



EVIDENCE-BASED IDENTIFICATION AND COST-EFFECTIVE TREATMENT OF DEPRESSION IN CANCER PATIENTS

Over 300,000 patients a year are diagnosed with cancer in the UK. As treatments become more effective there are increasing numbers of patients living after a diagnosis of cancer (estimates are around 2 million), many of whom are not cured but living with disease that requires active therapy. Symptoms of depression are known to be common in cancer patients and to affect quality of life as well as to have possible prognostic significance.



PUTTING RESEARCH INTO ACTION: ASSESSMENT OF THE PREVALENCE OF MAJOR DEPRESSION AMONG CANCER PATIENTS AND DEVELOPMENT OF EVIDENCE-BASED INTERVENTION

Professor Michael Sharpe and colleagues at the Cancer Research UK Edinburgh Centre, with collaborators at Christie Hospital in Manchester and St Thomas' Hospital in London, were the first to prospectively assess the prevalence of major depression in a broad range of cancer patients, and then to develop an evidence-based intervention to manage these patients [1,2].

Sharpe, with a research nurse Vanessa Strong and Dr Lucy Wall, conducted a survey of outpatients attending selected clinics of a regional cancer centre in Edinburgh to estimate the prevalence of clinically significant emotional distress and depression in patients attending a cancer outpatient department, and to determine the associations between distress and demographic and clinical variables [3]. They found that age <65 years, female gender and active disease, but not cancer diagnosis, were the independent predictors of clinically significant emotional distress. The authors concluded that services to treat distress in cancer patients should be organised to target patients by characteristics other than their cancer

diagnosis (2007) [3]. They also conducted a large study to analyse the prevalence of suicidal thoughts among cancer patients and the linkage between such thoughts and emotional distress (2008) [4].

In parallel, using the managed-care model of depression of Kurt Kroenke, they developed and piloted an intervention for depression in cancer patients (2004) [5]. The intervention was delivered by a specially trained oncology nurse and embedded within the care received in the oncology department. A randomised controlled trial (Symptom Management Research Trial, SMaRT-1) was then undertaken to determine the potential for this intervention to benefit patients [6]. The trial recruited 200 outpatients at the Edinburgh Cancer Centre with a predicted cancer-specific prognosis of greater than 6 months and major depressive disorder (identified by screening). The primary outcome was the difference in mean score on the self-reported Symptom Checklist-20 depression scale (range 0 to 4) at 3 months after randomisation. For 196 patients for whom the data at 3 months were available, the adjusted difference in mean Symptom Checklist-20 depression score, between those who received the intervention and those who did not, was 0.34 (95% confidence interval 0.13–0.55). This statistically significant treatment effect was sustained at 6 and 12 months. The intervention also improved anxiety and fatigue but not pain or physical functioning. It costed an additional £5278 per quality-adjusted life-year gained [6].



DETAILS OF THE IMPACT

Impact on health policy

In 2010, the National Institute for Health and Care Excellence (NICE) published clinical practice guideline CG91 "Depression in adults with a chronic physical health problem". The SMaRT-1 clinical trial is referenced several times in the guideline as evidence for the efficacy of a collaborative-care model of



depression management in a UK population. The findings from Sharpe's work were also placed in the "Recommended for practice" section of the evidence-based practice guidelines and recommendations on depression management published in 2008 by the US-based Oncology Nursing Society (ONS). ONS is a professional organisation of over 35,000 registered nurses and healthcare providers dedicated to excellence in patient care, education, research, and administration in oncology nursing, which actively promotes evidence-based implementation of practice to cancer care nurses internationally. Other important guidelines and policy-setting-documents that referred to the SMaRT-1 trial include: National Comprehensive Cancer Network (NCCN) clinical practice guidelines in oncology on distress management in the USA (version 2, 2013); "The management of depression in palliative care" - European clinical guidelines developed on behalf of the European Palliative Care Research Collaborative in 2010; and "Psychosocial health care for cancer patients and their families: adaptation and internal and external review."- a quality initiative of the Cancer Care Ontario (Canada) (2010).

The initial publication of the results of SMaRT-1 trial increased awareness about depression and suicidal thoughts among cancer patients. A review of depression screening and management in cancer patients published by an international team identified this trial as the only identifiable high-quality controlled trial of depression management in cancer patients at the time [7].

Impact on health and welfare

Many seriously ill patients with cancer have access to potentially lethal medication that they could take in overdose. Such acts are recognised as being under reported (Why go looking for trouble? Why put the family through additional trauma?) by the certifying physician, who can easily cite the underlying malignancy as the cause of death. It has been reported in the US that 19 out of every 1,000 males diagnosed with cancer and four out of every 1,000 female cancer patients take their own lives. In general, 15–50% of cancer patients display depressive thoughts and symptoms, and 5–20% meet diagnostic criteria for major depressive disorder. Left untreated, depression in seriously ill patients can be associated with increased physical symptoms, suicidal thoughts, worsened quality of life and emotional distress. Moreover, depression can impair the patient's interaction with family during a pivotal time in which patients may be saying goodbye, thank you, or planning for their death. Depressive symptoms can even erode the construct of patient autonomy by interfering with one's ability to engage in medical decisions and attain a sense of meaning from their illness. The intervention scheme developed by Sharpe and colleagues contributed to improved quality of life and potentially prevented suicides among cancer patients, although for the reasons stated above the exact number of patients assisted is impossible to assess.

Impact on health economics

The NICE costing statements "Depression: the treatment and management of depression in adults (update)" and "Depression in adults with a chronic physical health problem", which describe the economic consequences of implementation of NICE guidelines CG90 and CG91 (the latter of which was directly influenced by the SMaRT-1 trial), states that "the indirect costs of depression far outweigh the health service costs, therefore any additional costs incurred in the health service are likely to be more than offset by savings and benefits to the wider economy".

Importantly, under the national UK Quality and Outcomes framework (part of the General Medical Services contract from the Department of Health, which was heavily influenced by the NICE guidelines), General Practitioners are now financially rewarded for performing a cancer care review, which includes assessment of patients' social support networks and emotional needs.



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