Depression and anxiety in elderly patients with chronic obstructive pulmonary disease

Chronic obstructive pulmonary disease (COPD) is a major cause of morbidity, disability and mortality in old age [1]. It has been predicted that COPD will be the world’s fifth-ranking cause of disability by 2020 [2]. Co-morbid psychological impairments (depression and anxiety) are common in COPD and are often associated with increased disability and morbidity. They also impair quality of life in COPD and are often not fully explored in the clinical management of COPD patients.

In the UK, the National Institute of Clinical Excellence COPD Guidelines [1] estimates the prevalence of depression in COPD to be 40% (36–44%) and suggests that anxiety symptoms may have a prevalence of 36% (31–41%) [3]. With such a high prevalence, why is depression so often undetected and untreated? First, recognition of co-morbid depression is difficult, because some of the physical symptoms of COPD may mimic the core symptoms of depression, for example, poor sleeping pattern, anorexia and loss of enjoyment due to breathlessness. Second, screening tools for depression and anxiety symptoms are not routinely employed by health care professionals caring for COPD patients. Third, patients often deny that they are suffering from anxiety and depression, perhaps because of perceptions of the stigma attached to these problems [4].

Unrecognised and untreated depression has major implications in compliance with medical treatment and may increase the frequency of consultation with health services, for example, in primary care [5]. In COPD, it increases the likelihood of hospital admission in those most severely disabled [4].

Anxiety is common in patients with COPD. It is often associated with clinical depression, and a study from our centre identified that 37% of depressed COPD patients had clinical anxiety compared with 5% of non-depressed COPD patients [4].

COPD is among a number of medical disorders associated with a high rate of depression. The wide range of conditions suggest that the aetiology is multifactorial. Suggested mechanisms include cerebrovascular and microangiopathy (heart disease, diabetes), localised disruption to fronto-striatal brain circuits (stroke), social adversity (diabetes) and neurodegenerative brain disease (Alzheimer’s disease, idiopathic Parkinson’s disease), pain (arthritis, cancer) and oncological therapy (cancer) [6]. Furthermore, there is robust evidence that depression worsens the outcome and mortality of many of these conditions [6], and this has been demonstrated for COPD too [7]. There is little data regarding aetiological mechanisms leading to depression in COPD. However, disability and handicap are powerful predictors of depression and are likely to be the major determinants in COPD [8]. Whether biological mechanisms play a significant role has not been clarified.

Is it feasible to screen COPD patients for anxiety and depression?

Routine screening for depression in patients with COPD would be justified if (i) there was an adequately tested and validated tool available that was simple and user-friendly and (ii) treatment of psychological difficulties in this situation was effective and acceptable to the patient population. The evidence base at present suggests that the former condition is satisfied but the latter is probably not.

We have recently validated the Brief Assessment Schedule Depression Cards [BASDEC] [4] to diagnose depression in this patient group. The BASDEC performed with a sensitivity of 100% and a specificity of 90% when compared against the Geriatric Mental State Schedule which is a research benchmark for the diagnosis of clinical depression. The BASDEC is simple to use, takes about 5 min to administer at the bedside and can be done by any health care professional following brief training.

Before employing a screening tool, it is important to explain the purpose and relevance of assessment to patients. In our experience, many patients with elevated depression scores tend to deny that they are suffering from depression and refuse to accept either treatment or referral to a mental health care specialist [9].

After diagnosing co-morbid anxiety or depression, it is also important to explain why seeking treatment for depression is potentially worthwhile. Health care professionals should be aware of patients’ misgivings and be prepared to help the patient come to a decision about treatment. Having a choice of interventions may help this process. A recent study of depressed patients in a primary care setting that investigated patients’ preferred choice of treatment (antidepressant medication versus counselling) reported a better response and compliance with treatment in patients who had a choice of treatment compared with a non-choice comparison group [10].
It is also worth exploring how family and friends may be involved in supporting the patient and to encourage social interaction. Educating the spouse, family members and friends about depression may help them to understand the consequences of the disease and to develop coping strategies and in turn may reduce the likelihood of isolation. A very recent study [11] that investigated the benefits of emotional support by family and friends and of spiritual beliefs in patients with major depression showed that those with higher perceived emotional support had better outcomes.

**Treatment of depression in COPD**

Evidence for the benefit of antidepressant therapy for older COPD patients with depression is sparse and inconclusive. A single-blinded study in our department using the selective serotonin reuptake inhibitor fluoxetine in older COPD patients was unsuccessful [9]. This trial failed because majority of the patients refused to participate in the study, and one-third of the patients withdrew from the trial because of side-effects. Those who refused the treatment reported that they could not understand the relevance of antidepressant therapy to their condition. Similar findings were also reported by Lacasse et al. [12] in a 12-week, randomised double-blind placebo-controlled trial of paroxetine in end-stage COPD using the Chronic Respiratory Questionnaire (CRQ) as an outcome measure. Although a small sample size, the intention-to-treat analysis did not show improvement in CRQ scores. Again, this study identified the difficulties of treating patients with antidepressant therapy in the frail and elderly with COPD.

Kunik and co-workers [13] found a significant improvement in anxiety and depression scores in a group of depressed patients given a single 2-h session of cognitive behavioural therapy (CBT) compared with education alone. This is an interesting and potentially cost-effective approach.

Withers et al. [14] and Emery et al. [15] have reported that pulmonary rehabilitation (PR) improves depression and anxiety in some COPD patients. The PR programmes combined both depressed and non-depressed patients and included exercise and educational therapy and (in some) relaxation therapy. It is unclear why depression scores improved in some patients in a given PR programme but not others. It may be an artefact of the statistical analysis and the fact that the trials were not designed with depression as a dependent variable. Not all PR programmes employ a substantial amount of psychological therapy for those with high levels of depression and anxiety symptoms. Future studies should focus on an individually tailored programme with emphasis on psychological therapy to quantify which aspects of therapy are effective for this patient group.

Undetected and untreated depression in COPD patients is common and is often associated with increased disability and health care usage and impaired quality of life. Further studies are required to examine the benefits of CBT and antidepressant therapy in the treatment of depression and anxiety in elderly patients with COPD. Whether depression depends on the level of disability independent of age is unclear, because there are no studies that have investigated whether anxiety and depression are more common in elderly patients with COPD than younger ones with the same level of disability.

**References**

Palliative care for older people

Do older people have equitable access to specialist palliative care? A number of studies addressing this question have been published in recent years; however, all have methodological flaws limiting the generalisation of their findings. Therefore, the systematic review by Burt and Raine [1] on the effect of age on referral to and use of specialist palliative care services in adult cancer patients is particularly welcome. They find some evidence that older cancer patients are less likely to be referred to or use specialist palliative care services, but emphasise the failure of all studies to consider variations in the need for such services. Consideration of need is crucial when evaluating equity of access to health services. The authors conclude that ‘Sensitive and flexible prospective methods should be developed to examine the extent to which the use of specialist palliative care is fair’. This is true. However, is it the most urgent question to be asked now regarding palliative care for older people?

The need for comprehensive and high-quality palliative care provision for all patients regardless of age, diagnosis and geography is now a given [2, 3]. There is also the widespread recognition that the palliative care needs of the elderly require specific attention [4–10]. Unusually in the field of palliative care, central funding in support of service development has become available in recent years [11–14]. Such monies have financed more equitable spread of services across networks and specific initiatives in end of life care. Such initiatives, including the Gold Standards Framework, Liverpool Care Pathway for the Dying and the Preferred Place of Care Document, aim to improve provision of general palliative care for all and to prompt referral to specialist palliative care services as necessary [15].

These end-of-life initiatives are based on existing specialist palliative care expertise. However, new knowledge and models are required to shape services to meet the needs of older people at the end of their lives [5–8]. Work is in progress to explore the values, attitudes and needs of the older population in relation to dying, death and bereavement [see for example 6, 16, 17]. Policy groups have been established to evaluate the evidence base for palliative care service provision, needs and service models for specific conditions prevalent in the elderly, such as dementia [5]. Any model of palliative care provision for the elderly must also address cross-cutting factors relevant to the older population in general, for example increasing frailty, comorbidities, increased psychosocial vulnerability and altered physiology [5–7]. Most people say that they want to die at home but few do. Service-based research is under way to explore the reasons why this is the case and to develop or redesign services to facilitate home deaths for those who choose this [18].

There can be no doubt that new models are needed for end-of-life care. Nationally, there are 2,674 specialist palliative care (hospice) inpatient beds [19] and a shortfall of specialist palliative care professionals. Such specialist resources are unlikely to expand significantly. Therefore, we do need to establish and monitor how best to use these services. Meanwhile, there is a pressing need to improve palliative and terminal care for patients in their current locations and to promote patient choice regarding place of care and death. Specifically, palliative care for patients in hospitals and care homes needs to be improved, and the number of people enabled to die at home needs to be increased [3, 8, 18]. For this to happen, a system-based approach is required, with collaboration among patients, carers and providers and commissioners of services at all levels. The context includes societal attitudes and practices, in relation to advance care planning, willingness to provide care for family and friends to enable them to remain at home, the legality or otherwise of assisted dying and how much we are prepared to pay personally and as a society for health and social care. The framework incorporates the network of health and social professionals and informal carers, with consideration of who is best placed to meet needs without unnecessary duplication or gaps [5, 6]. Necessary processes include advance care planning regarding individual preferences for place and goals of care; the development of competencies in palliative care for different professionals, with appropriate training in symptom management, psychosocial care and