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Management of Cancer Symptoms: Pain, Depression, and Fatigue

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Preface

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-Based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

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AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers as well as the health care system as a whole by providing important information to help improve health care quality.

We welcome written comments on this evidence report. They may be sent to: Director, Center for Practice and Technology Assessment, Agency for Healthcare Research and Quality, 6010 Executive Blvd., Suite 300, Rockville, MD 20852.

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Abstract

Objective. Despite dramatic advances in cancer biology and a widening array of treatment options, cancer continues to cause devastating suffering not only in the hundreds of thousands of patients who die of it each year in the United States, but also in some patients who are successfully treated and become cancer survivors. This evidence report on the topic of *Management of Cancer Symptoms: Pain, Depression, and Fatigue* was produced on request from the Office of Medical Applications of Research, National Institutes of Health, and the National Cancer Institute for a Consensus Development Conference.

Search Strategy. Studies used in this evidence report were identified through searches of the English language literature published between 1966 and September 2001 in MEDLINE®, CANCERLIT®, and the Cochrane Controlled Trials Registry. The searches were supplemented with reviews of bibliography of selected references and of published meta-analyses for selected topics.

Selection criteria. We accepted all studies of patients with a diagnosis of cancer who suffered from pain, depression, or fatigue due to cancer or treatment of cancer and addressed the issues of prevalence, assessment, or treatment. We placed no restrictions on the patients' age, gender, ethnicity, and stage of the primary disease or presence of metastases.

Data Collection and Analysis. We incorporated more than 200 English-language articles in the evidence report. Specific inclusion criteria and methods of synthesis were developed for each of the topics. Relevant data from each article were abstracted into evidence tables. Information from the evidence tables was synthesized into summary tables describing the findings of each study.

Main Results. The prevalence of cancer pain varied from 14 to 100 percent, depending on the setting. More than 100 scales or instruments have been used to assess pain. Studies published in the interim since our earlier evidence report on the management of cancer pain do not change the conclusions of that report. Randomized controlled trials establish that many current treatment modalities can individually reduce cancer pain. Treatment trials rarely separate efficacy according to putative mechanism of pain. For specific problems such as postherpetic neuralgia and oral mucositis, there are sufficient trials upon which to base specific treatment recommendations.

The prevalence rates for major depressive disorder and clinically significant depressive symptoms are about 10 to 25 percent. Although a clinical interview is the standard for assessing depression, many instruments are available for screening and the assessment of severity for depressive symptoms. There is currently no evidence on how widely they are used clinically or to suggest that they affect clinical care and outcomes. The benefit of psychosocial interventions for cancer-related depression seems to be modest. All medication trials that use antidepressants and lasted at least 5 weeks demonstrated some efficacy. There are no controlled trials of the effect of alternative treatments on cancer-related depression. Extremely wide prevalence rates of fatigue (4 to 91 percent) were found in association with chemotherapy, radiation therapy, and

other treatments. The prevalence of fatigue in the palliative setting was 48 to 75 percent and in cancer survivors 17 to 56 percent. Most studies used multi-item, multidimensional assessment instruments. Clinical interpretation of results is problematic due to the heterogeneity of assessment methods. There are few randomized, controlled trials of treatments for cancer-related fatigue. Only one of these strongly supports a specific intervention for fatigue, i.e., treatment with epoetin alfa in anemic patients receiving chemotherapy.

Conclusions. Pain, depressive symptoms, and fatigue are common problems in patients with cancer. Despite numerous instruments having been developed to assess these symptoms, optimal and standardized methods for the assessment of these symptoms in clinical practice have not been determined. Even in areas where efficacious treatment options exist, there are few high-quality randomized trials to guide the selection of optimal treatment alternative.

Additional studies are needed to measure the prevalence and impact of these symptoms in cancer, to determine the clinical significance of these measurements, and to define factors that correlate with these symptoms. For cancer-related fatigue, current treatment options are limited unless reversible factors contributing to fatigue can be identified and corrected.

For all of the topics examined in this evidence report, there is a paucity of studies in the pediatric population and research in children is urgently needed to address the symptoms of pain, depression, and fatigue.

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