SIGN 141: British guideline on the management of asthma
Prescribing and medicines optimisation issues

October 2014
NB This is an abridged set of slides produced by the NICE M&PP
Key recommendations: supported self-management

- All people with asthma (and/or their parents or carers) should be offered self-management education which should include a written personalised asthma action plan and be supported by regular professional review.
- Prior to discharge, inpatients should receive written personalised asthma action plans, given by healthcare professionals with expertise in providing asthma education.
- Adherence to long-term asthma treatment should be routinely and regularly addressed by all healthcare professionals within the context of a comprehensive programme of accessible proactive asthma care.
Supported self-management: good practice points

- Every asthma consultation is an opportunity to review, reinforce and extend both the patient’s knowledge and skills
  - This is true whether the patient is seen in primary care, the emergency department or the outpatient clinic
  - It is important to recognise that education is a process and not a single event
  - No patient should leave hospital without a written PAAP
  - Brief simple education linked to patient goals is most likely to be acceptable to patients
Supported self-management: specific patient groups

- **Primary care;** Self-management education, supported by a written PAAP, should be offered to all patients on general practice ‘active asthma’ registers
  - Primary care practices should ensure that they have trained professionals and an environment conducive to providing supported self-management

- **Secondary care;** Prior to discharge, inpatients should receive written PAAPs, given by healthcare professionals with expertise in providing asthma education
Supported self-management: implementation in practice

• Implementation in routine practice remains poor with only a third of people with asthma having a PAAP

• Commissioners and providers of services for people with asthma should consider how they can develop an organisation which prioritises and actively supports self-management
  
  – This should include strategies to proactively engage and empower patients and train and motivate professionals as well as providing an environment that promotes self-management and monitors implementation
Pharmacological management: step 1 mild intermittent asthma

• Prescribe an inhaled short-acting β2 agonist as short term reliever therapy for all patients with symptomatic asthma

NEW

Anyone prescribed more than 1 short acting bronchodilator inhaler device a month should be identified and have their asthma assessed urgently and measures taken to improve asthma control if this is poor.
Inhaled corticosteroids (ICS) should be considered for patients with any of the following asthma-related features:

- **asthma attack in the last 2 years**
- using inhaled β2 agonists 3 times a week or more
- symptomatic 3 times a week or more
- waking 1 night a week

*new for 2014 is the replacement of the term ‘asthma exacerbation’ with the new term ‘asthma attack’. The guideline development group believes that is more understandable and gives clearer indication of the need for action*
Pharmacological management: stepping down

• Stepping down therapy once asthma is controlled is recommended, but often not implemented leaving some patients overtreated
  – Regular review of patients as treatment is stepped down is important. When deciding which drug to step down first and at what rate, the severity of asthma, the side effects of the treatment, time on current dose, the beneficial effect achieved, and the patient’s preference should all be taken into account
  – Patients should be maintained at the lowest possible dose of inhaled corticosteroid. Reduction in ICS dose should be slow as patients deteriorate at different rates
  – Reductions should be considered every three months, decreasing the dose by approximately 25–50% each time
Key recommendations: inhaler devices

• Prescribe inhalers only after patients have received training in the use of the device and have demonstrated satisfactory technique

• In children, pMDI and spacer are the preferred method of delivery of β2 agonists or ICS. A face mask is required until the child can breathe reproducibly using the spacer mouthpiece. Where this is ineffective a nebuliser may be required
Key recommendations: acute asthma – all patients

• It is essential that the patient’s primary care practice is informed within 24 hours of discharge from the emergency department or hospital following an asthma attack
  – Ideally this communication should be directly with a named individual responsible for asthma care within the practice, by means of fax or email
Organisation and delivery of care: education

• There is strong evidence that educating clinicians can improve health outcomes for patients

• Training for primary care clinicians should include educational outreach visits using multifaceted programmes that include consultation training including goal setting
Organisation and delivery of care: asthma clinics

• In primary care, people with asthma should be reviewed regularly by a nurse or doctor with appropriate training in asthma management. Review should incorporate a written action plan
  – It is good practice to audit the percentage of patients reviewed annually
  – Consider focusing on particular groups such as those overusing bronchodilators, patients on higher treatment steps, those with asthma attacks or from groups with more complex needs

• Consider including psycho-educational interventions in clinics for adults and children with difficult asthma
Possible implementation issues for medicines optimisation

• Use of **personalised asthma action plans**, supported by regular professional review
  – Address adherence routinely and regularly.
  – Investigate high use of short-acting β2 agonist

• **Safe and appropriate use** of LABAs, ICS and tiotropium

• **Good communication** between primary and secondary care after asthma attacks

• Identification of **people at high risk of death** from asthma and targeted support tailored to their needs
Why asthma still kills
The National Review of Asthma Deaths (NRAD)

Confidential Enquiry report
May 2014
Lessons from asthma deaths and near-fatal asthma

• Most patients who died of asthma had chronically severe asthma

• Many of the deaths occurred in patients who had received inadequate treatment with ICS or steroid tablets and/or inadequate objective monitoring of their asthma
  – Follow up was inadequate in some and others should have been referred earlier for specialist advice
  – There was widespread underuse of written management plans
  – Heavy or increasing use of β2 agonist therapy was associated with asthma death
Asthma deaths: adverse psychosocial and behavioural factors

• Behavioural and adverse psychosocial factors were recorded in the majority of patients who died of asthma
  – learning difficulties, psychosis or prescribed antipsychotic drugs, financial/employment problems, repeated DNA or self-discharge, drug/alcohol abuse, obesity, previous near-fatal attack

• Healthcare professionals must be aware that patients with severe asthma and one or more adverse psychosocial factors are at risk of death
  – With near-fatal asthma it is advisable to involve a close relative when discussing future management
  – Keep patients who have had a near-fatal asthma attack under specialist supervision indefinitely
Why asthma still kills: key findings (1)
The National Review of Asthma Deaths (NRAD) May 2014

- 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

- 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
Why asthma still kills: key findings (2)
The National Review of Asthma Deaths (NRAD) May 2014

• There was a history of previous hospital admission for asthma in 47% (90 of 190)
• Nineteen (10%) of the 195 died within 28 days of discharge from hospital after treatment for asthma
• At least 40 (21%) of the 195 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 (1)
The National Review of Asthma Deaths (NRAD) May 2014

• 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.

• 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.

• 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.
• Of 155 patients for whom severity could be estimated, 61 (39%) appeared to have severe 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 89 (46%) of the 195 deaths, including lack of specific asthma expertise in 34 (17%) and lack of knowledge of the UK asthma guidelines in 48 (25%)
Prescribing and medicines use
The National Review of Asthma Deaths (NRAD) May 2014

• Prescription information was available for most but not all people

• There was evidence of excessive prescribing of reliever medication
  – 65 people had been prescribed >12 short-acting reliever inhalers in the year before they died, while 6 had been prescribed >50

• There was evidence of under-prescribing or inappropriate prescribing of preventer medication
  – 49 people had <4 prescriptions in the year before they died
  – At least 5 people were on LABA monotherapy
Patient factors and perception of risk of poor control
The National Review of Asthma Deaths (NRAD) May 2014

• Factors that could have avoided the death related to patients, their families and the environment were identified in 126 (65%) of those who died

• These included
  – current tobacco smoking
  – exposure to second-hand smoke in the home
  – non-adherence to medical advice
  – non-attendance at review appointments.

• Poor recognition of risk of adverse outcome was an important avoidable factor in children and young people
Key recommendations:

Organisation of NHS services (1)
The National Review of Asthma Deaths (NRAD) May 2014

- Every NHS hospital and 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 2 courses of systemic corticosteroids, oral or injected, in the previous 12 months or
  - They require management using BTS stepwise treatment 4 or 5 to achieve control
Key recommendations: 
Organisation of NHS services (2)
The National Review of Asthma Deaths (NRAD) May 2014

• 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 2 or more times with an asthma attack in the previous 12 months
Key recommendations: Organisation of NHS services (3)
The National Review of Asthma Deaths (NRAD) May 2014

• A standard national asthma template should be developed to facilitate a structured, thorough asthma review

• Electronic surveillance of prescribing in primary care should be introduced as a matter of urgency
  – To alert clinicians to patients being prescribed excessive quantities of short-acting reliever inhalers, or too few preventer inhalers

• A national ongoing audit of asthma should be established
Key recommendations:  
Medical and professional care (1)  
The National Review of Asthma Deaths (NRAD) May 2014

- 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.

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.

Key recommendations: Medical and professional care (2)
The National Review of Asthma Deaths (NRAD) May 2014
Key recommendations: Prescribing and medicines use (1)
The National Review of Asthma Deaths (NRAD) May 2014

• 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
Key recommendations:

Prescribing and medicines use (2)
The National Review of Asthma Deaths (NRAD) May 2014

- Non-adherence to preventer inhaled corticosteroids is associated with increased risk of poor asthma control and should be continually monitored.

- The use of combination inhalers should be encouraged. LABA bronchodilators are prescribed for people with asthma, they should be prescribed with an inhaled corticosteroid in a single combination inhaler.
Key recommendations:

Patient factors and perception of risk (1)
The National Review of Asthma Deaths (NRAD) May 2014

• Patient self-management should be encouraged to reflect their known triggers
  – Such as increasing medication before the start of the hay-fever season, avoiding NSAIDs 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.
Key recommendations: Patient factors and perception of risk (2)
The National Review of Asthma Deaths (NRAD) May 2014

• 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

• Efforts to minimise exposure to allergens and second-hand smoke should be emphasised, especially in young people with asthma
NICE quality statements : MO

- **NICE quality statement 3**: People with asthma receive a written personalised action plan.
- **NICE quality statement 4**: People with asthma are given specific training and assessment in inhaler technique before starting any new inhaler treatment.
- **NICE quality statement 5**: People with asthma receive a structured review at least annually.
- **NICE quality statement 6**: People with asthma who present with respiratory symptoms receive an assessment of their asthma control.
NICE quality statements : MO

• **NICE quality statement 9**: People admitted to hospital with an acute exacerbation of asthma have a structured review by a member of a specialist respiratory team before discharge.

• **NICE quality statement 10**: People who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma are followed up by their own GP practice within 2 working days of treatment.
Asthma – MO in Practice

• Identifying patients for review
  – stepping down high dose ICS
  – reviewing those on >12 inhalers year salbutamol, LABAs alone (without ICS), or those not collecting ICS (primary/secondary care joint working)

• Primary care pharmacists looking at patients prior to their nurse-led asthma review to prioritise those with compliance issues

• Training asthma nurses to step down ICS

• Adoption and implementation of the London respiratory group ICS card
Asthma – MO in Practice

• Awareness of mental health is a risk factor for asthma deaths
  – reviewing inhaler technique and over-use of SABAs on in-patient units

• Inhaler technique training for clinicians, patients and care home staff, using In-Check Dial device

• Working with out of hours service to ensure they only give one reliever inhaler, and inform the GP when they have seen an asthma patient
Asthma – MO in Practice

• Production of summary sheet of inhaler types
  – ‘Right device – right inhaler’ promotion

• Production of individual templates for patient reviews to support nurse team
  – incorporating inhaler technique, concordance and number of inhalers issued

• Development of a video on inhaler technique training using a local media company and CCG communications team
  – available on YouTube
  – Patient cards developed with QR code for video
Prescribe by Brand

- Fostair
- Duoresp
- Symbicort
- Seretide
- Sirdupla
- Flutiform
- Airflusal

- Ages
- Licenses
- DPIs
- MDIs
- Ethanol
- Soya Lecithin
NICE: Coming Soon......

• Asthma: diagnosis & monitoring (June 2017)

• Asthma Management (June 2017) – ‘patient-centred approach’, tools and resources to support implementation