

Report Harrow Asthma Audit:

Some asthma facts:

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Final Report on CYP 22.11.2016:

i) An asthma attack is a signal that something has gone wrong and action is needed

ii) Most asthma attacks can be prevented with regular treatment

iii) Most asthma deaths are preventable (National Review of Asthma Deaths - NRAD 2014), key findings were:

a. Risk of asthma attacks was not recognised in > 60% and was not acted upon appropriately (not reviewed after attacks, excess reliance on reliever medication, insufficient preventer medication)

b. Follow up after attacks was not done

c. Excess reliever inhalers were prescribed

d. Too few preventer inhalers were prescribed

e. Asthma self management plans were not given to many patients- was only given to 23% of those who died!

f. Half the people who died from asthma did not call for or get help in their final attack

g. Poor management of asthma attacks:

i. Inadequate use of lung function assessment

ii. Inadequate assessment (Oxygen sats/ PEF) and inadequate treatment of acute attacks (**no/ insufficient oral corticosteroids/ referral to specialists**)

In Harrow:

i) 4 people are treated for asthma attacks in the Urgent Care Centre every day

ii) 3 children are treated in accident and emergency every day – and the numbers doubled in 2014 compared with 2013

a. 50 Children and Young people have attended A&E at least once a year in the last 4 years (ie 4 times in 4 years)

iii) Hospital admissions for asthma in Harrow are increasing

For further information see:

i) <https://endasthmadeaths.wordpress.com>

ii) <https://www.rcplondon.ac.uk/projects/national-review-asthma-deaths>

iii) SIGN/BTS Asthma Guideline 153:

The Harrow CCG Acute Asthma Audit 2016:

Harrow CCG promoted involvement in this audit through a Local Incentive scheme, Harrow CCG.

The basic premise underlying this audit is that an asthma attack is a signal that treatment has failed, and that most attacks are preventable.

- This audit was designed to generate data on actual treatment of patients with asthma attacks in Harrow.
- The standards were derived on the basis of lessons learned from the National Review of Asthma Deaths.

Full description of the audit standards and methodology is available at: <https://endasthmadeaths.wordpress.com/about/childhood-asthma-audit/>

The audit data collection sheet was developed in collaboration with paediatric colleagues on the [The Healthy London Partnership Asthma leadership group chaired by David Finch](#) (Paediatricians included: Louise Flemming, Andy Bush, Richard Iles). Data was extracted from the records and anonymously posted online using a form (software = TYPEFORM) in collaboration and with some funding assistance from the Healthy London Partnership (with help from Donal Markey and Sara Nelson). Data was extracted as an Excel file and analysed by Mark Levy.

Individual results for their own patients were sent to each participating Harrow practice, with recommendations for urgent action in particular patients considered to be at risk (using their computer number, which practices could use to identify their own patients), and then discussed together with the overall results at 6 peer group meetings in Harrow during October and November 2016. It is hoped that these practices will repeat the audit prospectively in CYP in the next few months. Recommendations for change in practice in Harrow are included in the table on the last page of this report.

Audit process and standards: See <https://endasthmadeaths.wordpress.com/about/childhood-asthma-audit/> for full details of the audit)

Identification of patients: Baseline audit : All children and Young People (CYP) aged 0-19 (ie <20 years), during the 6 months last year, eg from 1.3.2015 – 30.9.2015) who had i) Been admitted to hospital for asthma/wheezy attacks, or ii) Been treated for asthma or wheezy attacks: in A&E, or ED, or in the Urgent Care Centre (UCC), or in the GP practice. (then prospectively).

Audit Standards: These are included in Column 1 of Figure 2 below.

We were very pleased with the response rates: overall 29 practices reported on 397 retrospective asthma attacks in 340 patients mainly CYP. The next two slides show only the results for the 291 Children and Young People (CYP) who suffered from 333 attacks during (2015 and 2016). 221 of these children were over the age of 5 at the time of their attacks.

Figure 1: Age distribution of the 291 Children and Young People included in the audit

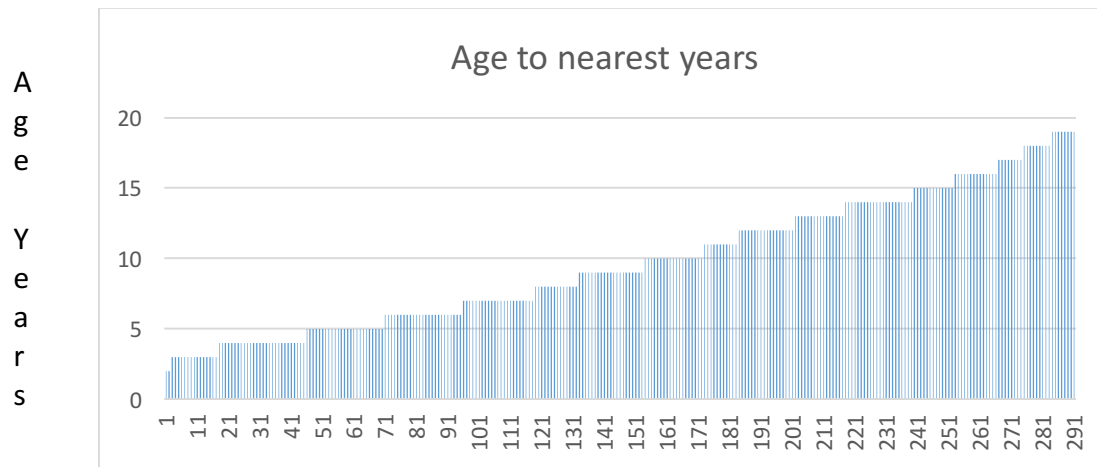


Figure 2: Standards and results for the 291 Children and Young People included in the audit:

| STANDARDS: Harrow Asthma Attack Audit | Children and Young People (291 CYP* had 333 attacks) |
|---------------------------------------|--|
| BEFORE ATTACKS | |
| • > 6 SABA* Inhalers / previous year | 45/291 (15%); range 1-24 (21 more than 12) |
| • Personal Asthma Action Plan | 99/291 (34%) |
| • Recorded Best PEF (>5yrs old) | 98 /221 (44%) |
| • Inhaler technique assessed | 73/333 (22%) |
| DURING ATTACKS | |
| • SAO2 measured | 165 /333 (49%) (28 measured after Rx) |
| • PEF measured (> 5 yrs old) | 88/221 (39%) (8 measured after Rx) |
| • Oral corticosteroids prescribed | 188/333(56%) (only 2 Rxed until resolved) |
| POST ATTACK | |
| • Reviewed post attack | 127/333(38%) |
| • Reviewed within 2 working days | 32 / 127 (25%) (Range 1-380 days) |

* SABA = Short Acting Bronchodilator Reliever (eg salbutamol)

* CYP = Children and Young People < 20 Years old

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| Key Messages from the Harrow AUDIT | Suggested Actions and changes in management |
|---|---|
| <p>An asthma attack is a sign of failed treatment this should not happen :</p> <p>One of the major lessons of the NRAD was that insufficient preventers (inhaled corticosteroids were prescribed in those who died. <i>In the Harrow Audit of asthma attacks: 92 of the 158 CYPs prescribed Inhaled Corticosteroids were prescribed less than 4 inhalers in the previous year.</i></p> | <ul style="list-style-type: none"> • Post attack review (include confirmation of diagnosis) with optimisation of treatment within 2 working days • Strongly consider prescribing inhaled corticosteroids for all who have had an attack (see SIGN 153 guideline). • See Tables 9 and 10 in the new SIGN/BTS Guideline for details of low, medium and high dose inhaled corticosteroids |
| <p>Risk was not recognised in many of those who died from asthma in the NRAD. <i>In the Harrow audit, reviews were done after only 127 of the 333 attacks in CYP (32 within the 2 days recommended in SIGN)</i></p> | <p>Assess risk when reviewing asthma patients (Table 11 SIGN/BTS; and Chapter 2 – Table 2-2 www.GINASTHMA.org)</p> |
| <p>Another major lesson from the National Review of Asthma Deaths was that excessive numbers of reliever inhalers were prescribed for those who died. <i>In the Harrow Asthma Audit, 45 (15%- ie one in six) of those CYP who had attacks were prescribed more than 6 SABA inhalers in the year before their attack. Furthermore, only 176 of 291 (58%) of prescription instructions for salbutamol read 'when necessary' (rest read, BD, TDS, or QDS.</i></p> | <ul style="list-style-type: none"> • Instructions for SABA prescriptions for people with asthma should read for eg -'Take one or two puffs for cough, wheeze or shortness of breath, and get medical help if this doesn't help or if the relief lasts less than 4 hours' • Never prescribe salbutamol in asthma as bd, tds, or qds • Consider taking SABAs off repeat prescription or set maximum to 6 a year (HOWEVER be flexible if ' run out) |
| <p>All patients with asthma should have a Personal Asthma Action Plan (PAAP). <i>In Harrow audit only a third of those having an asthma attack had previously been provided with a Plan.</i></p> | <ul style="list-style-type: none"> • All patients with asthma should have a personal asthma action plan. See www.asthma.org or www.consultmarklevy.com -> academic -> lectures for eg. |
| <p>The SIGN/BTS guidelines for asthma attack management includes measurement of PEF & Oxygen Sats, and also that oral corticosteroids should be continued until the attack is resolved. <i>In the Harrow audit, oxygen saturation was measured in less than 50% of attacks and PEF was measured in less than 40% of attacks and oral corticosteroids were prescribed for 64% of the attacks. Very few patients had saturation or PEF measured after the attacks</i></p> | <ul style="list-style-type: none"> • Always measure oxygen saturation and peak flow when assessing a patient with uncontrolled asthma, and ideally check again after treatment to assess Rx effect; and • Always prescribe enough oral corticosteroid tablets so the attack can be treated until resolved (ie not just 3 or 5 or 7 days treatment). An attack = resolved when the PEF returns to usual best, and there is no need for rescue salbutamol |
| <p>The SIGN/BTS Guideline for asthma states that all patients should be reviewed within 2 working days after treatment of an attack. <i>In the Harrow Audit, only 122 of the 333 attacks were followed up, and only 32 of these (21%) were reviewed within 2 working days.</i></p> | <p>Consider keeping one appointment free every day for 'acute asthma follow up' - this could be used for another patient if not taken up.</p> |