Effective methods of giving information in cancer: a systematic literature review of randomized controlled trials

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Summary
There is increasing evidence to suggest that patients with cancer require more information about their disease and its consequences than they receive. In an attempt to address these needs, a variety of methods have been used to facilitate the passage of information from health professionals and other cancer information sources to cancer patients and their families. These include written material, telephone help-lines, teaching and audiovisual aids. Although these efforts have been well received, little attention has been given to the effectiveness of the methods employed. The aims of this paper were to systematically review randomized controlled trials that have evaluated methods of information-giving to cancer patients and their families. Relevant literature was identified through computerized databases, Internet cancer sites and bibliography searches. Multiple reviewers independently analysed the methodological quality of the papers according to agreed criteria. From this process, 10 studies were identified. Interventions ranged from written information to audiotapes, audiovisual aids and interactive medium. Individually tailored methods such as patient care records and patient educational programmes were also reviewed. The evidence indicated that the interventions had positive effects on a number of patient outcomes, such as knowledge and recall, symptom management, satisfaction, preferences, health care utilization and affective states. This was above and beyond the usual care provision. In the majority of studies the interventions had no effect on psychological indices. Furthermore, the review highlighted that certain methods should be based on individual preferences for information rather than uniformly administered.

Keywords: communication, cancer, methods of information giving, randomized controlled trials

Introduction
Cancer is a source of stress. It is associated with a variety of emotional disturbances, such as anxiety and fear because of the nature of the disease, its treatment and consequences. Patients and their families have to contend not only with the cancer diagnosis itself, but also with increasingly complex decisions that require an understanding of the disease and its treatment. The exchange of information plays an essential part in helping individuals understand these processes: enabling them to make informed decisions. Moreover, information serves various functions in helping individuals deal with the challenges they face. In a recent review, good information exchange was found to increase patients’ control and involvement in their care, reduce their psychological distress, encourage better levels of adherence and instil realistic expectations. Thus, the provision of information is an important aspect of cancer care, not only serving ethical imperatives but also functioning to improve the care and treatment of the patient and their families.

The evidence examining informational needs suggests that most, although not all, cancer patients want to be fully informed and receive as much information as possible. However, patients are often not satisfied with the information they receive, or forget or misunderstand the information conveyed. Interaction between the doctor and patient is often cited as a major cause of dissatisfaction at all stages of illness. Patients can be confused by different information from different sources, partly because of the way health care is organized. Lack of continuity between sources can lead to contradictory, redundant information or the omission of relevant material. Rather than informing the patient, this can have the reverse effect by adding ambiguity to an already uncertain situation. In cases where large volumes of material need to be conveyed, there is a greater possibility that patients will forget what they are given. Difficultly in assimilating the information may further be compounded by the effects of anxiety and the disease process on cognitive performance. Strategies to improve these problems have direct implications for those involved in the care of cancer patients. The significance of this is borne out in the NHS Cancer Information Strategy, where a major aim is to improve the
standard and delivery of appropriate cancer information from health care providers and the voluntary sector.15

There has been increasing interest in methods to facilitate the passage of cancer information to patients, their families and carers from both health professionals and more general sources, such as cancer organizations. Interventions include audiovisual aids, written materials, telephone help-lines, teaching and the Internet. Although these methods have been well received, less attention has been given to evaluating the effectiveness of these strategies. This study aimed to systematically review the literature on evaluation of information-giving interventions. We chose to concentrate on randomized controlled trials (RCT) because these are currently the ‘gold standard’ by which to evaluate interventions. However, this is an area of continuing debate.16,17

Methods
Design
A systematic literature review was carried out of randomized controlled trials.

Identification of the literature
Computerized databases
The MEDLINE (1980–1999), PsychINFO (1984–1999) and CINAHL (1982–1999) databases were searched using a recognized search strategy suggested by CRD Report Number 4.18 The following words were used either singly or in combination: communication; communication barriers; truth disclosure; nurse-patient-relations; physician-patient-relations; education; palliative; terminal; hospice; information; cancer; neoplasm. The BIDS (Bath Information and Data Services) EMBASE, SOCIAL SCISEARCH (Social Sciences Citation Index) and IBSS (International Bibliography of the Social Sciences) databases were searched for the period 1993–1999 using the same search terms.

Internet sources
Cancer sites on the Internet were also investigated for general and more up-to-date information on the most recent cancer publications. Two main sites were searched: CancerWEB (www.graylab.ac.uk, copyright 1999), produced by the National Cancer Institute, and OncoLink (www.oncolink.upenn.edu, copyright 1994–1999, The Trustees of the University of Pennsylvania). No additional references were identified from these sources.

Inclusion criteria
Randomized controlled trials that evaluated methods of information giving to cancer patients, their families and carers, and in which the intervention was aimed primarily at educating rather than counselling, were included.

Exclusion criteria
Studies of medical procedures such as surgery, chemotherapy or radiotherapy were excluded. Psychoeducational methods were not included (e.g. comparisons of different therapies or between educational and counselling interventions); neither were studies on communication skills, because the focus was on methods. Studies that focused on one type of cancer (e.g. breast cancer) were also excluded, as the results might not generalize to patients with other cancers. Instead, studies that included patients with heterogeneous cancer types were reviewed.

Assessment of studies
Grading was based on criteria proposed by the former Cancer Guidance Sub-group of the Clinical Outcomes Group19 and Altman20 (see Table 1). The appropriateness of the outcome measures was taken into account when allocating a grade to each study. Analysis of the papers was performed independently by the investigators (C.J.M.) and (I.J.H.) to prevent bias. The grading was then discussed so that a consensus could be reached on the methodological quality of the research.

Data extraction
From each study the following information was gathered: author, year, country, target population, demographic and clinical details of the target population including possible confounding factors, study design, blinding, follow-up, results in terms of improvement, deterioration and no difference, statistical analyses, sample size, adjustments made for confounding variables.

Data synthesis
The information was summarized into a table (see Table 2) and information compared across studies.

Table 1 Grading criteria for studies

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>IA</td>
<td>Calculation of sample size and accurate and standard definition of appropriate outcome variables, intervention and control groups comparable, assessment performed by researchers blind to the group allocation, clear definition of intervention, appropriate follow-up, correct analyses performed, conclusions justified</td>
</tr>
<tr>
<td>IB</td>
<td>Accurate and standard definition of appropriate outcome variables, intervention and control groups comparable, clear definition of intervention, correct analyses performed, conclusions justified</td>
</tr>
<tr>
<td>IC</td>
<td>Accurate and standard definition of appropriate outcome variables, clear definition of intervention, correct analyses performed, conclusions justified</td>
</tr>
<tr>
<td>ID</td>
<td>At least one of the above</td>
</tr>
<tr>
<td>IE</td>
<td>None of the above</td>
</tr>
</tbody>
</table>
Results

Identification of the literature

From a total of 1120 studies identified, only 10 studies met the inclusion criteria. Reasons for exclusion are detailed in Table 3.

Methodological quality

The methodological quality of the studies included ranged from IA to ID according to the criteria, median IC. In general, the interventions were described adequately enough to facilitate replication of the studies. However, there was a lack of documentation of important methodological details. Half the studies failed to report whether the researchers were blinded to the intervention and control groups. Characteristics of the sample were sometimes omitted. Two of the studies had small sample sizes as a result of attrition problems or a failure to recruit adequate numbers. In one study recruitment and attrition may have affected the validity of the results, as the refusal rate was 27 per cent and attrition was more likely from one of the intervention groups.

Types of interventions

A variety of interventions both specific and general were reported. These are shown in Table 2. Although audiotapes of interviews, audiovisual aids and interactive media were used in five of the studies, almost all the interventions relied on written information in the form of a handout, general cancer literature, specifically designed information packages, booklets, computer printouts or a documentation package. The majority of the interventions were designed for and carried out with newly diagnosed patients. This was to prepare them before attending their first clinic appointment, or to meet their informational needs during the early stages of the disease with regard to cancer and its consequences. At various other stages of the disease the emphasis was on coping with the disease. Here interventions were aimed at facilitating the passage of information between the doctor and patient, promoting understanding and symptom management, and continuity of care. Only two studies included an assessment of informational needs as part of the intervention. These tended to be more individualized and specific to that particular patient. However, a computer intervention allowed individuals to control the amount of information they wanted by clicking on hypertext links.

Outcome measures

The majority of studies assessed outcomes thought to be both directly and indirectly related to the intervention. These are shown in Table 2. Outcomes directly related to the intervention included objective measures of knowledge acquisition, recall and understanding, and the use of educational resources. Subjective measures included preferences for information, attitudes toward the intervention, uncertainty and satisfaction. As these outcomes were specific to the intervention they were predominantly investigator-designed measures. Outcomes thought to be indirectly related to the effects of the interventions included affective states, symptom management, expectations, health service utilization and coping. Instruments of known reliability and validity tended to be used to evaluate these outcomes, for instance, the Hospital Anxiety and Depression Scale and Profile of Mood States.

Efficacy

Table 2 compares the effectiveness of interventions in terms of improvements or no differences/worse outcomes. All the interventions were shown to improve at least one of the outcomes evaluated. The greatest improvements were seen in measures of knowledge and understanding. Only one study found that the control group recalled more facts than the intervention groups. However, the intervention groups whose informational needs were assessed received and recalled a greater percentage of desired information.

Preparatory written information before attending a first clinic appointment was shown to have beneficial effects. New patient information packages containing facts about the clinic, procedures and services were found by patients and relatives to be informative and helpful. No differences were found between the long and shortened versions of the packages. A similar approach, in which patients were sent a booklet with practical information about their cancer centre and resources, increased patients’ knowledge and reduced confusion. The timing of the provision of information appears to be important in preparing patients for an event. Patients showed a preference for receiving the information early by mail. A comparison of those receiving information by mail or at their first appointment revealed that those who obtained the booklet earlier by mail were more likely to report feeling better prepared for the visit.

Only two interventions appeared to improve measures of psychological states when compared with controls. In both these studies the effects were positive for patients with a good prognosis who were given an audiotape of the doctor–patient consultation. In contrast, the reverse effect was found for those given the audiotape with a poor prognosis. At 6 months follow-up less improvement in psychological distress was observed compared with the non-tape poor prognosis controls. Anxiety levels were reduced and meaning of life scores improved for individuals newly diagnosed or re-diagnosed with cancer that took part in a structural group educational programme. In this intervention a variety of methods were employed, including books, films, audiotapes and games. Structured patient-centred interventions at an individual level were also shown to be useful for identifying informational needs and imparting the relevant knowledge. A comparison of different types of computer information revealed that access to general cancer information was a significant predictor of patients’ levels of anxiety at follow-up.

One study addressed how understanding and knowledge
<table>
<thead>
<tr>
<th>Author, year, country, grade</th>
<th>Number</th>
<th>Age; sex; cancer*</th>
<th>Stage of intervention</th>
<th>Design/ follow-up</th>
<th>Interventions</th>
<th>Control</th>
<th>Measures</th>
<th>Outcomes evaluated</th>
<th>Improvements</th>
<th>No differences/ worse outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reynolds et al. (1981)</td>
<td>67</td>
<td>Mean age 52.7; 42 male; newly diagnosed</td>
<td>New patients attending first oncology clinic visit</td>
<td>RCT; f/u 5 days, 6 weeks</td>
<td>I1 – informational needs assessed; handout; tape based on assessment</td>
<td>C – usual information truthful answers to questions</td>
<td>Structured interview; oncologist noted number of facts given/presented</td>
<td>Patient's knowledge; desire for information</td>
<td>I1, I2 – % of desired facts recalled at f/u; number of presented facts; presented facts as a % of desired facts</td>
<td>C – Recalled a greater percentage of facts than I1, I2</td>
</tr>
<tr>
<td>Johnson (1982)</td>
<td>52</td>
<td>Not reported; newly diagnosed or rediagnosed</td>
<td>Private hospital out-patient care settings</td>
<td>RCT; paired before randomization not blind; f/u 4 weeks</td>
<td>I – 8 × 90 min structured patient-centred education sessions over 4 weeks; access to a resource centre</td>
<td>C – no structured learning instruction or access to resource centre</td>
<td>STAI; Purpose in Life Test; 'course inquiry test'</td>
<td>Anxiety; acquisition of factual knowledge; use of learning resources</td>
<td>I – levels of anxiety; knowledge, mean score for meaning of life</td>
<td>No difference for utilization of learning resources</td>
</tr>
<tr>
<td>Hutchcroft et al. (1984)</td>
<td>161</td>
<td>Groups comparable on age and sex; not reported</td>
<td>Patients due to attend their first clinic visit</td>
<td>RCT; blind coding; f/u at clinic visit</td>
<td>I1 – received booklet by mail before visit; I2 – received booklet at the first visit before interview</td>
<td>C – given booklet for interview on the first visit</td>
<td>Semi-structured interview schedule</td>
<td>Patients’ perceptions of the visit; knowledge of disease; treatment resources; helpfulness of the booklet</td>
<td>I1, I2 – better informed about resources; felt/ demonstrated they were better informed; the earlier the booklet was received, the less confused patients felt about the visit</td>
<td>No significant differences between I1 and I2</td>
</tr>
<tr>
<td>Derdiarian (1989)</td>
<td>60</td>
<td>All males; mean age 41; recently diagnosed non-terminal</td>
<td>New patients and spouses from a clinic in a cancer centre</td>
<td>RCT; repeated measures blinded; f/u 5–10 days</td>
<td>I1 – individualized information, counselling, f/u care, referral; cancer literature; 1–2 f/u telephone calls</td>
<td>C – routine verbal written information counselling; f/u care, as required</td>
<td>PINA; SINA patient satisfaction; spouse satisfaction</td>
<td>Disease, personal, family and social informational needs; patient and spouse satisfaction; coping</td>
<td>I, I spouses – more satisfied with the information received; and gained more information</td>
<td>No differences for coping</td>
</tr>
<tr>
<td>McHugh et al. (1995)</td>
<td>117</td>
<td>61% male; mean age 45; various stages of cancer</td>
<td>New out-patient referrals to 5 clinicians; to be given distressing information</td>
<td>RCT; repeated measures clinician blinded; f/u mean 5 months</td>
<td>I – given interview tapes and encouraged to listen to them at home</td>
<td>C – not given the interview tapes</td>
<td>GHQ30; HADS; questionnaire</td>
<td>Anxiety; depression; information recall; attitude to tape questionnaire</td>
<td>I – recall of information on tests, results, treatment, instructions about self-care; GHQ scores for the I with a good prognosis</td>
<td>GHQ scores worse for I with a poor prognosis</td>
</tr>
<tr>
<td>Mohide et al. (1996)</td>
<td>304</td>
<td>61% male; mean age 63; newly diagnosed patients</td>
<td>Attending a cancer centre for the first time</td>
<td>RCT; f/u 30 min before clinic visit</td>
<td>I1 – new patient information package (NPIP) 1 week before first visit; I2 – mini version of the NPIP</td>
<td>C – no information package</td>
<td>BSI; SSES; questionnaire</td>
<td>Expectations, fears about the appointment; usefulness of NPIP preferences, understanding</td>
<td>I1, I2 – NPIP easy to understand and useful; expressed a greater preference for receiving information before they arrived, and by mail</td>
<td>No difference in psychological distress; preferences for receiving information or effectiveness between the NPIP or mini-NPIP</td>
</tr>
<tr>
<td>Study Authors</td>
<td>Year</td>
<td>Sample Description</td>
<td>Methods</td>
<td>Intervention</td>
<td>Control</td>
<td>Outcomes</td>
<td>Findings</td>
<td>Notes</td>
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<td>Latimer et al.</td>
<td>1998</td>
<td>50% males; mean age 55; terminal; prognosis ≥2 months</td>
<td>Patients from 1 palliative care programme</td>
<td>Structured pain severity rating</td>
<td>Patients Care Travelling Record (PCTR)</td>
<td>Pain severity 'today' and preceding week; mood state; health service utilization satisfaction; uncertainty</td>
<td>I – uncertainty reduced by 11%; interaction observed with younger patients 5–65 years benefited more</td>
<td>No differences in mood state, satisfaction, pain in the preceding week, utilization of services; C – pain 'today' higher at baseline, greater decrease for f/u.</td>
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<td>Clotfelter</td>
<td>1999</td>
<td>Age range 66–88 years; 64% females</td>
<td>Patients and their spouses from 1 private oncology practice</td>
<td>Routine informal clinic pain guidance</td>
<td>I –Managing cancer pain booklet; 14 min video</td>
<td>Average pain intensity (2 VAS ratings on the same day); state of health</td>
<td>I – significantly lower mean level of average pain intensity</td>
<td>I and C – slight increase in pain over the study period</td>
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<tr>
<td>Hack et al.</td>
<td>1999</td>
<td>50% males; females mean age 52; mean age 67; most early stage of cancer</td>
<td>Multi-centre from 3 cancer sites; patients attending their first treatment consultation</td>
<td>Audio tape of consultation</td>
<td>I1 – audiotape of consultation</td>
<td>State anxiety; decision-making role; recall; patients' perceptions of doctor's role; patient-centredness; tape benefits</td>
<td>I2 – more likely to listen to portions of the tape than I1; I2 – listened to the whole tape significantly more times than I1; I2 – recalled the consultation more thoroughly than I1 or C; overall males who recalled more information were more satisfied</td>
<td>C – no significant differences between I1 and C groups. No significant difference in anxiety and overall stage of cancer and decision-making roles between the 3 groups.</td>
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<tr>
<td>Jones et al.</td>
<td>1999</td>
<td>No group difference in sex; characteristics for those with anxiety</td>
<td>Non-surgical cancer patients from 1 oncology centre, before receiving radical radiotherapy</td>
<td>Personalized information via computer; printout</td>
<td>I1 – personalized information via computer; printout</td>
<td>Depression; anxiety; adjustment; use and views on information technology; knowledge; cost analysis; newspapers; consultation time</td>
<td>I1 – computer used; I1 – more satisfied; perceived information as more useful; felt learnt something; more likely to share information I2 – knowledge above average I1 and I2 – material less overwhelming</td>
<td>I groups – felt information limited more; C – more likely to use the material at home than I groups. No group differences on MAC or depression I2 – more anxious at 3 months</td>
<td></td>
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</table>

*Patient populations in all studies included heterogeneous cancer types.
†Randomized trial – patients in the booklet group used as the control group.
I, intervention group; C, control group; f/u, follow-up. STAI, State-Trait Anxiety Inventory; PINA, Patient-Informational Needs Assessment; SINA, Spouse-Informational Needs Assessment; HADS, Hospital Anxiety and Depression Scale; GHQ, General Health Questionnaire; BSI, Brief Symptom Inventory; SSES, Scherer Self-Efficacy Scale; MUIS, Mishel Uncertainty of Illness Scale; POMS, Profile of Mood States; GSQ, General Satisfaction Questionnaire; VAS, Visual Analogue Scale; CPS, Control Preferences Scale; PPS, Patient Perception Scale; PPLTES, Physicians' Perceived Likeability and Technical Expertise Scale; IRQ, Information Recall Questionnaire; MAC, Mental Adjustment to Cancer Scale.
through interventions affected managing pain.28 Using a videotape and booklet relating to managing cancer pain, elderly cancer patients reported significantly less pain intensity than comparable controls, despite a slight increase in both groups at the 2-week follow-up period. However, this study was of a small select group of elderly cancer patients. Further work would be needed to investigate whether these findings generalize to other groups of cancer patients.

Dissemination and documentation of information given to patients and relatives may be of value not only to the patient and their family but also to carers and health professionals. The Patient Care Travelling Record27 sought to improve the patient’s sense of control over their care. Palliative care patients in the intervention group were actively involved in the review of documented material relating to their treatment. For patients aged under 65 years the intervention decreased levels of uncertainty at follow-up. However, no effect was found for those aged over 65 years. Furthermore, no differences were found for mood, pain, satisfaction or health service utilization.

Discussion

All the studies in this review have shown that attempts to improve communication through different channels can have positive effects on a variety of patient outcomes.

The use of written information is widespread in cancer education, with limited information on efficacy. Written information was a feature of the majority of interventions evaluated here.21–26,28,30 The main effects were to increase recall and knowledge directly related to the information imparted. This may be because written information is not forgotten as easily as oral information.31 This review supports Devine and Westlake’s meta-analysis of psychoeducational care, which found that written materials have a significant effect on knowledge amongst cancer patients.34 The availability of written material also enables the patient to make a choice as to whether or not to read the information. Therefore, supplementing oral information with written material summarizing the content of the interaction would be useful in helping patients remember the information they have been given.

The types of information conveyed in writing varied across the studies. Patients and their relatives valued practical information booklets or packages before attending a first clinic appointment and most found the material helpful and informative. 23,26 This would be a relatively simple intervention to implement, as the information could be included in the usual correspondence regarding appointments. In other studies, booklets or handouts supported other methods such as audiocassettes,21 audiovisual aids28 or interactive media,30 or were used in combination with a range of methods.22 It was therefore difficult to distinguish the relative contributions of the various methods. A randomized trial that did attempt to compare methods showed that patients were more likely to use cancer booklets at home than computer handouts,30 although personalized computer printouts were shared with relatives and friends more. An explanation for this could be that booklets are aesthetically more readable but the individualized information provided via the computer is more useful.

With respect to psychological indices, there was a failure to demonstrate that the interventions were effective in the majority of studies. There may be several reasons for this. First, the interventions were aimed at educating rather than counselling. More psychological approaches may need to be adopted to influence these outcomes. Second, in some instances the interventions were followed up giving little time for patients to absorb the material.24 It might have been more insightful to conduct follow-up interviews sometime later or after a clinic appointment rather than before.26

An important finding that emerged from the review was that cancer patients are a diverse population whose needs differ depending on their preferences and coping. This was evident in several of the studies 21,24,26,27,29,30 For example, providing an audiotape to patients with a poor prognosis who may be using a repressive coping style could be detrimental. This finding supports a previous study, which found that audiotape interventions were unsatisfactory to those wanting minimal news.35 Patient choice could easily resolve this problem. Age differences22 and sex differences29 also emerged in some studies. This suggests that some interventions cannot be uniformly introduced into practice without an assessment of informational needs. Evidence indicates that a disparity between informational needs and information given can result in patients being more likely to develop affective disorders.36 Continuing assessment is necessary, so that any variations in informational preferences may be accommodated.35 It should also be noted that although some of the studies ask the views of relatives,24,26 little research has evaluated methods targeted at the needs of the family.

Seven out of the 10 interventions reviewed included informa-
tation specific to the patient rather than general information.\textsuperscript{21,22,24–26,29,30} Targeting the information is an effective way of reducing the amount of information and ensuring that only relevant information is provided. Apart from improving recall this can raise levels of patient and carer satisfaction with the information,\textsuperscript{24} and lower levels of anxiety and increase a sense of meaning and purpose in life, which are important factors in adapting to illness.\textsuperscript{22,30}

Variability in the populations examined, a lack of uniformity in the application of interventions, and differences in the methods employed make it difficult to comment on the conditions under which interventions are most effective, or to identify which patients would benefit most from any given intervention. More attention should be aimed at evaluating information provision, especially as greater numbers of information sources become available, such as the Internet and computer programs.

A main limitation of the review was the scarcity of papers that met the stringent RCT criteria. As with other areas of cancer care, research RCTs are difficult to carry out. Many studies identified in the search process were observational or surveys with no controls. In these instances, it is difficult to state with any certainty whether the effects observed could be attributable to the intervention. Although not included, there were some good studies that add to the evidence reviewed.\textsuperscript{36–39} The emphasis in this review was on outcome. To elucidate the underlying processes that contribute to the effect of an intervention, a more qualitative approach would be needed.

Every attempt was made to unearth the relevant literature; for example, bibliography lists from the studies identified were searched for additional material. However, some studies may not have been identified through computerized databases if they were poorly indexed or not yet put on record in this way.\textsuperscript{40} Hand searching relevant journals might have helped to identify those not retrieved from the database searches. Evaluation of the studies’ methodological quality could also be criticized because it was based on subjective appraisal. However, the use of set criteria and independent assessment helped to eliminate bias.

In this review the information was synthesized and reported in a summary table showing the findings from each individual study. Synthesis by statistical techniques such as meta-analysis is a preferred method, as the difference between the treatment and control groups, or effect size, can be averaged across studies weighting for the sample size. This was not possible in this review because of the variety of interventions and differences in outcomes assessed.

**Conclusion**

The review presented in this paper contains valuable information for health care providers involved in the planning and implementation of interventions aimed at improving communication with cancer patients and their families. In light of the emphasis on meeting the informational needs of cancer patients proposed in the NHS Cancer Information Strategy,\textsuperscript{15} the findings are particularly significant. The interventions reviewed here have been shown to be effective at conveying information, are mostly inexpensive and are not time-consuming to introduce into practice. With careful assessment these interventions can be used to facilitate the health provider–patient communication process. However, they are only a supplement and are not a substitute for good interpersonal skills on the part of the health care provider.

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**Contributors**

This review builds on an earlier review conducted by J.H. and I.J.H. for the National Health Service (NHS) Centre for Reviews and Dissemination (CRD), University of York. This is published on their Internet Web page. The literature searches were carried out by C.J.M. Identification and methodological evaluation of the studies was performed by I.J.H. and C.J.M. The lead author of the paper was C.J.M., with contributions from I.J.H. and J.H.

**References**


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