SIGN/BTS asthma management guideline: revisions for 2009

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In June 2009 the Scottish Intercollegiate Guidelines Network (SIGN) and the British Thoracic Society (BTS) published an update to their 2008 *British Guideline on the Management of Asthma.*

Some of the revisions are minor refinements, but there are substantial changes in some areas such as the sections on oxygen to match the new BTS guideline *Emergency Oxygen Use in Adult Patients* published in October 2008, and management of asthma during pregnancy. The importance of management plans and hospital discharge arrangements are re-emphasised.

Asthma in pregnancy

The bulk of the revisions were for the asthma in pregnancy section. A recent large study of the course of asthma during pregnancy has shown improvement in control in 23 per cent and deterioration in 30 per cent during pregnancy. Not surprisingly the chances of an exacerbation increase with asthma severity, varying from 13 per cent with mild asthma to 52 per cent in severe asthma. The peak of these exacerbations is in month 6. Oral steroids increase the frequency of preterm delivery and reduce gestation by two weeks, while exacerbations of asthma increase the risk of low birth weight with a relative risk of 2.54 (95% CI 1.52-4.25).

The safety of inhaled steroids in pregnancy has been confirmed in a large study. Most other agents also appear safe, although there are limited data around combined preparations and leukotriene receptor antagonists. The advice is to continue drugs such as montelukast (Singulair) when they have been shown prior to pregnancy to add to asthma control .

A small anxiety around a marginally increased rate of cleft palate remains with oral steroids, amidst conflicting trial data from patients with a variety of underlying medical conditions. The adverse effects of uncontrolled asthma are worse for the baby and steroid tablets should be used as needed for acute asthma.

Steroid	Equivalent dose	UK licence covers		
		>12 years	5-12 years	<5 years
beclometasone dipropionate CFC	400µg	✓	✓	✓
Beclometasone				
Clenil Modulite		✓	✓	✓
Asmabec Clickhaler		✓	over age 6	✗
Becodisks	400µg	✓	✓	✓
Easyhaler		✓	✗	✗
Pulvinal		✓	over age 6	✗
Qvar	200-300µg	✓	✗	✗
Fostair	200µg	over age 18	✗	✗
Budesonide				
Pulmicort Turbohaler		✓	✓	✗
MDI		✓	✓	over age 2
Easyhaler		✓	over age 6	✗
Novolizer	400µg	✓	over age 6	✗
Symbicort		✓	over age 6	✗
Symbicort (maintenance and reliever)		over age 18	✗	✗
Fluticasone				
Flixotide Evohaler		✓	✓	over age 4
Accuhaler	200µg	✓	✓	over age 4
Seretide Evohaler		✓	✓	over age 4
Accuhaler		✓	✓	over age 4
Mometasone				
Asmanex	200µg	✓	✗	✗
Ciclesonide				
Alvesco	200-300µg	✓	✗	✗

Table 1. Equivalent doses of inhaled steroids relative to beclometasone dipropionate and current licensed age indications

Chronic asthma

In the section on general management of chronic asthma there are fewer additions. The effectiveness of the combined preparation of budesonide and formoterol (Symbicort) for regular and as-needed use is recognised for selected patients poorly controlled at step 2 or 3 (of pharmacological management).

The change to CFC-free MDIs and the introduction of new inhaled steroids can cause confusion for patients and health professionals alike. The guidelines provide a very helpful table on equivalent doses of the available drugs and current licensed age indications (see Table 1).

The guidelines now recommend that all asthma patients should be asked routinely about prior reactions to beta-blockers or NSAIDs as deaths and severe reactions are still occurring due to inappropriate prescription of these drugs.

Acute asthma

There are some changes in the recommendations around acute asthma, and the annexes on acute management have been adjusted in line with the evidence. Recommendations on oxygen use now require an oxygen saturation target and they suggest 94-98 per cent.

The guidelines suggest that all primary- and secondary-care staff should have access to pulse oximeters. However, the absence of a pulse oximeter should not limit the use of oxygen in acute asthma. Oxygen at 6 litres per minute should be used to drive nebulisers in acute asthma whenever possible.

In adults the frequency of nebulisations of ipratropium used with salbutamol in acute severe asthma remains at four to six hours, but in children doses every 20-30 minutes are suggested for the first two hours of a severe attack. In children presenting in primary care with mild exacerbations, it is suggested that oral montelukast can be helpful, although there is no evidence to support this in moderate or severe attacks.

Conclusion

The guideline remains an invaluable source of advice and references on asthma diagnosis and management. The excellent attention of the team to regular updates maintains its place as the most useful source of information on this area for health professionals in the UK.

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