

## Not asthma again.....its simple right?

## **Reena Bhatt**

ST7 Neonates and Clinical Fellow, Healthy London Partnership

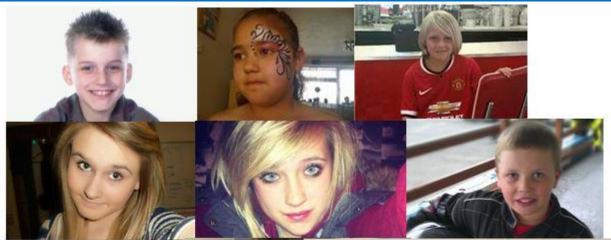


## The Ella Roberta story

https://app.box.com/s/h0sfrrmdczgcu9tk3fuweryugb2ghi7a



## Why do we need to do this?



Doctors missed 11 chances to treat boy, nine, before he died of asthma, coroner hears

Inquest into death of Michael Uriely hears boy died five days after being discharged from hospital for second time



Michael Uriely collapsed in the early hours of 25 August and never regained consciousness. Photograph: Family



## Why co-ordination and integration is essential

#### REGULATION 28 REPORT TO PREVENT FUTURE DEATHS THIS REPORT IS BEING SENT TO 1. Professor Sir Brian Keogh National Medical Director NHS England Rm 504 Richmond House Whitehall London SW1A 2NS 2. Professor Ian Cummings OBE Health Education England 1<sup>st</sup> Floor Blenheim House Duncombe Street Leeds LS1 4PL 3. Sir Andrew Dillon CBE National Institute for Clinical Excellence Midcity Place 71 High Holborn London WC1V 6NA CORONER I am Dr Shirley Radcliffe for the coroner area of Inner West London 2 CORONER'S LEGAL POWERS 5 I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013. INVESTIGATION 3 On 15th and 16th March 2017 an inquest was held touching the death of Mr Michael Uriely and concluded on 16th March 2017 with a narrative conclusion.

- Recent section 28
- Same concerns raised as previous Section 28
- An opportunity to learn and improve care



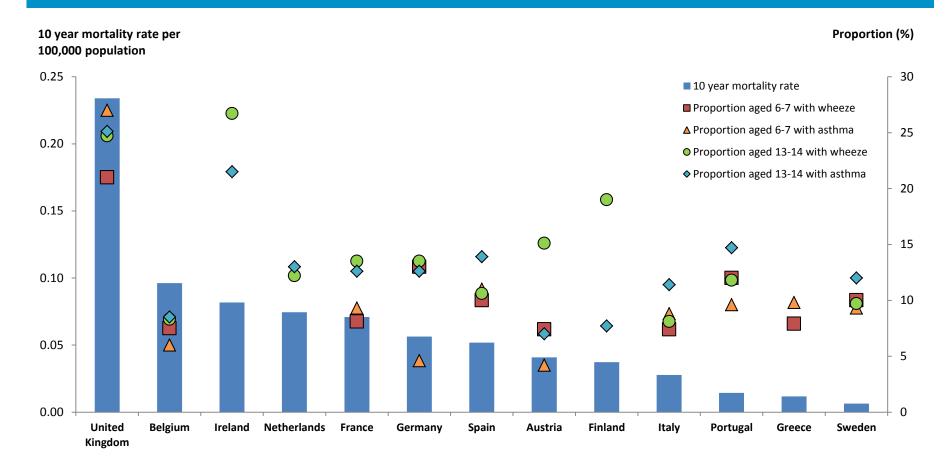
#### CORONER'S CONCERNS

After reading the letter from the LFB I share their concerns in relation to potential inadequacy of fire risk assessments.

The MATTERS OF CONCERN are as follows. -

- ) The care management and treatment of this child during his final year of life with an exacerbations of asthma was centred solely on treating the immediate presentation as an isolated acute event seeking its stabilisation and returning him to the care of his family.
- 2) There was:-
- i) No co-ordinating record of these occasions.
- ii) No analysis of the acute episodes in context with his chronic asthma condition,
- iii) No appreciation of the underlying severity and analysis of the level of medication prescribed.
- iv) No appreciation of the risk factors of near fatal or fatal asthma evident in this child.
- v) No appreciation of the deteriorating nature of his astrima.
- Despite the presence of a significant number of health care professionals involved in his care, no single individual assumed management for his care overall.
- 4) In the absence of no one individual assuming responsibility for his care there was no plan directed towards his long term management and care identifying the chronic nature of his condition, seeking a sustained and balanced level of treatment, control.

# The problem: Mortality rates from asthma in the UK are higher than in Western Europe



Directly standardised asthma mortality rate in children aged 0-14 years and proportion aged 6-7 and 13-14 Source: WHO European Mortality Database (2000-10) and the International Study of Asthma and Allergies in Childhood (2000-03)

## **The Cost**

- The current cost of emergency admissions per 100,000 population based on £702 PBR rate equates to London spending £4,600,200 per year.
  - If 60% of child emergency admissions for asthma were prevented, this would mean asthma admissions would cost London £1,840,082 amounting to around £2,760,124 million in savings across London.
  - If CCGs were able to achieve the 75% reduction this would be even greater at around £3,450,154 savings.

If adult asthma was included in the plans there would be even greater returns.

 Combined prescribing costs for bronchodilators and corticosteroids alone, in children and adults, is £1,031,720,912 in England and £105,702,558.87 in London. These costs include diagnosis, acute and primary care, and medications, but there are significant indirect costs, beyond healthcare, to the wider economy:

•A child with poorly controlled asthma is three times more likely to take time off school than a child whose condition is well controlled.

•Poor school attendance is likely to have a detrimental effect on **emotional wellbeing** and **educational attainment**.

•A carer **is four times more likely to take time off work**, with a further effect on their own productivity.

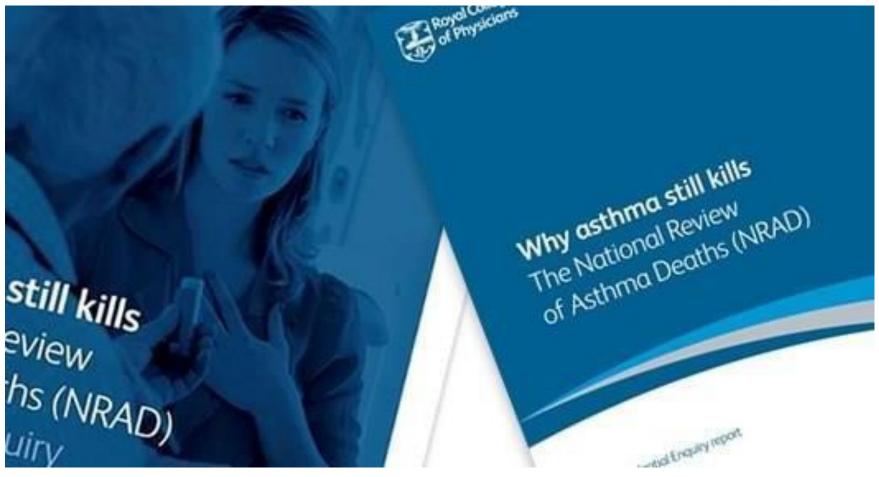




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## **Asthma Death Review Summary**





### The National Review of Asthma Deaths (NRAD)

### Key findings

Use of NHS services

- 1 During the final attack of asthma, 87 (45%) of the 195 people were known to have died without seeking medical assistance or before emergency medical care could be provided.
- 2 The majority of people who died from asthma (112, 57%) were not recorded as being under specialist supervision during the 12 months prior to death. Only 83 (43%) were managed in secondary or tertiary care during this period.
- 4 Nineteen (10%) of the 195 died within 28 days of discharge from hospital after treatment for asthma.
- Personal asthma action plans (PAAPs), acknowledged to improve asthma care, were known to be provided to only 44 (23%) of the 195 people who died from asthma.
- 2 There was no evidence that an asthma review had taken place in general practice in the last year before death for 84 (43%) of the 195 people who died.
- 3 Exacerbating factors, or triggers, were documented in the records of almost half (95) of patients; they included drugs, viral infections and allergy. A trigger was not documented in the other half.

## London Asthma Standards - 'too many children die unnecessarily of asthma.....and we can change this together....



London asthma standards for children and young people

Driving consistency in outcomes for children and young people across the capital

### 14 ambitions across specific areas

- System-wide
- Patient and family support
- Schools
- Acute and high risk care
- Integration and co-ordination
- Discharge planning
- Transition
- Effective and consistent prescribing
- Workforce education and training

#### Visit

https://www.myhealth.london.nhs.u k/healthy-london/children-andyoung-people/resources to find out more

- All settings
  - Primary care
  - Secondary and tertiary care
  - Community pharmacies
  - **Schools**
  - Self care



Nick Triggle hears how the UK could do better at reduc

Greater collaboration vital to treating asthma in the young



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# Wheezing in the preschool child (< 5 years)

- Common presentation to paediatric services
- 1/3 of preschool children will have a wheezy episode
- Only about 20% of these will go onto have a diagnosis of asthma

## **Pattern of wheeze**

## •Episodic (viral) wheeze

Wheezing during discrete time periods, often in association with clinical evidence of a viral cold, with absence of wheeze between episodes

### •Multiple-trigger wheeze

Wheezing that shows discrete exacerbations, but also symptoms between episodes

## Treatment???

# Four key Steps:

- Is this asthma?
- Is there good control?
- What is impacting on control?
- What action needs to be taken?





#### Is asthma overdiagnosed?

Andrew Bush and Louise Fleming

Arch Dis Child published online April 5, 2016

#### Updated information and services can be found at: http://adc.bmj.com/content/early/2016/03/08/archdischild-2015-30905 3

## Asthma inhalers given out almost as a 'fashion accessory', experts warn

Scientists voice concern that overdiagnosis of asthma is exposing patients to potentially harmful side effects of medications they do not need



#### Is asthma being overdiagnosed?

Share: 🖂 🔰 🗗 Save: 8 🧿 Subscribe: 🔊 Print: 🖶

Monday February 2 2015

A potentially alarming figure that emerged in the UK news last week was that "1 million" UK adults may have been wrongly diagnosed with asthma – a claim reported in various forms by BBC News, The Guardian, The Daily Telegraph, the Daily Mirror and the Mail Online.

The headlines followed the publication of <u>new</u> draft guideline (PDF\_670kb) from the National



Up to 30% of adults do not have clear evidence of asthma

#### CLINICAL FEATURES THAT INCREASE THE PROBABILITY OF ASTHMA

- More than one of the following symptoms: wheeze, breathlessness, chest tightness and cough, particularly if:
  - ~ symptoms worse at night and in the early morning
  - ~ symptoms in response to exercise, allergen exposure and cold air
  - ~ symptoms after taking aspirin or beta blockers
- History of atopic disorder
- Family history of asthma and/or atopic disorder
- Widespread wheeze heard on auscultation of the chest
- Otherwise unexplained low FEV<sub>1</sub> or PEF (historical or serial readings)
- Otherwise unexplained peripheral blood eosinophilia

#### CLINICAL FEATURES THAT LOWER THE PROBABILITY OF ASTHMA

- Prominent dizziness, light-headedness, peripheral tingling
- Chronic productive cough in the absence of wheeze or breathlessness
- Repeatedly normal physical examination of chest when symptomatic
- Voice disturbance
- Symptoms with colds only
- Significant smoking history (ie > 20 pack-years)
- Cardiac disease
- Normal PEF or spirometry when symptomatic\*

#### HIGH PROBABILITY OF ASTHMA

#### In children with a high probability of asthma:

- start a trial of treatment
- · review and assess response
- reserve further testing for those with a poor response.

#### LOW PROBABILITY OF ASTHMA

In children with a low probability of asthma, consider more detailed investigation and specialist referral.

#### INTERMEDIATE PROBABILITY OF ASTHMA

In children with an **intermediate probability** of asthma who can perform spirometry and have **evidence of airways obstruction**, assess the change in FEV<sub>1</sub> or PEF in response to an inhaled bronchodilator (reversibility) and/or the response to a trial of treatment for a specified period:

- if there is significant reversibility, or if a treatment trial is beneficial, a diagnosis of asthma is probable. Continue to treat as asthma, but aim to find the minimum effective dose of therapy. At a later point, consider a trial of reduction, or withdrawal, of treatment.
- if there is no significant reversibility, and treatment trial is not beneficial, consider tests for alternative conditions.

In children with an intermediate probability of asthma who can perform spirometry and have no evidence of airways obstruction:

- consider testing for atopic status, bronchodilator reversibility and if possible, bronchial hyper-responsiveness using methacholine, exercise or mannitol
- consider specialist referral.

In children with an intermediate probability of asthma who cannot perform spirometry, offer a trial of treatment for a specified period:

- if treatment is beneficial, treat as asthma and arrange a review
- if treatment is not beneficial, stop asthma treatment, and consider tests for alternative conditions and specialist referral.

In some children, particularly the under 5s, there is insufficient evidence at the first consultation to make a firm diagnosis of asthma but no features to suggest an alternative diagnosis.

Possible approaches (dependent on frequency and severity of symptoms) include:

- · watchful waiting with review
- trial of treatment with review
- spirometry and reversibility testing.

# Asthma Control Test (ACT)

During the past 4 weeks:

1. How often did your asthma prevent you from getting as much done at work, school or home?

2. How often have you had shortness of breath?

3. How often did your asthma (wheezing, coughing, chest tightness, shortness of breath) wake you up?

4. How often have you used your reliever inhaler?

5. How would you rate your asthma control?

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.	



Test

#### 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 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

Step 1: Read each question bei Step 2: Add up each of your fiv	isthma? Or is your asthma in control of you? Here's low carefully, citele your score and write it in the box, e scores to get your total Asthma Control Test <sup>rus</sup> score. learn how well you are controlling your asthma.	how to find out
	aw often did your asihma provent you from gelding as much done at	Score:
Q1 Address 1	test of the time 2 Serie of the time 3 A title of the time	4 Annual S
	ow often have you had shortness of breath?	Score:
Q2 Restlations 1	tons thy 2 34 lines a week 3 53 lines a week	4 News 5
	ow often didyour asihma symptoms (wheezing, coughing, chest athi wake you up at night or earlier than usual in the momine?	Score:
03	and an advertising the second se	4 mar 5
	ow often have you used your reliever inhaler (usually blue)?	Score:
Q4 Jac maritimes 1 [1	Times a day 2 3 Times a west 3 Occas west in loss	4 Metal 5
	sthma control during the past 4 weeks?	Score:
Q5 Reconcised 1	were controlled 2 Serverbal controlled 3 Well controlled	( Completely controlled 5
What does your score	e mean?	I Score
Score: 25 - WELL DONE		s than 20- OFF TARGET na may NOT HAVE BEEN
<ul> <li>Your asthma appears to have been UNDER CONTROL over the last.</li> <li>4 weeks.</li> </ul>	REASONABLY WILL CONTROLLED COLUMN	ED during the past 4 weeks. or or nurse can recommend
<ul> <li>How over, if yoe are experiencing any problems with your asthma, you chould an your desting an anexe</li> </ul>	<ul> <li>Howaver, if you are experiencing</li> <li>an actions</li> </ul>	e action plan to belo section plan to belo ser asthesa control.

#### 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

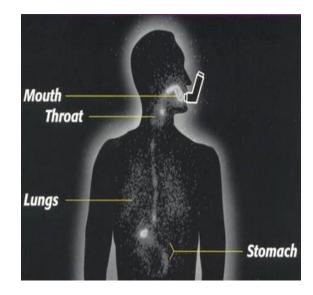
- Your asthma appears to have been REASONABLY WELL CONTROLLED during the past 4 weeks.
- However, if you are experiencing symptoms your doctor or nurse may be able to help you.

#### **Total Score**

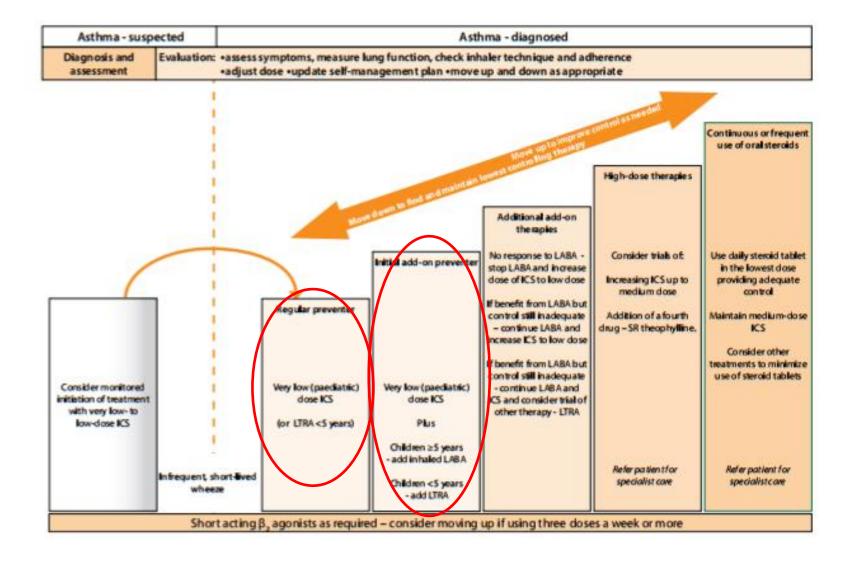
#### Score: less than 20 – OFF TARGET

- 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.









https://www.brit-thoracic.org.uk/document-library/clinicalinformation/asthma/btssign-asthma-guideline-quick-reference-guide-2016/

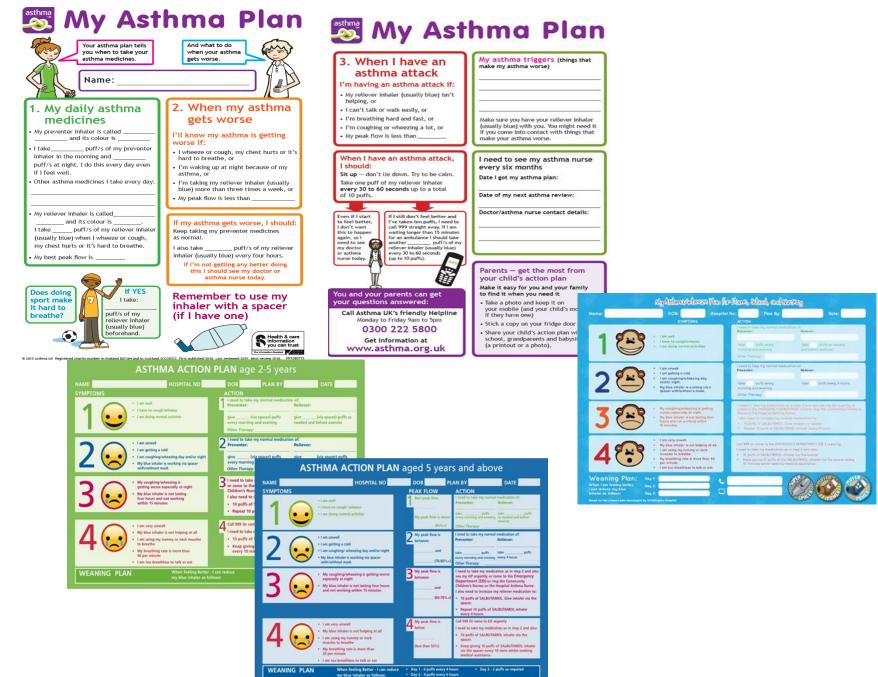
#### Which Inhaler & What Strength?





## A Guide to Selecting an 'Aerochamber Plus'?

Devic	9	Approx Age	Tidal Breathing	Tips
Infant 'Aerochamber plus'		0-6months	$\checkmark$	Mask very rigid, not always tolerated, switch to yell if mask will fit
Child 'Aerochamber plus'		6 months +	$\checkmark$	Soft mask helps kids tolerate it better
Adult 'Aerochamber Plus' with mask		10 years + Avoid if possible	$\checkmark$	Useful for older children <u>with learning</u> <u>disabilities</u> who cannot use the mouth piece
'Aerochamber Plus' with mouthpiece	Crevo Chambisition	4 years plus (approx)	×	Ensure no musical sounds & nasal flaring if breathing in through nose



# When to refer?

Referral to secondary care if: (See box 14)

- ·Diagnosis unclear or in doubt
- •Symptoms present from birth or perinatal lung problem
- •Excessive vomiting or posseting
- ·Persistent wet or productive cough
- ·Family history of unusual chest disease
- •Failure to thrive

Nasal polyps

Referral to secondary care if: (See box 14)
Unexpected clinical findings eg focal signs, abnormal voice or cry, dysphagia, inspiratory stridor
Failure to respond to conventional treatment (particularly inhaled corticosteroids above beclometasone 400 mcg/day (or equivalent) or frequent use of steroid tablets)
Parental anxiety or need for reassurance

#### System One Template

X Asthma - NWL v3.0	allow a 'n that he	to New Yours					X
Diagnosis Measuremer	nts Lifestyle Medication R	eview Plan (inc. AsthmaUK)	Data entry QuickQOF Feedb	ack			
Asthma Diagnosis QoF - AST001							
presence of symptoms representing reversibil	with demonstrable variable a ity or spontaneous variability						
24 May 2005 Asthma (	H33)	📑 🚥 😩	Asthma diagnosis	- Ø		-	
			Occupational asthma	· /		~	
15 Dec 2005 H/O: drug 15 Dec 2005 H/O: drug 21 Sep 2006 H/O: drug 21 Sep 2006 H/O: drug	allergy (14L) allergy (14L)	· · · · · ·	Allergic rhinitis (XE0Y5) Allergic (intrinsic) eczema . Food allergy (Xa1aX) Latex allergy (Xa7IR) Allergic urticaria (XE1BR) Allergic reaction to substa.			-	
NICE & BTS/SIGN recomme	end initial management be ba	sed on clinical likelihood of As	thma				
Launch NICE: Features in	fluencing probability						
High probability	Diagnosis of asthma likely	Give trial of asthma treatmen	t 🚦 New Acute				
Intermediate probability	Diagnosis uncertain	Follow age related algorithm	Launch NICE: Asthma manag	ement algo	rithm		
Low probability	Other diagnosis likely	Consider referral criteria	📙 Launch NICE: Asthma referra	al criteria			
If patient has reversible ar	nd fixed obstruction then recor	d Asthma and COPD	COPD - NVL CCGs v 2.0				
Especially in children, alte	rnative diagnoses should be	considered if diagnostic	BTS/SIGN: Clues to alternativ	e diagnose	s -children		
Family history							
NWL CCGs - Family histo	ry Asthma view has no data f	for patient	FH: FH:	Eczema (1 Asthma (1 Hay fever Allergy (12	2D2.) (12D4.)		Show recordings from other templates
			Next				Show empty recordings

### https://www.healthylondon.org/sites/default/files/System%20One%20asthma% 20template.docx

# 04 What happens after an exacerbation?

**Questions and answer 5 minutes.....** 

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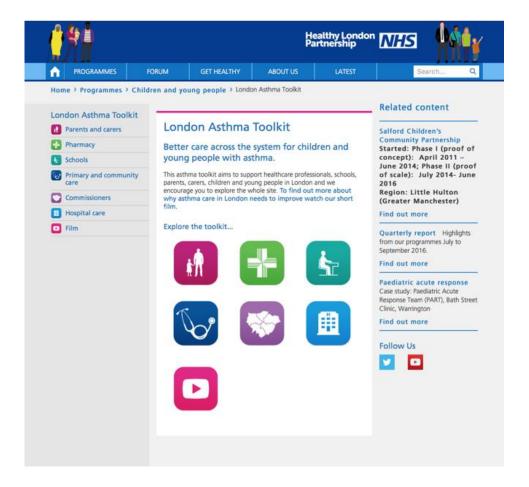


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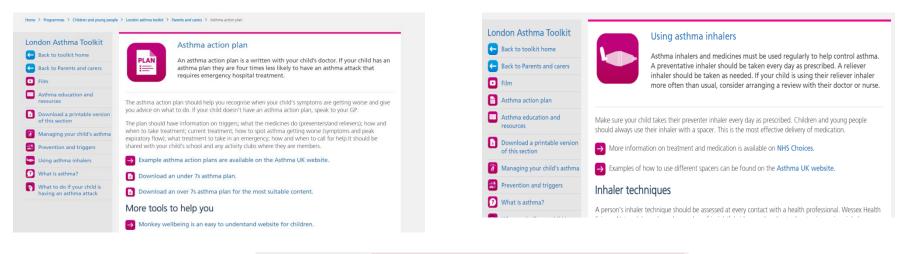
## **On-line Asthma Toolkit**

## Support across the system to improve asthma care

https://www.healthylondon.org/children-and-young-people/london-asthmatoolkit



## **Self Care: Parents and Carers**





- Asthma education and
- esources Download a printable version of this section
- Prevention and triggers
- Using asthma inhalers

Æ

o Film

😥 What is asthma? What to do if your child is

naving an asthma attack



#### Managing your child's asthma

It is important that you and your child understand asthma and the medicines prescribed to help control it. You may need to help your child make any necessary changes to their lifestyle.

#### Asthma reviews

All children and young people with asthma should have at least a yearly review, which is usually carried out either by their GP or practice nurse. An asthma review may also be done in hospital if your child is known to the asthma or allergy service. A review should also be held after every asthma attack to check whether changes are needed to their medication or care as an asthma attack is a sign that your child's condition may not be controlled

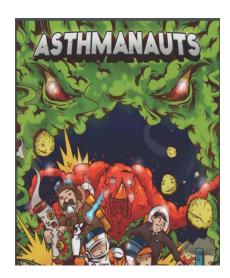
#### Solution with the second secon is controlled.

- The 'Asthma and you' website will ask questions about your child's asthma will give you a score.
- Parents and carers of children aged four to 11 can also use the Child Asthma Control Test. It also provides a score so you can see how well your child's asthma is controlled.

If your child can do peak expiratory flow measurements then you can also monitor their asthma control by using a peak flow diary

Go to the Asthma UK website to find out more about peak flow diaries.

Film: https://youtu.be/iNPSFal0OIM





## **Primary and Community Care**



# molore the toolkit ¥ 111

INHS

41

. C me School Commissione

- Access to management plans
- How to manage an acute exacerbation
- Red flags to look for



#### London Asthma Toolkit

#### E Back to toolkit home E Back to Primary and

Assessment and managment

- Audit Business cases
- Evidence and resources
- Film
- C Referral
- Review
- Self management

Workforce - primary and community care

#### Diagnosis

Information about how to identify and diagnose asthma and the tests expected

Asthma exacerbations can be classified as mild, moderate, severe, or life threatening. In the ambulatory, urgent care and emergency department settings, the treatment goals are correction of severe hypoxemia, rapid reversal of airflow obstruction and preventing relapse

#### A useful quick reference guide to diagnosis and management: British guideline on the management of asthma

There is a need to improve asthma identification and access to treatment to improve quality of life for patients. However, diagnosis is difficult as there is no single diagnostic test, but it should be in line with BTS/Sian auidelines.

Spirometry is recommended for adults, but this is less useful in children, although new draft NICE guidance may suggest its use and that of Fractional exhaled Nitric oxide (FeNO). If this happens there will be a need to commission education to upskill the primary care workforce in a similar way to the commissioning of training for spirometry for COPD and consider ways to ensure there is quality assurance of any future

#### Which diagnostic tests are expected?

It will be important for commissioners to ensure that their local services include the following:

Detailed relevant family and personal medical history recorded in notes:

· Two weeks of peak flows · Document variable airflow obstruction

- Useful guidance on how you can aid ٠ diagnosis in the community
- What you are looking for in a child with symptoms of wheeze.

## What's on the toolkit for pharmacists?

- Asthma pharmacy learning hub with free on line inhaler technique training
- <u>Adherence and Medicines Use Reviews</u>
- Pharmacy urgent repeat medication service
- Flu and immunisations
- <u>Audit and case studies</u>
- Pharmacy public health campaign summarised in next slide



## **Guides for Schools**

# London Asthma Toolkit Carlot to toolkit home Back to Schools Carlot Schools

1 Workforce

#### Asthma friendly schools

The asthma friendly schools programme sets out clear, effective partnership arrangements between health, education and local authorities for managing children and young people with asthma at primary and secondary schools.

The asthma friendly schools programme will help you to meet standards 11, 17, 18, 39.

This includes the adoption of government policy on emergency inhalers and early years settings, such as:

- Children's centres having access to education programmes for the wheezers.
  Children and young people have an individual healthcare /action plan in place.
- It also means that schools should have the following in place:
- 1. Register of all children and young people with asthma.
- 2. Management plan for each child.
- 3. Named individual responsible for asthma in each school.
- 4. Policy for inhaler techniques and care of the children and young people with asthma.
- 5. Policy regarding emergency treatment.

System for identifying children who are missing school because of their asthma or who are not partaking in sports or other activities due to poor control.

#### Make yours an asthma friendly school

A range of helpful resources including the asthma friendly schools business proposal, schools service specifications and a job description for paediatric asthma nurse are available:

#### Film: https://youtu.be/blb80lOjoO8

#### London schools' guide for the care of children and young people with asthma





London Asthma Toolkit

🗲 Back to toolkit home

Asthma friendly schools

Eack to Schools

Q Evidence

Resources

🕞 Film

Workforce

Presentations for teaching

Sample presentations to support teacher training for asthma care

NHS

NHS Whittington and NHS Islington have shared sample slides used for briefing students and to support teacher training for asthma care.

- Assembly for students
- Training for teachers
- Islington: Drugs wise Year 2,3 and 4 lesson presentation
- 💽 Asthma Friendly School presentation



and 4 lesson presentation.pdf



Asthma Friendly School presentation.ppt

## What will you find for hospital care?

#### Film https://youtu.be/UK8wHN0sdJ0

Action plans

Asthma control tests in a number of languages

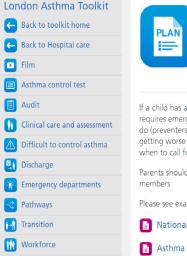
**Clinical care and assessment** 

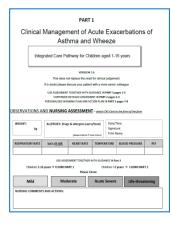
**Discharge advice** 

**Difficult to control asthma** 

Advice for emergency departments

Transition





#### Action plans

This section is intended for clinicians caring for children with asthma in a hospital or tertiary care setting. It outlines examples of best practice in the assessment, treatment and ongoing management of children and young people with asthma in an acute setting.

If a child has a personalised asthma action plan they are four times less likely to have an asthma attack that requires emergency hospital treatment. The plan should have information on triggers; what the medicines do (preventers/and relievers); how and when to take treatment; current treatment; how to spot asthma getting worse (symptoms and peak expiratory flow); what treatment to take in an emergency; how and when to call for help.

Parents should be encouraged to share with their child's school and any activity clubs where they are

Please see examples here:

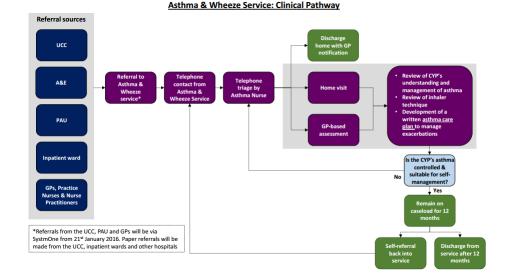
🛐 National asthma and wheeze management plan

🚺 Asthma UK child action plan

## Commissioners

## In the toolkit you will find examples of:

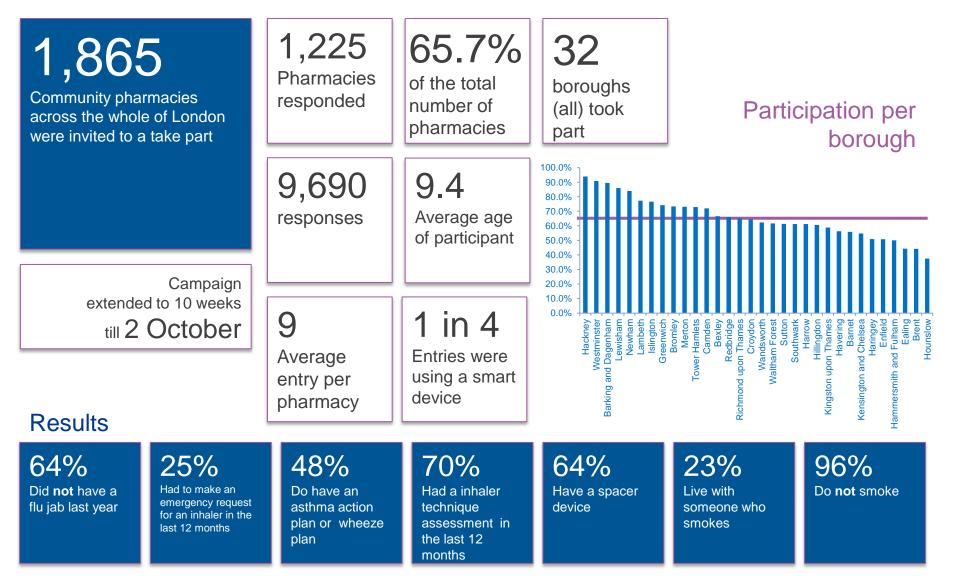
- Business cases
- <u>CQUINs</u>
- Pathways
- <u>Service Specifications</u>
- Job Descriptions



# **06** Who else can help?

Transforming London's health and care together

## Highlights of pharmacy public health campaign (2015)



## **Bexley Pharmacy Project**

- Launches 14<sup>th</sup> August 2017
- Pilot in three practices and surrounding pharmacies
- Opportunistic asthma screen in **5-24 year olds**
- Captured on E template and then RAG rated
- Review includes RCP questions an ACT (Asthma control test)
- Referral sent to Practice for
  - Urgent review (within 7 days)
  - Moderately urgent (within a month)
  - Pharmacy follow up

## What about school nurses?

- Critical in management of children and young people
- Get to know them....involve them

## What is the local structure for school nurses?



# 07 Next steps

Transforming London's health and care together

## Support from.....

- Local child health GPs
- Healthy London Partnership
  - Sara Nelson, Asthma programme lead, <u>sara.nelson@nhs.net</u>
  - Christine Kirkpatrick, programme manager <u>christine.kirkpatrick@nhs.net</u>
  - Georgie Herskovits, programme manager <u>g.herskovits@nhs.net</u>
  - Reena Bhatt, clinical fellow <u>reena.bhatt2@nhs.net</u>

Next meeting subject to agreement ?2<sup>nd</sup> November 2017