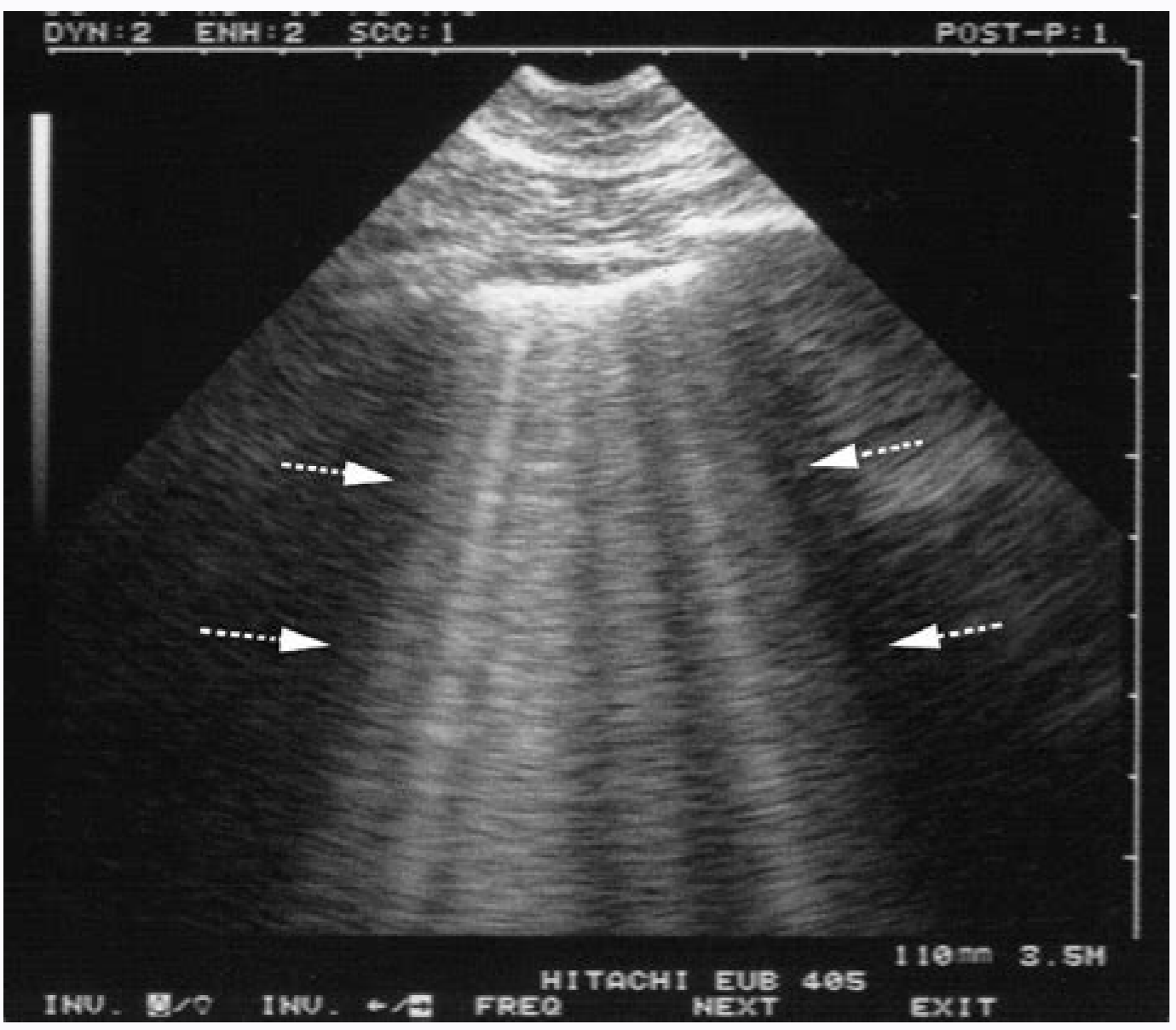
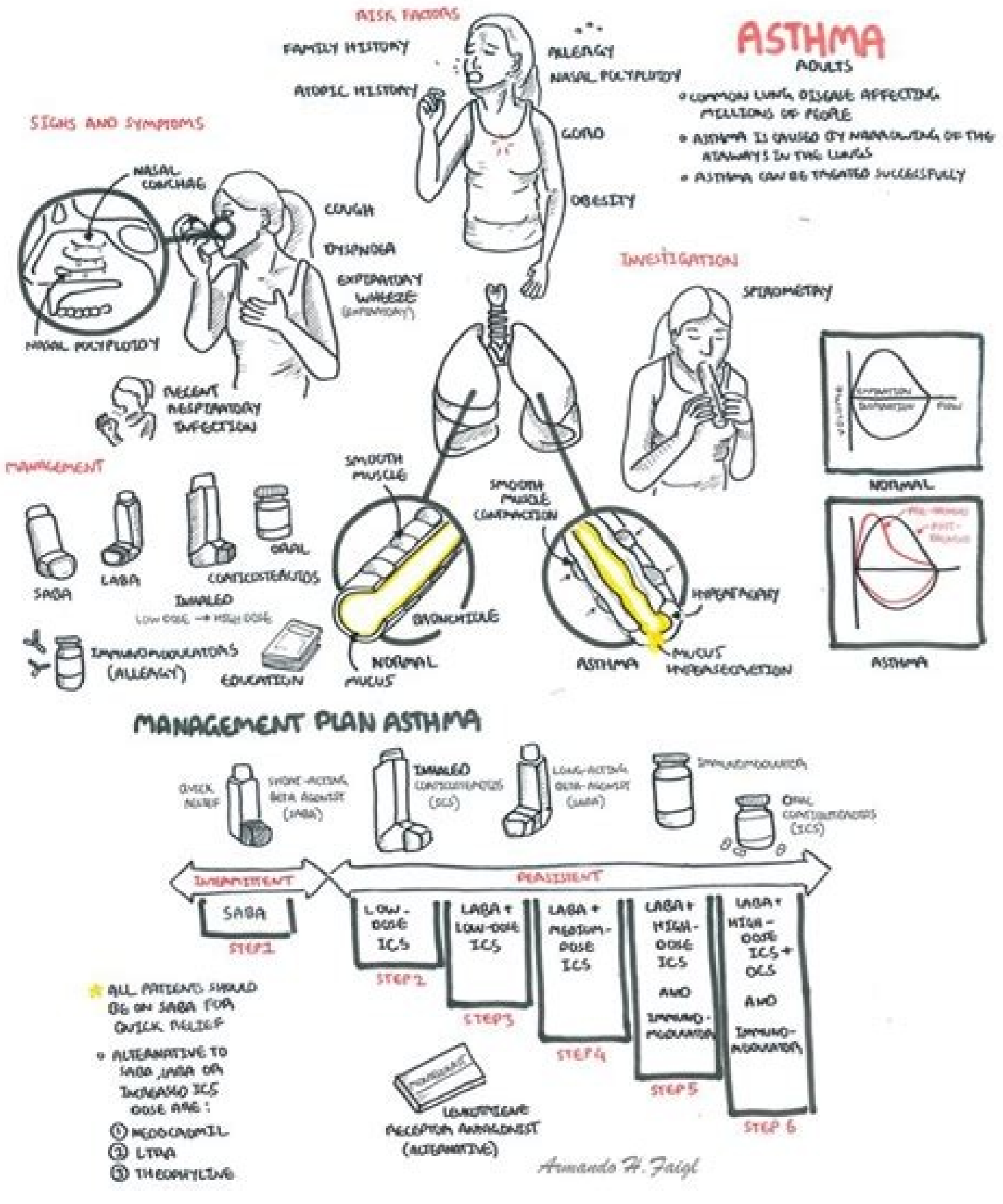
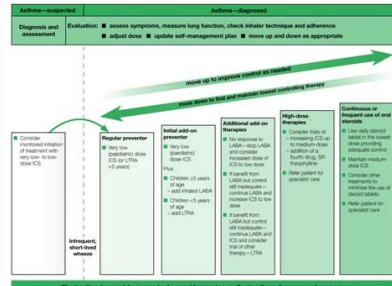


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British Guideline on the Management of Asthma

BTS/SIGN British Guideline on the Management of Asthma, May 2008



- Introduction
- Diagnosis
- Non-pharmacological management
- Pharmacological management
- Inhaler devices
- Management of acute asthma
- Special situations
- Organisation and delivery of care, and audit
- Patient education and self-management
- Development of the guideline



Some important changes have been made to the British Thoracic Society (BTS) and Scottish Intercollegiate Guidelines Network (SIGN) British guideline on the management of asthma in the latest update now available on both their websites (brit-thoracic.org.uk and sign.ac.uk).¹ A key focus of the 2009 update is the management of patients with acute asthma, with important messages for healthcare professionals in 'front-line' clinical care. The section on asthma in pregnancy has clear recommendations that we will need to share with our midwifery colleagues. Revisions in the 2009 guideline The updated section on acute asthma contains two main messages: the first reinforces the importance of objective assessment and recording of severity, and the second makes a strong recommendation for the use of oximetry in primary care, and clarifies the role of oxygen in managing the acute exacerbation. The section on asthma in pregnancy provides further reassurance on the safety of using drugs for asthma in this group of patients and reinforces previous recommendations on the importance of monitoring these women and maintaining good asthma control. Details on the pharmacological management of asthma have also been updated, including a useful summary of the new chlorofluorocarbon (CFC)-free inhaled steroids and an update on therapeutic options at step 3.1 Table 1 summarises the key changes from the updated BTS/SIGN guideline. Table 1: Key messages and recommendations from the BTS/SIGN guideline¹ GradeRecommendation Acute asthma: preventing deaths B Healthcare professionals must be aware that patients with severe asthma and one or more adverse psychosocial factors are at risk of death All patients with asthma should be asked about past reactions to beta blockers and non-steroidal anti-inflammatory drugs Acute asthma: objective assessment Oxygen saturation monitors should be available for use by all healthcare professionals assessing acute asthma in both primary and secondary care settings. Patients with SpO₂ 150 days) despite intense therapy Type 2: sudden severe attacks on a background of apparently well-controlled asthma PaCO₂=partial pressure of carbon dioxide in arterial blood; PEF=peak expiratory flow; SpO₂=saturation of peripheral oxygen; PaO₂=partial pressure of oxygen in arterial blood British Thoracic Society/Scottish Intercollegiate Guidelines Network. British guideline on the management of asthma. A national clinical guideline. Edinburgh: SIGN, 2009. Reproduced with kind permission. Available at: brit-thoracic.org.uk and sign.ac.uk Table 3. Levels of severity of acute asthma exacerbations in children aged over 2 years¹ LevelClinical features Life-threatening Any one of the following in a child with severe asthma: Clinical signs Measurements Silent chest Cyanosis Poor respiratory effort Hypotension Exhaustion Confusion SpO₂ 5 years Respiratory rate: >40 breaths/min aged 2-5 years >30 breaths/min aged >5 years Moderate exacerbation Able to talk in sentences SpO₂ ?92% PEF ?50% best or predicted Heart rate ?140/min in children aged 2-5 years ?125/min in children >5 years Respiratory rate ?40/min in children aged 2-5 years ?30/min in children >5 years SpO₂=saturation of peripheral oxygen; PEF=peak expiratory flow British Thoracic Society/Scottish Intercollegiate Guidelines Network. British guideline on the management of asthma. A national clinical guideline. Edinburgh: SIGN, 2009. Reproduced with kind permission. Available at: brit-thoracic.org.uk and sign.ac.uk Asthma in pregnancy Treatment as usual The guideline section on asthma in pregnancy has been revised in collaboration with an obstetric physician and the underlying message is clear: a healthy mother is crucial, and the drugs commonly used to treat asthma are safe both in pregnancy and lactation.¹ Asthma control is affected by pregnancy: about a third of women will improve, a third will experience increased symptoms (often at about 6 months), and a third will remain the same.¹¹ Women can be reassured that if good control of asthma can be achieved and maintained throughout the pregnancy, there is little or no increased risk to mother or foetus.¹ In general, the drugs used to control asthma (inhaled steroids, long- and short-acting ?2 agonists) are safe, and pregnant women should, therefore, be encouraged to take their usual medicines in order to maintain control. It is not recommended that leukotriene-receptor antagonists are initiated during pregnancy because evidence on these drugs is still limited, although patients who are already receiving them may continue if they are of benefit.¹ Drug therapy for acute exacerbations should be given as for the non-pregnant woman, with the caveat that acute severe asthma in pregnancy should be managed in hospital by a respiratory physician and an obstetrician. The possible (but not proven) small risk of cleft palate associated with the use of oral steroids in the first trimester is far outweighed by the risk of inadequately treating an acute exacerbation.¹ The challenge for primary care Pregnant women who have long-term conditions (e.g. diabetes, epilepsy, or heart or kidney failure) are referred for close monitoring as soon as pregnancy is confirmed, but this is not routinely done for asthma. The updated guideline emphasises the need to monitor asthma during pregnancy,¹ and the challenge for primary care is to work with midwives and practice nurses to ensure that every pregnant mother is: asked about a history of asthma at her booking visit reviewed in the practice asthma clinic for assessment of control and adjustment of medication to maintain control with the minimum necessary dose—referral to a specialist clinic should be considered if good control cannot be achieved in primary care provided with a personalised self-management plan that advises on symptoms of deterioration and appropriate action. Pharmacological management of asthma There have been minor updates to the guideline section on the pharmacological management of asthma. Withdrawal of CFC-containing inhalers In previous guidelines, CFC-containing beclometasone dipropionate (BDP) has been used as the reference inhaled steroid. Over the last year, CFC-containing inhaled steroids have been withdrawn, and the updated guideline now refers to the equivalent CFC-free product. There has also been an increase in the range of products available, each with their own delivery characteristics and licensed age indications. Prescribers will need to be vigilant when switching between products to ensure that the dose of inhaled steroid is not effectively reduced (potentially threatening control) or increased (potentially undermining the normally favourable risk/benefit profile). Table 4 compares the range of different steroid preparations and their relative potency to CFC-containing BDP.¹ Inhaled steroids and long-acting ?2 agonists The BTS/SIGN guideline reviewed the evidence on the safety of long-acting ?2 agonists and endorsed the advice of the Medicines and Healthcare products Regulatory Agency that these should only be prescribed with inhaled steroids.¹² One benefit of using a combination inhaler is that it prevents patients from stopping their inhaled steroid and using long acting ?2 agonists as monotherapy.¹ The advice on the use of the budesonide/formoterol combination inhaler as both a controller and reliever medication has been updated. It was previously recommended as an option for patients with uncontrolled asthma at step 3 of the guideline (i.e. already on an inhaled steroid and a long-acting ?2 agonist). More recent evidence suggests that it may be considered for patients currently at step 2 who are receiving above 400 ?g BDP daily and who require a step up in medication.¹³ The switch should be made to a maintenance dose of inhaled steroid that is equivalent to previous treatment. Patients require careful counselling and should be informed of the importance of seeking advice if their control is not restored in a few days; and their action plan should be revised to ensure that they understand when they should take additional doses.¹ Inhaler devices The chapter on inhaler devices has been reviewed, but no changes have been made. The core message is never to assume that patients can use the device they are being prescribed.¹⁴ All prescribers have a responsibility to check inhaler technique before they prescribe an inhaled treatment, and if necessary to select a more suitable device.¹ Table 4: Equivalent doses of inhaled steroids relative to beclometasone dipropionate and current licensed age indications¹ UK licence covers Steroid Equivalent dose (μ g) >12 years 5-12 years

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