UNIT NO. 5

PATIENT EDUCATION AND SELF-MANAGEMENT ISSUES

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ABSTRACT

There is evidence that a good education-based disease management system produces results with a reduction in outpatient attendances, hospital emergency attendances, hospital admissions and even length of stay. Patient education must start at the time of diagnosis and is a continual process, with information being fed in and reinforced at every step of the clinical care process. The three components of education are understanding, prevention, and skills. It is essential that education is provided by all members of the healthcare team and that the information given must be consistent. We need to encourage the spirit of active partnership, provide all patients with the knowledge and skills and empower them to make good and sensible decisions in their own care.

WHY PATIENT EDUCATION?

There is evidence that a good education-based disease management system produces results with a reduction in outpatient attendances, hospital emergency attendances, hospital admissions and even length of stay[1,2] (Gibson et al, 2003; Hopman et al,2004). Asthma education is not restricted to patient education; it also extends to parents and relatives of the patient as well as to providers of healthcare.

Patient education must be individualized in a stepwise manner (Fig 1). The goal is to provide the patient or his family with relevant information (Fig 2) to enable him to manage his own condition so that he remains well according to a treatment plan developed together with his doctor/asthma nurse educator. Communication between the healthcare provider and the patient/relatives must remain a 2-way process with a full discussion of expectations and what can be realized, as well as allowing the patient/relatives to express any concerns or fears whether they relate to the disease or to the treatment. The best asthma treatment plan will be a partnership between the healthcare professional and the patient. We need to remember that the patient will only see the doctor at specified intervals and that he needs to know how to manage his asthma *in the interim* when there may be a change in his condition.

WHAT ARE THE COMPONENTS OF PATIENT EDUCATION?

Understanding

A major component of patient education is to increase understanding of the disease. The patient must be aware that it is a condition which will come and go, is reversible and that although there is no cure, treatment can be extremely effective. He will be informed that it is a disease of inflammation and that inflammation leads to swelling of the bronchial wall, mucosal secretions and bronchospasm, all contributing to narrowing of the airways. If he knows that it is a disease of inflammation, he will then also understand the purpose of preventive medicines, and the difference between preventers and bronchodilators.

Prevention

The patient will be told about the common triggers, including triggers which are found in the home, those in the environment and those at the place of work. It may be a good opportunity to inform him that cigarette smoke, active or passive is an important trigger. He will learn that often there is a familial predisposition, and he may have inherited an atopic tendency and often he may have associated conditions like allergic rhinitis, eczema or hay fever. Some patients will require information about exercise, exercise induced asthma and others may enquire about asthma and pregnancy.

Skills

Asthma education also aims to develop *skills*. The patient needs to develop these skills in the management of his asthma. The use of the MDI inhaler must be taught. The inhalation technique must be perfected. There are at least

Fig 1. Individualising Education in a Stepwise Manner

The goal:

To provide the patient and his or her family with relevant information and training so that the patient can keep well and adjust treatment according to a medication plan developedwith the health care professional.

Key components:

- The development of a partnership
- Acceptance that this is a continuing process
- A sharing of information
- Full discussion of expectations
- Expression of fears and concerns

The patient then requires information about:

- Diagnosis
- Difference between “relievers” and “controllers”
- Training in use of inhaler devices
- Advice regarding prevention
- Signs that suggest asthma is worsening and actionsto take
- Training in monitoring asthma
- Advice about how and when to seek medical attention

The patient then requires:

- A guided self-management plan
- Regular supervision, revision, reward, and reinforcement

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Fig 2. Prevention: a patient's checklist

What should I avoid?
- Active smoking
- Passive smoking
- Beta-blockers (tablets and eye drops)
- Aspirin (and NSAIDs) where previously adverselyaffected
- Occupational agents (to which the patient has becomesensitized)

What should I consider and avoid or modify exposure to, if relevant to me?
- Domestic mites
- Other common allergens
- Adverse occupational environments
- Foods and additives
- Adverse indoor environments

What should I always undertake, if necessary by adjusting treatment?
- Normal social activities
- Exercise (other than in certain very adverseenvironmental conditions)
- Sports

Always mention to the health care professional anything else that may affect your asthma (for example, menstruation, alcohol).

7 steps for the correct administration of the aerosol (Fig 3). The correct technique must first be demonstrated and the patient is observed during the performance of these steps until he gets it right. This may require a few visits to perfect. Other skills relate to the use of other delivery devices including the *Turbuhaler, Accuhaler* or spacer devices. Skills learnt also include the monitoring of symptoms, peak flow rates and recognition of early signs of deterioration. It is useful to remind patients that persistent cough, especially at night may be a sign that asthma is getting worse. Skills training also includes the skill to take action when the symptoms are getting worse, in other words, skills in following the action plan as discussed with the healthcare provider. Hence, the proactive skills to increase the dose of preventer medicines, or starting a course of prednisolone can easily be acquired.

Patient education needs to be provided over several consultations or visits. Most people only remember a fraction of what they are told. Hence educational material supplied to the patient will reinforce what has been said during the visit. For the patient who is more IT-savvy, the addresses of some good websites will enable him to supplement the information. At each visit, revision and reinforcement are essential, and an assessment of the patient's understanding of the information and management skills is made. There may be questions, which will need to be answered.

Patient education hence will lead to increased satisfaction and knowledge of being empowered to take care of the patient's own condition. This will lead to increased confidence and increased compliance and self-management.

Fig 3. Steps in the Metered dose inhaler (MDI) Technique – without a spacer

1. Preparation – Take off the cap. Shake the MDI several times.
2. Exhalation – Stand up. Breathe out as much as possible.
3. Lip closure – Seal the mouth piece against closed lips (closed mouth method).
4. Inhalation – Actuate the device by pressing down firmly and fully the metal canister with the index finger while inhaling slowly and deeply.
5. Breath holding – Hold your breath for 4 to 10 seconds after maximum inhalation.
6. Second puff – To deliver a second dose (puff), wait 30-60 seconds. Shake the MDI again and repeat steps 2 to 5.
7. Replace the mouth piece – Replace the mouthpiece cap when use is completed.
8. Rinse mouth – If your MDI is delivering a corticosteroid e.g., betamethasone – rinse your mouth with water after all the puffs have been delivered. Spit out the water. Do not swallow. This will reduce the yeast growth in your mouth.

COMPLIANCE

Compliance is an issue, which is vital in a successful management programme. Non-compliance is a failure of taking treatment agreed upon by the doctor and the patient. It is important for both the healthcare provider and the patient to understand the factors for noncompliance and to approach the topic in a nonjudgemental way. These can be drug factors such as difficulties with inhalers, awkward regimes, side effects, cost of medication, dislike of medication, difficulties of getting medication. Non-drug factors are equally important and include misunderstanding about the use of medication, lack of adequate instruction, unwarranted fears about side effects, other unexpressed fears or concerns, inappropriate expectations, poor supervision, training or follow-up, anger or denial about condition, underestimation of severity, cultural issues, stigmatization, forgetfulness, complacency, attitudes about illness and many other issues. Compliance can however be increased with better understanding of the disease, if the patient is better able to accept the diagnosis of asthma and if the patient believes that he is at risk for his health or that the disease can be dangerous to him. Compliance is also improved if the patient is convinced that the treatment is safe, that he is in control of his condition and there is good communication between him and the healthcare professional.

SELF-MANAGEMENT

It follows that self-management will only follow when the patient has acquired basic knowledge about asthma, knowledge about the functions of different types of medications, the skills in the use of inhalers and self monitoring skills. Some patients will be able to and willing to monitor their Peak Flow Rates. Others will be taught symptom monitoring and early signs of deterioration only. The patient may be coughing, wheezing, short of breath or feeling tightness in the chest. The symptoms may be keeping him away from his usual activities or from sleep.

The latest NAEPP Expert Panel Report Update[3,4] (NAEPP, 1997; NAEPP, 2002) states that regardless of the type of monitoring used, patients should be given a written action plan and instructed to use it. It is of the opinion of the Expert Panel that including AAP as part of the overall effort to educate

patients in self-management is the soundest approach and is especially indicated for patients with moderate or severe asthma or a history of severe exacerbations. An AAP also enhances clinician-patient communication. The AAP should be individualized. The plan may have to be redrawn or refined at subsequent visits. The Action Plan should be chosen to suit the doctor's practice, style or patient. Various formats have been used[5] (GINA,2002), but all must contain an algorithm of procedures that clearly describe how to use long term preventive medication and rescue medications, given a set of specific circumstances and conditions and clear instructions on how to make adjustments to medications when conditions change, steps the patient should take when medicines are ineffective or if an emergency arises, and what to do if urgent care in required.

In conclusion, patient education must start at the time of diagnosis and is a continual process, with information being fed in and reinforced at every step of the clinical care process. It is essential that education is provided by all members of the healthcare team and that the information given must be consistent. We need to encourage the spirit of active partnership, provide all patients with the knowledge and skills and empower them to make good and sensible decisions in their own care.

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LEARNING POINTS

- **There is evidence that a good education-based disease management system produces results with a reduction in outpatient attendances, hospital emergency attendances, hospital admissions and even length of stay.**
- **Patient education must start at the time of diagnosis and is a continual process, with information being fed in and reinforced at every step of the clinical care process.**
- **The three components of education are understanding, prevention, and skills.**
- **It is essential that education is provided by all members of the healthcare team and that the information given must be consistent.**
- **We need to encourage the spirit of active partnership, provide all patients with the knowledge and skills and empower them to make good and sensible decisions in their own care.**