**Audit of the Management of Asthma Patients on Inhaled Corticosteroids in Primary Care**

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**Introduction**

In Croydon Clinical Commissioning Group (CCG) respiratory prescribing costs account for approx. 10% of the prescribing budget. Combination Inhaled Corticosteroid (ICS) inhalers account for a significant proportion of this cost. Analysis of prescribing cost data suggests that there is variation in spend on respiratory costs across GP Practices and recent Public Health data suggests that, in Croydon, there are high numbers of A&E attendances and emergency admissions associated with asthma.

Although CCG Pharmacists have been promoting the London Respiratory Team, ‘*Getting Best Value from Respiratory Spend’1*guidance in Croydon since 2011, the necessity for continual re-enforcement of the need for respiratory therapy review has been recognised. The subsequent publication of the ‘*Why asthma still kills - The National Review of Asthma Deaths (NRAD) report’2* also highlighted the need to improve care and reduce the number of deaths by:

* Identifying patients who may benefit from inhaled corticosteroid (ICS) dose optimisation
* monitoring for overuse of short acting beta agonist (SABA) inhalers
* ensuring inhaler technique assessment and the issuing of spacer devices
* ensuring patients have had an annual asthma review within the last 12 months

To gain an understanding of current practice, the 2014/15Croydon CCG Prescribing Incentive Scheme included an audit of all paediatric patients and 20 adult patients per 2000 practice list size on the asthma register receiving high dose ICS. Educational sessions were delivered to clinicians by the Respiratory Leads from the London Respiratory Network, local Respiratory Consultants and CCG Pharmacists. Supporting information was also provided in the form of newsletters, audit data collection templates and audit support documentation.

**Results and Discussion**

58 of 59 GP practices submitted audit data for analysis.

**Table1: Summary of patients audited**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | No. of patients on ICS | No. (%) of patients on ‘high’ dose ICS reviewed during the audit | No. (%)  patients  Step 2 | No. (%)  patients  Step 3 | No. (%)  patients  Step 4/5 |
| **Adults** | 8095 | 2720 (34%) | 739 (27%) | 1387 (51%) | 469 (17%) |
| **Children** | 1375 | 339 (25%) | 194 (57%) | 92 (27%) | 25 (7%) |
| **Total** | **9470** | **3059 (32%)** | **933 (31%)** | **1479 (48%)** | **494 (16%)** |

As expected, the results showed that:

* More adult patients than children were at step 4 or higher.
* Many children at step 4 or 5 were under specialist care. It was noted that many children under specialist care were NOT reviewed by their GPs.

**Table 2: Asthma annual reviews, PAAPs and use of spacer devices**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No. of patients who had asthma review in last 12m | No. (%)  Patients with a PAAP | No. (%) not known if patient has PAAP | No. (%) patients with spacer device |
| **Adults** | 1383 (51%) | 1827 (67%) | 311 (11%) | 964 (35%) |
| **Children** | 191 (56%) | 227 (67%) | 46 (14%) | 262 (77%) |

NRAD recommendations are that all asthmatic patients should have an annual review, a Personalised Asthma Action Plan (PAAP) and know what to do in an emergency or should their asthma deteriorate. Our results showed that

* 33% of patients audited either did not have a PAAP or it was not known whether they have a PAAP.
* on many occasions it was documented that patients’ had been invited for review but had not attended.

*Failure to attend for review presents a particularly challenging area for improvement.*

Other results of interest:

* the most common problem documented was the *‘over or under use of ICS’*
* Of concern was the fact, that in 14% of children and 22% of adults audited, it was not known if there was a problem. *This suggests a lack of review.*
* As a result of the audit 19% (576) of patients had their ICS dose stepped down but the majority of patients remained on their current dose

*See Appendix 1 for the full list of the Problems identified and the actions taken.*

**Table 3: Asthma control and attempted step down**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Asthma under control | Step down of asthma therapy attempted in last 3 months | Not suitable for step down |
| **Adults** | 1305 (48%) | 350 (13%) | 1330 (49%) |
| **Children** | 166 (49%) | 73 (22%) | 141 (42%) |

It is recommended that annual asthma reviews contain an assessment of a patient’s asthma control using a recommended tool. Audit results showed

* that only approximately half of the asthmatic patients reviewed were considered to have well controlled asthma.
* Of the adult asthmatic patients, who were documented as being suitable for a trial of stepping down treatment, only 50% had their ICS dose reduced. *This may suggest reluctance by GPs to step down patients off higher doses of ICS.*

The audit results have also suggested that clinicians (both Practice Nurses and GPs) often do not review the frequency of medication issues to assess adherence, nor do they look at patients holistically e.g. shortness of breath due to obesity. As a result, patients who report continued wheezing often have another drug added to their medication regime, or their ICS dose will be increased, without an inhaler technique check or questions asked about frequency of use first.

**Limitations and Challenges**

* The completion of the audit tool was considered to be time consuming. *This may have affected the quality of responses*
* Some practices did not review their patients until the last quarter of the financial year. This meant that they were unable to fully complete the audit cycle and document the outcomes.

**Next steps**

* Continue to promote the community pharmacist’s role in supporting asthma patients e.g. with inhaler technique checks, Medicines Use Reviews and smoking cessation advice.
* Investigate the use of the PRIMIS Grasp Asthma Care Tool to target our highest risk patients for review e.g. identifying those patients receiving high numbers of salbutamol prescriptions.
* The results of the audit will be used to support the development of new ways to encourage patient attendance at asthma reviews.
* The audit results will be shared with Croydon Community Children’s Asthma Nursing Team, to support them in identifying targeted support that individual practices may require.
* developed local Asthma guidance and prepared a quick reference inhaler recommendation guide.

**References**

1. London Respiratory Team - Case for change in London respiratory services using a right care approach. August 2011
2. Why asthma still kills - The National Review of Asthma Deaths (NRAD) Confidential Enquiry report. May 2014

***For further information about the audit contact Margaret Haastrup, Victoria MacGregor or Shamim Jiwa at Pharmaceutical Team, Croydon CCG Tel: 0203 668 1331***

**Appendix 1:**

**Audit Outcomes - Problems Identified**

|  |  |  |
| --- | --- | --- |
|  | **Children**  **No. (%)** | **Adults**  **No. (%)** |
| **Over/Under use of ICS** | 68 (20%) | 614 (23%) |
| **Dose of ICS is unclear** | 37 (11%) | 135 (5%) |
| **Over/Under use of B2 agonist** | 11 (3%) | 105 (4%) |
| **Needs inhaler technique check** | 23 (7%) | 147 (5%) |
| **Secondary care plan unclear** | 6 (2%) | 10 (0.3%) |
| **On MDI – needs spacer** | 8 (2%) | 134 (5%) |
| **No problem identified** | 81 (24%) | 571 (21%) |
| **Don’t know if there is a problem** | 47 (14%) | 598 (22%) |

**Audit outcomes - Actions taken**

|  |  |  |
| --- | --- | --- |
|  | **Children**  **No. (%)** | **Adults**  **No. (%)** |
| **Patient stepped down** | 74 (22%) | 502 (18%) |
| **Patient to continue on current dose** | 124 (37%) | 694 (26%) |
| **Inhaler Technique checked in surgery** | 3 | 46 |
| **Volumatic/spacer added** | 3 | 61 |
| **Asthma READ code updated** | 13 | 27 |
| **Referred to Paediatrician/Chest Clinic** | 6 | 29 |
| **Phone contact made** | 13 | 92 |
| **Written action plan agreed** | 11 | 29 |
| **Oral action plan agreed** | 6 | 100 |
| **Not come in for review** | 48 (14%) | 359 (13%) |
| **No documented outcome to the action** | 31 | 569 |

**Positive Patient Outcomes**

The data submitted highlighted some positive patient outcomes as a result of the audit:

|  |  |
| --- | --- |
| “Uses Seretide Accuhaler as a reliever 500mcg TDS. Does not use salbutamol inhaler/ spacer. Advised to reduce Seretide to BD and use salbutamol as a reliever. Advised to use the spacer” (Adult) | “Patient on Seretide 250mg Accuhaler and was taking 2 puffs BD. Changed to Seretide 500mg 1 puff BD” – optimised to avoid above licensed dose of salmeterol (Adult) |
| Patient prescribed Clenil Modulite 200mcg BD – “During asthma review her technique was corrected and spacer given. No known exacerbations since” (Child age 11) | Patient prescribed Qvar 100mcg 2 puffs BD – “identified patient was using erratically and changed to 1 puff BD regularly rather than 2 puffs BD once worse” (Adult) |