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Why asthma still kills - The National Review of Asthma Deaths (NRAD)

Whilst many of you will be aware of The National Review of Asthma Deaths (NRAD) report, due to the significance of some of the findings it was felt that it would be helpful to produce a summary of the most poignant issues and recommendations for primary care. The review analysed the deaths of 195 people who were thought to have died from asthma between February 2012 and January 2013. The key findings were:

Use of NHS services

- The majority of people (57%) who died from asthma were not recorded as being under specialist supervision during the 12 months prior to death.
- There was a history of previous hospital admission for asthma in 47%.
- 10% died within 28 days of discharge from hospital after treatment for asthma.
- At least 21% of people who died had attended a hospital emergency department with asthma at least once in the previous year and, of these, 23 had attended twice or more.

Medical and professional care

- Personal asthma action plans (PAAPs), acknowledged to improve asthma care, were known to be provided to only 23% of the people who died from asthma.
- There was no evidence that an asthma review had taken place in general practice in the last year before death for 43% of the people who died.
- Of 155 patients for whom severity could be estimated,
    - 61 (39%) appeared to have severe asthma.
    - 14 (9%) were being treated for mild asthma and
    - 76 (49%) for moderate asthma.

  It is likely that many patients who were treated as having mild or moderate asthma had poorly controlled undertreated asthma, rather than truly mild or moderate disease.
- The expert panels identified factors that could have avoided death in relation to the health professional's implementation of asthma guidelines in
    - 46% of the 195 deaths,
    - including lack of specific asthma expertise in 17% and
    - lack of knowledge of the UK asthma guidelines in 25%.

Prescribing and medicines use

- There was evidence of excessive prescribing of reliever medication.
    - **39% had been prescribed more than 12 short-acting reliever inhalers in the year before they died,**
    - **4% had been prescribed more than 50 reliever inhalers.**

  Those prescribed more than 12 reliever inhalers were likely to have had poorly controlled asthma.
- There was evidence of under-prescribing of preventer medication. To comply with recommendations, most patients would usually need at least 12 preventer prescriptions per year.
    - 38% were known to have been issued with fewer than four
    - 80% issued with fewer than 12 preventer inhalers in the previous year.
- There was evidence of inappropriate prescribing of long-acting beta agonist (LABA) bronchodilator inhalers. 3% patients were on LABA monotherapy without inhaled corticosteroid preventer treatment.

Patient factors and perception of risk of poor control

- Factors that could have avoided the death included current tobacco smoking in 19%, exposure to second-hand smoke in the home, non-adherence to medical advice and non-attendance at review appointments.
- Poor recognition of risk of adverse outcome was found to be an important avoidable factor in 70% children and 83% young people in primary care.

This edition is also available on PathfinderRF
http://nww.pathfinder-rf.northants.nhs.uk/nene

Key recommendations

Organisation of NHS services

- Every general practice should have a designated, named clinical lead for asthma services, responsible for formal training in the management of acute asthma.
- Patients with asthma **must** be referred to a specialist asthma service if they have required more than two courses of systemic corticosteroids, oral or injected, in the previous 12 months or require management using British Thoracic Society (BTS) stepwise treatment 4 or 5 to achieve control.
- Follow-up arrangements **must** be made after every attendance at an emergency department or out-of hours service for an asthma attack. Secondary care follow-up should be arranged after every hospital admission for asthma, and for patients who have attended the emergency department two or more times with an asthma attack in the previous 12 months.

Medical and professional care

- All people with asthma should be provided with written guidance in the form of a personal asthma action plan (PAAP) that details their own triggers and current treatment, and specifies how to prevent relapse and when and how to seek help in an emergency.
- People with asthma should have a structured review by a healthcare professional with specialist training in asthma, at least annually. People at high risk of severe asthma attacks should be monitored more closely, ensuring that their PAAPs are reviewed and updated at each review.
- Factors that trigger or exacerbate asthma **must** be elicited routinely and documented in the medical records and PAAPs of all people with asthma, so that measures can be taken to reduce their impact.
- An assessment of recent asthma control should be undertaken at every asthma review. Where loss of control is identified, immediate action is required, including escalation of responsibility, treatment change and arrangements for follow-up.
- Health professionals must be aware of the factors that increase the risk of asthma attacks and death, including the significance of concurrent psychological and mental health issues.

Prescribing and medicines use

- **All asthma patients who have been prescribed more than 12 short-acting reliever inhalers in the previous 12 months should be invited for urgent review of their asthma control, with the aim of improving their asthma through education and change of treatment if required.**
- An assessment of inhaler technique to ensure effectiveness should be routinely undertaken and formally documented at annual review, and also checked by the pharmacist when a new device is dispensed.
- Non-adherence to preventer inhaled corticosteroids is associated with increased risk of poor asthma control and should be continually monitored.
- Where long-acting beta agonist (LABA) bronchodilators are prescribed for people with asthma, they should be prescribed with an inhaled corticosteroid in a single combination inhaler.

Patient factors and perception of risk

- Patient self-management should be encouraged to reflect their known triggers, e.g. increasing medication before the start of the hay-fever season, avoiding non-steroidal anti-inflammatory drugs or by the early use of oral corticosteroids with viral- or allergic-induced exacerbations.
- A history of smoking and/or exposure to second-hand smoke should be documented in the medical records of all people with asthma. Current smokers should be offered referral to a smoking-cessation service.
- Parents and children, and those who care for or teach them, should be educated about managing asthma. This should include emphasis on ‘how’, ‘why’ and ‘when’ they should use their asthma medications, recognising when asthma is not controlled and knowing when and how to seek emergency advice.

Local Recommendation

The Northants Prescribing Management Group (NPMG) recommended that all practices should consider what action they could do to address the issues highlighted in the report. In particular it was felt that it would be useful if all practices did an audit and review of the patients having more than 12 “reliever inhalers” a year.