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# Seeking informed consent to cancer clinical trials: describing current practice

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**Abstract**

Clinical trials have come to be regarded as the gold standard for treatment evaluation. However, many doctors and their patients experience difficulties when discussing trials, leading to poor accrual to trials and questionable quality of informed consent. We have previously developed a typology for ethical communication about Phase II and III clinical trials within four domains: (a) shared decision making, (b) sequencing information, (c) type and clarity of information, and (d) disclosure/coercion. The aim of this study was to compare current clinical practice when seeking informed consent with this typology. Fifty-nine consultations in which 10 participating oncologists sought informed consent were audiotaped. Verbatim transcripts were analysed using a coding system to (a) identify the presence or absence of aspects of the four domains and (b) rate the quality of aspects of two domains: (i) shared decision-making and (ii) type and clarity of information. Oncologists rarely addressed aspects of shared decision-making, other than offering to delay a treatment decision (78%). Moreover, many of these discussions scored poorly with respect to ideal content. The oncologists were rarely consistent with the sequence of information provision. A general rationale for randomising was only described in 46% of consultations. In almost one third of the consultations (28.8%) doctors made implicit statements favouring one option over another, either standard or clinical trial treatment. Doctors complied with some but not other aspects of a standard procedure for discussing clinical trials. This reflects the difficulty inherent in seeking ethical informed consent and the need for communication skills training for oncologists.


*Keywords:* Australia; Clinical trials; Communication; Informed consent

## Introduction

Clinical trials are now regarded as the most effective means of evaluating new cancer treatments; however, many patients do not participate in trials. In the UK it is estimated that between 5% and 10% of eligible patients (including those approached to participate and those who are not) enter clinical trials in institutions promoting clinical trial participation (Jenkins, Fallowfield, Souhami, & Sawtell, 1999). Slow trial accrual delays the assessment and introduction of effective new treatments and delays the abandonment of less effective or dangerous ones.

The reasons that eligible patients refuse participation have been explored in several studies and include concerns regarding experimentation and uncertainty and perceived loss of control over treatment decisions (Gotay, 1991; Schain, 1994). Patients frequently: (i) do not understand the rationale for trials, (ii) have poor recall of information actually provided, and (iii) may be impeded from making fully informed decisions due to physiological and psychological difficulties (Benson, Pregle, & Bean, 1991; Penman, Holland, & Bahna, 1984; Ellis, Dowsett, Butow, & Tattersall, 1999).

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Misunderstanding has also has been documented in patients who have received information sheets and consent forms for standard treatment protocols (Olver, Turrell, Olszewski, & Wilson, 1995), suggesting that even when the complexities of randomisation are removed, patients have difficulty in understanding the issues required for an informed choice.

In addition to the patient factors noted above, prospective studies have shown that 70–80% of non-accrual is attributable to the doctor (Lee & Breaux, 1983). Many doctors experience problems initiating discussions relating to clinical trials and find the dual roles of caring physician and experimenter difficult to resolve. Fallowfield (1995) noted that doctors included clinical trials among a list of the five most difficult areas of discussion during the consultation. The main difficulties experienced by these doctors were lack of time, lack of support staff and problems explaining difficult concepts such as randomisation. Consequently, doctors may approach only those patients with whom they have established a sufficient rapport or whom they believe will understand complex information, thus potentially reducing the generalisability of results. Clearly the trial discussion between doctor and patient is a crucial step and potential barrier to patient participation, yet little is known about the content and process of this discussion. Institutional ethics committees vet information sheets and consent forms; however, the type and amount of verbal information provided by doctors is not monitored, and the impact of that information on patient accrual and other outcomes is not clear.

Tomamichel et al. (1995) analysed the content of informed consent interviews. They concluded that doctors' information provision and emotional supportive skills were adequate, however, the quality of negotiation in the interactions, characterised by doctors' capacity and willingness to perceive and discuss the emotional needs, complaints or objections of patients, needed to be improved. Jenkins et al. (1999) also analysed audiotapes of informed consent interviews by noting the presence or absence of key information items and behaviours. Of note, in 48% of these consent discussions the term randomisation was not used. Information leaflets were not given to 28% of the patients and patient understanding of information about the trial was checked in only 17% of the consultations. The duration of consent consultations was less than 15 min, and most patients signed the consent document at the first consultation where the clinical trial was discussed (Jenkins et al., 1999).

Albrecht, Blanchard, Ruckdeschel, Coovert, and Strongbow (1999) videotaped cancer consultations between 12 oncologists and 48 of their patients in which patients were invited to participate in a clinical trial. The authors developed and applied a coding system (the Moffitt Accrual Analysis System—MAAS) to the videotapes in order to explore the relationship between specific physicians' behaviours and subsequent patient accrual to clinical trials. The results of the general analysis revealed that cancer patients who joined trials did so when their relationship with their oncologist was coded as: (a) cordial, (b) demonstrating high levels of patient–physician connection and trust, and (c) the oncologist was responsive to patient concerns. In addition, physicians of patients who joined trials mentioned the benefits of the study and the side effects of the treatments more often than those of patients who did not accrue.

These studies were limited to analyses of the part of the consultation pertaining to the clinical trial and have explored the presence or absence of information and behaviours deemed to be significant in the consent discussion. The current study extends these prior analyses to explore the informed consent discussion in the context of the entire consultation in which the array of treatment options is presented. Previously, we developed a typology, incorporating a set of ethical strategies, to describe doctor–patient interactions that occur when participation in phase II and III clinical trials is discussed (Brown, Butow, Butt, Moore, & Tattersall, 2003). Our primary aim here is to describe current practice when Australian oncologists convey treatment information and seek informed consent from their patients to participate in clinical trials, and to compare these practices against the previously developed ideal typology.

## Method

Data presented here were collected as part of a larger study exploring the effectiveness of a communication skills training programme designed to assist doctors gain ethical informed consent to Phase II and III clinical trials. The larger study employed a pre-test/post-test design. Patient and doctor variables were measured before and after doctors were involved in an intensive communication skills training workshop based on the typology mentioned previously. The data presented here were collected at baseline, prior to the training; thus the participating oncologists had not been exposed to the model or training.

### *Sample population*

In order to maximise the likelihood of achieving the patient sample size required, expert advice was sought to identify institutions participating in a large number of clinical trials. In three Australian capital cities, three major tertiary care hospitals that incorporated oncology outpatient clinics were selected. All medical oncologists

from the three centres were invited to participate. The sample population included all participating clinicians' consecutive patients (both new and follow up) attending outpatient oncology clinics for cancer treatment, who were eligible for a phase II or III clinical trial and with whom the doctor planned to discuss participation in a trial. Exclusion criteria consisted of: (i) age less than 18 years, (ii) non-English speaking, (iii) advanced incapacity, (iv) life threatening illness other than cancer, (v) unavailability for the duration of the follow-up and (vi) cognitive impairment.

*Ethical considerations*

The Ethics Committees of all participating institutions granted approval for this study and all patients provided signed informed consent.

*Procedure*

A clinical trial nurse identified patients who were eligible for a clinical trial and determined if and when the consultant planned to discuss the trial. Patients were approached by the clinical trial nurse approximately 30 min prior to that consultation and were invited to participate in this study. Agreeable patients signed the informed consent document which included consent to audiotape the consultation. Patients completed questionnaires before and after the consultation (not included in this analysis) and were provided with a copy of the audiotape of the consultation. The original audiotape was retained for analysis. All audiotapes were fully transcribed.

*Coding of transcripts of the audiotapes*

Previously we developed a set of ethical strategies to guide health care providers in gaining informed consent to clinical trials using qualitative and linguistic methods (Brown et al., 2003). This set of strategies was ratified by a group of experts including oncologists, consumers, ethicists, linguists, medico legal experts, research and pharmaceutical company staff. The typology encompassed four themes: (a) shared decision making, (b) the sequence of moves in the consultation, (c) the type and clarity of ethical and clinical information provided and (d) disclosure of controversial information and coercion. A coding proforma on which to record behaviours, amount and clarity of information provided and sequencing of information provision was devised. A coding manual was produced that systematically defined each of these concepts and enabled standardisation of the coding procedure.

Under each of the four categories, the content of doctor and patient exchanges characterizing that issue was identified (see Tables 2–6). The presence or absence of each component was coded and for "shared decision making" and "clarity of ethical information, "a rating of the *quality* of the explanation was assigned. Communication of a component was rated as "poor" if it was mentioned only, "average" if the mention was accompanied by an explanation/definition of the component, and "excellent" if these were accompanied by a rationale for the importance of the component. In the case of "inviting patient questions" for example, the following statement alone would be coded as a "poor" example of introducing the component,

> Dr, "If you think of anything you want to ask along the way just stop me and ask away,"

however, when coupled with the following explanation,

> Dr, "Sometime it's hard to know what to think or ask when you are in an unfamiliar situation, don't worry if you think it might be a silly question, ask away."

the communication of the component would be rated as "average". When the next statement of rationale is added to the preceding mention and explanation,

> Dr, "It's important to ask questions to make sure that this is a two way discussion today and we can make sure that we're on the same wavelength about your illness and the treatment. So, we'll make time to discuss your questions as they come up."

the combination of mentioning, explaining and providing a rationale for the component would be rated as "excellent".

Because only audiotaped records of the consultation were available, non-verbal behaviours could not be evaluated.

*Coding reliability*

Coders re-coded a random ten percent of the other's consultations and ten percent of their own consultations to determine inter- and intra-rater reliability. Kappa statistics were calculated for the identification of components of the strategies document and for the quality ratings. Inter- and intra-rater kappas for (a) identification of aspects of the coding system were 0.55 and 0.54 respectively and (b) for quality ratings were 0.62 and 0.54, respectively indicating acceptable levels of agreement (Fleiss, 1981; Rosner, 1990).

## Results

Fourteen medical oncologists from the three participating centres agreed to participate in the study. Four withdrew when they did not accrue patients to trials during the period of this study. Of the 10 remaining,

four were female and six male with a mean age of 42.7 years (range, 35–60). Three practiced general oncology while the other participants practiced site-specific oncology, including breast (3), lung and prostate (2), haematologic malignancies (1) and gynecology and sarcomas (1). Three were Professors of Oncology and highly experienced clinicians. The remainder had varying degrees of experience and included two junior oncologists.

Sixty-two patients were approached to participate. Three refused, two females (79 and 53 years of age) and one male (23 years of age). These patients reported being either too anxious to participate or not interested. Thus, the patient sample consisted of 59 cancer patients with a mean age of 54 years. The majority (71%) was female and just over half (53%) were married. Almost half (46%) had completed less than 10 years of schooling and only 26% had completed post-school qualifications, which reflects lower rates of education than the general Australian population (40%) (Ausstats, 1997). These lower education levels are matched by low percentages (35%) of employment in a professional capacity.

The patients were offered participation in 24 different Phase II and III trials. Eighteen were offered one of 15 different Phase II non-randomized trials testing tolerable dose levels and the efficacy of different cancer drugs across a variety of primary cancer sites. Forty-one of the patients were offered a randomized controlled Phase III trial comparing a new treatment against standard treatment. Sixty-eight percent of these (28/41) were early stage breast cancer patients recruited to a randomised breast cancer trial. While Phase II and Phase III trials have different intents the typology can be effectively applied in each case; however, some aspects such as strategies regarding discussion of randomization, would rarely apply in Phase II trials. The average length of time from date of diagnosis to the consultation containing the clinical trial discussion was 8 months. Other demographic and disease variables are presented in Table 1.

Table 1
Demographic and disease characteristics of patient sample ($n = 59$)

| | |
|---|---|
| Gender | |
| Female | 71% (42) |
| Male | 29% (17) |
| Average age | 54 years (Range: 33–80) |
| Marital status | |
| Single | 12% (7) |
| Married/de facto | 53% (31) |
| Widowed/divorced | 27% (16) |
| Other | 8% (5) |
| Primary tumor site | |
| Breast | 53% (31) |
| Colon | 8% (5) |
| Melanoma | 5% (3) |
| Stomach | 5% (3) |
| other | 29% (17) |
| Extent of disease | |
| Loco regional | 48% (28) |
| Disseminated | 49% (29) |
| Unknown | 3% (2) |
| Prognosis | |
| Months to live | 39% (23) |
| Years to live | 34% (20) |
| Normal life expectancy | 24% (14) |
| Unknown | 3% (2) |
| Trial offered | |
| Phase 3 | 70% (41) |
| Phase 2 | 30% (18) |

*Shared decision making*

Fourteen strategies contributing to a collaborative decision-making framework were identified. The frequency with which these occurred in the consultations and ratings of the quality of the utterances are presented in Table 2.

It was not common for doctors to introduce the concept of joint decision making about treatment (in 24% of consultations) and in 75% of consultations where it was introduced, this aspect was rated as poor. Information preferences were checked in 40% of the consultations with 66% of these receiving a poor rating. These preferences were rarely (12%) checked on more than one occasion. The example below received a poor rating.

> Dr. "Do you want to talk about treatments and things now?"

This second example received an average rating.

> Dr "This risk (I am describing) is to guide you as to whether you feel extra treatments are worth it for you. If I spoke in terms of percentage points, is that alright with you or would you rather not have the numbers?"

The doctors invited patient questions and comments in 61% of the consultations, however, 70% of these were rated as poor and the invitation was repeated in only 22% of the consultations. Of note, only a third (32%) of patients were explicitly offered a choice between

Table 2
Percent of consultations in which items of shared decision making occurred ($n = 59$)

| Component | % of consults | % Frequency of ratings[a] | | |
|---|---|---|---|---|
| | | Excellent | Average | Poor |
| Introduces joint decision making | 24 | 0 | 25 | 75 |
| Reiterates joint decision making | 9 | | | |
| Check preferred decision making style (involved or not) | 10 | 17 | 66 | 17 |
| Checks information preferences of patients on one occasion | 40 | 7 | 27 | 66 |
| Checks information preferences on other occasions | 12 | | | |
| Invites questions and comment. | 61 | 5 | 25 | 70 |
| Reiterates invitation for questions and comments | 22 | | | |
| Checks medical knowledge | 9 | 0 | 80 | 20 |
| Checks patient understanding of information on one occasion | 46 | 0 | 26 | 74 |
| Check understanding on more than one occasion | 15 | | | |
| Explicitly offers choice between no treatment and standard treatment | 19 | 10 | 45 | 45 |
| Explicitly offers choice between standard treatment and clinical trial treatment | 32 | 0 | 47 | 53 |
| Acknowledges uncertainty of treatment benefits | 54 | 0 | 44 | 56 |
| Declare professional recommendation | | | | |
| Encourages patients to discuss their concerns and values | 39 | 4 | 43 | 57 |
| Provides time to discuss patient concerns in detail | 44 | 15 | 77 | 8 |
| Offers decision delay | 78 | 4 | 58 | 38 |
| Offers ongoing decision support | 34 | 0 | 65 | 35 |

[a] Frequency of ratings are expressed as a percentage of the number of consults in which the item occurred, e.g. The doctor introduced joint decision making in 24% of the consultations and 25% of these were rated as *average*.

standard treatment and the clinical trial, as exemplified below.

> Dr: "If you decide to have some active anti-cancer treatment, you can either be part of a trial in which case you will be randomly allocated to either the cytotoxic or the biological because we don't know which is best, or if you decide not to have the trial then the standard therapy would be the drug, the Dacarbazine which would be given as an outpatient, once every three weeks."

The uncertainty of treatment benefit was acknowledged in just over half (54%) of the cases.

> Dr: "…So there have been a number of patients already treated with this (clinical trial drug) and a number of them have had very good responses. So we feel enthusiastic about it but I can't tell you what the response would be on the clinical trial."

Patients were commonly offered the option of delaying their decision about trial participation (78% of consultations) and the majority of these offers (62%) were rated as average or excellent.

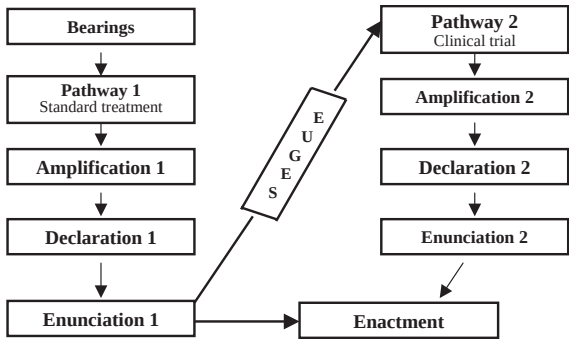


Fig. 1. The recommended sequence of moves.

*Sequence of phases in the consultation*

The consultation data were categorised into a series of information phases all of which are important as distinct components of the consultation. A proposed sequence of these phases was also identified to promote patient understanding of information and ensure equal weight was given to the discussion of standard treatments and the clinical trial (see Fig. 1).

Discussions of *Bearings*, which refers to the doctor and patient reaching agreement about the diagnosis and extent of disease, took place in the majority (89%) of the consultations. For example,

Dr: "Let's start with your test results and discuss what they mean. It's important to make sure we agree about what is going on before we talk about any further treatment. Is that O.K.?"

Discussion of two phases, *Pathway* 1 (describing the standard treatment/s available) and *Pathway* 2 (describing the clinical trial) is essential to the informed consent discussion. The standard treatment was mentioned (in varying degrees of detail) in 91.2% of consultations while a description of the clinical trial was conveyed in 98% of these consultations.

*Amplification* 1 and 2 involve encouraging the patient to express values and lifestyle factors that may influence their decision about standard treatment (1) or participating in the clinical trial (2). However, discussions of Amplification 1 (23%) and Amplification 2 (30%) occurred in less than one third of the consultations.

*Declaration* 1 and 2 refers to the doctor providing an explicit statement of their view about the standard treatment(s) or participation in the clinical trial. The doctor, for example, may say that he/she regards both standard treatment and the clinical trial as offering equal care for the patient; the trial is his/her preferred option as it allows medical progress; however, this is very much a choice for the patient and they would receive excellent care in either case. Note that in the coding we coded for the presence of a clear recommendation, regardless of what it was. We feel this is an important step, in order to make explicit, rather than leave covert, the doctor's view. *Declaration* 1 (standard treatment recommendation) was evident in 44% of the consultations in contrast to *Declaration* 2 (clinical trial recommendation) where a recommendation was made in 56% of the consultations.

Opportunities for the patient to voice a response to the presentation of the standard treatment options, *Enunciation* 1, occurred in only 14% of the consultations in contrast to a response to the clinical trial information, *Enunciation* 2, which was present more than twice as often (35%).

The *Enactment* of the preceding discussions, e.g. organising extra tests, referral to data managers for further discussions, occurred in only 60% of the consultations. It is likely that the high proportion of consultations containing an offer to delay the decision accounts for the 40% of the consultations in which *enactment* was not discussed (see Table 3).

Presenting the standard treatment information prior to the description of the clinical trial ensures that the patient understands that the trial is an option among others. This preferred sequence occurred in 86.4% of the consultations. These discussions were commonly preceded by a Bearings discussion. The order of other components was rarely consistent with the suggested ideal sequence.

### *Type and clarity*

Within Pathways 1 and 2 a number of facts need to be communicated to allow patients to make informed decisions and thus give ethical informed consent. These facts were categorised as essential (a) clinical and (b) ethical information. The quality of the communication styles used to convey the ethical information was also rated (see Table 4).

Table 3
Sequence of moves in the consultation: percentage of consults in which each move occurred ($n = 59$)

| Component | Description | % of consults |
|---|---|---|
| Bearings | Negotiating a mutual understanding of the patient's current situation, "where we are now" | 89 |
| Pathway 1 | Standard treatments. Describing the range of standard treatments available, including the no treatment option | 91 |
| Amplification 1 | Invitation to patient to discuss personal meanings and lifestyle factors of relevance to the *decision about standard treatment*. Clarifying patient values | 23 |
| Declaration 1 | Explicit statement of the doctors view that *standard treatment* i.e. chemotherapy would be acceptable | 44 |
| Enunciation 1 | Patient's response to the information regarding *standard treatments* | 14 |
| Pathway 2 | Describing the clinical trial treatment including ethical issues and process of randomisation | 98 |
| Amplification 2 | Invitation to patient to discuss personal meanings and lifestyle factors of relevance to the decision about *the clinical trial*. Clarifying patient values about trial treatment | 30 |
| Declaration 2 | Explicit statement of the doctors view that *the clinical trial* would be an acceptable treatment option | 56 |
| Enunciation 2 | Patient's response to the information regarding *the clinical trial* | 35 |
| Enactment | Practical application of the preceding discussions e.g. organising tests or further discussions with data manager | 60 |

Table 4
Type and clarity: percent of consultations in which items of *ethical* information were provided ($n = 59$)

| Component | Description | % of consults |
|---|---|---|
| Diagnosis/staging | Provide clear description of the disease extent | 52 |
| No treatment option | Describe the option of no further treatment | 19 |
| Prognosis without treatment | Describe survival rates with no further treatment | 39 |
| Standard treatment | Describe standard options that may change over the course of the illness | 70 |
| Prognosis with standard treatment | Describe survival rates specific to the patients' illness, with treatment | 70 |
| Aim of standard treatment | Describe the aim of treatment | 66 |
| Advantages of standard treatment | Describe the benefits of each of the standard treatments; including impact on prognosis and tumour size | 25 |
| Disadvantages of standard treatment | Describe the likely side effects of treatment | 56 |
| Clinical trial described | Present the clinical trial as another treatment option and the strength of evidence for the new treatment | 86 |
| Prognosis with clinical trial | Describe the survival rates with the trial treatment | 22 |
| Aim of clinical trial | Describe that the trial is being conducted to improve the state of medical knowledge | 78 |
| Advantages of clinical trial | Describe any potential benefits of the trial treatment and the treatment evaluation | 39 |
| Disadvantages of clinical trial | side effects/inconvenience/ additional tests/visits, etc. | 73 |

*Essential items of clinical information for informed decision-making*

The patient's prognosis with standard treatment was described in 70% of the consultations; however, the prognosis if the patient was to choose the clinical trial was described in only 22% of the consultations.

> Dr: "Now it's (clinical trial treatment) something that is relatively new in Australia. A centre in Perth began doing treatments like this just under a year ago and they have treated about twenty patients with more than 80% of them getting good shrinkage."

In all other categories patients were provided with more information about the clinical trial than the standard treatment including the disadvantages of the trial, for example, side effects and inconvenience. The option of having no treatment was described in only 19% of the consultations (see Table 4).

*Essential items of ethical information for informed decision-making*

Equipoise (51%) and beneficence (46%) were described in about half of the consultations and in the majority of cases (89% and 80%, respectively) received poor ratings. Below is an example of beneficence rated as average.

> Dr: "…you will be compared with women all around the world to learn in 5 years time or even longer, because they look at it every 5 years, to see whether one set of treatments have been better than normal sets of treatments."

This second example was rated as excellent.

> Dr: "the business of the trial is really to just to refine what chemotherapy we give rather than answer any questions about whether we should be giving it or not. And it's actually to add this new drug we call Taxotere that we have found useful in advanced disease that is widespread, so we are adding it into this post surgery situation, seeing if it offers any advantage over what we were doing before.

A general description of randomisation was given in less than half of the consultations (46%) where Phase III trials were discussed. The ratings of this aspect were almost equally divided between average (52%) and poor (48%). The application of randomisation to the specific trial being offered was described in only about a third of the consultations (32%) and of these descriptions, almost two-thirds (62%) received a poor rating.

> Dr: "Now actually this trial is more complicated than that because they try and answer a few questions all at the same time. So instead of two groups there are actually four groups. So there are four different treatments that you could potentially get. Basically two of the treatments incorporate this new drug Taxotere and two of them are various permutations of the standard therapy."

Table 5
Type and clarity: percent of consultations in which items of *ethical* information were provided

| Component | Description | % of consults | % Frequency of ratings[a] | | |
|---|---|---|---|---|---|
| | | | Excellent | Average | Poor |
| Equipoise ($n = 59$) | Trials are conducted only when there is collective uncertainty that the benefit of an experimental treatment is better than the current best practice standard treatment | 51 | 0 | 11 | 89 |
| Beneficence ($n = 59$) | The trial is conducted to determine whether there is a significant additional benefit from the experimental treatment | 46 | 0 | 20 | 80 |
| Non-maleficence ($n = 59$) | There is evidence to suggest that being involved in a clinical trial will in no way worsen the patient's chances | 32 | 0 | 35 | 65 |
| Medical uncertainty | Explain as rationale for trial | 66 | 0 | 42 | 58 |
| *Inform* the patient about randomisation ($n = 41$, as only applies to Phase III trials) | *Explain* the general rationale for the randomised clinical trial | 46 | 0 | 52 | 48 |
| | *Explain* how randomisation works in the context of the trial offered | 32 | 0 | 38 | 62 |
| | Explain chance allocation | 83 | 3 | 32 | 65 |
| | Explain risk of bias | 42 | 12 | 18 | 70 |
| Ethics committees ($n = 59$) | Explain that all trials have to receive approval from ethics committees | 3 | | | |
| *Refer* to the information sheet: patients should know the relevance of this document and how to use it ($n = 59$) | Entry criteria | 43 | | | |
| | Escape clauses | 37 | | | |
| | How the results will be disseminated | 3 | | | |

[a] Frequency of ratings are expressed as a percentage of the number of consults in which the item occurred, e.g. the doctor described Equipoise in 51% of the consultations and 89% of these were rated as *poor*.

The doctors commonly (82%) explained that for randomised trials allocation to a treatment would be by chance. Sixty-five percent of these were rated as poor. The risk of bias if either the doctor or patient could choose the trial treatment was described in less than half the cases (42%) and 70% of these explanations were given a poor rating. The example below was rated as poor.

> Dr: "You or I don't choose the treatment so that we don't bias the outcome".

This second explanation received an excellent rating

> Dr: "Now to make sure that we're not biased, you or I don't choose the treatment. A computer chooses it. Otherwise you might say 'I'd like that Herceptin treatment, I'll have treatment B please' and that is going to bias the results of the study. So we have to remove bias. So no only does that mean that you and I can't choose the treatment, it means that you and I have to be happy with each of those treatment options.

Doctors discussed medical uncertainty as the reason for conducting a randomised clinical trial with two-thirds (66%) of the sample, with over half of these (58%) receiving a poor rating. The example below was rated average.

> Dr "…and if we decide to do that (have anti-cancer therapy), the options we have are to use Dacarbazine, our stock standard drug or to enter you in a trial that compares the Dacarbazine with these biologic

therapies. Because we don't know which is best so we test them one against the other.''

The doctors described the trial entry criteria (43%) and escape clauses (37%), often incorporated into the information sheets accompanying the consent forms for the trial, in under half of the consultations. The eventual dissemination of the trial results was discussed in only 3% of the consultations. (See Table 5).

*Disclosure and coercion*

Items of information that may potentially influence patient decision-making but were not commonly revealed, and communication styles which may be subtly coercive were coded.

The issue of personal payment to participating doctors was never discussed, although this was not surprising since none of the studies incorporated such a payment. Whether the participating hospital would receive remuneration was rarely (3%) discussed. Availability of the experimental treatment at the conclusion of the trial was mentioned in 14% of the consultations. On occasion it was made clear that treatment on trial offered access to expensive therapies that were difficult to access in standard management (See Table 6):

> Dr: ''And the other thing is that we don't actually have access to Taxol in those circumstances because it's too expensive, and that is why they use a drug like Taxol in this sort of trial because it's like a carrot to want to use the nerve protectant drug trial. They give us the access to an expensive drug that has been shown to be effective in both head and neck cancer and oesophageal cancer and we wouldn't be able to get it otherwise. And the drug company that markets the nerve protectant drug pays for the Taxol.''

A number of communication styles were identified with the potential to coerce patients to agree to participate in clinical trials. In almost a third (29%) of the consultations the doctors made implicit statements suggesting that the trial option was favoured over standard treatment.

> Dr: ''And probably apart from some inconvenience of just, you know, there are certain things that have to be done on certain days, I don't think that it will make it harder for you to have the treatment. You know I actually think sometimes people like being in a trial because of the rigidity of the way it proceeds.''

Other potentially coercive communication styles were present in a small proportion of the consultations. The differential framing of information using numbers and words can be used persuasively, particularly when used to minimise the risks associated with the experimental treatment.

Table 6
Percent of consultations containing items of disclosure and coercion

| Component | % of consultations ($n = 59$) |
|---|---|
| *DISCLOSURE* | |
| Institutional financial gain | 3 |
| Personal remuneration | 0 |
| Treating doctor also investigator on the trial | 7 |
| Access to treatment after trial concludes | 14 |
| Information about other trials suitable for the patient | 3 |
| Ethics approval received to conduct the trial | 3 |
| *COERCION* | |
| Favouring one option | 29 |
| Differential framing of information | 5 |
| Differential use of descriptive vs. numeric language | 3 |

> Dr: ''Actually with Xeloda really, people don't lose the hair to *a major extent*. Not even so that you would notice.... It would be very unusual to lose *a lot of* hair with Xeloda. With the CMF did you lose your hair last time?''
>
> Pt: ''Yeah''
>
> Dr: ''O. K. well there is about, there's usually about a *50/50* chance of losing enough hair to the extent that, you know, you might have to wear a wig or something.''

Coercion may also occur when the potential value of a clinical trial treatment is presented with a positive frame versus negative framing for the standard treatment (or vice versa). Research suggests that some patients prefer positively framed information (''*you have a 70% chance of cure*'') as this encourages a positive outlook while others prefer negatively framed information (''*you have a 30% chance of the cancer coming back*'') as this emphasises the importance of additional treatment (Lobb, Butow, Kenny, & Tattersall, 1999) (see Table 6).

## Discussion

This study explored the communication styles currently utilised by oncologists when seeking informed consent from patients to enter cancer clinical trials. These communication styles were compared against a typology within four domains that were previously proposed as being important to gaining ethical informed consent. A coding system was devised to identify the

presence of key features of these themes and to rate the quality of these exchanges.

Other authors have attempted to describe the way that oncologists discuss clinical trials with their patients. Albrecht et al. (1999) developed a detailed coding system (the MAAS) to determine which doctor behaviours predicted patient accrual to a clinical trial. The coding system developed for the current research shares important components with the MAAS. For example the MAAS identifies a number of global features such as ''Connectedness'' and ''Trust'' and ''Sharing the floor'' which are related to developing a collaborative framework in which shared decision-making could occur. The coding system used in this project however, identifies the presence or absence of key communication features of shared decision-making, rather than making global judgments of communication styles.

Jenkins et al. (1999) have also explored doctor–patient communication during the informed consent discussion. Their coding system noted the presence or absence of items considered necessary to the process of obtaining informed consent to a randomized trial. Unlike the MAAS (Albrecht et al., 1999) and the coding system used for this project, no attempt was made by Jenkins et al. to rate the quality of the information provision, and relational aspects of the exchange were not incorporated in the system. However, the identification of the presence or absence of key features (Jenkins et al., 1999) more closely resembles the intent of the coding system developed for this project. The authors also quantify the number of times each item of interest is mentioned within the consultation.

The similarity in content between the MAAS (Albrecht et al., 1999), the Jenkins et al. (1999) coding system and the coding system developed for this project suggest that there are readily identifiable, important and discrete components of the informed consent discussion. As there are some similarities between the coding systems, where possible, comparisons of results will be made below, to explore differences in doctor behaviour.

### *Shared decision making*

Typically shared decision making models emphasize the level of doctor involvement in the decision making process (Emanuel & Emanuel, 1992; Gafni, Charles, & Whelan, 1998; Thomasma, 1983). Gattellari, Butow, and Tattersall (2001) have demonstrated that patients who perceived that their treatment decision had been shared, regardless of initial involvement preferences, were more satisfied than those patients who felt that either they or the doctor had been primarily responsible.

The doctors in this sample utilised several of the strategies identified previously as promoting shared decision making, as part of their standard practice. The aspects of shared decision making most commonly addressed by the oncologists were offering decisional delay (79.7%) and inviting questions and comments from their patients (61.0%). However, in many cases the strategies were addressed with minimal frequency. For example, only 41% of the sample was asked about their preferences for information and the concept of patient involvement in making treatment decisions was explicitly mentioned to only 20%. Oncologists also tended to avoid initiating discussions of the patient perspective. Doctors encouraged patients to express their concerns and values in only 37.3% of consultations, moreover, the doctors made an explicit offer of ongoing decisional support in only 41% of the consultations.

Furthermore, even when a strategy was present, it was most commonly rated as ''poor'', indicating that no explanation or rationale were offered for the strategy. For example, while information preferences were checked in 41% of consultations, the majority (75%) was rated as ''poor'' and preferences were checked on more than one occasion in only 15% of the consultations. These quality rating data emphasise the danger of ''cook-book'' approaches to communication skills. Doctors may be tempted to ''tick off'' various information items or communication behaviours without addressing them in sufficient depth. It is suggested here that patient preferences for information may vary within consultations depending on the information being conveyed, thus checking preferences on more than one occasion is advised. Thus communication skills courses need to address both the presence and *quality* of exchanges, and explore the differential impact of superficial versus detailed attention to these issues.

Checking of understanding was relatively uncommon in both this study (46% of consultations) and that conducted by Jenkins et al. (1999)(17%), although their results refer specifically to randomization. Thus this does appear to be an underutilized behaviour.

The relatively low percentage of consultations in which patient concerns were addressed in the current study is in contrast to the findings of Albrecht et al. (1999) who rated ''relational'' aspect of communication (covering similar issues) during clinical trial discussions. Of the 12 domains rated in their study, doctors' performance on relational components received the highest mean scores. Interestingly, the coders in Albrecht's study assigned their second lowest score to conversational turn-taking. So although doctors were performing well at a relational level they were dominating the interaction. On the other hand, our oncologists appeared to be offering a longer time-frame for decision-making than the English oncologists audited in Jenkins et al. (1999). In that study, the majority of patients made a decision about joining a clinical trial in the initial consultation where they were invited to participate. Three-quarters of patients in our sample were offered the option of delaying their decision about treatment.

Clearly there would be advantages in future research to adopt standard coding strategies, so that cross-study comparisons could be made more easily.

*Sequence of information*

A structured sequence of phases to promote shared decision-making has been suggested in the current study. This enables equal weight to be given to information about standard treatment and clinical trial options and provides structured opportunities (Amplification, Enunciation) for patients to respond. While the standard treatment and the clinical trial were discussed in most of the consultations and in the suggested order, opportunities for patients to voice a response were limited. Patients expressed their response to the clinical trial information in only a third of the consultations and to standard treatment options in only 15% of consultations. This may indicate that doctors expected patients to more readily accept the standard treatment and were more concerned to gain an impression of the patients' likely decision regarding the clinical trial. Nevertheless, a map of the consultation showing distinct phases where patient responses are invited may be a useful aide-memoir for doctors.

*Type and clarity of information*

We proposed that sufficient clinical and ethical information be provided to patients and that it be expressed clearly. We found that patients received more information about the clinical trial treatment including the rationale for treatment and benefits and side effects, than the standard treatment, with the exception of prognostic information. Although a similar comparison was not made in the Albrecht et al. study (1999) the authors report that during consultations with patients who eventually agreed to participate in a clinical trial, doctors more commonly described the study benefits and side effects. The fact that more information on the whole was given about trials than standard treatment may reflect a worrying double standard with regard to informed consent for clinical trials versus standard care. Extra care is taken in the former, whereas consent may even be seen as unnecessary in the latter. Many of the concepts and strategies described as useful in the context of a clinical trial discussion would be equally relevant when discussing standard treatment options (Segelov, Tattersall, & Coates, 1992).

Seventy-three percent of patients in this study were provided with specific information about likely survival rates if they chose the standard treatment in comparison with only 23.7% for the clinical trial treatment. Doctors may have been uncertain about the possible benefit of trial treatment; however, this was acknowledged in little over half of the consultations. The ethical concepts of equipoise, beneficence and non maleficence were described in less than half the consultations, though their explanation may have been used to reassure patients that the outcomes were not expected to be radically different (otherwise it would not be ethical to conduct the trial).

The relatively low rate of explanation of medical uncertainty as a rationale for a clinical trial (61%) in this study contrasts to the 96.3% of consultations where it was mentioned in the Jenkins et al. study (1999). This may reflect a national difference between Australian and UK oncologists or simply a sample difference. Further research is required to explore the underpinnings of this discrepancy.

Discussing randomisation has been consistently identified as an area of difficulty for oncologists when seeking informed consent (Fallowfield, Lipkin, & Hall, 1998). Our results revealed that oncologists described chance allocation to treatment arms in 87.8% of the consultations where a Phase III trial was described; however, this was "poorly" described 65% of the time. A specific description of how randomisation applied in the context of the trial offered and an explanation of how randomisation protects against biased sample selection was described in 34.1% and 39.0% of consultations respectively. Jenkins et al. (1999) report that the term randomisation was used in 66.2% of consultations. Jenkins et al. refer to "implicit" and "explicit" descriptions of randomisation. An "explicit" explanation (similar to our "excellent" rating) involves a description of randomisation in plain terms and a reason why randomisation is needed in the trial. This was offered to patients in only 25.6% of the consultations. Albrecht et al. (1999) report similar figures. In their sample, randomisation procedures were described to 89% of patients who agreed to participate in a Phase III trial and only 50% of patients who did not agree. Perhaps doctors give less information about randomisation if they perceive (correct or otherwise) that the patient is unlikely to enter the trial. Alternatively, where doctors do have the time to provide a fuller description of trial issues, including randomisation, patients may be more willing to join the trial. The concordance across these three studies regarding the rates and quality of randomisation explanations indicates that this issue continues to present a significant challenge for oncologists when seeking consent to Phase III trials.

*Disclosure and coercion*

Recent public debate in the Australian media (Ryle, 2001a, b) highlight potential conflicts of interest posed by personal or hospital remuneration for patient recruitment. Many people feel that without full disclosure, ethical informed consent is not possible. We found that such disclosures were never or very rarely

made. Whether patients need or want this information to assist their decision-making is unclear. However, we suggest that the disclosure of this information be negotiated with patients in order to make the informed consent process more transparent and to guard against potential coercion.

Patient autonomy is a key ethical issue guiding the conduct of the informed consent process. Avoiding potential coercion has been identified by our study group and others (Charles, Gaffni, & Whelan, 1997) as a primary concern. However, in one study, doctors reported intentional use of communication techniques to persuade patients to make the doctor's preferred treatment decision (Elwyn, Edwards, Gwyn, & Grol, 1999). We have identified, through linguistic analysis, a number of subtle yet potentially coercive communication styles. Our data reveal that in just under a third of cases, doctors made statements implicitly revealing their preference for one treatment option over another. More explicit treatment recommendations appeared with greater frequency in clinical trial consultations. It is not known whether implicit or explicit preferences should even be voiced if both options are equally good. There was little evidence of the use of other subtle coercion.

### *Limitations*

The results presented here are based on a sample of only 10 oncologists practicing in three urban teaching hospitals and therefore the generalisability of the results in the wider oncology setting is uncertain.

A further limitation is that new and follow up patients were not differentiated. The approach to these may be completely different. For example, follow up patients may have had prior extensive discussions about standard treatment options or have had prior opportunity to ask multiple questions which would not necessarily be repeated. A consultation with a well-known patient may be less formal than with a new patient. Nonetheless, full information about the clinical trial would be needed to inform a new decision.

It is possible that our own conceptions and ethical stance may have influenced how we devised the typology and analysed these results. We have not yet validated the typology or coding system in terms of whether patients understood key concepts being communicated, and felt satisfied with their decision. It would be important to include such measures in future research. The sequencing of topics in particular, which has not been previously identified as important in this context, may not have a bearing on patients' understanding and the ethics of informed consent. Others might disagree with our view that doctors should be explicit about their personal preferences and make a recommendation (Declaration 1 and 2), in order to avoid patients second-guessing the doctor's views. Recommendations either in favour of the standard treatment or the trial may be seen as inconsistent with the position that both are acceptable.

Also, in our view, achieving informed consent and shared decision making is more important than achieving maximum recruitment to trials. This influenced our judgements about what constituted potential coercion. Others may have coded these behaviours differently. The subjective nature of some of these judgements is reflected in the kappa scores that showed good, but not excellent inter- and intra-rater agreement.

As noted previously, some aspects of the recommended strategies such as discussions of randomisation would be most applicable to Phase III trials. While perhaps it would have been ideal to stratify the analyses by the phase of the trial discussed, there were insufficient numbers of patients being offered Phase 2 trials to make such analyses meaningful. Therefore we decided to pool the data. However we have restricted the analyses of discussions of randomisation to those consultations involving Phase III trials.

Finally, as these results are based on transcripts of audiotapes of the consultations, the impact of both doctor and patient non-verbal behaviours could not be explored. Coding of these non-verbal behaviours could potentially improve the validity of these results. Thus future research could usefully identify and explore the impact of non-verbal behaviours during the informed consent process.

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## References

Albrecht, T. L., Blanchard, C. G., Ruckdeschel, J. C., Coovert, M., & Strongbow, R. (1999). Strategic physician communication and oncology clinical trials. *Journal of Clinical Oncology*, *17*, 3324–3332.

Ausstats (1997). Vol. 2002. Australian Bureau of Statistics.

Benson, A., Pregle, J., & Bean, J. (1991). Oncologists' reluctance to accrue patients onto clinical trials. *Journal of Clinical Oncology*, *9*, 2067–2075.

Brown, R. F., Butow, P. N., Butt, D. G., Moore, A. R., & Tattersall, M. H. N. (2003). Developing ethical strategies to assist oncologists in seeking informed consent to cancer

clinical trials. *Social Science & Medicine*, in press doi:10.1016/S0277-9536(03)00204-1.

Charles, C., Gafni, A., & Whelan, T. (1997). Shared decision making in the medical encounter encounter: What does it mean? (or it takes two to tango). *Social Science & Medicine*, *44*, 681–692.

Ellis, P., Dowsett, S. M., Butow, P. N., & Tattersall, M. H. N. (1999). Attitudes to randomised clinical trials among outpatients attending a medical oncology clinic. *Health Expectations*, *2*, 33–43.

Elwyn, G., Edwards, A., Gwyn, R., & Grol, R. (1999). Towards a feasible model for shared decision making: a focus group study with general practice registrars. *British Medical Journal*, *319*, 753–756.

Emanuel, E. J., & Emanuel, L. L. (1992). Four models of the physician-patient relationship. *Journal of the American Medical Association*, *267*, 2221–2389.

Fallowfield, L. (1995). Can we improve the professional personal fulfilment of doctors in cancer medicine. *British Journal of Cancer*, *71*, 1132–1133.

Fallowfield, L., Lipkin, M., & Hall, A. (1998). Teaching senior oncologists communication skills; results from phase 1 of a comprehensive longitudinal programme in the UK. *Journal of Clinical Oncology*, *16*, 1961–1968.

Fleiss, J. L. (1981). *Statistical methods for rates and proportions*. New York: Wiley.

Gafni, A., Charles, C., & Whelan, T. (1998). The physician—patient encounter: The physician as a perfect agent for patient versus the informed treatment decision making model. *Social Science & Medicine*, *47*, 347–354.

Gattellari, M., Butow, P. N., & Tattersall, M. H. N. (2001). Shared decisions in cancer care. *Social Science & Medicine*, *52*, 1865–1878.

Gotay, C. (1991). Accrual to cancer clinical trials: Directions from the research literature. *Social Science & Medicine*, *33*, 569–577.

Jenkins, V. A., Fallowfield, L., Souhami, A., & Sawtell, M. (1999). How do doctors explain randomised clinical trials to their patients? *European Journal of Cancer*, *35*, 1187–1193.

Lee, J. Y., & Breaux, S. R. (1983). Accrual of radiotherapy patients to clinical trials. *Cancer*, *52*, 1014–1016.

Lobb, E. A., Butow, P. N., Kenny, D. T., & Tattersall, M. H. N. (1999). Communicating prognosis in early breast cancer: Do women understand the language used. *Medical Journal of Australia*, *171*, 290–295.

Olver, I., Turrell, S., Olszewski, N., & Wilson, K. J. (1995). The impact of full information disclosure and consent forms on patients receiving standard cytotoxic chemotherapy. *Medical Journal of Australia*, *162*, 82–83.

Penman, D., Holland, J., & Bahna, G. (1984). Informed consent for investigational chemotherapy: Patients' and physicians' perceptions. *Journal of Clinical Oncology*, *2*, 849–855.

Rosner, B. A. (1990). *Fundamentals of biostatistics*. Boston: PWS-Kent.

Ryle, G. (2001a). In *Sydney Morning Herald*, Sydney, February 14, p. 1. Available: smh.com.au

Ryle, G. (2001b). In *Sydney Morning Herald*, Sydney, February 14, p. 4. Available: smh.com.au

Schain, W. (1994). Barriers to clinical trials, Part II. Knowledge and attitudes in potential participants. *Cancer*, *74*, 2666–2671.

Segelov, E., Tattersall, M. H. N., & Coates, A. S. (1992). Redressing the balance—the ethics of not entering an eligible patient on a randomised clinical trial. *Annals of Oncology*, *3*, 103–105.

Thomasma, D. C. (1983). Beyond medical paternalism and patient autonomy; a model of physician conscience for the physician–patient relationship. *Annals of Internal Medicine*, *98*, 243–248.

Tomamichel, M., Sessa, C., Herzig, S., de Jong, J., Pagani, O., Y, W., & Cavalli, F. (1995). Informed consent for phase 1 studies: Evaluation of quantity and quality of information provided to patients. *Annals of Oncology*, *6*, 363–369.