



NATIONAL BREAST  
AND OVARIAN  
CANCER CENTRE

COMMUNICATION SKILLS TRAINING INITIATIVE

# **EFFECTIVELY COMMUNICATING PROGNOSIS**

**EVIDENCE FROM THE LITERATURE AND  
RECOMMENDED STEPS**

This literature review forms part of a communication skills training module presented in a professionally facilitated and interactive workshop

PREPARED BY THE NATIONAL BREAST AND OVARIAN CANCER  
CENTRE

FUNDED BY THE AUSTRALIAN GOVERNMENT  
DEPARTMENT OF HEALTH AND AGEING

*Effectively communicating prognosis: Evidence from the literature and recommended steps* was developed by the Medical Psychology Research Unit, University of Sydney and the Pam McLean Cancer Communication Centre on behalf of the National Breast Cancer Centre in 2005:

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**Recommended citation:**

**National Breast Cancer Centre. *Effectively communicating prognosis: Evidence from the literature and recommended steps*, 2005. National Breast Cancer Centre, Camperdown, NSW.**

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The National Breast and Ovarian Cancer Centre is funded by the Australian Government Department of Health and Ageing.

**<sup>\*</sup>In February 2008, National Breast Cancer Centre incorporating the Ovarian Cancer Program (NBCC) changed its name to National Breast and Ovarian Cancer Centre (NBOCC).**

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# NATIONAL BREAST AND OVARIAN CANCER CENTRE

## COMMUNICATION SKILLS TRAINING INITIATIVE

Benefits of effective communication between treatment team members and people with cancer include improvements in the patient's psychosocial adjustment, decision making, treatment compliance and satisfaction with care.<sup>1</sup> Since 1997 National Breast and Ovarian Cancer Centre (NBOCC) has sought to improve the communication skills of oncology health professionals in Australia through the provision of the Communication Skills Training Initiative.

NBOCC Communication Skills Training Initiative is implemented through:

- the development and provision of standardised communication skills training modules and recommendations for best practice
- building capacity to implement communication skills training through conducting workshops for communication skills trainers
- development and maintenance of a website to support and promote communication skills training for health professionals
- supporting the implementation of local training workshops that use a best practice approach.

The Communication Skills Training Initiative supports the implementation of the NBCC<sup>\*</sup> and National Cancer Control Initiative's *Clinical practice guidelines for the psychosocial care of adults with cancer*<sup>1</sup>.

For further information on the NBOCC's Communication Skills Training Initiative:

<http://www.nbocc.org.au/commskills>

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<sup>1</sup> National Breast Cancer Centre and the National Cancer Control Initiative. *Clinical practice guidelines for the psychosocial care of adults with cancer*. National Breast Cancer Centre, Camperdown, NSW: 2003.

<sup>\*</sup> In 2008, National Breast Cancer Centre Incorporating the Ovarian Cancer Program (NBCC) changed its name to National Breast and Ovarian Cancer Centre (NBOCC).

# ACKNOWLEDGEMENTS

NBOCC gratefully acknowledges the support of individuals and organisations who contributed to the development of this communication skills module.

## **Funding**

Funding for the development of this guide was provided by the Australian Government Department of Health and Ageing.

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# INTRODUCTION

Prognosis is an issue which most doctors and patients find difficult to discuss. Some patients may find discussing prognosis distressing and they often misunderstand the information they are given. From the doctors' perspective, issues commonly debated include how to determine what the patient wants to hear, whether to provide life expectancy estimates or make general comments, whether to discuss outliers and how to engender hope. The best way of presenting prognostic information to optimise understanding, psychological adjustment and decision-making is uncertain.

A literature search of relevant databases, i.e. MEDLINE, PSYCHINFO and CINAHL, was conducted including the following search terms and limited to articles in English: cancer, oncology, prognosis, communication, breaking bad news, doctor-patient communication and palliative care. These were screened for duplicates and irrelevant references (e.g. those pertaining to clinical issues). Further manual searches have been undertaken of articles cited in papers.

# LITERATURE REVIEW

## **PATIENTS' GENERAL INFORMATION NEEDS AND PREFERENCES**

The literature shows that cancer patients generally want to be well-informed about their diagnosis, prognosis, treatment options and side-effects.<sup>1-10</sup>

The majority of studies have been conducted in the early stage cancer setting or have included a sample of mixed stages of disease. The strongest evidence (four Level III studies) supports that the majority of cancer patients want large amounts of detailed information<sup>2</sup>, including “bad news”,<sup>1</sup> treatment options and goals, and prognostic information including the impact of the cancer on their daily life and the likelihood of cure.<sup>3, 5, 6</sup> For example, a large study of 2331 heterogeneous cancer patients conducted in the UK by Jenkins et al found that 87% of patients wanted “all information good and bad”.

The literature also suggests that information provision needs to be tailored to the individual needs of the patient which may be influenced by clinical factors such as disease status, demographic details such as age and gender, and personal factors such as coping style and values.<sup>2, 11, 12</sup> Information needs may change over time and it is recommended to check with patients at each consultation what his/her needs or expectations are.<sup>2, 3</sup>

Concerning the style of information delivery, the evidence suggests that openness, honesty and clarity from the oncologist are the most highly regarded by patients<sup>13</sup> as well as positive emotional support<sup>14</sup> which has been rated more highly than the provision of positive information.

Similar results have been found in the advanced<sup>15-17</sup> and palliative settings, where patients also want to know all information including “bad news”, disease information,<sup>18</sup> and prognosis with an emphasis on honesty,<sup>19, 20</sup> but these preferences may also be influenced by coping style.<sup>16</sup>

## PATIENTS' PREFERENCES FOR PROGNOSTIC INFORMATION

The majority of the studies exploring preferences for prognostic information have provided Level IVa evidence and have been conducted in the early stage cancer setting in mainly Australia, or the US. These studies show that most patients want to be given prognostic information; that they rate this information as both important to them and necessary.<sup>2, 4-6, 8, 21-25 3, 26, 27</sup>

Most patients want information about the chances of cure and the extent of disease spread,<sup>3, 23, 28</sup> possible side-effects of treatment and the chances of cure. Many patients want to discuss life expectancy and the effect of cancer on their life.<sup>2, 5</sup> However, many patients would like the specialist to check first if they want prognostic information and what type of information they would like (for example the chances of cure, survival rates, general expected outcome of the disease).<sup>28, 29</sup> For example, Kaplowitz et al asked 352 patients whether they would like to be given a “qualitative prognosis” (i.e. will/won't they die from the disease/ probably live a long time) or a “quantitative prognosis” (i.e. an estimate of their expected survival) and found that 80% wanted a qualitative prognosis but only one half wanted a quantitative estimate. However, one qualitative study found that patients did not want to be told a bad prognosis.<sup>30</sup> Another qualitative study found that patients preferred written prognostic information to be presented using positive framing in terms of chances of survival as opposed to chances of mortality.<sup>25</sup> Many patients wish also to have a loved one present during the discussion.<sup>21, 23</sup>

In the advanced setting however, fewer studies have been conducted and the evidence is less clear. Patients in an early study preferred not to receive more prognostic information (than they had already received).<sup>31</sup> More recent studies, however, show that patients prefer disclosure of bad news and prognosis, that the oncologist check first if they want this information,<sup>32</sup> and if it were to be given that it be given in a direct and honest manner.<sup>15, 32</sup> The most recent evidence<sup>33</sup> reports that Australian patients with metastatic disease want detailed prognostic information including estimates of survival times, with the majority of the study patients wanting to negotiate with their oncologist the format, timing and extent of this information.

In the event of disease progression to incurable status, one study found that most patients (early stage disease) would prefer full disclosure of prognosis in the presence of a loved one.<sup>21</sup>



There is limited evidence available in the palliative setting. From the two studies identified, which were conducted in the USA, it was found that most patients wanted to discuss their prognosis truthfully with their doctor, including the impact of the illness on their daily lives.<sup>18, 20</sup>

## **PATIENT PREFERENCES FOR STYLE OF COMMUNICATING PROGNOSIS**

Style of communicating prognosis encompasses a range of possibilities including the location in which prognosis could be discussed and with whom, usage of terminology and how to convey hope.

Eleven studies have been conducted in the early stage cancer setting which provide evidence for the style in which prognosis may be communicated; most of these have been conducted in the USA or Australia.

The evidence suggests that patients' preferred style of being given the prognosis includes oncologists:

- using a variety of techniques to communicate risk, such as a mix of positive and negative framing<sup>23</sup>
- checking understanding of prognostic information and explaining medical terms<sup>23</sup>
- providing an opportunity to ask questions<sup>23</sup>
- summarising and write down information given
- listening to fears and concerns
- providing support<sup>23</sup> and facilitation (rated almost as important as information)<sup>13</sup>
- ensuring a relative or friend is present<sup>23</sup>
- delivering the news in person<sup>34</sup>
- ensuring the discussion is free of interruptions<sup>34</sup>
- ensuring the news is given in a comfortable location<sup>34</sup>
- appearing to be interested in the patient<sup>35</sup>
- talking for longer about prognosis<sup>35</sup>
- displaying expertise<sup>13</sup>
- giving news in a clear and honest manner<sup>13</sup>
- providing a sense of trust<sup>36</sup>
- providing reassurance and hope when discussing prognosis.<sup>2, 37, 38</sup>

Provision of hope is a common theme in this literature.<sup>36-38</sup> Factors found to influence patient hope were physician willingness to:

- talk<sup>37</sup>
- answer questions and provide information<sup>37</sup>
- offer the most up to date treatment<sup>38</sup>
- provide treatment information<sup>36</sup> and
- provide emotional support.<sup>38</sup>

Factors reported as potentially decreasing hope included:

- perceived poor communication<sup>37</sup>
- a pessimistic attitude<sup>38</sup>
- an impersonal context for the disclosure.<sup>38</sup>

The literature in the advanced cancer setting is characterised by the themes of providing hope and sensitivity when communicating prognostic information,<sup>15, 32</sup> the importance of trust and the development of a relationship with the patient,<sup>32, 39</sup> as well as showing understanding of psycho-social concerns.<sup>15</sup> The need for honesty and realism was also emphasised.<sup>15, 32</sup>

The evidence in the palliative care literature also emphasised the need for honesty, sensitivity and hope.<sup>19, 20, 40</sup> It is also suggested that being honest about a patient's medical condition and prognosis can alleviate uncertainty.<sup>19</sup> It is also recommended that physicians approach communication about end-of-life care as a spectrum requiring attention from the time of terminal diagnosis to death.<sup>19</sup>

## **DISCLOSURE OF PROGNOSIS TO FAMILY MEMBERS**

One difficult negotiation for oncologists in communicating prognosis is meeting the needs of the family members of the patients whilst also respecting those of the patient.<sup>32</sup> An early study by Holland et al found that the majority of the physicians surveyed believed that it was common practice to reveal the diagnosis and prognosis to the family members of patients.<sup>41</sup>

More recent Western studies however, reveal a general belief in prioritising the preferences of the patient over family members both in terms of what is told and disclosure to family members.<sup>30, 32</sup> One study found however, that although the majority of physicians surveyed stated they would not withhold diagnostic or prognostic

information from their patients on request of the family, they were more willing to withhold prognostic information than diagnostic information.<sup>42</sup>

The evidence for patient preferences is mixed. One study found that patients favoured openness with family members but rejected unconditional disclosure of information without their consent and their family influencing what information they would be given.<sup>30</sup>

## PREDICTORS OF PROGNOSTIC INFORMATION PREFERENCES

Several studies (all Level IVa evidence) have identified predictors of prognostic information preferences.

The majority of these were conducted in the early stage cancer setting and some in the palliative care setting. The predictors identified are outlined below in Table 1:

**Table 1: Predictors of Prognostic Information Preferences**

<b>Early Stage Cancer</b>
<ul style="list-style-type: none"> <li>▪ Rural upbringing and low levels of trait anxiety predicted preference for full disclosure of a terminal prognosis.<sup>21</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Those with higher trait anxiety scores were more likely to prefer the physician to tell a loved one the prognosis.<sup>21</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ More anxious patients who want to avoid thinking about death wanted, requested and received significantly less prognostic information.<sup>28</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Older people were significantly less likely to request and be given prognostic information.<sup>28</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ A worse prognosis was predictive of being less likely to want, ask for and receive quantitative information.<sup>28</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Poorer prognosis and a need to avoid thinking about death was predictive of those least likely to want, request and receive qualitative information.<sup>28</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Patients who were being treated more radically were more likely to want to know information about treatment side-effects and the chances of cure.<sup>6</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Women were found to require significantly more information about prognosis.<sup>8</sup></li> </ul>
<b>Advanced cancer settings</b>
One recent study in this setting identified predictors of patient preferences: <sup>33</sup>
Content of prognostic information -
<ul style="list-style-type: none"> <li>▪ Patients with higher depression scores were more likely to want to discuss the</li> </ul>

shortest time to live without treatment, and the average survival.
<ul style="list-style-type: none"> <li>Lower depression levels were significantly associated with never wanting to discuss expected survival.</li> </ul>
<ul style="list-style-type: none"> <li>Patients with an expected survival of years (estimated by their oncologist) were more likely to want to discuss life expectancy when first diagnosed with metastases.</li> </ul>
<ul style="list-style-type: none"> <li>Patients with higher anxiety scores were less likely to want to know the chances of living one year and were more likely to want to know the longest time to live without treatment.</li> </ul>
<ul style="list-style-type: none"> <li>Patients who scored highly on the Krantz Involvement preference scale were more likely to want to know the longest time to live without treatment.</li> </ul>
<b>Format of prognostic information</b>
<ul style="list-style-type: none"> <li>Patients who scored highly on the Krantz Involvement preference scale were more likely to dislike the pie chart format of presentation of survival statistics.</li> </ul>
<ul style="list-style-type: none"> <li>Patients of Anglo-Saxon background were more likely to prefer words when being given survival statistics.</li> </ul>
<ul style="list-style-type: none"> <li>Older patients were more likely to prefer the 100-person diagram presentation of survival statistics.</li> </ul>
<ul style="list-style-type: none"> <li>Patients with university entrance level education were more likely to prefer the pie chart presentation of survival statistics.</li> </ul>
<ul style="list-style-type: none"> <li>When to deliver prognostic information and who to initiate -</li> </ul>
<ul style="list-style-type: none"> <li>Patients who were less depressed were more likely to want to never discuss how long they had to live (as opposed to immediately or later).</li> </ul>
<ul style="list-style-type: none"> <li>Patients who were expected to survive for years (as opposed to weeks or months to years) were more likely to want to discuss how long to live when first diagnosed.</li> </ul>
<ul style="list-style-type: none"> <li>Patients who had children were more likely to want to discuss palliative care and dying.</li> </ul>
<ul style="list-style-type: none"> <li>Patients with colorectal cancer or prostate cancer were more likely to want to have the prognostic discussions negotiated as opposed to the specialist “just telling” them.</li> </ul>
<ul style="list-style-type: none"> <li>Colorectal cancer patients were more likely to want to negotiate the discussion of issues about dying and palliative care.</li> </ul>
<b>Palliative care setting</b>
<ul style="list-style-type: none"> <li>No studies in this setting were identified.</li> </ul>
<ul style="list-style-type: none"> <li>The strongest predictors appear to be anxiety and expected survival.</li> </ul>
<b>Understanding</b>
<ul style="list-style-type: none"> <li>Several studies have explored predictors of understanding.</li> </ul>
<ul style="list-style-type: none"> <li>Better recall of prognostic information in patients has been found to be predicted by</li> </ul>

better prognosis, less denial and higher ratings of their oncologists as clear communicators.<sup>43</sup>

- Patients with lower education levels have been found to be more likely to misunderstand their illness.<sup>44</sup>
- Lower prognostic awareness has been found to be more common among those who were depressed and who had intense family contact.<sup>45</sup>

## PHYSICIANS' VIEWS ON IDEAL COMMUNICATION OF PROGNOSIS

In the early stage setting, many oncologists report being in favour of telling the diagnosis and prognosis when the patient desires this information,<sup>46</sup> and some approve of informing the patient of their diagnosis and prognosis even when the patient prefers not to be told.<sup>46</sup> In some cases physicians may be asked by family members to withhold diagnostic or prognostic information. One study reported that many physicians were more willing to withhold prognostic information than diagnostic information if requested.<sup>42</sup> Some clinicians in an earlier study were of the opinion that disclosing the prognosis was only appropriate if the prognosis was hopeful.<sup>41</sup> Oncologists reportedly find the most difficulty in discussing prognosis with patients in the transition from curative to non-curative treatment.<sup>42, 47</sup>

Three studies have been conducted in the advanced cancer setting. Clinicians participating in these studies were most often concerned about ensuring patient understanding of the information whilst also being sensitive and tailoring the information to the individual.<sup>28, 32, 48</sup> One of these studies found that most physicians stated that they routinely tell patients when “the cancer cannot be removed” but that they find it difficult to communicate the prognosis. Many, however, did provide the patient with survival statistics even when this was not requested by the patient. None were willing to give specific estimates of survival.

The main theme occurring in this setting is the issue of providing hope to patients whilst also being honest and realistic. One study of oncologists' views found that most prefer to provide prognostic information and realistic hope in stages.<sup>49</sup>

Four studies have been conducted in the palliative care setting. An early survey of physicians and medical students conducted in USA found that most participants believed that terminally ill patients should be told the truth about their diagnosis and prognosis.<sup>50</sup> Later studies however have shown that physicians were reluctant to provide prognostic information.<sup>51, 52</sup> For example, a large study of 214 physicians found

that physicians were reluctant to provide a frank estimate of survival in most cases even if the patient requested the information and that they would more often provide a conscious overestimate or underestimate most of the time.<sup>52</sup> One cross-cultural study found that there are differences in physician attitudes towards communication with terminally ill patients according to country/region.<sup>53</sup>

## **CURRENT PRACTICE OF DELIVERING PROGNOSTIC INFORMATION**

All of the studies which have explored the practice of communicating prognosis have been Level IVa evidence and many have been conducted in the USA<sup>27, 42, 54</sup> or Australia.<sup>4, 55</sup> These studies have actually aimed to explore the practice or the patient experience of communication of the diagnosis and have not focussed on the communication of prognosis specifically but have reported some relevant data.

The most recent evidence is varied. Some studies have found that prognosis is more often not discussed<sup>4, 35, 56</sup> and others report observations to the contrary.<sup>54, 55</sup> For example, Schofield et al found that only approximately one quarter of melanoma patients reported having discussed with their doctor their life expectancy or the expected impact of the cancer on their lifestyle.<sup>4</sup> Leigh et al, however, found that the majority of their sample of early stage breast cancer patients were well informed of the expected course of their illness and aims of treatment.<sup>55</sup> In consultations where prognosis was discussed, the exchange was most often initiated by the physician.<sup>54, 55</sup> The expected impact of treatment on lifestyle was discussed less often than life expectancy<sup>4, 54</sup> and in one study was found to be initiated by the patient equally as often as by the physician.<sup>54</sup> It was also found that the delivery of bad news was not perceived by patients as a single point of communication but as a series of discussions from the diagnosis to end of treatment.<sup>57</sup>

In the advanced cancer setting, the research also shows variability in observed practice of communicating prognosis. Most of the studies report that discussions of prognosis often do not occur<sup>58-61</sup> and one study found that if a prognostic discussion had occurred, it most commonly had taken place between the doctor and someone other than the patient.<sup>9</sup> Where prognostic discussions had occurred it was found that there was a considerable lack of clarity in the information,<sup>58</sup> estimates of expected survival were often not given<sup>61</sup> and that both doctors and patients tended to avoid acknowledging or discussing prognosis by focussing on the treatment plan. Although the most recent study<sup>62</sup> reported that patients were well informed of the aim of their treatment and the incurable status of their disease, fewer were informed of their expected survival.

In early studies conducted in the palliative setting, it was reported that many physicians mostly did not discuss the diagnosis or prognosis with their terminally ill patients<sup>63, 64</sup> and if the issue of prognosis was raised, it was usually initiated by the patient and was not directly addressed by the physician.<sup>63</sup>

More recent studies have also found that physicians often do not discuss prognosis with the patient or their carer,<sup>65, 66</sup> they present fewer facts and less detail concerning prognostic information as compared with other types of information;<sup>51</sup> and are reluctant to provide a frank estimate of survival even if the patient requests this information.<sup>52</sup> A lack of communication to terminally ill patients of impending death has also been reported.<sup>67</sup> One study, however, found that the physicians who did provide a prognosis reportedly did so in a direct manner.<sup>13</sup> In another study, however, physicians reported that they would more often provide a conscious overestimate or underestimate of prognosis most of the time.<sup>52</sup>

## **PATIENT UNDERSTANDING AND AWARENESS OF PROGNOSTIC INFORMATION**

Most studies conducted in the early stage cancer setting are of Level IVa evidence and have been conducted in a range of countries, the two most recent being in Australia. The common issue evident amongst these is that many patients report either not being told their prognosis or are found to misunderstand the status of their disease, the aim of their treatment and their prognosis.<sup>43, 68</sup> They often overestimate their chances of cure and expected survival. One Australian study found that patients did not understand the risk terminology used by clinicians such as “risk reduction” and “median survival” and recommended that Oncologists need to use a variety of techniques to communicate risk and to check that information has been understood.<sup>29</sup>

Most of the studies of patients’ understanding of their cancer in the advanced cancer setting have been conducted in the USA. One early study was conducted in Scotland and found that only one of the surveyed patients was aware of their prognosis.<sup>31</sup> The more recent studies have revealed that many patients often do not understand the status of their disease or the treatment intent and many overestimate their expected survival<sup>15, 44, 60, 69-71</sup> which has been shown to influence decisions to have aggressive treatment.<sup>70</sup> Patients receiving palliative treatment often mistakenly reported the aim of the treatment to be curative.<sup>72</sup>

Patients' estimates of survival have also been found not to improve when discussions of prognosis reportedly occurred, with patients still tending to overestimate their expected survival.<sup>73</sup>

There is little evidence in the palliative care setting. An early study found that many incurable cancer patients were not aware of their disease status and many had not actually been given this information<sup>67</sup>. This study compared results with an earlier 1969 study and found that there had been an increase in awareness and disclosure between 1969 and 1987. A more recent study found that most patients acknowledged their terminal diagnosis and had a realistic understanding of their expected survival. There was a substantial minority however who denied their terminal status and shortened life expectancy.<sup>45</sup>

Several studies have identified predictors of understanding. For example, one study found that patients with better recall had a better prognosis, exhibited less denial and rated their oncologists as clearer communicators.<sup>43</sup> Another study found that lower prognostic awareness was more common among those who were depressed and who had intense family contact.<sup>45</sup> Patients with lower education levels have also been found to be more likely to misunderstand their illness.<sup>44</sup>

## **CULTURAL DIFFERENCES IN PREFERENCES AND UNDERSTANDING**

Considerable literature exists regarding different prognostic information needs of patients of different cultures. Several studies exploring the Greek culture have been conducted in recent years<sup>74-76</sup> and other cultures examined include that of Israel<sup>15</sup>, Sweden<sup>57</sup>, Norway<sup>35</sup>, Germany<sup>77</sup>, South Africa<sup>78</sup>, Italy<sup>72</sup>, Singapore<sup>79</sup>, Turkey<sup>80</sup>, Spain<sup>81</sup>, Tanzania<sup>82</sup>, and Chinese migrants of Australia<sup>83</sup> and one cross-cultural study of Canadian, South American and European physicians.<sup>84</sup>

The evidence suggests that patients of Anglo-Saxon background prefer disclosure<sup>3, 6, 23, 28</sup> whereas those of other cultural background tend to vary<sup>74, 76, 78</sup> with a tendency to favour non-disclosure.<sup>74, 83</sup>

Many health professionals of different cultures, particularly Asian cultures, are in favour of non-disclosure.<sup>75, 79, 82</sup> Patients are also reportedly unaware of their diagnosis and/or prognosis<sup>35, 76, 77</sup> which may indicate that it is common for patients not to be given this information.



Members of some cultures may prefer that the family have a high level of involvement in the consultations and in some cases that the family be informed first of the diagnosis and prognosis and that the patient be either told gradually or not at all.<sup>74, 75 77</sup>

## IMPACT OF PROGNOSTIC INFORMATION ON PATIENT OUTCOMES

No study to date has explored the impact of prognostic information specifically, on patient outcomes. The strongest evidence is derived from a randomised trial of a general question prompt list (QPL) for oncology patients. It was found that provision of the QPL and endorsement of the QPL by the oncologist significantly increased patient question-asking and subsequent discussion about prognosis whilst decreasing patient anxiety and reducing the length of the consultation.<sup>85</sup>

Other studies have found the following outcomes and are listed in Table 2:

**Table 2: Impact of Prognosis Information on Patient Outcomes**

<b>Patient satisfaction</b>
<ul style="list-style-type: none"> <li>▪ What physicians say, how they say it and environmental factors (such as receiving the news in a comfortable location; the discussion being free from interruptions, the physician delivering the news in person, and sitting close to the patient) influenced levels of satisfaction with the experience.<sup>34</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Being told the prognosis and longer length of disclosure significantly and independently predicted higher patient satisfaction.<sup>35</sup></li> </ul>
<b>Depression and anxiety</b>
<ul style="list-style-type: none"> <li>▪ Those who did not know or did not acknowledge their prognosis were found to have greater depression levels.<sup>45</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Those who received greater information about prognosis did not have higher levels of anxiety.<sup>62</sup></li> </ul>
<b>Hope</b>
<ul style="list-style-type: none"> <li>▪ Patients who showed no recollection of receiving information about their prognosis were more hopeful.<sup>86</sup></li> </ul>
<b>Other</b>
<ul style="list-style-type: none"> <li>▪ Patient recall of receiving bad news is influenced by perception of the delivery as negative;<sup>87</sup></li> </ul>
<ul style="list-style-type: none"> <li>▪ Patients who received inadequate or unclear information about their illness, treatment and prognosis were more likely to adopt an alternative treatment (the Moerman diet).<sup>88</sup></li> </ul>

## INTERVENTIONS TO FACILITATE PROGNOSTIC DISCUSSION

No studies have been conducted to specifically to evaluate an intervention to facilitate communication of prognosis. Some of the general intervention studies, however, have reported results relevant to communication of prognosis. These are:

- A communication skills workshop significantly improved physician self-ratings of confidence in key areas of communication, including giving good and poor prognoses, giving news about recurrence or the shift to non-curative treatment, which remained evident after 3 months.<sup>89</sup>
- Patients given a question prompt list asked significantly more questions about prognosis.<sup>85, 90, 91</sup>
- Endorsement of the question prompt list by the oncologist significantly increased discussion about prognosis.<sup>90</sup>
- There also exists a large amount of literature on the evaluation of decision aids designed assisting patients in making treatment decisions. Overall the results of these studies show that the use of decision aids has increased patient understanding of the costs and benefits of treatment options which includes information about prognosis with and without treatment.<sup>92</sup>

# GUIDELINES FOR COMMUNICATING PROGNOSIS

There already exist some guidelines<sup>93-97</sup> and recommendations<sup>98, 99</sup> on communicating bad news. However, none specifically recommend how to discuss prognosis, apart from those within the NHMRC Psychosocial Clinical Practice Guidelines<sup>96</sup> which are based on one Australian Level IV study<sup>23, 29</sup> which identified the prognostic information preferences of women with early stage breast cancer. Based on all evidence currently available, the following guidelines for communicating prognosis are recommended in Table 3:

**Table 3: Guidelines for Communicating Prognosis**

<b>Prior to discussing prognosis</b>
<ul style="list-style-type: none"> <li>▪ Ensure that the discussion will take place in privacy.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Ensure as much as possible that there will be no interruptions (e.g. switch off mobile phones and pagers; inform staff).</li> </ul>
<ul style="list-style-type: none"> <li>▪ Check first if a patient wants to be given prognostic information.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Check if the patient would like to have a friend or relative present.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Check if the patient would like another medical person present (if applicable).</li> </ul>
<ul style="list-style-type: none"> <li>▪ Explore and negotiate with the patient the type (e.g. staging details; the chances of being cured; short and long-term side-effects of treatment; survival estimates) and format (e.g. words, numbers, graphs) of prognostic information desired and adhere to these preferences.</li> </ul>
<b>When discussing prognosis</b>
<ul style="list-style-type: none"> <li>▪ Adopt an honest and straightforward yet sensitive approach.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Encourage a collaborative relationship with the patient (e.g. provide opportunity to ask questions).</li> </ul>
<ul style="list-style-type: none"> <li>▪ Use the most up-to-date information, and if desired, explain its source.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Preface any statement of prognostic estimates with the limitations of prognostic formulations.</li> </ul>
<ul style="list-style-type: none"> <li>▪ If giving a time frame emphasise a range and not specific endpoints.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Use mixed framing i.e. give the chances of cure first then chances of relapse.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Present information in a variety of ways (e.g. words, graphs, statistics).</li> </ul>
<ul style="list-style-type: none"> <li>▪ Present absolute risks with and without treatment.</li> </ul>

<ul style="list-style-type: none"> <li>▪ Broaden discussion of the prognosis to include effect of the cancer on the individual's lifestyle.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Emphasise hope–giving aspects of the information, e.g. extraordinary survivors.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Repeat negotiation of information preferences and needs over time.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Be aware that individual patient needs for prognostic information may change over time.</li> </ul>
<p><b>Following prognostic discussion</b></p>
<ul style="list-style-type: none"> <li>▪ Summarise the main points.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Check that the patient has understood.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Check the patient's emotional reaction to the information.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inform the patient of available support.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Organise a review appointment.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Inform the patient of your availability and contact details in case of further questions.</li> </ul>
<p><b>Particular patient needs</b></p>
<ul style="list-style-type: none"> <li>▪ <b>Different cultures:</b> Exercise caution with information provision as the patient may come from cultures where avoidance or paternalism is the norm, and/ or where family systems differ from the western model. It may be necessary to explore the needs of patients and family members separately for information about prognosis, as these may differ.</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Anxious patients:</b> May want less information.</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Depressed patients:</b> May be more likely to want information about survival estimates.</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Age differences:</b> Younger patients may want more information and older patients less.</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Gender:</b> Female patients may want more information.</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Expected survival:</b> Those with a worse prognosis may be less likely to want prognostic information.</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Education level:</b> Those with less education may require more assistance to understand prognostic information.</li> </ul>

# REFERENCES

1. Jenkins V, Fallowfield L, Saul J. Information needs of patients with cancer: results from a large study in UK cancer centres. *British Journal of Cancer*. 2001;84(1):48-51.
2. Butow PN, McLean, M, Dunn, S. et al. The dynamics of change: Cancer patients' preferences for information, involvement and support. *Ann Oncol*. 1997 1997;8(9):857-863.
3. Degner LF, Kristjanson LJ, Bowman D, et al. Information needs and decisional preferences in women with breast cancer. *Journal of the American Medical Association*. 1997;277(18):1485-1492.
4. Schofield PE, Beeney LJ, Thompson JF, Butow PN, Tattersall MH, Dunn SM. Hearing the bad news of a cancer diagnosis: the Australian melanoma patient's perspective. *Annals of Oncology*. 2001;12(3):365-371.
5. Butow PN, Kazemi J, Beeney LJ, Griffin AM, Tattersall MHN, Dunn SM. When the diagnosis is cancer: Patient communication experiences and preferences. *Cancer*. 1996;77(12):2630-2637.
6. Meredith C, Symonds P, Webster L, et al. Information needs of cancer patients in west Scotland: cross sectional survey of patients' views. *British Medical Journal*. September 21, 1996 1996;313(7059):724-726.
7. Fallowfield L, Ford S, Lewis S. No news is not good news: Information preferences of patients with cancer. *Psycho-Oncology*. 1995;4:197-202.
8. Derdiarian AK. Informational needs of recently diagnosed cancer patients. *Nursing Research*. 1986;35(5):276-281.
9. Cassileth BR, Zupkis,R.V., Sutton-Smith, K. and March, V. Information and participation preferences among cancer patients. *Annals of Internal Medicine*. 1980;92:832-836.
10. Sutherland HJ, Llewellyn-Thomas HA, Lockwood GA, Tritchler DL, Till TE. Cancer patients: their desire for information and participation in treatment decisions. *Journal of the Royal Society of Medicine*. 1989;82(5):260-263.
11. Leydon GM, Boulton M, Moynihan C, et al. Cancer patients' information needs and information seeking behaviour: in depth interview study. *British Medical Journal*. 2000;320(April):909-912.
12. Miller SM. Monitoring versus Blunting Styles of Coping with Cancer Influence the Information Patients Want and Need about Their Disease. *Cancer*. 1995;76(2):167-177.
13. Parker PA, Baile WF, de Moor C, Lenzi R, Kudelka AP, Cohen L. Breaking bad news about cancer: patients' preferences for communication. *Journal of Clinical Oncology*. 2001;19(7):2049-2056.
14. Brown R, Dunn S, Butow P. Meeting patient expectations in the cancer consultation. *Annals of Oncology*. 1997;8(9):877-882.

15. Sapir R, Catane R, Kaufman B, et al. Cancer patient expectations of and communication with oncologists and oncology nurses: the experience of an integrated oncology and palliative care service. *Supportive Care in Cancer*. 2000;8(6):458-463.
16. Steptoe A, Sutcliffe I, Allen B, Coombes C. Satisfaction with communication, medical knowledge, and coping style in patients with metastatic cancer. *Social Science and Medicine*. 1991;32(6):627-632.
17. Blanchard CG, Labrecque MS, Ruckdeschel JC, Blanchard EB. Information and decision-making preferences of hospitalized adult cancer patients. *Social Science and Medicine*. 1988;27(11):1139-1145.
18. Kutner JS, Steiner JF, Corbett KK, Jahnigen DW, Barton PL. Information needs in terminal illness. *Social Science and Medicine*. 1999;48(10):1341-1352.
19. Wenrich MD, Curtis JR, Shannon SE, Carline JD, Ambrozy DM, Ramsey PG. Communicating with dying patients within the spectrum of medical care from terminal diagnosis to death. *Archives of Internal Medicine*. 2001;161(6):868-874.
20. Greisinger AJ, Lorimor RJ, Aday LA, Winn RJ, Baile WF. Terminally ill cancer patients: their most important concerns. *Cancer Practice*. May/June 1997;5(3):147-154.
21. Marwit SJ, Datson SL. Disclosure preferences about terminal illness: an examination of decision-related factors. *Death Studies*. 2002;26(1):1-20.
22. Kaplowitz SA, Osuch JR, Safron D, S C. *Physician communication with seriously ill cancer patients: Results of a survey of physicians*. In: de Vries B, ed. *End of Life Issues: Interdisciplinary and multidimensional perspectives*. New York: Springer Publishing Company; 1999:205-227.
23. Lobb EA, Kenny, D.T, Butow, P.N.,Tattersall, M.H.N. Women's preferences for discussion of prognosis in early breast cancer. *Health Expectations*. 2001;4:48-57.
24. Reynolds PM, Sanson-Fisher RW, Poole AD, Harker J, Byrne MJ. Cancer and communication: information-giving in an oncology clinic. *British Medical Journal*. 2 May 1981 1981;282:1449-1451.
25. Davey HM, Butow PN, Armstrong BK. Patient preferences for written prognostic information. *British Journal of Cancer*. 2003;89:1450-1456.
26. Merriman L, Perez DJ, McGee R, Campbell AV. Receiving a diagnosis of cancer: the perceptions of patients. *New Zealand Medical Journal*. 1997;110(1049):297-298.
27. Lind SE, DelVecchio Good MJ, Seidel S, Csordas T, Good BJ. Telling the diagnosis of cancer. *Journal of Clinical Oncology*. 1989;7(5):583-589.
28. Kaplowitz SA, Campo S., Chui, W.T. Cancer patients' desire for communication of prognosis information. *Health Communication*. 2002;14(2):221-241.
29. Lobb EA, Butow PN, Kenny DT, Tattersall MH. Communicating prognosis in early breast cancer: do women understand the language used? *Medical Journal of Australia*. 1999;171(6):290-294.

30. Benson J, Britten N. Respecting the autonomy of cancer patients when talking with their families: qualitative analysis of semistructured interviews with patients. *British Medical Journal*. September 21, 1996 1996;313(7059):729-731.
31. McIntosh J. Patients' awareness and desire for information about diagnosed but undisclosed malignant disease. *Lancet*. August 7 1976 1976(August 7):300-303.
32. Butow PN, Dowsett S, Hagerty RG, Tattersall MH. Communicating prognosis to patients with metastatic disease: what do they really want to know? *Supportive Care in Cancer*. 2002;10(2):161-168.
33. Hagerty RG, Butow PN, Ellis PA, et al. Cancer Patient Preferences for Communication of Prognosis in the Metastatic Setting. *J Clin Oncol*. May 1, 2004 2004;22(9):1721-1730.
34. Ptacek JT, Ptacek JJ. Patients' perceptions of receiving bad news about cancer. *Journal of Clinical Oncology*. 2001;19(21):4160-4164.
35. Loge JH, Kaasa S, Hytten K. Disclosing the cancer diagnosis: the patients' experiences. *European Journal of Cancer*. 1997;33(6):878-882.
36. Peteet JR, Abrams HE, Ross DM, Stearns NM. Presenting a diagnosis of cancer: patients' views. *Journal of Family Practice*. 1991;32(6):577-581.
37. Koopmeiners L, Post-White J, Gutknecht S, et al. How Healthcare Professionals Contribute to Hope in Patients With Cancer. *Oncology Nursing Forum*. 1997;24(9):1507-1513.
38. Sardell AN, Trierweiler SJ. Disclosing the cancer diagnosis. Procedures that influence patient hopefulness. *Cancer*. 1993;72(11):3355-3365.
39. Friedrichsen MJ, Strang PM, Carlsson ME. Breaking bad news in the transition to curative to palliative care patient's view of the doctor giving the information. *Supportive Care in Cancer*. 2000;8:472-478.
40. Johnston G, Abraham C. Managing awareness: negotiating and coping with a terminal prognosis. *International Journal of Palliative Nursing*. 2000;6(10):485-494.
41. Holland JC, Geary N, Marchini A, Tross S. An international survey of physician attitudes and practice in regard to revealing the diagnosis of cancer. *Cancer Investigation*. 1987;5(2):151-154.
42. Anderlik MR, Pentz RD, Hess KR. Revisiting the truth-telling debate: a study of disclosure practices at a major cancer center. *Journal of Clinical Ethics*. 2000;11(3):251-259.
43. Gattellari M, Butow PN, Tattersall MH, Dunn SM, MacLeod CA. Misunderstanding in cancer patients: why shoot the messenger? *Annals of Oncology*. 1999;10(1):39-46.
44. Mackillop WJ, Stewart, W.E., Ginsburg, A.D., et al. Cancer patients' perceptions of their disease and its treatment. *British Journal of Cancer*. 1988;50:355-359.
45. Chochinov HM, Tataryn DJ, Wilson KG, Enns M, Lander S. Prognostic awareness and the terminally ill. *Psychosomatics*. 2000;41(6):500-504.

46. Elger BS, Harding TW. Should cancer patients be informed about their diagnosis and prognosis? Future doctors and lawyers differ. *Journal of Medical Ethics*. 2002;28(4):258-265.
47. Baile WF, Lenzi R, Parker PA, Buckman R, Cohen L. Oncologists' attitudes toward and practices in giving bad news: an exploratory study. *Journal of Clinical Oncology*. 2002;20(8):2189-2196.
48. Friedrichsen MJ, Strang PM. Doctors' strategies when breaking bad news to terminally ill patients. *Journal of Palliative Medicine*. 2003;6(4):565-574.
49. Delvecchio Good MJ, Good BJ, Schaffer C, Lind SE. American oncology and the discourse on hope. *Culture, Medicine and Psychiatry*. 1990;14(1):59-79.
50. Eggerman S, Dustin D. Death orientation and communication with the terminally ill. *Omega -Journal of Death & Dying*. 1985;16(3):1986, 1255-1265.
51. Miyaji NT. The power of compassion: truth-telling among American doctors in the care of dying patients. *Social Science and Medicine*. 1993;36(3):249-264.
52. Lamont EB, Christakis NA. Prognostic disclosure to patients with cancer near the end of life. *Annals of Internal Medicine*. 2001;134(12):1096-1105.
53. Bruera E, Pituskin E, Calder K, Neumann CM, Hanson J. The addition of an audiocassette recording of a consultation to written recommendations for patients with advanced cancer: A randomized, controlled trial. *Cancer*. 1999;86(11):2420-2425.
54. Siminoff LA, Fetting JH, Abeloff MD. Doctor-patient communication about breast cancer adjuvant therapy. *Journal of Clinical Oncology*. 1989;7(9):1192-1200.
55. Leigh N, Gattellari M, Butow P, Brown R, Tattersall MHN. Discussing adjuvant cancer therapy. *Journal of Clinical Oncology*. March 15 2001;19(6):1768-1778.
56. Sell L, Devlin B, Bourke SJ, Munro NC, Corris PA, Gibson GJ. Communicating the diagnosis of lung cancer. *Respiratory Medicine*. 1993;87(1):61-63.
57. Salander P. Bad news from the patient's perspective: an analysis of the written narratives of newly diagnosed cancer patients. *Social Science & Medicine*. 2002;55(5):721-732.
58. The AM, Hak T, Koeter G, van der Wal G. Collusion in doctor-patient communication about imminent death: an ethnographic study. *Western Journal of Medicine*. 2001;174(4):247-253.
59. Kim MK, Alvi A. Breaking the bad news of cancer: the patient's perspective. *Laryngoscope*. 1999;109(7 Pt 1):1064-1067.
60. Chan A, Woodruff R. Communicating with patients with advanced cancer. *Journal of Palliative Care*. 1997;13(3):29-33.
61. Bradley EH, Hallemeier AG, Fried TR, et al. Documentation of discussions about prognosis with terminally ill patients. *American Journal of Medicine*. 2001;111(3):218-223.



62. Gattellari M, Voigt KJ, Butow PN, Tattersall MH. When the treatment goal is not cure: are cancer patients equipped to make informed decisions? *Journal of Clinical Oncology*. 2002;20(2):503-513.
63. Gilmore AJ. The care and management of the patient in general practice. *The Practitioner*. 1974;213:833-842.
64. Noyes R, Travis TA. The care of terminally ill patients. *Archives of Internal Medicine*. 1973;132:607-611.
65. McGrath P. End-of Life Care for Hematological Malignancies: the "Technological Imperative" and Palliative Care. *Journal of Palliative Care*. 2002;18(1):39-47.
66. Prigerson HG. Socialisation to dying: Social determinants of death acknowledgement and treatment among terminally ill geriatric patients. *Journal of Health and Human Behaviour*. 1992;33:378-395.
67. Seale C. Communication and awareness about death: a study of a random sample of dying people. *Social Science & Medicine*. 1991;32(8):943-952.
68. Quirt CF, Mackillop WJ, Ginsburg AD, et al. Do doctors know when their patients don't? A survey of doctor-patient communication in lung cancer. *Lung Cancer*. 1997;18(1):1-20.
69. Haidet P, Hamel MB, Davis RB, et al. Outcomes, preferences for resuscitation, and physician-patient communication among patients with metastatic colorectal cancer. Support Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments. *American Journal of Medicine*. 1998;105(3):222-229.
70. Weeks JC, Cook EF, O'Day SJ, et al. Relationship between cancer patients' predictions of prognosis and their treatment preferences. *Journal of the American Medical Association*. 1998;279:1709-1714.
71. Eidingen RN, Schapira, D.V. Cancer patients' insight into their treatment, prognosis and unconventional therapies. *Cancer*. 1984;53:2736-2740.
72. Pronzato P, Bertelli G, Losardo P, Landucci M. What do advanced cancer patients know of their disease? A report from Italy. *Supportive Care in Cancer*. 1994;2:242-244.
73. Dawson NV, Arkes HR, Connors AF, Jr., et al. Physician-patient discussion does not increase agreement about prognosis in severely ill patients. *Journal of General Internal Medicine*. 1995;10 (Supp 4):41.
74. Goldstein D, Thewes B, Butow PN. Communicating in a multicultural society II: Greek community attitudes towards cancer in Australia. *Internal Medicine Journal*. 2002;32:289-296.
75. Georgaki S, Kalaidopoulou O, Liarmakopoulos I, Mystakidou K. Nurses' attitudes toward truthful communication with patients with cancer. A Greek study. *Cancer Nursing*. 2002;25(6):436-441.
76. Iconomou G, Viha A, Koutras A, Vagenakis AG, Kalofonos HP. Information needs and awareness of diagnosis in patients with cancer receiving chemotherapy: a report from Greece. *Palliative Medicine*. 2002;16(4):315-321.

77. Petrasch S, Bauer M, Reinacher-Schick A, et al. Assessment of satisfaction with the communication process during consultation of cancer patients with potentially curable disease, cancer patients on palliative care, and HIV-positive patients. *Wiener Medizinische Wochenschrift*. 1998;148(21):491-499.
78. McLoughlin HA, Oosthuizen BL. The information needs of cancer patients in the Pretoria and Witwatersrand area. *Curationis*. 1996;19(2):31-35.
79. Tan TK, Teo FC, Wong K, Lim HL. Cancer: To tell or not to tell? *Singapore Medical Journal*. 1993;34(3):202-203.
80. Derman U, Serbest P. Cancer patients' awareness of disease and satisfaction with services: the influence of their general education level. *Journal of Cancer Education*. 1993;8(2):141-144.
81. Barroso P, Osuna E, Luna A. Doctors' death experience and attitudes towards death, euthanasia and informing terminal patients. *Medicine & Law*. 1992;11(7-8):527-533.
82. Harris JJ, Shao J, Sugarman J. Disclosure of cancer diagnosis and prognosis in Northern Tanzania. *Social Science & Medicine*. 2003;56(5):905-913.
83. Huang X, Butow P, Meiser B, Goldstein D. Attitudes and information needs of Chinese migrant cancer patients and their relatives. *Australian and New Zealand Journal of Medicine*. 1999;29(2):207-213.
84. Bruera E, Neumann CM, Mazzocato C, Stiefel F, Sala R. Attitudes and beliefs of palliative care physicians regarding communication with terminally ill cancer patients. *Palliative Medicine*. 2000;14(4):287-298.
85. Butow PN, Dunn SM, Tattersall MH, Jones QJ. Patient participation in the cancer consultation: evaluation of a question prompt sheet. *Annals of Oncology*. 1994;5(3):199-204.
86. Stoner MH, Keampfer SH. Recalled life expectancy information, phase of illness and hope in cancer patients. *Research in Nursing and Health*. 1985;8:269-274.
87. Barnett MM. Effect of breaking bad news on patients' perceptions of doctors. *Journal of the Royal Society of Medicine*. 2002;95(7):343-347.
88. Pruyn JF, Rijckman RM, van Brunschot CJ, van den Borne HW. Cancer patients' personality characteristics, physician-patient communication and adoption of the Moerman diet. *Social Science and Medicine*. 1985;20(8):841-847.
89. Fallowfield L, Lipkin M, Hall A. Teaching senior oncologists communication skills: results from phase I of a comprehensive longitudinal program in the United Kingdom. *Journal of Clinical Oncology*. 1998;16(5):1961-1968.
90. Brown RF, Butow PN, Dunn SM, Tattersall MH. Promoting patient participation and shortening cancer consultations: a randomised trial. *British Journal of Cancer*. 2001;85(9):1273-1279.
91. Brown RF, Butow PN, Boyer MJ, Tattersall MHN. Promoting patient participation in the cancer consultation: Evaluation of a prompt sheet and coaching in question asking. *British Journal of Cancer*. 1999;80:242-248.

92. O'Connor A, Roston H, Fiset V. Decision aids for patients facing health treatment or screening decisions: Systematic review. *British Medical Journal*. 1999;319:731-734.
93. Girgis A, Sanson-Fisher RW. Breaking bad news: consensus guidelines for medical practitioners. *Journal of Clinical Oncology*. 1995;13(9):2449-2456.
94. Girgis A, Sanson-Fisher RW. Breaking bad news. 1: Current best advice for clinicians. *Behavioral Medicine*. 1998;24(2):53-59.
95. Girgis A, Sanson-Fisher RW, Schofield MJ. Is there consensus between breast cancer patients and providers on guidelines for breaking bad news? *Behavioral Medicine*. 1999;25(2):69-77.
96. *Psychosocial clinical practice guidelines: information, support and counseling for women with breast cancer*. Canberra: National Health Medical Research Council; 2000.
97. *Management of Advanced Breast Cancer: Clinical Practice Guidelines*. Canberra: National Health Medical Research Council; 2001.
98. Baile WF, Buckman R, Lenzi R, Gloger G, Beale EA, Kudelka AP. SPIKES-A six-step protocol for delivering bad news: application to the patient with cancer. *Oncologist*. 2000;5(4):302-311.
99. Baile WF, Gloger GA, Lenzi R, Beale EA, Kudelka AP. Discussing Disease Progression and End-of-Life Decisions. *Oncology*. 1999;13(7):1021-1031.