THE NON-PHARMACOLOGICAL MANAGEMENT OF BREATHLESSNESS

Jenny Taylor

The non-pharmacological management of breathlessness has an important adjuvant role in the treatment of breathlessness at the end of life. This article will describe elements of breathing control techniques used by physiotherapists that can be modified and implemented effectively by nurses in all care settings. Positioning, relaxation, and energy-conservation measures are also supportive evidence-based strategies that can be adopted by nurses in their role as key members of the clinical team. Results of a small audit carried out at St Christopher's Hospice are presented. These showed that anxiety and panic play a more significant role than was assessed initially in a proportion of patients referred for breathlessness management. Understanding the mechanism of panic will equip the nurse to provide appropriate support. Patients are often desperate to retain some personal control even at this stage in their disease and will respond positively to self-help measures when supported by the nurse. All quotations used in this article have been taken (with permission) from patients referred for physiotherapy intervention for breathlessness management. Declaration of interests: none

Key words

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Breathlessness
End of life
Non-pharmacological
strategies
Nursing role

Breathlessness, especially in the acute terminal phase of a disease, is one of the most difficult symptoms with which health professionals are faced when caring for patients at the end of life. Physical, emotional and spiritual aspects of distress are inextricably interwoven, and strike at the very heart of existence. When confronted with a patient as acutely symptomatic as the one described in the 'Case scenario', it is easy for nurses to feel disempowered and deskilled.

Jenny Taylor is Head of Physiotherapy, St Christopher's Hospice, Sydenham, London. Email: j.taylor@stchristophers.org.uk This article will explore the supportive strategies, both practical and psychological, that nurses can employ when confronted with this very distressing and frightening clinical picture.

Context

Breathlessness in terminal cancer, heart failure and end-stage respiratory disease is managed by pharmacological and non-pharmacological means. Pharmacological measures, including medications such as opiates and anxiolytics, make a significant contribution to the alleviation of symptoms, but have a tendency to cause side-effects such as respiratory depression, constipation or excessive drowsiness (LeGrand et al, 2003).

Nebulisers also have a role to play, either for the administration of bronchodilators or saline, which helps break up secretions (Hough, 1991). Oxygen therapy for breathless patients can be effective. However, its use is complex and its role remains unclear (Booth et al, 2004). Careful consideration when prescribing oxygen must take account of hypoxia, oxygen saturation levels in the blood at rest and after exertion and the

risk of reducing respiratory drive. There is potential for it to be used injudiciously by the patient because of psychological dependency and a misunderstood perception of oxygen as 'life support'. Oxygen therapy can restrict movement and has a consequent psychosocial impact on quality of life. Additional concerns are fire hazard, community provision and cost.

It is not the purpose of this article to explore these pharmacological treatment methods. This information can be found elsewhere (e.g. Meek et al, 1999; Sykes et al, 2004), but they have been mentioned briefly for completeness. The key to optimum management of symptoms is a combination of non-pharmacological interventions, together with skilled titration of medication against the progression of the disease.

Non-pharmacological measures can help to empower patients at a time when the majority of their symptom management is prescriptive. There is a body of literature concerning the non-pharmacological management of breathlessness (Corner, 1996; Stent, 2001; Hoyal et al, 2002) and it has been established that nurses have a key role in teaching and supporting patients (Corner et al, 1995; Grey, 1995; Bailey, 1996; Hately et al, 2001).

Breathing techniques are core skills of the physiotherapist and are used routinely for treating patients with chronic obstructive pulmonary disease (COPD), asthma, and other chronic respiratory diseases. When a patient is in acute respiratory distress, the combined skills of a doctor, nurse and physiotherapist are key. If sputum retention is established through clinical examination, timely intervention from a physiotherapist is important. This will comprise appropriate positioning for optimal drainage in conjunction with hands-on breathing exercises and effective clearance by coughing or 'huffing'. (Huffing is a brief, forced expiration technique used, for example, in the action of misting a pair of spectacles before polishing them.)

Gentle percussion techniques, if appropriate, may be used. These must be carefully modified according to the patient's condition. Rarely, in crisis situations, non-invasive suctioning, by means of a Yankauer sucker, may provide rapid and effective relief from obstructive secretions. Tracheal or nasopharyngeal suctioning is generally contraindicated for the breathless patient as the resultant hypoxia can be intolerable (Hough, 1991). Non-invasive suctioning is best managed by a nurse and a physiotherapist working together. In a hospice setting it has been found that a collaborative integrated approach, involving

nurse and physiotherapist, has enhanced best practice (Syrett and Taylor, 2003). Individual expertise is combined towards a common goal and patient care and confidence is thus enhanced.

Anatomy and physiology

When confronted with the acutely breathless patient at the end of life, nurses will draw on their clinical skills and personal qualities. To ensure a sound, confident approach, a basic understanding of the anatomy and physiology of the lungs is helpful. Mosby's Crash Course Respiratory System is a useful resource (Jeffries and Turley, 1999).

The apex (top) of each lung extends to just above the clavicle (collarbone). The base, almost at the level of the last rib, sits on top of the diaphragm, which is the largest sheet muscle in the body and is shaped like a dome. The trachea (windpipe) leads from the mouth and nose and divides into right and left bronchi to supply each lung. These bronchi further subdivide into bronchioles and then into around 300 million alveoli (tiny air sacs shaped like grapes). The whole respiratory network could be said to resemble an upside-down tree (Figure 1).

The lungs are constructed like a giant sponge, processing around 10,000 litres of air per day. The total surface area of the membrane that performs gas exchange is equivalent to the size of a tennis court. On inspiration, the diaphragm flattens and descends and the intercostal muscles

(between the ribs) contract, lifting the ribs up and out. On expiration, the diaphragm rises and the rib muscles relax. A more detailed explanation of respiration is given in *Table 1*. Imparting a basic knowledge of the mechanism of breathing to patients can be very useful. We breathe to live and when inspiration and expiration, once taken for granted, become severely compromised, it strikes at the very heart of survival.

Severely breathless patients will be fighting to draw air into their lungs, making the work of breathing exhausting. Supporting breathless patients to modify their breathing pattern by concentrating on exhaling, clarifying that inspiration is an automatic process, may mean that the patients can regain control. However,

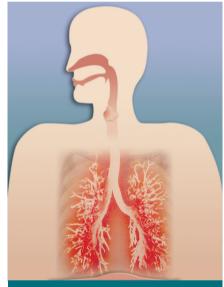


Figure 1. The respiratory network.

the amount of detail should be tailored carefully to suit each person. If well explained, patients report that they find anatomy and physiology informative and profoundly reassuring.

Breathlessness is subjective, i.e. it is what the patient says it is. Practitioners must put aside the tendency to make judgments regarding the manner in which patients are managing their respiratory function, while retaining the skill of symptom assessment.

Dyspnoea: the findings of an audit

An audit of dyspnoea (breathlessness) was carried out by the physiotherapy

Case scenario

One of the patients in your care has suddenly become much more breathless. His condition has been gradually deteriorating, and he is now judged to be entering the terminal phase of his disease. You can see that he is much weaker and that he is becoming very agitated as he fights to retain control of his breathing. His shoulders are elevated, his jaw is tense and his expression fixed. The muscles around his upper chest are struggling to work harder to lift his rib cage in a vain attempt to fill his compromised lungs. He cannot communicate with you as he does not have enough breath to say more than a word or two, and his scant reserves are focused solely on the labour of breathing. His tension and anxiety are overwhelming and you can see that he is very frightened. The patient's family members are picking up on this atmosphere of crisis and feel helpless. The patient and his family look to you as a key member of the multidisciplinary team for your professional expertise and reassurance.

department at St Christopher's Hospice, London, in 2004. It was entitled 'An awareness of difficult or laboured breathing'. Before the audit the referrals of patients experiencing breathlessness had risen significantly and exponentially. An effort was made to establish the principle presenting symptoms, the strategies used to treat those symptoms and resulting outcomes.

Thirty-four patients were included in the audit (62% male, 38% female). Their ages ranged from between 36 and 87 years. All the patients had a diagnosis of cancer, with a high proportion (39%) suffering from lung cancer. Just over half the patients in the group (55%) had no previous history of breathlessness.

For these patients the symptom was a completely new experience. A smaller group (29%) had previously experienced breathlessness. Notably, of this group of patients, 70% had coexistent respiratory compromise, as a result of COPD, asthma or a cardiac condition.

Predominant symptoms were reported from three perspectives: the referrer, the patient and the physiotherapist. The results were revealing. In summary, after a session or two of treatment with the physiotherapist, it emerged that the severity of breathlessness and the presence of panic were more prevalent than the referrer had initially assessed them to be. The audit further revealed that anxiety was

considerably under recognised by both the referrer and patient (Figure 2).

HAD (hospital anxiety and depression) scores (Zigmond and Snaith, 1983) were completed in 24 of the 34 patients on the audit. The HAD scale was designed to provide a reliable but simple tool to assess mood disorders, in particular anxiety and depression. In the St Christopher's audit there was a significant section of the group scoring over 10, although it was not established to what extent breathlessness specifically contributed to the patients' HAD scores. A HAD score of 0–7 is normal, 8–10 is borderline, and 11+ indicates clinically significant (11–15 moderate, 16–21 severe).

Interestingly, apart from breathing retraining, the most used components for the treatment of patients — panic management, pacing, explanation of anatomy and physiology and relaxation (Figure 3) — are not intrinsically physiotherapist specific. These skills are transferable to nurses.

Table I

Overview of the anatomy and physiology of breathing

Inspiration: the internal volume of the thoracic cavity increases due to contraction of the diaphragm and intercostal muscles. The diaphragm moves downwards and the chest expands. As the lungs are attached via the pleural membranes to the internal chest wall and the thoracic surface of the diaphragm, on inspiration, the lungs are stretched. The alveolar internal volume is increased. This causes the air pressure in the alveolar spaces to drop significantly below sea-level air pressure (outside the body). At that point, the air pressure outside the body is greater than that inside the alveolar space, causing air to enter the lungs to equalise external and internal pressures.

Expiration: the diaphragm rises and the intercostal muscles relax. The chest and lungs return to their relaxed, unexpanded state. Thoracic volume is decreased, alveolar volume is decreased and air is expelled via the nose and mouth. Reinflation occurs when diaphragmatic and intercostal muscles begin to contract again. The rate and rhythm of respiration is partly a reflex action and partly under conscious control.

Gaseous exchange: during respiration a process of gaseous exchange occurs in the alveoli. This exchange allows oxygen to be absorbed into the blood from inhaled air and carbon dioxide to be removed from deoxygenated blood into the alveolar air, before being exhaled. The amount of oxygen in inspired air in comparison with the amount of oxygen in deoxygenated blood is such that oxygen from inspired air diffuses through the walls of alveolar capillaries into the blood stream. The amount of carbon dioxide in deoxygenated blood in comparison with carbon dioxide in inspired air is such that carbon dioxide diffuses through the walls of the alveolar capillaries into alveolar air. Chemoreceptors in the carotid and aortic bodies constantly 'read' the level of blood gases and alert the respiratory centre in the brain to stimulate respiration. Importantly, the prime factor driving respiration is the carbon dioxide level in the blood.

Adapted from: Waugh and Grant (2006)

Non-pharmacological strategies

The essence of non-pharmacological interventions is both holistic and heuristic (enabling a person to discover or learn something for themselves). Skilled nurses are best attuned to their patients in their role as key worker. They are also likely to be the health professionals with the most patient contact throughout the trajectory of the patient's disease (Grey, 1995; Ripamonti and Bruera, 1997). As such, nurses may be best placed to assist patients gain the most benefit from non-pharmacological interventions.

The element of reassurance or 'presence' is very important, e.g. knowing when to reach out to touch a patient (or, more importantly, when not to), when simply to sit quietly with him/her, or draw up a chair for a deeply anxious relative. Nursing routines, performed in a calm, reassuring manner, bring normality to interactions, providing a sense of safety and security.

Positioning

At all times the patient's thorax (the area incorporating the rib cage and lungs) should be as straight and upright as

possible. If supported in bed, a horseshoe-shaped pillow should be avoided, as frail patients simply slump into the hollow space and compress their lungs. The multi-positional features of the current hospital beds should be used to maximum effect; however, if not available, the nurse should seek to ensure that a well-supporting mattress is complemented with appropriately positioned pillows.

There is a natural hollow above the lumbar (lower) spine and a small pillow strategically placed can immediately open out the rib cage and improve respiratory capacity. Extending the distance from groin to chin is a simple rule of thumb. This ensures that the lung capacity will be optimal as the diaphragm descends. Arms should be supported with pillows so that the shoulders are relaxed and tension around the shoulder girdle and accessory respiratory muscles reduced.

There will be some patients who cannot experience respiratory relief even in a half upright position, and these patients may need to revert to a forward leaning position to maximise chest capacity. If the patient is sitting in a chair, a lowered, over-bed table with a pillow provides a supportive position, and allows patients, by resting on their forearms, to fix their rib cage, which actively assists the work of breathing (Figure 4). The equivalent position is more difficult for a patient to sustain in bed, but an armchair bed position will prevent exerting an intolerable stretch on the lower back and hamstring (back of the thigh) muscles. Improvisation and patience is the key, as it may be necessary to help the patient to change position constantly. A short time spent teaching relatives or carers how to position a patient in bed or chair may be very beneficial and time saving for the nursing team in a busy setting. It has the added benefit of empowering the family in a situation where the sense of helplessness can so often prevail.

Relaxation

When a patient is acutely breathless, a nurse will see characteristic signs of tension. Excessive use of the scalene and sternocleidomastoid muscles (accessory muscles of respiration) may be observed as prominent bands standing out around the neck on each breath taken in. These muscles are used by the patient in order to lift the rib cage, in an attempt to gain further volume for air entry. Accessory muscle use is a helpful indicator of respiratory distress, and may be accompanied by a gasping breathing pattern with arms held fixed on the armrests or mattress. If the patient is able to converse, sentences will be broken or very hurried in an attempt to maintain effective communication.

'Pursed-lip' breathing may also be observed. This is a subconscious and habitual attempt both to prevent airway collapse on expiration and maintain positive airway pressure (Dechman and Wilson, 2004). When a patient is acutely breathless, it is not helpful to try to influence this mode of breathing, even though it tends to exacerbate tension as, in the author's experience, it is usually too deeply ingrained.

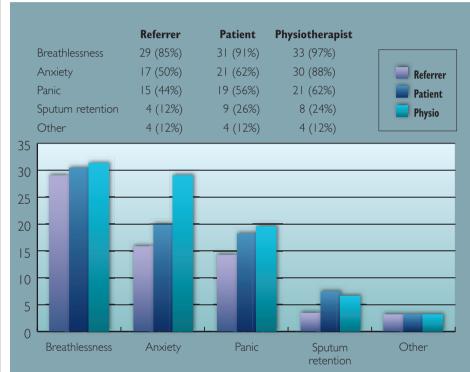
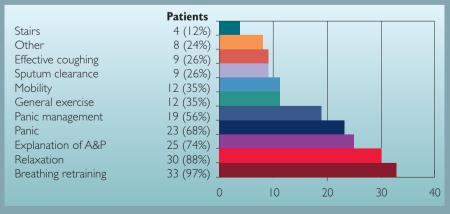


Figure 2. Comparative incidence of predominant symptoms reported from three perspectives: referrer, patient and physiotherapist (St Christopher's Hospice audit, 2004) (n=34).



Other •Hypnotherapy referral •Oxygen saturation monitoring •Acupuncture

•Oxygen therapy •Nebuliser provision •Suction (Yankauer)

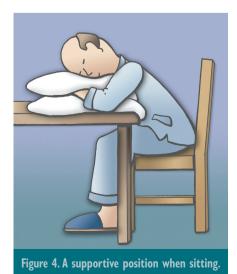
Figure 3. Comparative frequency of strategies used by physiotherapists when treating breathless patients (St Christopher's Hospice audit, 2004) (n=34).

Attention should be paid to adequate head support. Sometimes a hand resting lightly on the patient's shoulder, or a gentle stroking action starting from the upper arm, can help induce relaxation. It is very important to seek feedback from the patient, however, as not all patients are receptive to touch. Some find it intensely irritating or too intrusive; so, if in doubt, ask the patient. Relaxation CDs and complementary therapies are other approaches to explore. Also, simple strategies, such as timely visits by relatives or friends, can offer distraction.

Environment

It is acknowledged that, in reality, many patients will be nursed on a busy ward, and a side-room will not be available. Ideally, consideration should be given to providing a light, spacious, airy room, as an 'airless' environment can have exactly that impact on a very breathless patient. Ensure the room is well ventilated and clothes non-restrictive. The positioning of a fan supplying a gentle current of air across the face is helpful, as is the availability of a small pocket hand-held fan. Air flow has been found to reduce the sensation of breathlessness; it is thought to work by stimulating branches of the trigeminal nerve in the face that respond to mechanical and thermal stimuli (Schwartzstein et al, 1987).

A cold, damp cloth used on the face can supplement the fan's beneficial effect, as can fine, cool, mist sprays. An open door, when in a side-room, or drawn back bed curtains on an open



ward can both help, while balancing sensitivity to the need for privacy. These measures work by reducing a sense of claustrophobia. Also, a bed or chair position near to a window enhances a patient's perception of air availability.

Breathing control

Hands-on breathing techniques are an essential component of breathlessness management, and patients will gain much benefit from a session with a physiotherapist. Although core skills should remain integral to each professional's role, collaborative working means that transferable skills can be shared creatively and this overlap will ensure more effective delivery of care to the patient (Scullion and Henry, 1998; Syrett and Taylor, 2003).

In the author's experience, a technique that can be reinforced helpfully by the nurse is controlled expiration. We breathe in by reflex action, but a very breathless patient is 'hungry' for air, so their overwhelming instinct is to strive harder to draw air into the lungs. Consequently, the patient only focuses on the in-breath, at the expense of the outbreath. As the in-breaths predominate. hyperventilation occurs and the stimulus to breathe reduces. This is due to the fact that the physiological respiratory drive is dependent on adequate carbon dioxide levels, as described earlier, so the patient's struggle to draw in air is in fact tending to make the breathlessness worse.

The 'Breathlessness poem', written by the author, was designed to provide a concise step-by-step strategy to help patients manage an acute panic episode.

Effective breathing control is achieved by helping the patient extend their breath out, by simply sighing: out — and out — until a natural cessation of air flow is reached. Calm instruction to sigh out audibly, perhaps accompanied by counting to lengthen the breath, can be used as a simple strategy to prevent breaking the continuity. A reflex breath in will then be experienced as the lung tissue recoils and the lungs inflate. This breathing control technique is counter-intuitive for the patient, but when mastered the effect can be dramatic:

'Of all the treatments I've had in the past, like the pulmonary rehab, none of it has made the sense this has. This has gone right to the heart of the problem, and has been the best help of all' (F.L: patient in the final stages of lung cancer, with underlying COPD).

Practice, with perseverance, can result in a powerful and rewarding sensation of inspiration deep in the diaphragm. It follows, therefore, that the advice 'take a deep breath' is not helpful for the breathless patient and should never be used. It simply exacerbates the sense of frustration and reinforces the patient's belief that breathing in is dependent on effort exerted:

'I've struggled for so long to get more air in, not understanding how breathing works. Using this way, I feel air coming in right down deep in my chest. I feel I can fly!' (S.P: patient with breast cancer and lung metastases).

Breathlessness poem

Be still. Be calm
Drop the shoulders
Slowly sigh Out...and...Out
Hear the sigh — Haaah...
Soft and quiet
Feel control returning
Peaceful and safe.

Pacing of activities of daily living

The literature supports the view that the loss of independence is the most significant feature affecting the terminally ill patient (Seale and Addington-Hall, 1994). It follows that support to enable the patient to fulfil basic activities of daily living (ADLs) is paramount. When some confidence is engendered in the ability to pace their own breathing, it is possible for patients to perform simple activities such as washing, dressing and transferring from bed to chair. Even if breathlessness is provoked on exertion, with appropriate support, patients can develop their competence in practising breathing control, thus reinforcing their coping ability and building confidence and independence (Gallo-Silver and Pollack, 2000; Hately et al, 2001).

In the author's experience, patients with end-stage COPD, or a cancer diagnosis coexistent with respiratory disease, will appear to adjust to their condition, both physically and psychologically, when performing ADLs or coping with crisis episodes. This is because they accommodate to a lower baseline respiratory function over months and years, leading to an ability to cope more pragmatically with the limitations that these symptoms impose.

While a riser/recliner chair, raised toilet seat, commode and wheelchair may all be available in an inpatient unit, a referral to, and assessment by, an occupational therapist (OT) may facilitate valuable forward planning if home discharge is possible. An OT will discuss and advise on practical problems with the patient and carer, liaising effectively and speedily with community services to source essential equipment and adaptations.

A rollator walking aid for transferring and mobilising can help combat global weakness and de-conditioning. It is also a means of support to allow the patient to pause for breathing control. Turning or rolling in bed, eating, drinking, taking medication, even shaving or cleaning teeth are all activities that demand welldeveloped breathing control. Allowing ample time for patients to pace their breathing and encouragement to avoid breath holding will enable patients to maintain some functional status within their own comfort zone. Table 2 provides helpful hints to help breathless patients manage ADLs.

Anxiety and panic

Finally, the complex issues of anxiety and panic need to be addressed. Panic and breathlessness form a vicious circle, and anxious feelings heighten breathless patients' perception of the intensity of their symptoms (Smoller et al, I 996). Breathing is central to life, and if the normal pattern is even temporarily disrupted, in the author's experience of working with these patients, feelings of acute anxiety leading to panic are easily provoked. For example, most of us can remember a time when we were underwater for a little longer than was comfortable. It is therefore not hard to imagine how much worse it must be to

Table 2

Strategies to help people who are breathless manage activities of daily living

Dress and undress sitting down; take frequent rests

Use a carer-propelled wheelchair for mobilising distances

Inhale to reach, exhale to bend down

Put on footwear by crossing the leg at the knee, not bending
Wear slip-on shoes and front-opening clothes
Use a stool or chair in the shower
Avoid very hot water
Ensure the bathroom is ventilated
Wear a towelling robe after bath or shower
Dry shave in preference to a wet shave to reduce prolonged arm movements
Use an electric toothbrush, and avoid strong mint toothpaste
Eating and drinking require advanced breathing control: pause and pace
Limit time spent speaking on the telephone; there are no visual cues for pacing
Consider a walking aid (stick or rollator) to provide support and means of pacing
Refer to an occupational therapist to advise on equipment/adaptations

live with that intense fear for an extended period. As one patient said:

'I feel as though I've permanently just run really fast to catch a bus' (R.L: patient with fibrosing alveolitis).

Many patients, when encouraged to express their feelings, admit to frequent feelings of panic and a fear of a gasping, struggling death:

'It's a terrible feeling of panic; I don't know if I'll be able to get another breath. I'm quite literally fighting for my life, and I'm scared that I will suddenly stop breathing and die' (A.S: patient with oesophageal cancer and lung metastases).

Anxiety, as a stand-alone symptom, is a predictor for the intensity of shortness of breath, and is the only consistent factor that correlates significantly when measured on a VAS (visual analogue scale) (Dudgeon et al, 2001). This has implications for effective anxiety and panic management.

The underlying mechanism of panic is generally understood to be a fear of death in a crisis situation (Brown et al, 1986). Rapid breathing is a component of the adrenaline response (often called the 'fight or flight' response) and mimics the body's primitive reaction to crisis

or threat. This is a normal response to excitement or threat and is a function of the suprarenal medullae under control of the hypothalamus via the sympathetic nervous system. Symptoms include an increased respiratory rate, increased heart rate (tachycardia), sweating, nausea, dizziness, tremor and an intense fear of a loss of control. If the patient is already breathless at rest, the panic effect will serve fundamentally to exacerbate the situation. If the breathing control technique is implemented successfully, the biofeedback of a slow, calm, breath out will act to reverse the spiral of panic by slowly bringing down both the heart and respiratory rate.

Some patients manifest intense irritability or even irrational outbursts of anger that may be directed at the nurse or other practitioners. This may be caused by a depleted oxygen supply (hypoxia), but can be an understandable emotional response to existential terror. It is incumbent on the nurse to remain calm and professional while realising that the patient feels 'safe' enough to express their deepest fears to health professionals in the knowledge that they will have the understanding and resilience to cope. Avoid phrases such as 'just keep calm' (they would if they could) or 'it'll be alright' (it may not be). A patient needs honesty and integrity.

Many patients feel embarrassed and ashamed of panic episodes, but when the physiology is explained, their experience can be validated. A direct, open and problem-solving approach is both reassuring and affirming and can also help family members come to terms with their fears.

Talking through the stages of panic, linking the physical to the emotional, can be a helpful vehicle to normalise the experience. Patients are thereby enabled to discuss their own unique and personal distress, thus reducing anxiety levels. It can be a revelation to a patient to realise that neither breathlessness nor panic are intrinsically life-threatening. Helping a patient manage this acute symptom is intensely rewarding:

'Eighty per cent of the helpful input is the talking — one-to-one reassurance and simple explanation' (B.W: patient with mesothelioma).

Conclusion

The acutely breathless patient at the end of life presents a unique and complex challenge to the nurse, both in the inpatient setting and in the community. Responding to the needs of these frightened and very symptomatic patients can draw on all of our deepest resources and reserves. Much resilience is needed in order to meet the patient with professionalism and compassion. It is important, therefore, to recognise the need for effective peer support and clinical supervision. When the simple strategies outlined in this article are used to help patients with terminal breathlessness, the rewards both for the patient and practitioner are enormous. In the words of another patient:

'Before my sessions of breathing control, I could see no point in going on; now I feel that there's something I can actually do to help myself, and it's worthwhile living my life' (D.H: patient in end-stage cardiac failure).

Non-pharmacological management of breathlessness forms part of the framework of clinical interventions, and relies heavily on our ability to build a trusting rapport with our patients. By

continuously honing our expertise, we are able to enhance best practice and contribute significantly to the symptom management of these exhausted and often terrified patients. **EOLC**

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Key Points

- >>> Breathlessness is a common and challenging symptom at the end
- >> Symptoms presenting at this stage are not only respiratory but also functional, emotional and existential.
- >> The nurse is the health professional who has most contact with the patient. Many of the physiotherapist's skills are transferable to the nursing role.
- >> Strategies that nurses apply, both practical and supportive, depend on skill and empathy.