
Anna Murphy and Raymond Tallis explain how taking a concordant approach to finding out about a patient’s background and beliefs can improve that patient’s compliance with asthma management therapy.

A n increasing appreciation of the fact that patients frequently do not take their medicines as prescribed, resulting in suboptimal outcomes and much wastage of resources, has gone in parallel with a recognition that the old models of a passive patient compliant with “doctor’s orders” will not improve this situation. A patient will take medicines only if there is a concordance of views with the doctor about the efficacy of the medicine and its wider appropriateness. In short, a patient will take medicines as prescribed only if he or she and the doctor share the same beliefs and doubts about its net benefits to the patient’s life. Moreover, the patient’s view as to the net benefit of treatment may go beyond simply alleviation of symptoms. In many cases, the process of taking medicines may itself be perceived by the patient as harmful or even damaging to self-esteem. Failure to understand these important considerations may occur if the doctor and the patient come from different ethnic backgrounds. These beliefs need to be identified if they are not going to present a barrier to concordance.

CASE REPORT

A patient, Miss S.A., is a 20-year-old Asian office worker who has had chest problems since she was a child, particularly when the weather is bad. She was diagnosed as suffering from asthma at the age of 15.

Visit 1 — Hospital outpatient clinic (nurse-led)

The patient was referred by her general practitioner to the respiratory nurse at the hospital for review of her asthma. The GP had been concerned that she had regularly been requesting high doses of oral steroids and antibiotics from the surgery. This was believed to be inappropriate management. Moreover, her asthma control had deteriorated over the past two years, despite her being prescribed beclometasone pMDI via a large volume spacer in a dose of 1,000µg bd, as well as six courses of oral prednisolone over the past 12 months. She had also been prescribed salbutamol pMDI at a dose of 200µg qds and salmeterol pMDI 50µg bd.

The nurse was also concerned that this was a high level of medication. Only a small proportion of patients who have asthma are not adequately controlled on a combination of pbn short-acting β2-agonist, inhaled corticosteroid (800µg beclometasone daily or equivalent) and an additional drug, usually a long acting β2-agonist.1 The British Thoracic Society (BTS) has collaborated with the Scottish Intercollegiate Guidelines Network (SIGN) and revised the guidance on the management of asthma.2 The new guidelines maintain the characteristic “stepwise” approach to treatment but there are changes in emphasis and in the treatments recommended. Treatment is started at a particular level according to the severity of the patient’s symptoms. The aim is to achieve early control and maintain control by stepping up treatment as necessary and stepping down when control is good.1 The recognition that asthma is not only an episodic disease but also a chronic disease has shifted the focus of therapy beyond short-term treatment of exacerbations to long-term control with medicines that may alter the course of the disease. Inhaled corticosteroids are the cornerstone of long-term controller therapy. Miss S.A. was being treated with a high dose of inhaled corticosteroid and receiving regular oral courses of corticosteroid. Regular courses of oral corticosteroids (eg, three to four per year) are worrying because patients will be at risk of systemic side effects.1 Although inhaled corticosteroids have a much safer side effect profile than do oral corticosteroids, their overuse can still lead to adverse effects. The likelihood of systemic side effects increases with dosage and may occur with daily doses of inhaled corticosteroids (beclometasone equivalent) greater than 800–1,200µg in adults and 400–600µg in children.1 The aim is to use the lowest dose of corticosteroid to control the patient’s symptoms. According to the BTS/SIGN asthma management guideline Miss S.A. was being treated at Step 4, indicating that she has difficult asthma to manage.

Concerned that there may be other underlying factors, the nurse took a detailed history, seeking alternative explanations for the apparent poor response to treatment. She found that the patient was a non-smoker, with no history of atopy. She had no pets at home and had no documented history of intolerance to aspirin or other non-steroidal anti-inflammatory drugs.

On examination Miss S.A. was 96 per cent saturated and her peak flow was only 250L/min (predicted 400L/min). Worryingly, on most days she was able to walk only for 20 minutes before becoming breathless. The respiratory nurse noted Miss S.A.’s inhaler technique was extremely weak without the spacer device, with little of the medicine likely to reach the required site. Her technique with the pMDI and spacer was good but Miss S.A. expressed her distaste for the “bulky” spacer device. The nurse decided that a breath-activated device may be better and changed her to beclometasone Easibreathe and salbutamol Easibreathe. The rationale here, is that, although in adults a pMDI with or without a spacer is as effective as any other hand held inhaler, some patients may prefer some types of dry powder inhaler or other inhaler devices.1 Choice of inhaler for stable asthma should be based on patient preference and assessment of correct use.1

In order to improve her asthma control, after consultation with a respiratory physician, the patient was started on theophylline tablets (Uniphyl®) 200mg daily, increasing to 400mg if tolerated after a few days. Miss S.A. was pleased with the tablets and wondered why she had not been prescribed them earlier. She was also asked to record her peak flows on the asthma record chart and to attend the clinic again in one month’s time.

The nurse, unsure about Miss S.A.’s compliance with her medication, referred her to the consultant respiratory pharmacist at the hospital for an assessment. There is a role for a trial of treatment with leukotriene receptor antagonists or theophyllines for about six weeks at this step of the BTS/SIGN asthma guidelines. They should be stopped if no improvement in symptoms or lung function is detected. Leukotriene receptor antagonists provide improvement in lung function, a decrease in exacerbations and an improvement in symptoms. They provide protection against exercise-induced asthma2 and theoretically may be useful for patients with a documented reaction to aspirin or NSAIDs. Since Miss S.A. did not have any of the above, theophylline was added to her current therapy. Theophyllines have been shown to improve lung function and symptoms but side effects occur more commonly.1

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Visit 2 — Hospital outpatient clinic, joint clinic with the nurse and pharmacist two months later

Miss S.A. was supposed to attend a joint nurse/pharmacist clinic one month after her initial visit but she failed to appear. A further appointment was forwarded to her.

When she attended, another month later, her asthma control was worse and she demanded another prescription for oral prednisolone and antibiotics. She was complaining of feeling unwell with a cough, nausea and night time awakening. She had no night sweats, had no obvious wheeze or respiratory distress and although she claimed to be productive of sputum was unable to produce this in clinic. Unfortunately, she did not have her asthma plan with her — she said her mother had spilt a drink all over it and it was now illegible.

In view of the nausa she was experiencing, theophylline was stopped. She also felt that there had been no improvement in her symptoms.

During the consultation with the pharmacist, Miss S.A. was encouraged to discuss her views on her medication and how the medicines fitted in with her lifestyle. A good rapport between the two soon developed. It became clear that she had a poor understanding of why she was prescribed inhalers. The pharmacist sensed that Miss S.A. had a negative attitude to her inhalers and asked her if she had problems with them. Initially, she avoided the question but after further careful questioning she confessed that the inhalers were a clear sign to her community that she was an asthmatic. She explained this was a cultural belief. She had therefore not been using any of her inhalers. Over the months this had been agreed. Now with her improved understanding of her medication and disease she agreed to use only one inhaler in the morning and at night — times when no one could see her. The pharmacist recommended a combination inhaler containing a corticosteroid and a long-acting beta₂-agonist (eg, Symbicort or Seretide). Although all patients with symptomatic asthma should be prescribed an inhaled short-acting beta₂-agonist as short-term reliever medication, Miss S.A. refused. This asthma management plan was not optimal but was considered to be a fair compromise.

She was given a follow-up appointment for one month later and given the pharmacist’s contact details should she wish to discuss her management plan further or ask questions.

Visit 3 — Hospital outpatient clinic, pharmacist, one month later

A month later Miss S.A. attended the pharmacist’s outpatient clinic. With her new regimen of regular preventive therapy and inhaled long acting beta₂-agonist in the combined inhaler taken each morning and night, she stopped suffering symptoms and felt well. She was pleased that she was no longer having to suffer her asthma yet could still hide the fact she was using inhalers.

Visit 4 — Hospital outpatient clinic, pharmacist, three months later

After three months, Miss S.A. was assessed again. She had remained asymptomatic, so the dose of inhaled steroid within the combined inhaler was stepped down. She had not required any oral corticosteroids or antibiotics since her last outpatient clinic appointment and for the first time did not mention them in clinic. On the contrary she was happy to discuss the prospect of her future arranged marriage.

Discussion

Asthma is a complex disease and it is essential that each patient’s treatment is individualised. The treatment plan should take into account the disease severity, the patient’s environment, exercise levels, any compliance problems, understanding of the disease and the treatment and the ability to use an inhaler device. However, different patients will have different goals and may wish to balance these aims against the potential side effects or inconvenience of taking the medicines necessary to achieve “perfect” control.

The BTS/SIGN guidelines recommend that before initiating a new drug therapy practitioners should check compliance with existing therapies. Poor compliance can be a major obstacle to the success of asthma therapy. Indeed, non-compliance is the most common cause of a drug’s failure to control the disease, leading to more GP consultations, visits to accident and emergency department, increased mortality and morbidity and unnecessary health care costs. Data suggest that only 30–50 per cent of patients take preventive therapy as instructed. There are many reasons why this may occur, including lack of understanding of the roles of different forms of therapy and fear of steroids, as well as perhaps purely financial reasons. Many patients forget to take one or more doses each day or stop taking the preventive inhaler when they feel better only to have a recurrence a few weeks later. The answer lies in part in giving the patient a full understanding of the treatment, allaying fears and negotiating with the patient as to how they can best fit taking the therapy with their lifestyle.

The case described illustrates how the background to poor compliance may sometimes be complex. Without understanding this background in Miss S.A.’s case, there was no likelihood of her asthma being managed satisfactorily. A sympathetic attitude not only elicited the underlying reason for poor compliance but also suggested a strategy to overcome the barrier arising from the social opprobrium the patient might face from making her chronic illness visible through the use of inhalers. The necessity for compromise, imagination and lateral thinking in promoting concordance is therefore well illustrated.

Tips for creating concordance

- Open ended questions — like “if we could make one thing better for asthma what would it be?” — may help to elicit a more patient-centred focus
- Make it clear that you are listening and responsive to the patient’s concerns and goals
- Reinforce practical information and negotiated treatment plans with written instructions
- Consider reminder strategies
- Recall patients who miss appointments

References