ONS PUTTING EVIDENCE INTO PRACTICE

Depression

Systematic Review / Meta-analysis Table

(Literature search completed through May 2008)

Review Author	Study Information	Conclusions and Implications
ONS PEP Weight-of-Evidence Category: Recommended for Practice		
Nonpharmacologic Interventions for Depression: Psychoeducational/Psychosocial Interventions		
Barsevick et al., 2002	36 randomized clinical trials (RCTs), 7 quasi-experimental trials, 5 descriptions, 6 reviews, and 1 practice guideline published from 1980-2000 were identified by searching the Cumulative Index to Nursing and Allied Health Literature, MEDLINE®, PsychLit, and CancerLit. Psychoeducational interventions that were defined included counseling/psychotherapy, behavior therapy, education/information, social support, and other. Reviewed studies of patients with a diagnosis of depression and depressive symptoms	Psychoeducational interventions benefited depressive symptoms in 22 of 36 RCTS. Good evidence supporting benefit
Bennett & Badger, 2005	9 studies examined effectiveness of psychoeducational or symptom management interventions in men with prostate cancer. 3RCTs; most tested some type of informational intervention.	Effectiveness of the informational interventions was documented, although the number of studies with men was limited. Of particular relevance is the lack of ethnic minorities.
Newell et al., 2002	A critical review of all identifiable publications about psychological therapies used by patients with cancer identified 627 relevant articles reporting 329 intervention trials (search of MEDLINE, Healthplan, PsychLit, and Allied and Complementary Medicine databases). Despite increased use of RCT designs; the methodologic quality was generally suboptimal. Eleven papers discussing 15 trials of fair quality were identified exploring interventions aimed at reducing depression.	No intervention can be recommended for depression reduction, but interventions involving group therapy, education, structured counseling, cognitive-behavioral therapy (CBT), communication skills training, and self-esteem building warrant further exploration before recommendations can be made. The articles included were published prior to December 1998.
Osborn et al., 2006[5]	Effects of CBT and patient education on depression, anxiety, pain, physical functioning, and quality of life (QOL) in adult cancer survivors was investigated. The effects of individual versus group and short- versus long-term follow-up were reported. 15 RCTs, with 5 measuring depression; N = 1,492; 1993-2004. Quality assessed, < 4 of 6 excluded (Jadad checklist) MEDLINE, PsycINFO, and the Cochrane Database were searched from 1993-2004.	CBT is related to short-term effects on depression; individual interventions were more effective than group. Neither CBT nor PE produced significant long-term effects on depression.
Pirl, 2004	Evidence-based report reviewed empiric literature on depression in patients with cancer and focused on occurrence, assessment, and treatment. The search examined literature published from 1966 through September 2001; PubMed, PsycINFO, CINAHL®, and Biosis were searched. The most common intervention for depression is behavioral/cognitive counseling. Because hundreds of articles exist on this topic, the review was limited to several meta-	There is some data for the efficacy of psychosocial and pharmacologic treatments for depression in people with cancer. Studies using antidepressant medications and that conformed to usual practices for antidepressant trials did demonstrate benefit. (The studies measuring at < 5 weeks tended to show less benefit.) RCTs of alternative or complementary interventions were not found.

Review Author	Study Information	Conclusions and Implications
	analyses of psychosocial interventions; some measured emotional adjustment or distress rather than depression. All studies cited were conducted prior to 1998. 11 RCTs of medication treatment for depression in patients with cancer were identified. They included data from 755 patients, averaging 58 patients per study. Tools for measuring depression included the Hamilton Depression Rating Scale, Clinical Global Impression, Hospital Anxiety and Depression Scale, and Montgomery Affective Disorders Rating Scale. Descriptive reports were found on complementary treatments but no RCTs.	
Rodin et al., 2007	Literature review of works published through June 2005 conducted by the Supportive Care Guidelines Group (Ontario) to evaluate the efficacy of pharmacologic and nonpharmacologic treatments for depression in patients with cancer. Search sources: MEDLINE, EMBASE, CINAHL, PsycInfo, and the Cochrane Library. Seven pharmacologic and four nonpharmacologic trials were identified.	**Pharmacologic Trials:** All seven were RCTs. Three detected significant differences (symptom improvement) among treatment groups on a measure of depression; two of these compared the antidepressant mianserin to placebo and the third found reduction in depressive symptoms with alprazolam compared to muscle relaxation. Two studies compared active treatments—fluoxetine versus desipramine and paroxetine versus amiltriptyline. They found depressive symptom improvement for all groups with no differences in treatment efficacy. The remaining two trials found no significant differences among patients randomized to fluoxetine versus placebo; however, only low-dose fluoxetine was evaluated in one of the studies and both studies were for the short duration of only five weeks. **Nonpharmacologic Trials:** Two of the four studies reported greater improvement in depressive symptoms in the intervention groups compared to usual care. These interventions included an orientation program with educational information and a multicomponent intervention. One of the remaining studies found that adjuvant psychotherapy did not significantly affect patients' Hospital Anxiety and Depression Scale (HADS) subscores for depression. The final study found no significant difference among patients receiving cognitive-existential group therapy plus relaxation compared to those receiving relaxation therapies alone. **Conclusion:** The evidence for treatment effectiveness for depressive disorders in patients with cancer is limited and of modest quality. Treatment guidelines must at present be based on this limited evidence but also on data derived from the general population, other medically ill

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		populations, and on expert opinions.
Schwartz et al., 2002	This review article with 47 references described management of depression in patients with cancer. It addressed assessment, symptoms, screening, organic causes, and risk factors, with the majority of the article focusing on treatment modalities. Detailed directions for antidepressant therapy are provided, and other therapies are described, including supportive psychotherapy, group psychotherapy, cognitive therapies, existential psychotherapy, and therapeutic life narrative. The other therapies are discussed in terms of their use in patients with cancer. The search strategy was not described.	Although not a systematic review, this article is useful in that it specifically addresses treatment of depression in patients with cancer. It should be considered expert opinion. For severe depression, a combination of supportive psychotherapy and appropriate pharmacotherapy is the most effective treatment. Selective serotonin reuptake inhibitors (SSRIs) are effective and well-tolerated; they are preferred over tricyclic antidepressants in the cancer setting. Electroconvulsive therapy is safe and may achieve favorable responses in medically compromised patients who are treatment-resistant, psychotic, or dangerously suicidal.
Uitterhoeve et al., 2004	Review of 13 RCTs from 1990-2002, searched in MEDLINE (1989-2002), PsycINFO (1988-2003), and CINAHL (1982-2002). Behavior therapy was found to be effective for domains of QOL, particularly emotional (depression and anxiety).	Improved QOL for patients with advanced cancer
Williams & Dale, 2006	Systematic review of RCTs of 6 pharmacologic and 18 psychotherapeutic interventions from 1995-2005. (Databases searched included PubMed, CINAHL, Cochrane Library databases DARE, CDSR, CCTR, and PsycARTICLES.) Reported effectiveness with those diagnosed with depression and depressive symptoms; SSRIs were effective, and mianserin was effective with depressive symptoms. Psychotherapy: only four reported effectiveness with those diagnosed with depression; all were effective with symptoms.	SSRIs were effective. Evidence was stronger for depressive symptoms than for those diagnosed with depression. Most evidence was for CBT, followed by supportive interventions of various types and counseling/therapy.
Agency for Healthcare Research and Quality, 2002	Results from the meta-analyses reported at the state-of-the-science conference were reported. Evidence showed that psychosocial interventions are beneficial, with mild to moderate effect sizes, and that SSRIs and tricyclics (TCAs) are effective. Complementary and alternative medicine therapy's effectiveness was not established.	Psychosocial and pharmacologic treatments are effective.
Pharmacologic Interventions		
Antidepressant Medications: **Tricyclics** **Selective Serotonin Reuptake Inhibitors** **Other**		
Goodnick & Hernandez, 2000	Review of literature (not all RCTs) to determine medication treatment of depression	Treatment studies of depression in patients with cancer have been

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	when the symptom occurs comorbidly with cardiovascular disease, diabetes mellitus, neurologic disease, and cancer. Search strategy was not stated. Points made in the summary are considered expert opinion.	completed with imipramine, amitriptyline, fluoxetine, paroxetine, mirtazapine, and mianserin. Patients with major depression improved using antidepressants; no differences were found in the effectiveness between TCAs and SSRIs. More studies are needed; however, because of fewer side effects, SSRIs would be recommended over TCAs.
Lan et al., 2002	3 RCTs of pharmacologic treatment of depression in patients with cancer in palliative care. Search from 1966-2000 was described as "an extensive electronic search" and included only randomized comparisons. It focused on cancer in palliative care and excluded articles if < 50% of patients had cancer.	Insufficient evidence; too few studies to draw clear conclusions. Studies included in this review are older.
Pirl, 2004	Evidence-based report reviewed empiric literature on depression in patients with cancer and focused on occurrence, assessment, and treatment. The search examined literature published from 1966 through September 2001, and PubMed, PsycINFO, CINAHL, and Biosis were searched. The most common intervention for depression is behavioral/cognitive counseling. Because hundreds of articles exist on this topic, the review was limited to several meta-analyses of psychosocial interventions; some measured emotional adjustment or distress rather than depression. All studies cited were conducted prior to 1998. 11 RCTs of medication treatment for depression in patients with cancer were identified. They include data from 755 patients, averaging 58 patients per study. Tools for measuring depression included the Hamilton Depression Rating Scale, Clinical Global Impression, Hospital Anxiety and Depression Scale, and Montgomery Affective Disorders Rating Scale. Descriptive reports were found on complementary treatments but no RCTs.	There is some data for the efficacy of psychosocial and pharmacologic treatments for depression in people with cancer. Studies using antidepressant medications and that conformed to usual practices for antidepressant trials did demonstrate benefit. (The studies measuring at < 5 weeks tended to show less benefit.) RCTs of alternative or complementary interventions were not found.
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		Electroconvulsive therapy is safe and may achieve favorable responses in medically compromised patients who are treatment-resistant, psychotic, or dangerously suicidal.
ONS PEP Weight-of-Evidence Category: Likely to Be Effective		
Pharmacologic Interventions		
Methylphenidate		
Rozans et al., 2002	Computerized literature search of MEDLINE resulted in 49 articles published from 1966–2000 related to methylphenidate use in patients with cancer or in palliative care. Methylphenidate is used to address opioid-induced somnolence, augment opioid effects, treat depression, and improve cognitive functioning in patients with cancer.	The evidence in the review found that methylphenidate is useful for the treatment of depression in a variety of malignancies, with > 80% improvement in depression and side effects in < 20%.
Nonpharmacologic Interventions		
Relaxation		
Luebbert et al., 2001	15 RCT studies conducted from 1980–1995; search databases included MEDLINE, PsycINFO, PSYNDEX, and CancerLit. A small but significant effect on treatment-related symptoms, a significant medium effect on depression, and a small effect on anxiety were reported.	Consistency of positive results showed reductions in treatment-related side effects and improved emotional adjustment.
ONS PEP Weight-of-Evidence Category: Effectiveness Not Established		
Hypnotherapy		
Rajasekaran et al., 2005	Review of 27 studies, only 1 RCT from 1974–2003. Search was through Index Medicus/MEDLINE, EMBASE, CINAHL, CancerLit, AHMED, PsycINFO, CISCOM, Cochrane, and DARE. Results of one RCT documented effectiveness.	Poor design of studies requires further research to establish effectiveness. Only one study was randomized.
Nonpharmacologic Interventions: Complementary Methods		
Massage		
Fellowes et al., 2004	8 RCTs, 10 reports from 1966–2002. (MEDLINE, CINAHL, British Nursing Index, EMBASE, AMED, PsycINFO, SIGLE, and CancerLit were searched as well as Dissertation Abstracts International). Most consistent effect was on anxiety. Only one reported an effect on depression.	Insufficient evidence