Optimising asthma management in high risk patients
Audit focus
This audit helps primary care health professionals identify patients with asthma in their practice with the greatest unmet need. These patients are likely to benefit from asthma education and treatment intensification.

Background
Māori and Pacific peoples are more severely affected by asthma than New Zealand Europeans. Māori are almost three times, and Pacific peoples over 3.5 times more likely to be hospitalised due to asthma than people of other ethnicities.1 The most recent data (2006 – 2011), shows that mortality rates due to asthma per 100,000 people in New Zealand were 5.4 for Māori and 6.5 for Pacific peoples, compared to 1.3 for people of Asian ethnicity and 1.1 for people of other ethnicities, including New Zealand Europeans.1

One strategy to improve asthma care is to identify those with a high exacerbation risk and assess whether their treatment and self-management strategies are appropriate.

Identifying patients with a high exacerbation risk
Patients with an increased exacerbation risk include those with:2
- Short-acting beta-agonist (SABA) use > 1 canister per month
- The need for long-term or repeat courses of oral corticosteroids
- Under use or poor adherence to inhaled corticosteroids (ICS)
- A history of sudden asthma exacerbations
- A history of unplanned consultations, emergency department visits or hospital admissions
- Poor symptom control, e.g. as assessed by an Asthma Control Test Score
- The use of a home nebuliser
- FEV₁ < 60% predicted
- Raised blood eosinophil count
- Occupational asthma

Co-morbidities and other factors also increase exacerbation risk:2
- Māori or Pacific ethnicity
- Socioeconomic disadvantage
- Discontinuity of medical care
- Major psychological problems
- Smoking

High SABA use is associated with increased mortality
Managing asthma with the use of more than one hundred-dose SABA canister per month is a marker for an increased risk of death.3 High levels of SABA use strongly suggests that the patient has asthma that is poorly controlled and that they require a ‘step up’ in treatment, e.g. to an ICS or an ICS/long-acting beta₂-agonist (LABA).

Identifying patients with asthma with high SABA usage will allow health professionals to offer focussed care to a group of patients with an increased risk of adverse outcomes.

Recommendations
All patients who have been prescribed more than three SABA inhalers in the last three months should be contacted and offered a comprehensive asthma review to:
1. Enhance their understanding of asthma
2. Develop their self-management skills
3. Determine if their current treatment is appropriate

The Asthma Control Test is recommended to assess the patient’s level of symptom control. The asthma review should include an assessment for potential treatable traits, i.e. overlapping disorders, co-morbidities, environmental and behavioural factors that may be modified to improve asthma care.

Further information on asthma management is available in the series of articles “Managing adults with asthma in primary care: the four-step consultation”, “Inhaled corticosteroids for adult patients with asthma” and “Adding a long-acting beta-agonist (LABA) to asthma treatment” and a resource focussing on patient education is also available “Asthma education in primary care”, available from www.bpac.org.nz

References
Plan

Summary

This audit uses the number of dispensed SABA inhalers to identify patients who are at an increased risk of an asthma exacerbation who are likely to benefit from a change in asthma treatment, e.g. initiating single inhaler treatment as both preventer and reliever with a combination ICS/LABA inhaler.

Recommended audit standards

Ideally, there will be no patients prescribed more than three SABA inhalers in a three month period. However, if patients are identified as being at an increased risk of an asthma exacerbation, due to high use of a SABA, the goal for this audit is for them to be flagged for a treatment review.

Data

Identifying eligible patients

You will need to have a system in place that allows you to identify patients with asthma who have been prescribed a SABA in the last three months (or a selected three month period). Many practices will be able to do this by running a “query” through their PMS.

Sample size

The sample size is ideally all patients in the practice with a diagnosis of asthma, but if this number is too large, a sample size of 30 patients is sufficient for the purpose of the audit. However, it is recommended that all patients are reviewed subsequently.

N.B. If you find that you have no patients who have received more than three SABA inhalers in a three month period, you could lower the criteria for the audit to “three or more SABA inhalers in a three month period”

Criteria for a positive result

A positive result is if a patient with asthma is prescribed three or less SABA inhalers over a three month period.

In the case of a negative result, the patient should be contacted and/or their notes flagged for a treatment review.

* or less than three if using more stringent criteria

Identifying opportunities for Audit of Medical Practice

The first step to improving medical practice is to identify the criteria where gaps exist between expected and actual performance and then to decide how to change practice.

Once a set of priorities for change have been decided on, an action plan should be developed to implement any changes.

Taking action

It may be useful to consider the following points when developing a plan for action (RNZCGP 2002).

Problem solving process

- What is the problem or underlying problem(s)?
- Change it to an aim
- What are the solutions or options?
- What are the barriers?
- How can you overcome them?

Overcoming barriers to promote change

- Identifying barriers can provide a basis for change
- What is achievable – find out what the external pressures on the practice are and discuss ways of dealing with them in the practice setting
- Identify the barriers
- Develop a priority list
- Choose one or two achievable goals

Effective interventions

- No single strategy or intervention is more effective than another, and sometimes a variety of methods are needed to bring about lasting change
- Interventions should be directed at existing barriers or problems, knowledge, skills and attitudes, as well as performance and behaviour
Review

Monitoring change and progress

It is important to review the action plan develop previously against the timeline at regular intervals. It may be helpful to review the following questions:

- Is the process working?
- Are the goals for improvement being achieved?
- Are the goals still appropriate?
- Do you need to develop new tools to achieve the goals you have set?

Following the completion of the first cycle, it is recommended that the doctor completes the first part of the Audit of Medical Practice summary sheet (Appendix 1).

Undertaking a second cycle

In addition to regular reviews of progress with the practice team, a second audit cycle should be completed in order to quantify progress on closing the gaps in performance.

It is recommended that the second cycle be completed within 12 months of completing the first cycle. The second cycle should begin at the data collection stage. Following the completion of the second cycle it is recommended that practices complete the remainder of the Audit of Medical Practice summary sheet.

Claiming MOPS credits

This audit has been endorsed by the RNZCGP as an Audit of Medical Practice activity (previously known as Continuous Quality Improvement – CQI) for allocation of MOPS credits; 10 credits for a first cycle and 10 credits for a second cycle. General practitioners taking part in this audit can claim credits in accordance with the current MOPS programme.

To claim points go to the RNZCGP website: www.rnzcgp.org.nz

Record your completion of the audit on the MOPS Online credit summary, under the Audit of Medical Practice section. From the drop down menu, select the audit from the list or select “Approved practice/PHO audit” and record the audit name in "Notes", the audit date and 10 credits.

General practitioners are encouraged to discuss the outcomes of the audit with their peer group or practice.

As the RNZCGP frequently audit claims you should retain the following documentation, in order to provide adequate evidence of participation in this audit:

1. A summary of the data collected
2. An Audit of Medical Practice (CQI) Activity summary sheet (included as Appendix 1).
## Identifying patients at high risk of asthma exacerbations

<table>
<thead>
<tr>
<th>Patient with asthma</th>
<th>No. SABA inhalers prescribed in three months</th>
<th>Identified as high risk (&gt; 3 SABA)</th>
<th>Clinical record flagged for review of treatment</th>
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### Data Summary

- **No. patients at high risk:**
  - Target: 0

- **Flagged for review:**
  - Target: 100%
Identifying patients at high risk of asthma exacerbations

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Data Summary

No. patients at high risk: target = 0

Flagged for review: target = 100%

Please retain this sheet for your records to provide evidence of participation in this audit.
SUMMARY SHEET
Audit of medical practice (CQI activity)

<table>
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<th>Results discussed with peer group or colleagues?</th>
<th>Date:</th>
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**FIRST CYCLE**

**DATA:** Date of data collection: 

**CHECK:** Describe any areas targeted for improvement as a result of analysing the data collected. (If the findings have any implications for health equity, please include this.)

**ACTION:** Describe how these improvements will be implemented.

**MONITOR:** Describe how well the process is working. When will you undertake a second cycle?
SECOND CYCLE

DATA: Date of data collection:

CHECK: Describe any areas targeted for improvement as a result of analysing the data collected. (If the findings have any implications for health equity, please include this.)

ACTION: Describe how these improvements will be implemented.

MONITOR: Describe how well the process is working.

COMMENTS: