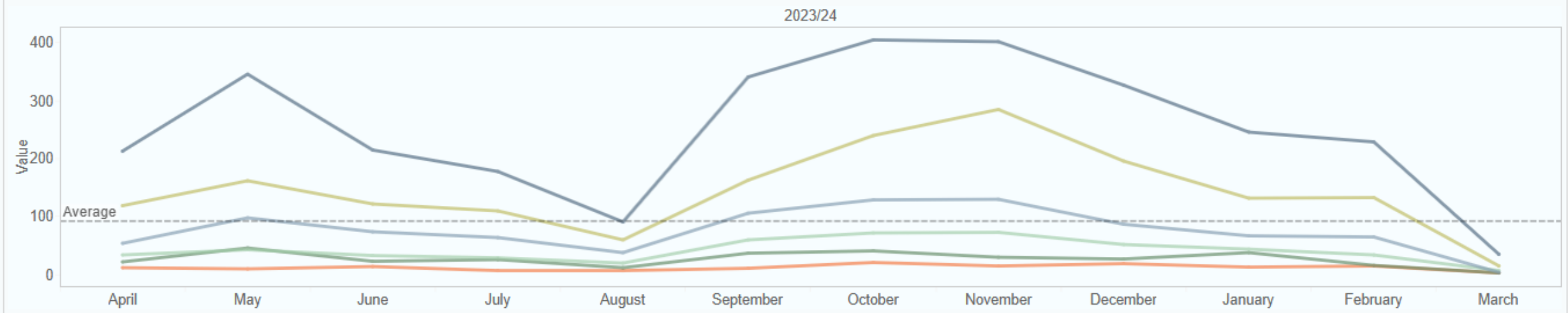
NHS NORTH EAST LONDON INTEGRATED CARE BOARD: 897.5 per 100k (FY 2023/24)

Age group: All, Broad ethnic group: All, IMD quintile: All

Compare population groups ?



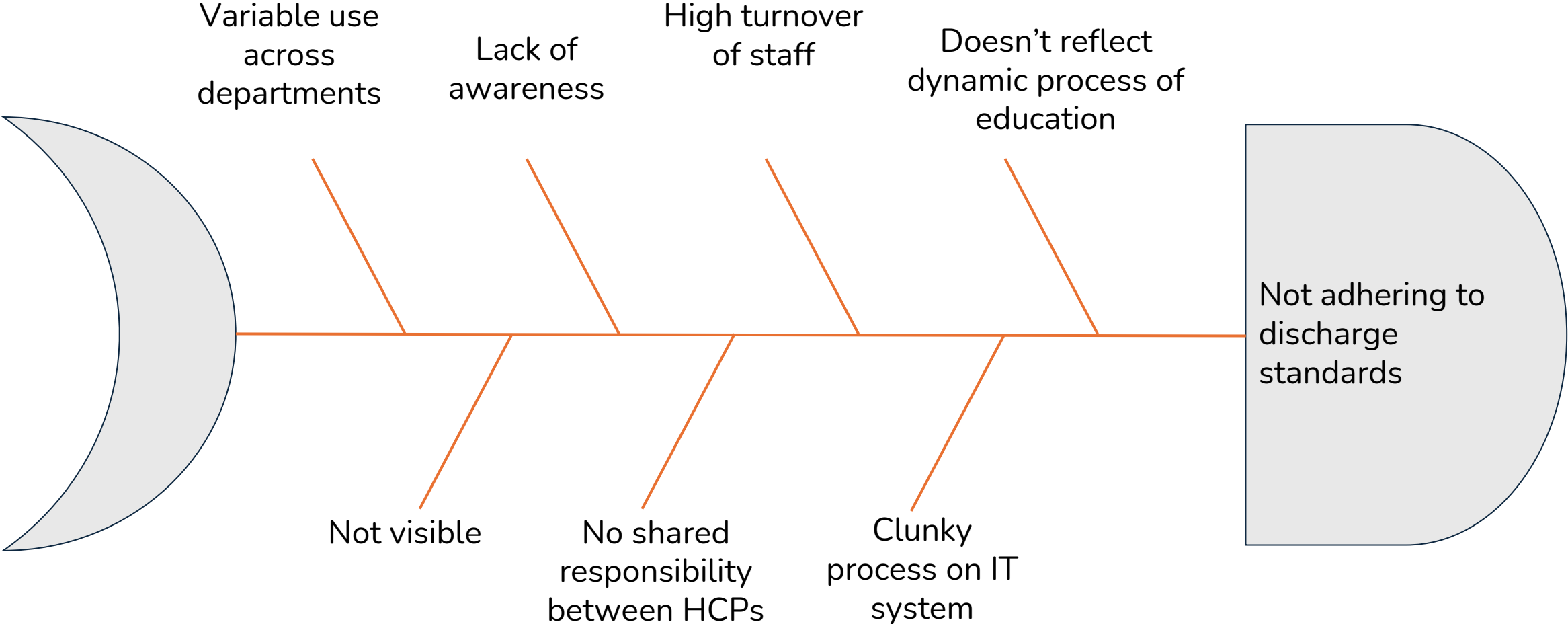
Time series ?



The Problem – Variable discharge processes

- We are a highly populated network with high deprivation and variable health literacy.
- CYP and families often cross boundaries between home, school, GP and hospital
- Some families could attend 2 or 3 different acute hospitals based on their location at the time of an incident
- Advice given was largely correct but variations in direction, information and process caused confusion.
- Unsafe, non-evidence based salbutamol weaning regimes in use, sometimes with wildly variable regimes offered in the same Trust or even department
- If we aren't consistent, it is difficult to make positive change or to foster trust with our families

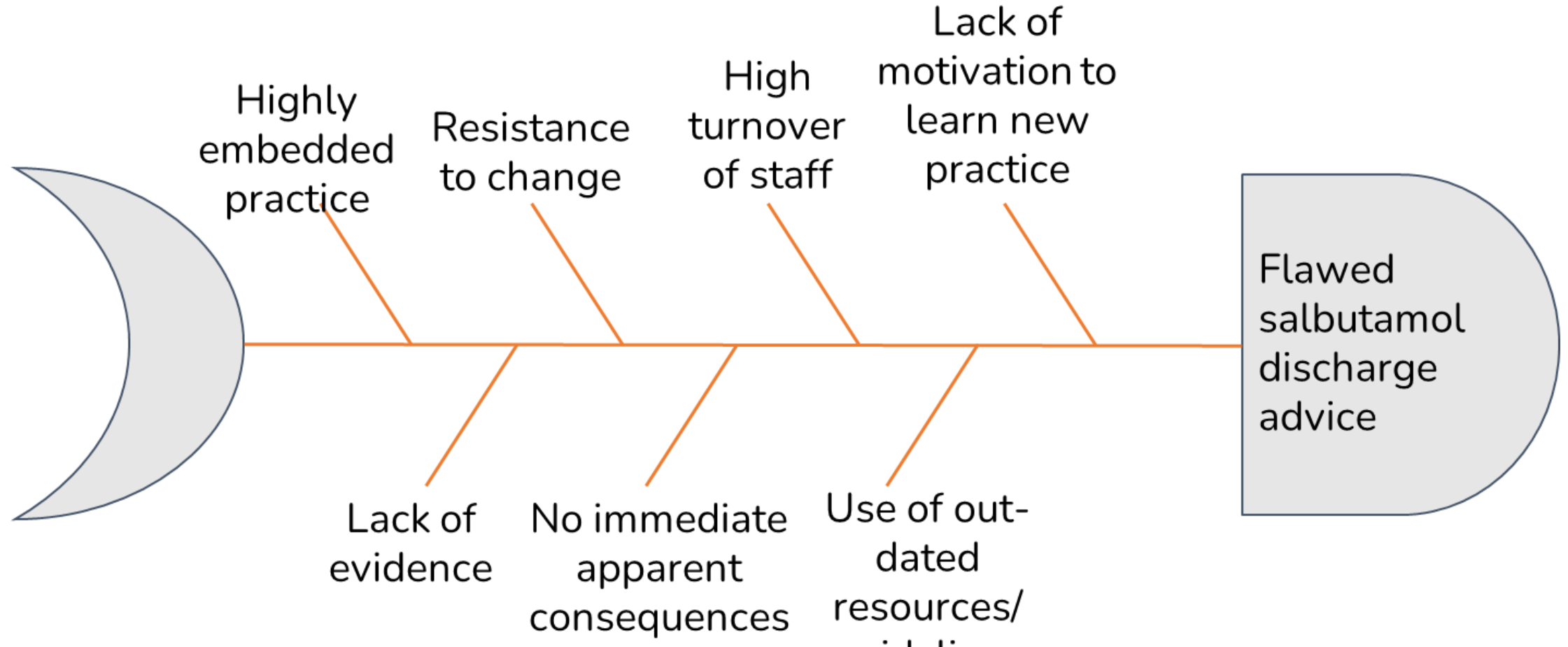
Root Cause Analysis: safe discharge standards



The Problem - Salbutamol Weaning Regimes

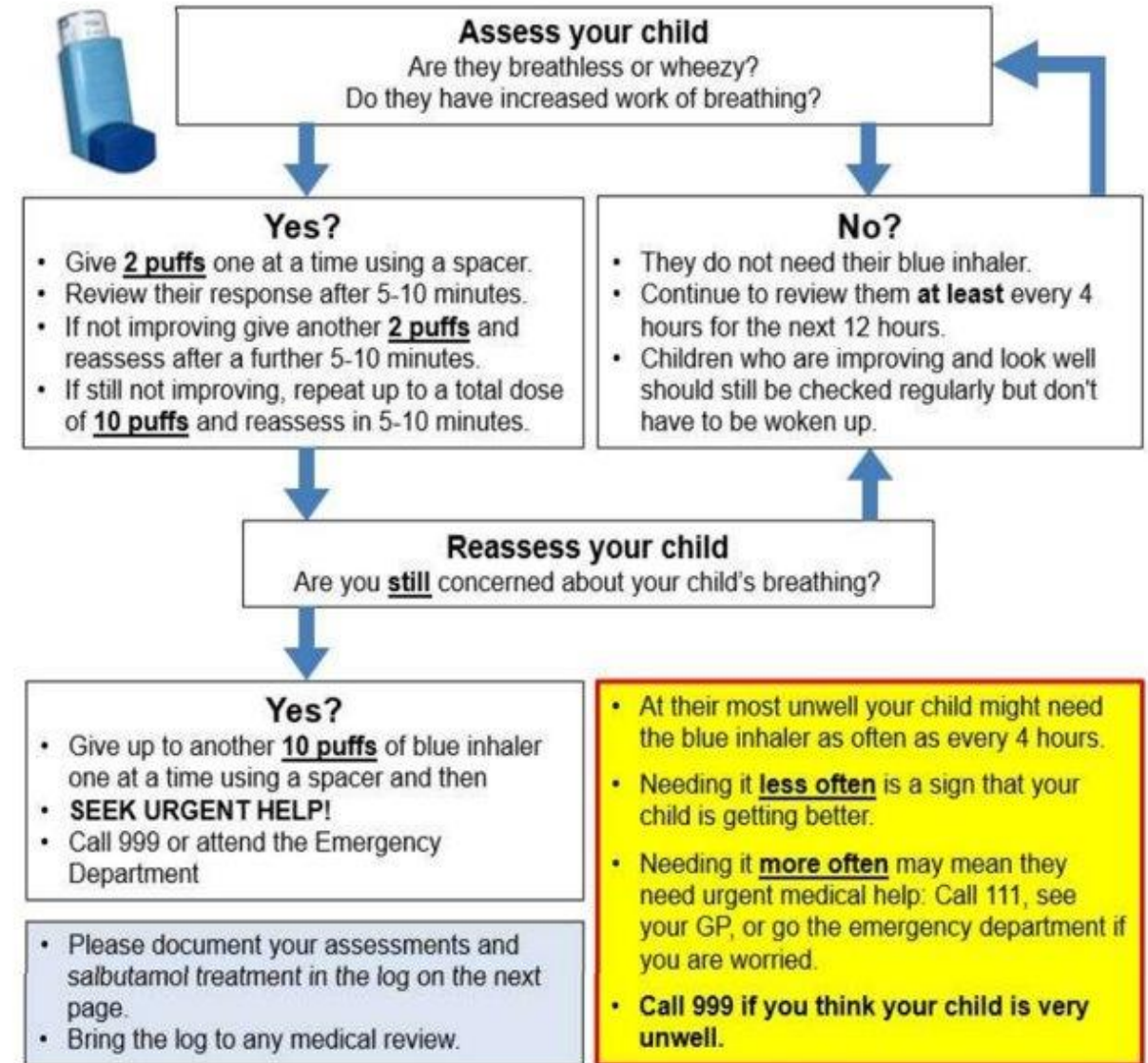
- No evidence base
- Encourages use of large amounts of salbutamol
 - side-effects of overuse beta-2 agonists (short term and long term)
- Narrative in conflict with the expectation that a child / family uses their personalised asthma action plan in all situations
- Colleagues (local and national) noting that many families were defaulting to 10 puffs regardless of symptom severity & weaning themselves
- We don't know what families actually do !

Root Cause Analysis: flawed SABA advice



The Plan:

- **Scrap Salbutamol weaning** & embed safe use of salbutamol in acute discharge process
- Pan-NEL patient resource with all the **Brilliant Basics**
- Pilot an electronic discharge checklist
- Scope the post-attack review processes across the patch with varying pathways & resource



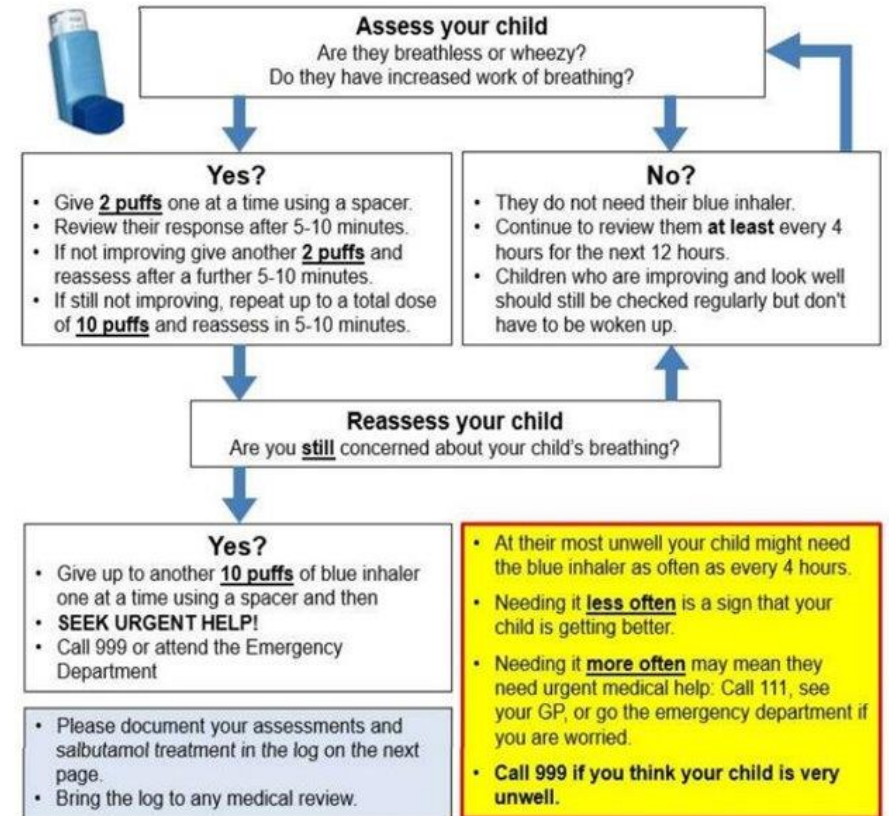
Salbutamol weaning scrap

- Discussions started in 2020/21 with other changes following a regulation 28 notice
- Main query – “what do we say instead?”
 - Tool derived from the successful University Hospital Southampton resource
- First launched at RLH in September 2022 for AskAboutAsthma week, with draft booklet

Rolled out for AskAboutAsthma week one year ago across whole network:

Newham Hospital
Whipps Cross Hospital
Homerton Hospital
Queens Hospital
King George Hospital

+ UTCs, primary care, community teams



Hospital discharge using salbutamol as required after acute attacks of wheeze in children: a service evaluation

Gary Connett ,¹ Stephanie Harper,¹ Bhargav Raut,² David James²

Original research

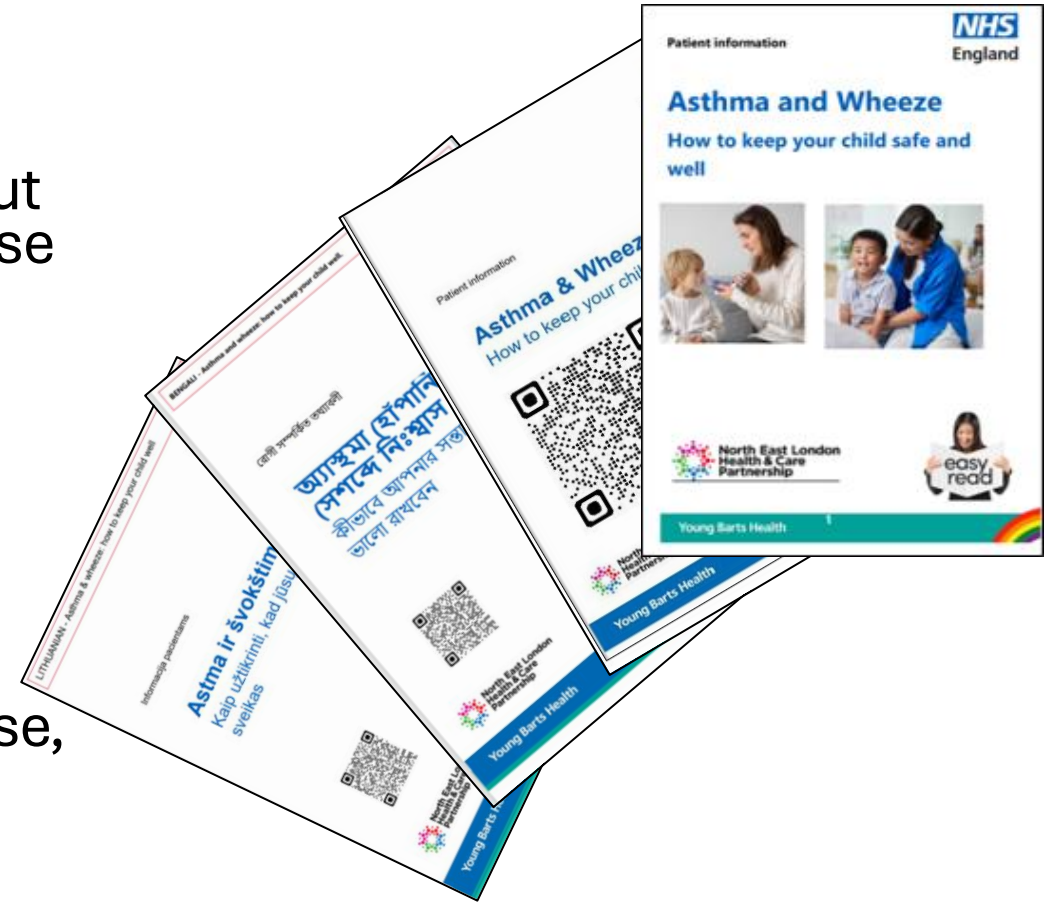
Pan network information booklet

- First launched at RLH in September 2022, rolled out in current form in September 2023 with the Safe Use of Salbutamol work
- First cycle of evaluation on this document/workstream wrapped up early 2024

Booklet has been amended following feedback and now been translated into 14 languages:

Bangla, Hindi, Urdu, Punjabi, Tamil, Arabic, Portuguese, Turkish, Polish, Lithuanian, Romanian, Twi, Yoruba & Yiddish

Easi-read in progress



[Asthma & Wheeze NEL Booklet – ALL languages – North East London \(icb.nhs.uk\)](https://icb.nhs.uk)



Engagement & Dissemination

Met with stakeholders from each acute Trust – child health and ED/PAU, to disseminate the context and help secure buy-in and gather support for a difficult change

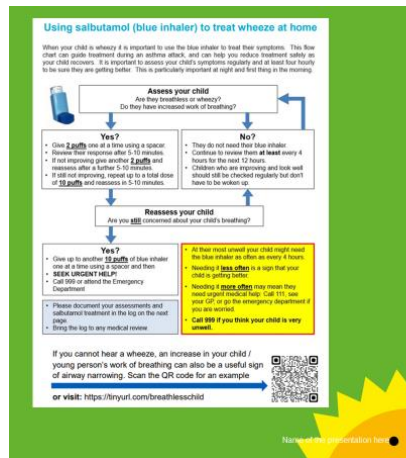
Disseminated a brief recorded video prior to the change date

- Explaining the context
- Providing an update on resources
- Sharing the poster and booklet

Targeted teaching around #AskAboutAsthma week –

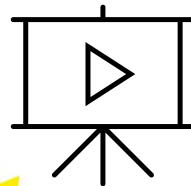
“10 at 10” and trolley dash teaching, largely by CNS teams

Involved stakeholders from each acute Trust to ensure smooth rollout



• The really important change...

• We are no longer advising salbutamol weaning regimes.



DISCHARGING A CHILD WITH ASTHMA / WHEEZE?

THEY NEED AIR

A

ASTHMA PLAN [PAAP]

This tells us what to do to keep well with asthma/wheeze every day, when things are tricky and in an attack.

I

INHALER TECHNIQUE

Check they can use their devices, whether that is an inhaler & spacer or something else like a turbohaler or peak flow meter.

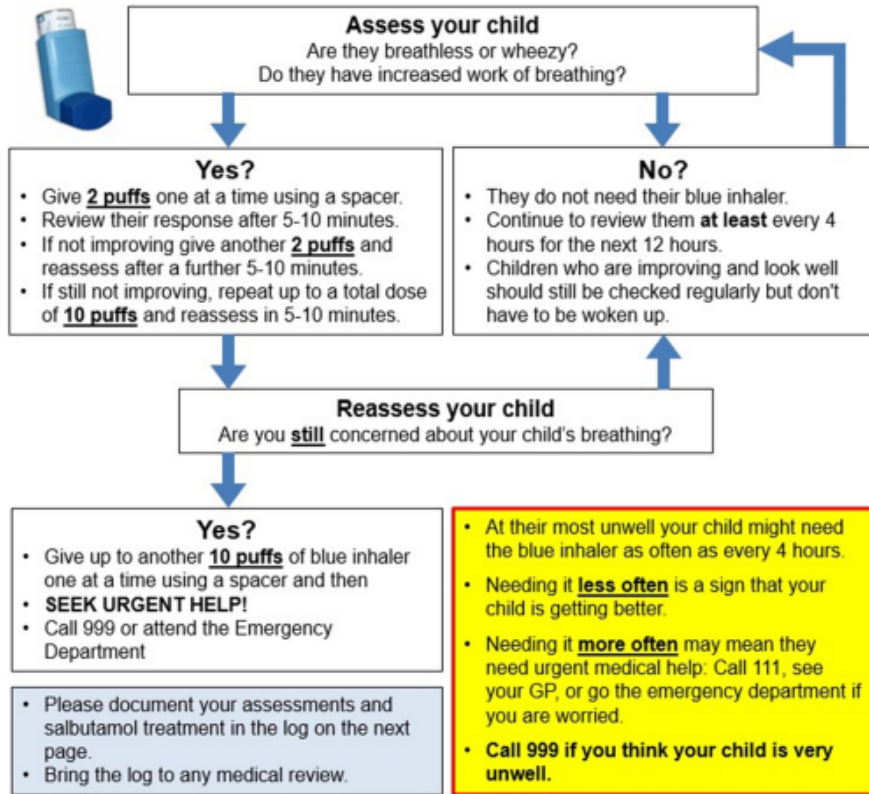
R

REVIEW

The post-attack review should happen within 2 working days of the attack.

Using salbutamol (blue inhaler) to treat wheeze at home

When your child is wheezy it is important to use the blue inhaler to treat their symptoms. This flow chart can guide treatment during an asthma attack, and can help you reduce treatment safely as your child recovers. It is important to assess your child's symptoms regularly and at least four hourly to be sure they are getting better. This is particularly important at night and first thing in the morning.

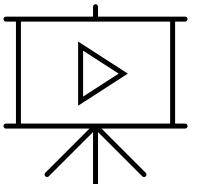


If you cannot hear a wheeze, an increase in your child / young person's work of breathing can also be a useful sign of airway narrowing. Scan the QR code for an example

or visit: <https://tinyurl.com/breathlesschild>



- The really important change...
- We are no longer advising salbutamol weaning regimes.



How to take an inhaler with a spacer



Scan these QR codes with a smartphone camera to see inhaler technique



with a mask and



mouthpiece spacer:



- 1 Shake the inhaler and remove cap.
- 2 Fit the inhaler into the opening at the end of the spacer.
- 3 Place the mask over the child's face or mouthpiece in their mouth, ensuring a good seal (most children aged over 3 years should be able to manage without a mask).
- 4 Press the inhaler once and allow the child to take 5 slow breaths
or
slowly count to 10 whilst they breathe through the spacer.
- 5 Remove the inhaler and shake it. Wait 1 minute before giving a second puff

Repeat steps 1 – 5 if more puffs are needed.

Plastic spacers should be washed before being used for the first time and then monthly according to manufacturer's guidelines.



If your inhaler doesn't look like this or work with a spacer, you should check with your doctor or nurse that it is OK for your child. www.asthma.org.uk have videos showing how to use your inhaler.

• Page 3 – 4

Videos: using a spacer in different languages

Scan this QR code with a smartphone to find guidance in your language. It will take you to the NEL Asthma YouTube channel. There are videos for checking your child's breathing, inhaler technique and advice. **We are adding voice-overs to the videos all the time, please look for your language.** <https://tinyurl.com/NELasthma>

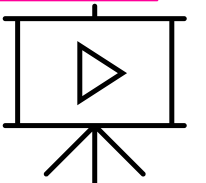


আপনার ভাষায় কিছু নির্দেশিকা খুঁজে পেতে একটি স্মার্টফোন দিয়ে কোড স্ক্যান করুন: এটি আপনাকে নর্থ ইস্ট লন্ডন অ্যাজমা নার্সেসের ইউটিউব চ্যানেলে নিয়ে যাবে। আপনার সন্তানের শ্বাস-প্রশ্বাস পরীক্ষা, ইনহেলার কৌশল এবং স্বাণ সম্পর্কে পরামর্শের জন্য ভিডিও রয়েছে।

Kendi dilinizde rehberlik bulmak için kodu bir akıllı telefonla tarayın: Sizi Kuzey Doğu Londra Astım Hemşireleri'nin YouTube kanalına götürecektir. Çocuğunuzun solunumunu, inhaler tekniğini kontrol etmek için videolar ve hırıltı hakkında tavsiyeler var.

ہی: نی کز نی اسکی چوٹی سے فون اسمارٹ ےیل کے کرنے حاصل یر بنمائی کچھ یم زبانی ی این یک بچے کے پانچ لے پز نیلی چ وہیوٹی کے نرسوں دمہ لندن سٹی یا نارٹھ کو آپ موجود وزیڈیو ےیل کڈ مشورہ یم بارے کے گھر گھراہٹ اور کی ٹکن لری انہ ےیل سائس ےیل۔

Nuskaitykite kodą išmaniuoju telefonu, kad rastumėte patarimų savo kalba: Jis nuves jus į North East London Asthma Nurses „YouTube“ kanalą. Yra vaizdo įrašų, kaip patikrinti jūsų vaiko kvėpavimą, inhaliatoriaus techniką ir patarimus dėl švokštimo.



What is wheeze?

Wheeze is a whistling sound caused by narrowing of the airways (breathing tubes). This can sometimes only be heard through a stethoscope. It has many causes including viral infections. If you cannot hear a wheeze, noticing that your child is working hard to breathe can be a useful sign of airway narrowing.



Well-controlled asthma

Having asthma or wheeze doesn't mean your breathing will always be a problem. If you use your medicines as prescribed you can breathe easily all the time.



Poorly-controlled asthma

When things are not under control, the breathing tubes become inflamed (red, sore, swollen and sensitive). They will also make more mucus and twitch more, meaning you might cough.



Asthma attack

This shows the airway of someone having an attack. The inside of the tube is so red, sore and swollen that air gets trapped, and can't get in and out easily. Air will squeeze through, making a wheezing (whistling) sound. There is much more mucus than before which adds to the feeling of chest tightness.

Do they understand that asthma is **inflammation**?

... (red, sore, twitchy, tight) ...

Do they understand the difference between inhalers, **how** and **why** they work?

Do they understand why they **must** give the preventer daily?

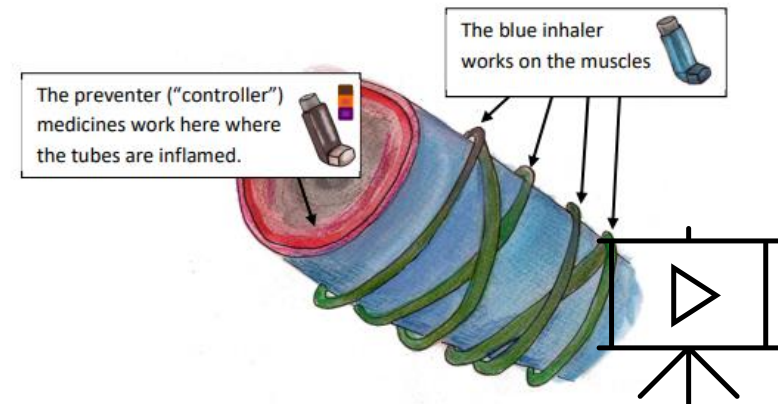
The Preventer or Controller Inhaler

This inhaler (usually brown, purple or orange) settles down the inflammation in the airways. It works slowly but this is the treatment that deals with the main problem. This is why we MUST give it, with a spacer, every day, **even when we are well**.

The Rescue or Reliever Inhaler

This inhaler is **usually blue**. It works on the muscles wrapped around the breathing tubes. These are like elastic bands; they are usually relaxed, but during an attack they can tighten and squeeze the airways, making it hard to breathe. The air squeezing through makes a whistling noise called a wheeze. Wheeze is a sound that comes from the lower airways, when we breathe out through narrowed airways.

The inhaler tells the muscles to relax, which opens the tubes and allows air to move through normally. This inhaler works fast when it is needed, but **doesn't help prevent attacks like the controller does**.



Key resources

We are using the A+L UK PAAP, along with the Barts Health / NEL patient booklet on discharge. QR code poster & dual sided leaflet also offered for those who prefer no / paperlight resources.

My asthma triggers
List the things that make your asthma worse so you can try to avoid or treat them.

I will see my doctor or asthma nurse at least once a year (but more if I need to)

Date my asthma plan was updated:

Date of my next asthma review:

Doctor/asthma nurse contact details:

Parents and carers – get the most from your child's action plan

- Take a photo and keep it on your mobile (and your child's mobile if they have one)
- Stick a copy on your fridge door
- Share your child's action plan with their school

Learn more about what to do during an asthma attack asthma.org.uk/child-asthma-attacks

ASTHMA QUESTIONS?
Parents and carers ask our respiratory nurse specialists
Call 0300 222 2800
WhatsApp: 07378 606 738
(Monday-Friday, 9am-5pm over 16 only)

ASTHMA+ LUNG UK

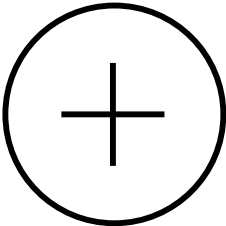
CHILD ASTHMA ACTION PLAN

Fill this in with your GP or nurse

Name and date:

Always keep your reliever inhaler (usually blue) and your spacer with you. You might need them if your asthma gets worse.

Last reviewed (and updated 2021) next review 2026.
Asthma and Lung UK is a charitable company limited by guarantee registered in England. All registered charity number 1054966. Registered office: 105, The Quadrant, London, W1R 0JH.



NHS
Barts Health
NHS Trust

Patient information

Asthma & Wheeze
How to keep your child well

North East London Health & Care Partnership

Young Barts Health

Discharge Checklist

Progress X Short Stay X Critical Care X

Clinical summary

Tahoma

Paediatric YIW / Asthma Discharge Checklist
For junior doctors and nursing team to fill in during encounter.

1. Check inhaler technique (Ensure appropriate spacer, to use mouthpiece if >4 years)
Select below+

2. Have you Yes No **adherence and triggers?**
Select below+

3. Peak flow
For >6 years and able
Select below+ - What is peak flow? _____

3. Provide smoking cessation leaflet for parent / child
Select below+

4. Review maintenance medication
Select below+ - Maintenance medications: _____

5. Parents advised to get 48 hr community follow-up (e.g. GP)
Select below+

6. Provide Asthma discharge leaflet
Select below+

7. Provide written asthma plan (3 copies for parents, GP, school)
Select below+

8. Refer to Community Asthma nurse if appropriate
- 2 or more admissions in last 12 months
- >2 ED attendances in 6 months
- Required IV bronchodilators or PICU
- Significant concerns about compliance or bronchodilator overuse
Select below+

9. Follow-up booked in 4-6 weeks (as per local guidelines)
Select below+ - Referred to which clinic? _____ (Paeds Resp / General Paeds)

HOW TO DISCHARGE CHILDREN WITH WHEEZE / ASTHMA

For resources go to either
Paediatric drive\ASTHMA pack 2023
OR ae.user\FORMS\Patient advice\Paeds pt advice folder



Barts Health
NHS Trust

1

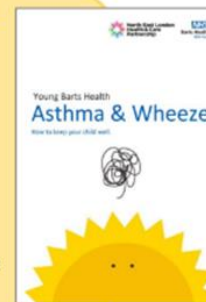
DISCHARGE BOOKLET

No more salbutamol weaning plan

Advise PRN salbutamol at home (like below)

Family can log symptoms in booklet

Electronic version is being developed!



2



ASTHMA ACTION PLAN
Add preventer medication
Give 3 copies (patient, GP, school)

3

DISCHARGE CHECKLIST

Add .paedsasthma autotext to "Clinical Summary" in Progress tab of Clinician Workflow; fill out and save as you go along.
Review checklist on ward rounds and include in discharge summary.

4

FOLLOW-UP

Advise 48hr GP review

Consider Gen Paeds F/U if IV meds/PICU

Refer to Asthma CNS if below

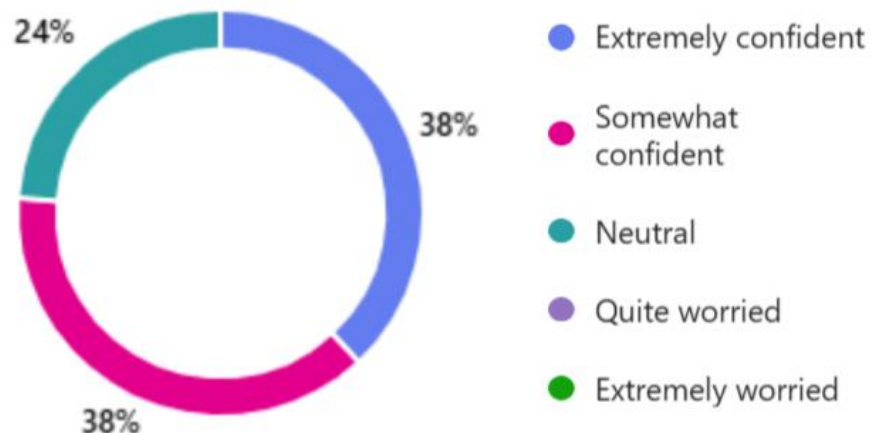
- PICU admission in last year
- Required IV rescue meds
- 2 or more ED attendances in last year
- New diagnosis of asthma
- Any concerns – symptom load, compliance, low attendance etc.



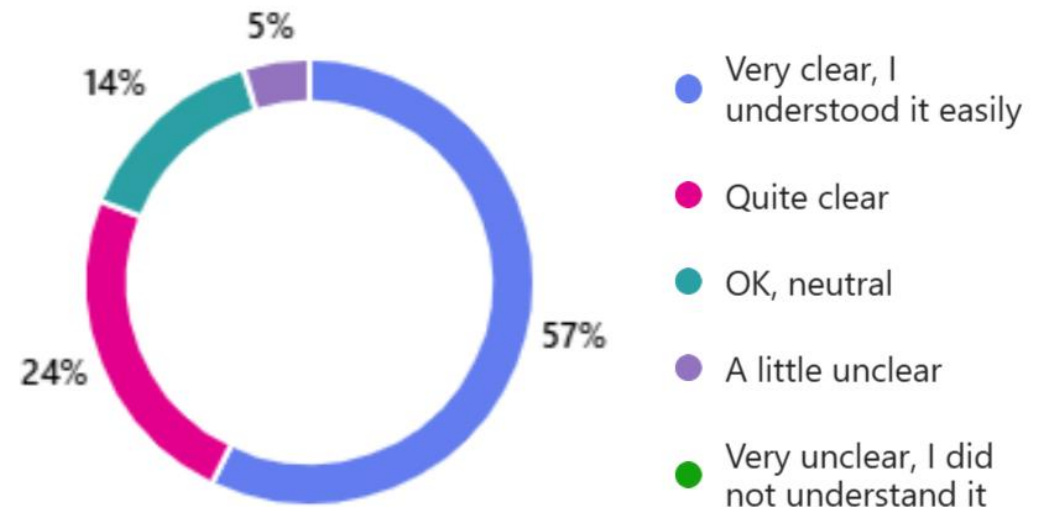
Feedback - families

- 60% of parents surveyed found the booklet helpful, 33% neutral. 7% hadn't been given a booklet
- Hospital/asthma experienced parents noted the change but were happy with the change and found instructions clear
- Await further feedback this year from more boroughs

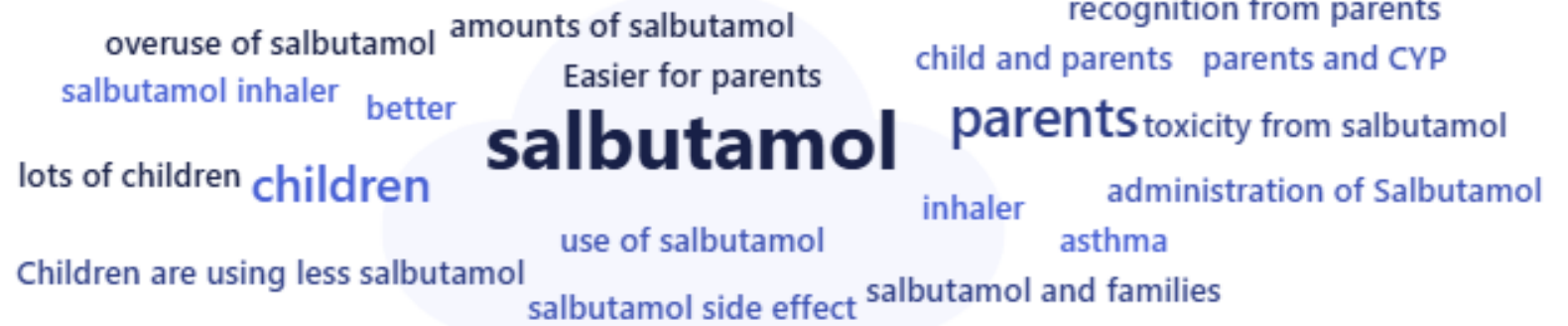
How **confident** did you feel looking after your child on discharge?



How did you find the **new way of using salbutamol** (blue) inhaler after hospital?

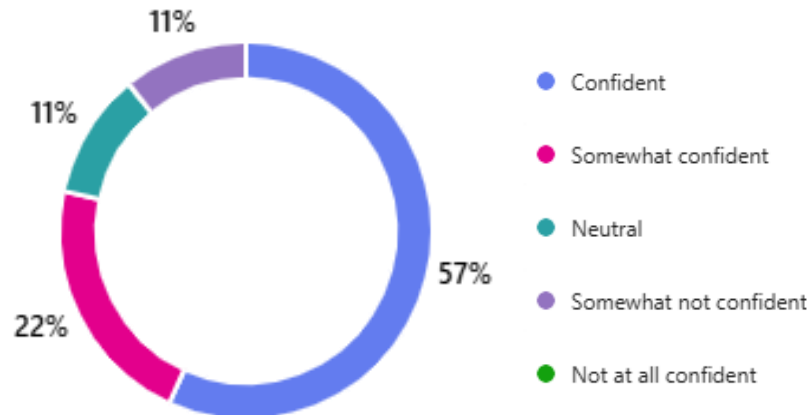


Feedback – Clinicians

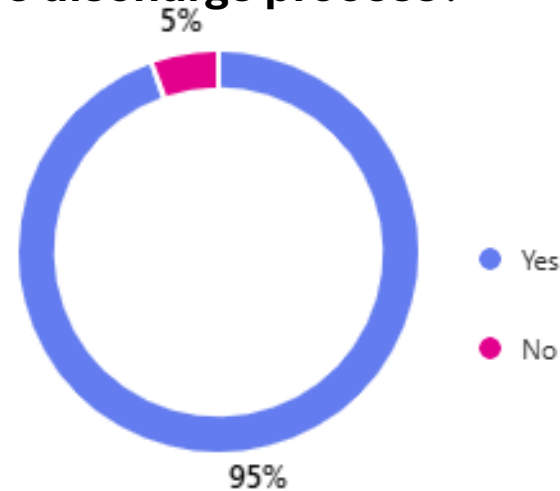


- Need for training identified
- Strong response around understanding – significant number of requests for more languages
- Concerns around time taken to explain, “takes too long”
- Concerns around families taking responsibility and decision-making were communicated
- Clinicians liked the video QR codes and clear instruction, one single booklet versus several different pieces of information and that it aligns with the PAAP

How confident do you feel using the booklet?



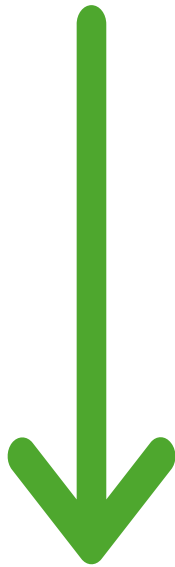
Are you **familiar with the new safe discharge process**?



Are you **aware** of the salbutamol weaning scrap?



Results so far



Decrease in readmissions from 18% (19/20) to 12% (23/24)

Decrease in length of stay and reattendance rate for asthma

Decrease in admission rate (-14.6 per 100,000 population)

Source: NHSE CYP asthma transformation dashboards

Increase in patients escalated to the retrieval team, but less retrievals.

Source: CATS data

Decrease in salbutamol pMDI prescribing *Source: Medicines Optimisation dashboard*

- **Stakeholders** can feel confident that we have a network wide process which makes it easier to benchmark and monitor against
- **Acute teams** feel more confident knowing they are giving out the same information, that is evidence based and reiterated at every point- from primary to tertiary care.
- **CYP and families** feel everyone is saying the same, fostering trust and
- repetition of the key messages ensures maximal impact.

“discharge planning is effective and aligned across the network..”

Next Steps

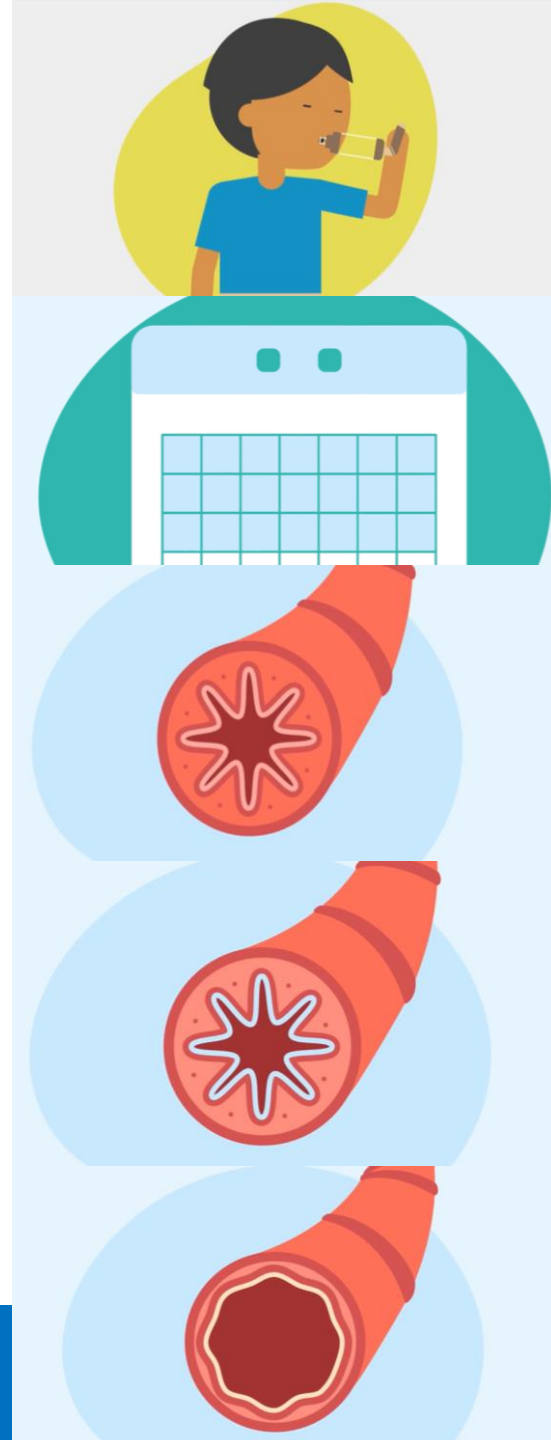
Collaboration with the UHS team to understand our combined learning, impact on services and compare impact on our very different populations.

Evaluation of the impact this peak season – first with resources embedded, and new multilingual resources available.

Accessible information project

Barts Charity “Everyday Impact” grant secured in October 2023

- Phase 1 – Translating patient information booklet
14 languages & counting!
+ translating pan-London asthma plan
+ workshopping booklet into Easi-Read
- Phase 2 – Educational animations - Brilliant Basics
5x 1-minute animations in 12 languages
- Phase 3 – Resource pack for CYP and families with
additional needs (SEN/ASD/LD)



It's been a huge team effort!

Shifting Perception
Working group meets to discuss the challenge of shifting focus to proactive therapy.

SABA scrap starts
Royal London Hospital pilots safe discharge package & booklet

Asthma Practitioners in post

Pan NE London rollout complete

All acute Trusts have launched safe discharge package & using booklet. Comms sent across whole network, resource available to all.

September 23
Package & booklet launched at Queen's, King George, Homerton & Newham hospitals

Accessible Information Project
Now available in 15 languages, added to primary care portal. Easi-read expected Sept 24. Animations underway.

Week 38
2nd annual peak with the safe discharge package in place

2022

2023

2024

2025

Co-production
First iteration of booklet produced as a working group with stakeholder and patient/family input & feedback. Agreement from RLH DoN to pilot in draft form.

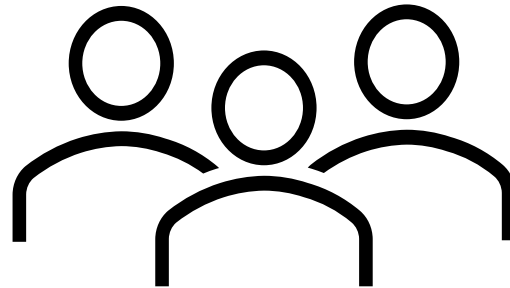
Evaluation
Surveyed clinicians & patients/parents, PIG process. Final resource accepted by network as NEL document

October 23
Package & booklet launched at Whipps Cross hospital –delayed due to QIP running around safe discharge prior to change

Evaluation
Surveyed clinicians & patients/parents, booklet amended with feedback. Promising data emerges from national deep dive.

Easi-Read available

Questions?



Contact:
laura.king4@nhs.net

Diagnostic pathway for children and young people (asthma)

Carol Stonham MBE

RN, MSc, Queen's Nurse

Respiratory nurse advisor and CYP Asthma Clinical Lead.

Gloucestershire ICB

SW Respiratory network co-clinical lead

Policy lead PCRS

What recommendations do we have?

ICSs should develop diagnostic hubs in primary care, supported by secondary care, that incorporate:

Healthcare professionals trained in making a clinical diagnosis of asthma in CYP

Spirometry and FeNO appliances that are suitable for use in CYP

People trained to conduct these physiological tests in CYP. There should be clear criteria to support appropriate referral to secondary care from these hubs.

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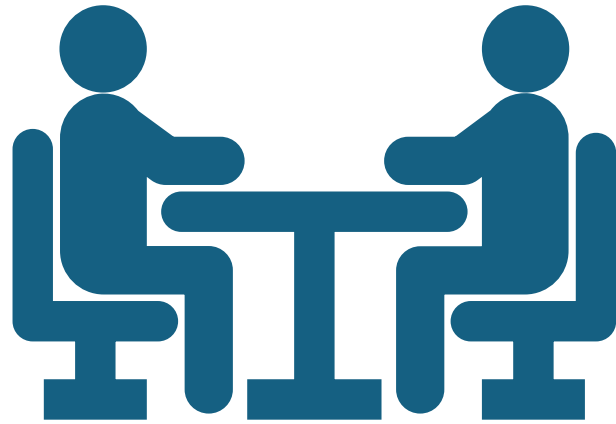
The diagnosis of asthma in CYP should be based on clinical features of a comprehensive history (incorporating symptoms, attacks, personal and family history), and efforts should be made in

children 6 years and older to ascertain an objective marker of airway inflammation and/or variable airway obstruction. These should be conducted according to the **most recent national guidelines** and protocols



BTS/SIGN/NICE draft asthma guidance

- Consultation period closed end of July
- Agreed guidelines released end of November ?
At Winter BTS meeting
- Once agreed we will just have this one, GINA,
and any local guidelines



Recommendations

People have the right to be involved in discussions and make informed decisions about their care (NICE Making decisions about your care)

<https://www.nice.org.uk/about/nice-communities/nice-and-the-public/making-decisions-about-your-care>

Structured clinical history

reported wheeze, noisy breathing, cough, breathlessness or chest tightness, and any variation (for example, daily or seasonal) in these symptoms

any triggers that make symptoms worse

a personal or family history of atopic disorders

symptoms to suggest alternative diagnoses

Structured clinical history

reported wheeze, noisy breathing, cough, breathlessness or chest tightness, and any variation (for example, daily or seasonal) in these symptoms

any triggers that make symptoms worse

a personal or family history of atopic disorders

symptoms to suggest alternative diagnoses

Do not confirm a diagnosis of asthma without a suggestive clinical history **and a supporting objective test**

Record the basis for a diagnosis of asthma in the person's medical records, alongside the coded diagnostic entry (this is not new)

At presentation

- Treat people immediately if they are acutely unwell at presentation, and perform objective tests for asthma (for example, eosinophil count, fractional exhaled nitric oxide [FeNO], spirometry or peak flow with bronchodilator reversibility* if available)

* New recommendation!

At presentation

- Treat people immediately if they are acutely unwell at presentation, and perform objective tests for asthma (for example, eosinophil count, fractional exhaled nitric oxide [FeNO], spirometry or peak flow with bronchodilator reversibility if available)
- If objective tests for asthma cannot be done immediately for people who are acutely unwell at presentation, carry them out when acute symptoms have been controlled, and advise people to contact their healthcare professional immediately if they become unwell while waiting to have objective tests*

*in original NICE guidelines

At presentation

- Treat people immediately if they are acutely unwell at presentation, and perform objective tests for asthma (for example, eosinophil count, fractional exhaled nitric oxide [FeNO], spirometry or peak flow with bronchodilator reversibility if available)
- If objective tests for asthma cannot be done immediately for people who are acutely unwell at presentation, carry them out when acute symptoms have been controlled, and advise people to contact their healthcare professional immediately if they become unwell while waiting to have objective tests
- Be aware that the results of spirometry and FeNO tests may be affected in people who have been treated with inhaled corticosteroids.

Children (5 to 16 years)



- History suggestive of asthma
- FeNO (over 35ppb)

Children (5 to 16 years)



- History suggestive of asthma
- FeNO (over 35ppb)
- If the FeNO level is not raised, or if FeNO is not available, bronchodilator reversibility greater than 12% from baseline (or greater than 10% of predicted normal).

Access to testing

Who has access to FeNO testing?



Access to testing

Who has access to FeNO testing?

Who has immediate access to FeNO?



Access to testing

Who has access to FeNO testing?

Who has immediate access to FeNO?

Who has access to spirometry?



Children (5 to 16 years)

- History suggestive of asthma
- FeNO (over 35ppb)
- If the FeNO level is not raised, or if FeNO is not available, bronchodilator reversibility greater than 12% from baseline (or greater than 10% of predicted normal).
- If asthma is not confirmed by FeNO or BDR but still suspected on clinical grounds, either perform skin prick testing* to house dust mite or measure IgE level and eosinophil count.



Children (5 to 16 years) - results

1

Exclude asthma if there is no evidence of sensitisation to house dust mite on skin prick testing or if the total serum IgE is not raised.

2

Diagnose asthma if there is evidence of sensitisation **or** a raised IgE level **and** the eosinophil count is more than 0.5×10^9 per litre.

3

If diagnosis still in doubt, refer. (how long is the wait?)

Access to testing



Who has access to skin prick testing?

Access to testing



Who has access to skin prick testing?

Who has access to blood tests for young children?

Children under 5 years

Diagnosis is hard in this age group because it is difficult to do the tests and there are no good reference standards.



Children under 5 years



Symptoms suspicious of asthma, clinical judgement to treat and review regularly



If symptomatic at age 5 years, test as above (what about if they are still on treatment – likely to be asymptomatic?)



If unable to perform tests continue treatment and regular review



Attempt tests every 6-12 months



If not responding to treatment, refer to specialist

Where are tests performed?



Where are tests performed?

ICSs should develop diagnostic hubs in primary care, supported by secondary care, that incorporate:

- Healthcare professionals trained in making a clinical diagnosis of asthma in CYP
- Spirometry and FeNO appliances that are suitable for use in CYP
- People trained to conduct these physiological tests in CYP. There should be clear criteria to support appropriate referral to secondary care from these hubs.

Diagnosing adult breathlessness

Diagnostic pathway for patient presenting with chronic persistent breathlessness (>8 weeks duration)

- Breathlessness is frequently multi-factorial without a single specific diagnosis.
- Anxiety, depression, low physical activity and deconditioning are commonly associated with breathlessness.

Clinical assessment

History and physical examination including:

- Smoking history and body mass index.

Initial investigations according to clinical judgement:

- FBC/TFTs/biochemistry
- ECG
- NT-proBNP
- Chest x-ray
- Spirometry ± reversibility with bronchodilators
- Fractional exhaled nitric oxide (FeNO)
- Patient health questionnaire (PHQ4)
- MRC breathlessness scale
- GP physical activity questionnaire (GPPAQ).

If diagnosis clear, undertake **confirmatory investigations** as appropriate and management of the condition:

- **Reassess** after appropriate timescale.

Diagnosis unclear

Discuss and implement further investigative plan at unexplained breathlessness MDM* utilising community diagnostic centres.

- Pulmonary function tests
- CT thorax
- Echocardiogram
- Ambulatory ECG monitoring.

Identify and confirm suspected diagnoses.

Undertake appropriate management.

Management

Breathlessness self-management, structured exercise rehabilitation, physiotherapy for breathing control exercises, occupational therapy, psychological support.

Diagnosis remains unclear

Refer to respiratory physician or cardiologist for further investigations:

- Including cardiopulmonary exercise test.

For acute severe breathlessness or red flags consider urgent specialist assessment.

Clinical judgement to be used at all times

RED FLAGS INCLUDE:

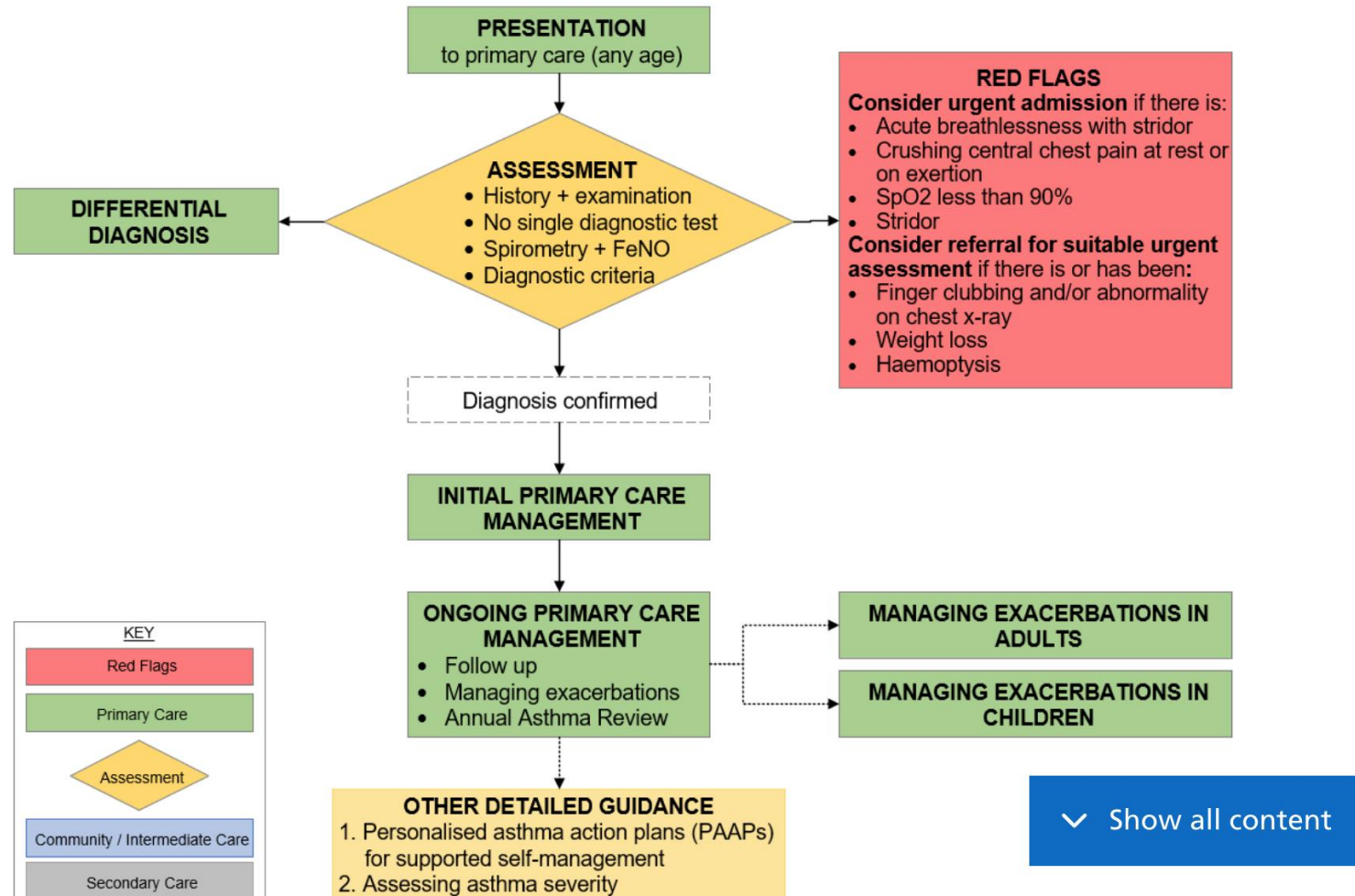
- Symptoms and signs including chest pain, haemoptysis, cyanosis, unable to speak in sentences, confusion, agitation, unilateral leg swelling, inspiratory and expiratory stridor
- Increased risk of VTE
- Rapidly progressing symptoms
- New low resting SpO₂ or reduction during minimal exercise
- Unexplained reduction in SpO₂ and elevated respiratory rate.

Management

Breathlessness self-management, smoking cessation, healthy lifestyle support including maintaining activity and weight management.

*MDM - see glossary for more details.

Local CYP pathway example



The background consists of a dense, overlapping collage of small, rectangular sticky notes in various colors including blue, green, pink, yellow, and light purple. Each sticky note features a large, black, hand-drawn question mark. The notes are scattered across the entire frame, creating a textured and busy visual effect.

Thank you for your attention.
Any questions?