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A parallel multicentre randomised trial of a clinical trial question prompt list in patients considering participation in Phase 111 cancer treatment trials

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ABSTRACT

Objective: To evaluate the effect of a clinical trial question prompt list in patients considering enrolment in cancer treatment trials.

Setting: Tertiary Cancer Referral Hospitals in three capital cities in Australia.

Participants: 88 cancer patients attending three cancer centres in Australia, who were considering enrolment in Phase III treatment trials, were invited to enrol in an unblinded randomised trial of provision of the clinical trial Question Prompt List (QPL) before consenting to enrol in the treatment trial.

Interventions: We developed and pilot tested a targeted QPL for cancer patients considering clinical trial participation (The Clinical Trial QPL). Consenting patients were randomised to receive the Clinical Trial QPL or not before further discussion with their oncologist and/or trial nurse about the treatment trial.

Primary and Secondary Outcomes: Questionnaires were completed at baseline and within three weeks of deciding on treatment trial participation. Main outcome measure: Scores on the Quality of Informed Consent questionnaire (QuIC).

Results: 88 patients were enrolled (43 males), and 45 received the clinical trial GPL. Forty nine percent of trials were chemotherapy interventions for patients with advanced disease, 35% and 16% were surgical adjuvant and radiation adjuvant trials respectively. Seventy patients completed all relevant questionnaires. Twenty eight of 43 patients in the control arm compared to 39 of 45 patients receiving the Clinical Trial QPL completed the QuIC (p=0.0124). There were no significant differences in the QuIC scores between the randomised groups (QuIC Part A p=0.08 and QuIC Part B p= 0.92). There were no differences in patient satisfaction with decisions or in anxiety levels between the randomised groups.

Conclusion: Use of a question prompt list did not significantly change the QuIC scores in this randomised trial.

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STRENGTHS AND LIMITATIONS OF THIS STUDY

- The clinical trial question prompt list contains 51 questions grouped under 10 headings.
- The Quality of Informed Consent Questionnaire (QuIC) is widely used to measure clinical trial participants' actual and perceived understanding of cancer clinical trials.
- The trial was stopped prematurely due to low accrual rates and on the advice of an independent data monitoring committee.
- Participants had only a few minutes to review the clinical trial QPL before continuing discussion about the randomised cancer treatment trial.
- Information about the duration of the informed consent discussion in the trial is not available.

INTRODUCTION

Surveys of the public have found widespread support for the concept of clinical trials as an important and ethical means of developing improved medical care. However, only a small percentage of eligible patients are recruited in clinical trials in many institutions that promote clinical trial participation.

A significant proportion of non-trial participation is explained by patient refusal [1]. Reasons for trial refusal by eligible patients include concerns regarding experimentation and uncertainty and loss of control over treatment decisions. Even when patients agree to participate, they frequently do not understand basic components of the trial that they have consented to enter [2-3]. In the United Kingdom Jenkins *et al* [4] audiotaped discussions between oncologists and patients during which consent was being obtained for a randomised clinical trial. In most, the concept of the trial was introduced by describing uncertainty about treatment decisions. The word randomisation was mentioned in 51 consultations (62.2%). The median duration of 'consent' interviews was less than 15 minutes, and most patients signed the consent document at the first consultation at which the clinical trial was discussed.

Brehaut *et al* [5-6] argue that the existing approach to obtaining informed consent for clinical research may be improved by using decision aids. Juraskova *et al* [7] reported successful piloting of a decision aid to assist women considering participation in a breast cancer prevention trial. Spiegle *et al* [8] performed a systematic review to identify alternative types of decision support interventions (DSIs) for cancer treatment and a meta-analysis to compare the effectiveness of DSIs compared to patient decision aids. The study showed that the effectiveness of other DSIs, including QPLs and audio recordings of the consultation, is similar to patient decision aids. This finding is important because less complex DSIs such as a targeted QPL may be all that is necessary to achieve similar outcomes as patient decision aids for cancer treatment. QPLs have been shown to increase question asking in cancer patients [9-10].

The quality of informed consent questionnaire (QuIC) was designed to measure participants' actual (objective) and perceived (subjective) understanding of cancer clinical trials. Joffe *et al* [11] derived 13 independent domains of informed consent and wrote one or more questions to measure participants' objective and subjective understanding of their clinical trials. After feedback from pilot testing and input from expert panels, the QuIC was sent to adult cancer patients enrolled in Phase I, II, and III clinical trials. Test retest reliability was good, as was face and content validity. The QuIC took an average of 7.2 minutes to complete.

Joffe *et al* [2] reported the use of the QuIC to measure the quality of understanding among 207 cancer clinical trial participants in Boston who had signed a clinical trial consent form a median of 16 days earlier. Almost half of the consent discussions had lasted one hour. The consent form was signed a median of six days after the initial discussions about the trial and a quarter signed during the first consultation. There was considerable variation in the proportion of correct answers across individual questions in the QuIC.

Bergenmar *et al* [12] used the QuIC questionnaire to survey 282 patients who had been informed in Swedish about a Phase II or Phase III trial and had signed a consent form. The patients were asked about the duration of the consent discussion. Thirty nine patients (14%) reported the duration of the consent discussion was less than 15 minutes, 139 patients (50%) responded between 15 and 30 minutes and 50 patients (11%) between 45 and 60 minutes.

The proportion of correct responses to the 16 items applicable to all patients, irrespective of trial phase were presented. High levels of knowledge (>80%) were found for seven items, and five items were responded to correctly by 50-80% of the patients. Less than 50% responded correctly to four items, namely risks related to the trial, the unproven nature of the trial and issues about insurances in connection to participating in the trial.

We used the QuIC to survey cancer patients in Sydney and Melbourne who had been approached to participate in a clinical trial. The mean score on Part A of the QuIC among 100 patients studied in Sydney was 76.8 [13]. In 72 cancer patients studied in Melbourne, the median objective knowledge score was 77.6/100, and perceived (subjective) understanding (QuIC Part B) 91.5 [3]. Some questions were answered particularly poorly. Higher knowledge score (QuIC Part A) was associated with English as a first language.

We developed a targeted QPL for clinical trials in order to identify questions which might facilitate patient participation in clinical trial discussions with their oncologist and clinical trial nurse [14]. We conducted a series of focus groups with cancer patients and their carers. The focus groups were audio-taped and transcribed. The transcripts were analysed using rigorous qualitative methodology. The final draft of the QPL was pilot tested to evaluate content validity, and acceptability and perceived efficacy in satisfying information needs and achieving involvement preference using a sample of 10 cancer patients considering participation in a Phase III clinical trial at each of the participating institutions. The clinicians, oncologists and clinical research nurses were encouraged to endorse and refer to the QPL during their discussion. Feedback from these patient/clinician cohorts informed the final version of the clinical trial QPL. The final version of the clinical trial QPL used in the randomised trial includes 51 questions grouped under 10 headings is presented in Figure 1.

Figure 1 here

The aims of this study were to determine whether providing patients who are considering clinical trial participation with a QPL about clinical trials enhances: (1) the patient's quality of understanding of the cancer clinical trial; (2) patient achievement of his or her involvement/participation preference, (3) patient satisfaction with the informed consent to treatment decision-making process, and (4) oncologist and research nurse satisfaction with the clinical trial discussion and decision-making process.

We hypothesised that cancer patients receiving a clinical trial QPL which was endorsed by the oncologist and trial nurse prior to deciding whether to participate in a randomised cancer clinical trial compared to patients not receiving this intervention would: have a higher mean knowledge score in the informed consent questionnaire (QuIC Part A) [primary outcome]; have enhanced achievement of their information and involvement/participation preference; and, be more satisfied with the informed consent and decision-making process. We also hypothesised that the intervention would not reduce clinical trial participation.

METHODS

All patients invited to participate in a randomised cancer treatment clinical trial at 3 participating cancer centres were eligible for the study evaluating use of the clinical trial QPL. Eligible patients were approached by a research nurse prior to their written consent to the cancer treatment trial being sought, and invited to participate in the evaluation of the clinical trial question prompt list. After their written consent had been obtained, patients completed a

questionnaire containing measures of information and involvement preferences [15-16], their attitudes to clinical trials [17] and their anxiety level [18].

A randomisation sequence was generated by an independent service. Patients were randomized by opening a numbered blank envelope containing the treatment group allocation: to receive or not receive the clinical trial QPL. Patients in the control group continued their discussion with the oncologist/research nurse about the clinical treatment trial. Patients randomized to receive the clinical trial QPL had at least a few minutes to review it before continuing discussion with their oncologist and/or clinical research nurse about the cancer trial proposed. During this latter discussion the clinicians specifically referred to the QPL and encouraged patients to review the list of questions. Thus participants were not blinded to intervention assignment; however, data entry personnel were blinded.

After the decision about cancer treatment clinical trial participation, and within three weeks, patients were asked to complete the QuIC [2] and questionnaires measuring anxiety [18], their satisfaction with the consent discussion and decision-making [19] and achievement of their information and involvement preferences [20]. Clinician satisfaction with the informed consent process was measured using an adapted form of an existing seven item scale measuring physician satisfaction with the decision-making process [21-22].

The primary outcome measure was the QuIC. Part A of this scale contains questions covering 13 domains which are summed to produce a total score capped at 100. The authors of the QuIC reported a mean total score of 79.7 and standard deviation of 7.7 on Part A of the scale. A sample of 130 patients was sought for the study to have 80% power at the 5% two-sided level of significance to detect a clinically meaningful difference of 3.9 points. Comparisons between randomized groups were tested using a two-sample t-test for continuous outcomes and a chi-square test (or Fisher's exact test where appropriate) for categorical outcomes.

The trial accrued slowly and was stopped after 88 patients had been randomized on the advice of an independent data monitoring committee who determined that the probability of detecting a clinically meaningful difference with continued recruitment was very low (i.e. the conditional power at this point in the study was well under 20%).

RESULTS

Eighty eight patients were enrolled of whom 43 were males and 45 received the clinical trial QPL. Fifty one were recruited from Royal Prince Alfred Hospital, 28 from Peter MacCallum Cancer Centre and nine from Royal Adelaide Hospital. Table 1 presents demographic and disease details including the clinical treatment trial intervention, participating hospital and randomization group. Patients' attitudes to clinical trials [15], clinical trial knowledge score [21-22], and status of completed questionnaires are also presented. Participants were balanced for gender, marital status and education level. Seventy patients completed all relevant questionnaires, but 13 in the control arm and five in the intervention arm did not complete the first and/or second questionnaires.

TABLE 1 here

Table 2 presents the results of the QuIC scores, and the Spielberger State Anxiety Inventory [18]. Twenty eight of 43 patients in the control arm compared to 39 of 45 receiving the clinical trial QPL completed the informed consent questionnaire (p=0.02). There were no

significant differences in the QuIC scores between the randomized groups (QuIC Part A p=0.08 and QuIC Part B *p*=0.92).

TABLE 2 here

There was no difference in anxiety between the randomised groups.

Table 3 presents the results of patient satisfaction with the decision scores. There is no difference between the randomized groups in these results.

TABLE 3 here

Table 4 presents the results of physician satisfaction with the consultation and with decision scores. There is no difference between the randomized groups in these results.

TABLE 4 here

Table 5 presents comparison of the percentages of patients who selected the more correct responses in the clinical trial QPL and patients reported in Bergenmar's use of the QuIC in Swedish patients [12].

TABLE 5 here

DISCUSSION

Use of the clinical trial QPL did not significantly change patient knowledge scores measured by the Quality of Informed Consent Questionnaire (QuIC). The percentage of patients in the control arm completing the QuIC was significantly reduced compared to the intervention group (*p*=0.02). Knowledge scores (QuIC A) were lower in the intervention group compared to control (*p*=0.08). The reason for this is unknown but the fact that those in the control group who actually completed the assessment achieved favourable results may indicate that they comprised a self-selected cohort of patients who were more engaged in the clinical trial process.

We have no information about the duration of the consent interviews in our trial, but it is likely that use of the clinical trial QPL extended the consent interview by a few minutes. Patients only had the QPL for a few minutes before continuing with the clinical trial consent discussion so the 'dose' of the QPL may be low, and therefore not effective. Physician endorsement of QPL use by the patient in other contexts has been an important contributor to the efficacy of QPLs [23-24]. As QPLs have previously demonstrated benefit, it may have been these exposure and endorsement factors that prevented efficacy of the clinical trial QPL in this instance.

The patients in our trial all consented to participate in the informed consent trial at the first consultation when trial participation was raised. This finding differs from the experience reported by Joffe *et al* [2] where the consent form for the treatment trial was signed a median of six days after the initial discussion about the trial, and only 28% consented at the first consultation. We do not know the proportion of consenting patients or the timing of consent to the cancer treatment clinical trial of patients in our trial.

Stryker *et al* [25] studied the factors associated with informed consent, patient satisfaction, and decisional regret in 87 patients who were eligible to participate in twelve selected phase I, II and III clinical trials enrolling patients with sarcoma, breast or prostate cancer. There were two surveys, the first completed shortly after participants were identified, and the second approximately six weeks following submission of the first survey. Measures included subjective informed consent, satisfaction with decision-making, decisional regret and timing of consent (early versus late signers). Early signers reported themselves to be less informed about the details of their particular clinical trials than later signers. Satisfaction with decision-making and subjective informed consent were both strongly associated with later decisional regret. There was no relationship between timing of consent and decisional regret.

Limitations of the study include the low accrual rate, the imbalance in completion of the QuIC in the randomised groups and the brief exposure to the clinical trial QPL. Future studies of clinical trial question prompt lists should include the time taken for consent to be given, and consideration of when is the optimal time for patient understanding of their clinical trial to be sought.

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DATA SHARING STATEMENT:

No additional unpublished data are available.

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REFERENCES

1 Mills EJ, Seely D, Rachlis *et al*. Barriers to participation in clinical trials of cancer: a meta-analysis and systematic review of patient-reported factors. *Lancet Oncol* 2006;7:141-48.

2 Joffe S, Cook EF, Cleary PD, *et al*. Quality of informed consent in cancer clinical trials: a cross-sectional survey. *Lancet* 2001;358:172-77.

3 Jefford M, Mileshkin L, Matthews J *et al*. Satisfaction with the decision to participate in cancer clinical trials is high, but understanding is a problem. *Support Care Cancer* 2011;19:371-79.

4 Jenkins VA, Fallowfield LJ, Souhami A, Sawtell M. How do doctors explain randomized clinical trials to their patients? *Europ J Cancer* 1999;35:1187-93.

5 Brehaut JC, Saginur R, Elwyn G. Informed consent documentation necessary but not sufficient. *Contemp Clin Trials* 2009;30:308-9.

6 Brehaut JC, Fergusson DA, Kimmelman J *et al*. Using decision aids may improve informed consent for research. *Contemp Clin Trials* 2010;31:218-20.

7 Juraskova I, Butow P, Lopez AL *et al*. Improving informed consent in clinical trials: successful piloting of a decision aid. *J Clin Oncol* 2007;25:1443-44.

8 Spiegle G, Al-Sukhni E, Schmocker S *et al*. Patient decision aids for cancer treatment: Are there any alternatives? *Cancer* 2013;119:189-200.

9 Butow PN, Dunn SM, Tattersall MHN *et al*. Patient participation in the cancer consultation: evaluation of a question prompt sheet. *Ann Oncol* 1994;5:199-204.

10 Dimoska A, Tattersall MHN, Butow PN *et al*. Can a "prompt list" empower cancer patients to ask relevant questions? *Cancer* 2008;113:225-37.

11 Joffe S, Cook EF, Cleary PD *et al*. Quality of informed consent: a new measure of understanding among research subjects ; [abstract]. *J Natl Cancer Inst* 2001;93:139-47.

12 Bergenmar M, Molin C, Wilking N *et al.* Knowledge and understanding among cancer patients consenting to participate in clinical trials. *Europ J Cancer* 2008;44:2627-33.

13 Childs AM, Nattress K, Cox KM *et al*. Presented at 5th State Cancer Nursing Research Perth 2005.

14 Brown RF, Shuk E, Butow P *et al*. Identifying patient information needs about cancer clinical trials using a Question Prompt List [abstract]. *Patient Educ Couns* 2011;84:69-77

15 Cassileth BR, Zupkis RV, Sutton-Smith K *et al.* Information and participation preferences among cancer patients. *Ann Intern Med* 1980; 92: 832-36.

16 Degner LF, Sloan JA, Venkatech P. The control preferences scale. *Can J Nursing Res* 1197;29:21-43.

17 Fallowfield LJ, Jenkins B, Brennan C, *et al*. Attitudes of patients to randomized clinical trials of cancer therapy. *Europ J Cancer* 1998;34:1554-59.

18 Spielberger CD. Manual for the State Trait Anxiety Inventory (Form Y). Consulting Psychologists Press; Palo Alto Ca. 1983

19 Roter D. Patient participation in the patient provider interaction: the effects of patient question asking on the quality of interaction, satisfaction and compliance. *Health Educ Monographs* 1977;5:281-315.

20 Holmes-Rovner M, Kroll J, Schmitt N et al. Patient satisfaction with health care decisions; the satisfaction with decision scale. *Med Decis Making*. 1994;16:1864-66

21 Ellis P, Butow PN, Simes RJ *et al.* Barriers to participation in randomized clinical trials for early breast cancer among Australian cancer specialists. *Aust NZ J Surg*. 1999;69:505-10.

22 Ellis PM, Butow PN, Tattersall MHN *et al.* A randomized trial evaluating the impact of an education booklet on willingness to join randomized trials. *Clin Oncol Soc Aust, Ann Sci Conf;* Melbourne 1999.

23 Clayton JM, Butow PN, Tattersall MHN *et al*. Randomized controlled trial of a prompt list to help advanced cancer patients and their caregivers to ask questions about prognosis and end-of-life care. *J Clin Oncol* 2007;25:715-23.

24 Clayton JM**,** Natalia C, Butow PN *et al*. Physician endorsement alone may not enhance question-asking by advanced cancer patients during consultations about palliative care. *Support Care Cancer* 2012;20:1457-64.

25 Stryker JE, Wray RJ, Emmons KM *et al*. Understanding the decisions of cancer clinical trial participants to enter research studies: Factors associated with informed consent, patient satisfaction, and decisional regret. *Patient Educ Couns* 2006;63:104-9.

FIGURE 1: Questions you may wish to ask your doctor about clinical trials. This Question Prompt List is intended to help you to make a decision about participating in a cancer clinical trial. It provides you with some questions that you might like to think about and ask your doctor now or later.

1. Understanding my choices

- What is the usual (standard) treatment for people in my situation?
- Why are you offering me this particular trial?
- Are there choices other than the trial and standard treatment?
- What other trials am I suitable for? What makes me suitable (or not)?

2. Finding out about this trial

- Is there a Patient Information Statement and would you please go through it with me?
- How can I learn more about the trial?
- Can I talk to someone who's already on the trial?

3. Understanding the trial's purpose and background

- What is the purpose of the trial?
- What makes this trial an experiment?
- What is already known about this treatment's success?
- How does the treatment work?
- Does the trial ask an important question in cancer treatment?

4. Understanding the possible benefits

- What benefits could I get by joining in the trial?
- If I join this trial, how might others benefit?
- Has this treatment's benefit already been proven?
- What does response rate mean?
- How long would a response last?
- How do you measure response? What is meant by "measurable disease"?

5. Understanding the possible risks

- What are the risks of taking the new treatment?
- Could there be any long term or permanent changes from the treatment?
- Are there any serious or rare side effects I should know about?
- Whom can I call if something goes wrong?
- If I get a side effect or injury because of being in the trial, will I get compensation?

6. The differences between going on the trial & having standard treatment

- If I enter the clinical trial, will I need to have extra tests, go to more clinics and will it cost me any money? (extra parking, extra medication) How is this different from standard treatment?
- Will there be side effects on the trial which I won't get on the standard treatment?
- Where will treatment for the trial be given? Is that somewhere different from standard treatment?
- Can I have the trial treatment at my local hospital?

7. Understanding how the trial is being carried out

- Is the new treatment only available through joining the trial?
- How long has the trial been going on?
- How many hospitals are involved?
- How many people will be studied?
- How many people are in the trial already? Do you have any concerns about this trial or treatment so far?
- Apart from the hospital staff, will other people have access to my medical records? Who?
- How will my confidentiality be protected?
- How will I be informed of the results of the trial?
- If the new treatment is beneficial, how can I get it (if I'm not already on it)?

8. .Understanding "randomisation"

- Is this trial "randomised"? What does that mean?
- Will I know what treatment I'm getting?
- What is a treatment arm? How many treatment arms are there in this trial?
- Are there different side effects depending on which arm of the trial I am randomised to?
- Why is randomisation important in this trial? Is this trial "blinded"? What does that mean? Will I ever know what treatment I'm getting?
- Why is "blinding" important in this trial?

9. Understanding possible conflicts of interest

- Are you in charge of the trial (the principal investigator)? If not, what's your role in the trial?
- Who is paying for the trial? What is the relationship between you and the sponsor/company?
- Is there a payment made by the sponsor/company to the hospital or to you as my doctor if I go on this trial? Could you tell me how much money, and is this usual? How is the money spent?

10. Understanding my right to join or not to join the trial

- Will you still treat me if I decide not to go on the trial?
- Do I have time to think about whether to go on the trial (a day or two, or a week)?
- If I do take some time to decide will that affect how well the treatment works?
- If I join the trial, but later change my mind, how can I stop? Will this make a difference to my treatment?
- If I join the trial, will I lose out on any new treatment opportunities (e.g. another trial, standard treatment later)?
- Can I still use alternative therapies if I go on the trial?

TABLE 1: Patient Demographic, Randomisation Group, Attitude to clinical trials

	Intervention	Control
Age		
N	45	43
Mean	57	56.9
Median	58	60
Std Dev	13.2	14.5
Minimum	28	22
Maximum	85	84
Gender		
Female	25 (56%)	20 (47%)
Marital Status		
Never married	5 (11%)	7 (16%)
Married/Defacto	30 (67%)	30 (70%)
Widowed	2 (4%)	3 (7%)
Divorced/Separated	7 (16%)	3 (7%)
Other	1 (2%)	0 (0%)
Education		
Year 10 or below	18 (41%)	16 (37%)
Year 12	6 (14%)	12 (28%)
Certificate/Diploma	10 (23%)	8 (19%)
University Degree	5 (11%)	7 (16%)
Higher Degree/Postgrad	5 (11%)	0 (0%)
Country of Birth		
Australia	38 (84%)	40 (93%)
Other	3 (7%)	0 (0%)
Croatia	1 (2%)	0 (0%)
Italy	0 (0%)	1 (2%)
Hungary	1 (2%)	0 (0%)
United Kingdom	1 (2%)	1 (2%)
New Zealand	0 (0%)	1 (2%)
Poland	1 (2%)	0 (0%)
Hospital		
RPAH	26 (58%)	25 (58%)
PETER MAC	15 (33%)	13 (30%)
ROYAL ADELAIDE	4 (9%)	5 (12%)

TABLE 1: Cont'd

	Intervention	Control
Specialist		
Medical Oncologist	20 (44%)	23 (53%)
Surgeon	16 (36%)	15 (35%)
Radiation Oncologist	6 (13%)	4 (9%)
Medical + Radiation Oncologist	3 (7%)	1 (2%)
Positive Attitude		
N	45	43
Mean	14	13.4
Standard Deviation	3	4.4
Median	15	15
Minimum	8	0
Maximum	18	18
Negative Attitude		
N	45	43
Mean	4.9	4.3
Standard Deviation	2.1	2.6
Median	5	4
Minimum	0	0
Maximum	10	10
Clinical Trial Knowledge Score		
N	45	43
Mean	4	3.6
Standard Deviation	1.8	2.1
Median	4	4
Minimum	0	0
Maximum	7	7
Withdrawal/Missing		
No	40 (89%)	30 (70%)
Did not complete questionnaire	0 (0%)	3 (7%)
2nd questionnaire not completed	5 (11%)	10 (23%)

TABLE 2: Results of the QuIC scores, and the Spielberger State Anxiety Inventory [18]. Twenty eight of 43 patients in the control arm compared to 39 of 45 receiving the clinical trial QPL completed the informed consent questionnaire (p=0.02). There were no significant differences in the QuIC scores between the randomized groups (QuIC A p=0.08 and QuIC B p=0.92).

Measure	Intervention	Control	Difference (95% CI)	p-value*
QuIC Part A Summary				
N	39	28		
Mean	75.5	79.9	4.5 (95% CI:-0.5 to 9.5)	0.0801
Standard Deviation	9.9	10.4		
Minimum	53.8	51.9		
Maximum	94.2	100		
QuIC Part B Summary				
N	39	28		
Mean	88.4	88.1	-0.3 (95% CI:-6.1 to 5.5)	0.9205
Standard Dev	12.1	11.4		
Minimum	51.8	64.3		
Maximum	100	100		
Spielberger State Anxiety Inventory (Follow-up)				
N	38	26		
Mean	34.81579	37.15385	2.3 (95% CI:-3.7 to 8.3)	0.4388
Standard Dev	10.8	13.1		
Minimum	20	20		
Maximum	63	66		

* T-test

TABLE 3 Patient satisfaction with decision scores

Measure	Intervention	Control	p-value
Adequately informed			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	2 (5%)	2 (7%)	
agree	20 (51%)	12 (43%)	
Agree strongly	16 (41%)	13 (46%)	
Total	39	28	0.6315
Best decision			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	3 (8%)	3 (11%)	
I agree	13 (33%)	10 (36%)	
Agree strongly	22 (56%)	14 (50%)	
Total	39	28	0.6575
Consistent with values			
Disagree strongly	0 (0%)	1(4%)	
Neutral	5 (13%)	3 (11%)	
I agree	17 (35%)	12 (43%)	
Agree strongly	16 (42%)	12 (43%)	
Total	38	28	0.6935
Carry out decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	0 (0%)	
I agree	17 (46%)	14 (50%)	
Agree strongly	18 (49%)	13 (46%)	
Total	37	28	0.4063
My decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	1 (4%)	
I agree	13 (33%)	14 (50%)	
Agree strongly	24 (62%)	12 (43%)	
Total	39	28	0.3002
My decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	4 (11%)	3 (11%)	
I agree	14 (37%)	11 (39%)	
Agree strongly	20 (53%)	13 (46%)	
Total	38	28	0.6806

TABLE 4: Presents the results of physician satisfaction with the consultation and with decision scores. There is no difference between the randomized groups in these results.

	Intervention	Control	p-value*
I am satisfied that I provided enough information about the treatment options			
Strongly disagree	1 (2%)	2 (6%)	
Not sure	1 (2%)	1 (3%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	18 (44%)	12 (33%)	
Total	41	36	0.77
I am satisfied that I clearly communicated the clinical trial and treatment options			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	3 (8%)	
Agree	20 (49%)	21 (58%)	
Strongly agree	18 (44%)	11 (31%)	
Total	41	36	0.68
I am satisfied that I involved the patient in the decision-making process			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	2 (6%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	17 (41%)	12 (33%)	
Total	41	36	0.93
The patient understood the clinical trial being proposed			
Strongly disagree	1 (2%)	1 (3%)	
Disagree	0 (0%)	1 (3%)	
Not sure	1 (2%)	3 (8%)	
Agree	26 (63%)	25 (69%)	
Strongly agree	13 (32%)	6 (17%)	
Total	41	36	0.33

TABLE 4: Cont'd

	Intervention	Control	p-value*
Overall, I am satisfied with the decision-making process for this patient			
Strongly disagree	2 (5%)	1 (3%)	
Disagree	1 (2%)	0 (0%)	
Not sure	2 (5%)	5 (14%)	
Agree	22 (54%)	23 (64%)	
Strongly agree	14 (34%)	7 (19%)	
Total	41	36	0.32

* Fisher's exact test

TABLE 5: Comparison of the percentages of patients who selected the more correct responses in the clinical trial QPL trial and patients reported in Bergenmar's use of the QuIC in Swedish patients [12].

	Control	Intervention	Bergenmar
QuICA_score_1	27 (100%)	36 (92%)	(98%)
QuICA_score_2	27 (96%)	39 (100%)	(95%)
QuICA_score_3	25 (93%)	28 (72%)	(63%)
QuICA_score_4	6 (22%)	8 (21%)	(32%)
QuICA_score_10	23 (82%)	26 (67%)	(68%)
QuICA_score_11	22 (81%)	31 (79%)	(85%)
QuICA_score_12	7 (25%)	12 (31%)	(18%)
QuICA_score_13	23 (82%)	28 (72%)	(63%)
QuICA_score_14	28 (100%)	39 (100%)	(99%)
QuICA_score_15	20 (74%)	21 (54%)	(58%)
QuICA_score_16	19 (68%)	25 (64%)	(75%)
QuICA_score_18	24 (86%)	37 (95%)	(87%)
QuICA_score_19	28 (100%)	39 (100%)	(100%)
QuICA_score_20	26 (93%)	35 (90%	(93%)

Key:

1	By signing I agreed to participate in a trial
2	Main reason for trials is improving treatment for future patients
3	I have been informed about the duration of the trial
4	All treatments in the trial are standards.
10	Patients receive higher doses until side-effects occur
11	My treatment was chosen randomly
12	My trial does not carry additional risks
13	There may be no medical benefit to me by participation
14	Participation may benefit future patients
15	My medical records could be reviewed
16	I was offered alternatives to the trial
17	Consent form describes insurance
18	The informed consent listed contact persons
19	I could have declined to sign consent form
20	I will have to remain even if I want to withdraw

Consort Diagram

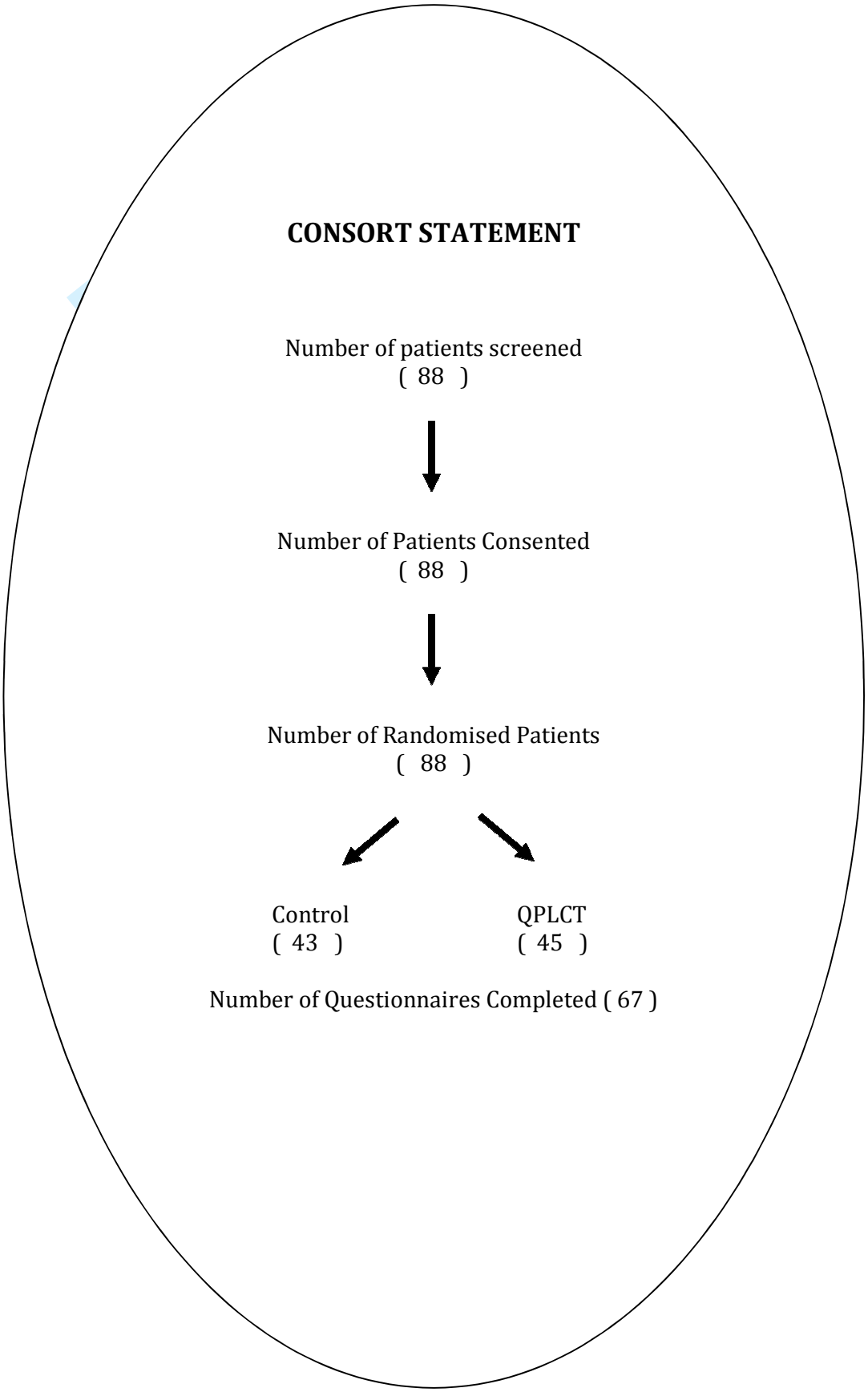

FIGURE 1: **Questions you may wish to ask your doctor about clinical trials. This Question Prompt List is intended to help you to make a decision about participating in a cancer clinical trial. It provides you with some questions that you might like to think about and ask your doctor now or later.**

1. Understanding my choices

☐ What is the usual (standard) treatment for people in my situation?
☐ Why are you offering me this particular trial?
☐ Are there choices other than the trial and standard treatment?
☐ What other trials am I suitable for? What makes me suitable (or not)?

2. Finding out about this trial

☐ Is there a Patient Information Statement and would you please go through it with me?
☐ How can I learn more about the trial?
☐ Can I talk to someone who's already on the trial?

3. Understanding the trial's purpose and background

☐ What is the purpose of the trial?
☐ What makes this trial an experiment?
☐ What is already known about this treatment's success?
☐ How does the treatment work?
☐ Does the trial ask an important question in cancer treatment?

4. Understanding the possible benefits

☐ What benefits could I get by joining in the trial?
☐ If I join this trial, how might others benefit?
☐ Has this treatment's benefit already been proven?
☐ What does response rate mean?
☐ How long would a response last?
☐ How do you measure response? What is meant by "measurable disease"?

5. Understanding the possible risks

☐ What are the risks of taking the new treatment?
☐ Could there be any long term or permanent changes from the treatment?
☐ Are there any serious or rare side effects I should know about?
☐ Whom can I call if something goes wrong?
☐ If I get a side effect or injury because of being in the trial, will I get compensation?

6. The differences between going on the trial & having standard treatment

☐ If I enter the clinical trial, will I need to have extra tests, go to more clinics and will it cost me any money? (extra parking, extra medication) How is this different from standard treatment?
☐ Will there be side effects on the trial which I won't get on the standard treatment?
☐ Where will treatment for the trial be given? Is that somewhere different from standard treatment?
☐ Can I have the trial treatment at my local hospital?

7. Understanding how the trial is being carried out

☐ Is the new treatment only available through joining the trial?
☐ How long has the trial been going on?
☐ How many hospitals are involved?
☐ How many people will be studied?
☐ How many people are in the trial already? Do you have any concerns about this trial or treatment so far?
☐ Apart from the hospital staff, will other people have access to my medical records? Who?
☐ How will my confidentiality be protected?
☐ How will I be informed of the results of the trial?
☐ If the new treatment is beneficial, how can I get it (if I'm not already on it)?

8. .Understanding "randomisation"

☐ Is this trial "randomised"? What does that mean?
☐ Will I know what treatment I'm getting?
☐ What is a treatment arm? How many treatment arms are there in this trial?
☐ Are there different side effects depending on which arm of the trial I am randomised to?
☐ Why is randomisation important in this trial? Is this trial "blinded"? What does that mean? Will I ever know what treatment I'm getting?
☐ Why is "blinding" important in this trial?

9. Understanding possible conflicts of interest

☐ Are you in charge of the trial (the principal investigator)? If not, what's your role in the trial?
☐ Who is paying for the trial? What is the relationship between you and the sponsor/company?
☐ Is there a payment made by the sponsor/company to the hospital or to you as my doctor if I go on this trial? Could you tell me how much money, and is this usual? How is the money spent?

10. Understanding my right to join or not to join the trial

☐ Will you still treat me if I decide not to go on the trial?
☐ Do I have time to think about whether to go on the trial (a day or two, or a week)?
☐ If I do take some time to decide will that affect how well the treatment works?
☐ If I join the trial, but later change my mind, how can I stop? Will this make a difference to my treatment?
☐ If I join the trial, will I lose out on any new treatment opportunities (e.g. another trial, standard treatment later)?
☐ Can I still use alternative therapies if I go on the trial?

TABLE 1: Patient Demographic, Randomisation Group, Attitude to clinical trials

	Intervention	Control
Age		
N	45	43
Mean	57	56.9
Median	58	60
Std Dev	13.2	14.5
Minimum	28	22
Maximum	85	84
Gender		
Female	25 (56%)	20 (47%)
Marital Status		
Never married	5 (11%)	7 (16%)
Married/Defacto	30 (67%)	30 (70%)
Widowed	2 (4%)	3 (7%)
Divorced/Separated	7 (16%)	3 (7%)
Other	1 (2%)	0 (0%)
Education		
Year 10 or below	18 (41%)	16 (37%)
Year 12	6 (14%)	12 (28%)
Certificate/Diploma	10 (23%)	8 (19%)
University Degree	5 (11%)	7 (16%)
Higher Degree/Postgrad	5 (11%)	0 (0%)
Country of Birth		
Australia	38 (84%)	40 (93%)
Other	3 (7%)	0 (0%)
Croatia	1 (2%)	0 (0%)
Italy	0 (0%)	1 (2%)
Hungary	1 (2%)	0 (0%)
United Kingdom	1 (2%)	1 (2%)
New Zealand	0 (0%)	1 (2%)
Poland	1 (2%)	0 (0%)
Hospital		
RPAH	26 (58%)	25 (58%)
PETER MAC	15 (33%)	13 (30%)
ROYAL ADELAIDE	4 (9%)	5 (12%)

TABLE 1: Cont'd

	Intervention	Control
Specialist		
Medical Oncologist	20 (44%)	23 (53%)
Surgeon	16 (36%)	15 (35%)
Radiation Oncologist	6 (13%)	4 (9%)
Medical + Radiation Oncologist	3 (7%)	1 (2%)
Positive Attitude		
N	45	43
Mean	14	13.4
Standard Deviation	3	4.4
Median	15	15
Minimum	8	0
Maximum	18	18
Negative Attitude		
N	45	43
Mean	4.9	4.3
Standard Deviation	2.1	2.6
Median	5	4
Minimum	0	0
Maximum	10	10
Clinical Trial Knowledge Score		
N	45	43
Mean	4	3.6
Standard Deviation	1.8	2.1
Median	4	4
Minimum	0	0
Maximum	7	7
Withdrawal/Missing		
No	40 (89%)	30 (70%)
Did not complete questionnaire	0 (0%)	3 (7%)
2nd questionnaire not completed	5 (11%)	10 (23%)

TABLE 2: Results of the QuIC scores, and the Spielberger State Anxiety Inventory [18]. Twenty eight of 43 patients in the control arm compared to 39 of 45 receiving the clinical trial QPL completed the informed consent questionnaire (p=0.02). There were no significant differences in the QuIC scores between the randomized groups (QuIC A p=0.08 and QuIC B p=0.92).

Measure	Intervention	Control	Difference (95% CI)	p-value*
QuIC Part A Summary				
N	39	28		
Mean	75.5	79.9	4.5 (95% CI:-0.5 to 9.5)	0.0801
Standard Deviation	9.9	10.4		
Minimum	53.8	51.9		
Maximum	94.2	100		
QuIC Part B Summary				
N	39	28		
Mean	88.4	88.1	-0.3 (95% CI:-6.1 to 5.5)	0.9205
Standard Dev	12.1	11.4		
Minimum	51.8	64.3		
Maximum	100	100		
Spielberger State Anxiety Inventory (Follow-up)				
N	38	26		
Mean	34.81579	37.15385	2.3 (95% CI:-3.7 to 8.3)	0.4388
Standard Dev	10.8	13.1		
Minimum	20	20		
Maximum	63	66		

* T-test

TABLE 3 Patient satisfaction with decision scores

Measure	Intervention	Control	p-value
Adequately informed			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	2 (5%)	2 (7%)	
agree	20 (51%)	12 (43%)	
Agree strongly	16 (41%)	13 (46%)	
Total	39	28	0.6315
Best decision			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	3 (8%)	3 (11%)	
I agree	13 (33%)	10 (36%)	
Agree strongly	22 (56%)	14 (50%)	
Total	39	28	0.6575
Consistent with values			
Disagree strongly	0 (0%)	1(4%)	
Neutral	5 (13%)	3 (11%)	
I agree	17 (35%)	12 (43%)	
Agree strongly	16 (42%)	12 (43%)	
Total	38	28	0.6935
Carry out decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	0 (0%)	
I agree	17 (46%)	14 (50%)	
Agree strongly	18 (49%)	13 (46%)	
Total	37	28	0.4063
My decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	1 (4%)	
I agree	13 (33%)	14 (50%)	
Agree strongly	24 (62%)	12 (43%)	
Total	39	28	0.3002
My decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	4 (11%)	3 (11%)	
I agree	14 (37%)	11 (39%)	
Agree strongly	20 (53%)	13 (46%)	
Total	38	28	0.6806

TABLE 4: Presents the results of physician satisfaction with the consultation and with decision scores. There is no difference between the randomized groups in these results.

	Intervention	Control	p-value*
I am satisfied that I provided enough information about the treatment options			
Strongly disagree	1 (2%)	2 (6%)	
Not sure	1 (2%)	1 (3%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	18 (44%)	12 (33%)	
Total	41	36	0.77
I am satisfied that I clearly communicated the clinical trial and treatment options			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	3 (8%)	
Agree	20 (49%)	21 (58%)	
Strongly agree	18 (44%)	11 (31%)	
Total	41	36	0.68
I am satisfied that I involved the patient in the decision-making process			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	2 (6%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	17 (41%)	12 (33%)	
Total	41	36	0.93
The patient understood the clinical trial being proposed			
Strongly disagree	1 (2%)	1 (3%)	
Disagree	0 (0%)	1 (3%)	
Not sure	1 (2%)	3 (8%)	
Agree	26 (63%)	25 (69%)	
Strongly agree	13 (32%)	6 (17%)	
Total	41	36	0.33

TABLE 4: Cont'd

	Intervention	Control	p-value*
Overall, I am satisfied with the decision-making process for this patient			
Strongly disagree	2 (5%)	1 (3%)	
Disagree	1 (2%)	0 (0%)	
Not sure	2 (5%)	5 (14%)	
Agree	22 (54%)	23 (64%)	
Strongly agree	14 (34%)	7 (19%)	
Total	41	36	0.32

* Fisher's exact test

TABLE 5: Comparison of the percentages of patients who selected the more correct responses in the clinical trial QPL trial and patients reported in Bergenmar's use of the QuIC in Swedish patients [12].

	Control	Intervention	Bergenmar
QuICA_score_1	27 (100%)	36 (92%)	(98%)
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QuICA_score_4	6 (22%)	8 (21%)	(32%)
QuICA_score_10	23 (82%)	26 (67%)	(68%)
QuICA_score_11	22 (81%)	31 (79%)	(85%)
QuICA_score_12	7 (25%)	12 (31%)	(18%)
QuICA_score_13	23 (82%)	28 (72%)	(63%)
QuICA_score_14	28 (100%)	39 (100%)	(99%)
QuICA_score_15	20 (74%)	21 (54%)	(58%)
QuICA_score_16	19 (68%)	25 (64%)	(75%)
QuICA_score_18	24 (86%)	37 (95%)	(87%)
QuICA_score_19	28 (100%)	39 (100%)	(100%)
QuICA_score_20	26 (93%)	35 (90%	(93%)

Key:

1	By signing I agreed to participate in a trial
2	Main reason for trials is improving treatment for future patients
3	I have been informed about the duration of the trial
4	All treatments in the trial are standards.
10	Patients receive higher doses until side-effects occur
11	My treatment was chosen randomly
12	My trial does not carry additional risks
13	There may be no medical benefit to me by participation
14	Participation may benefit future patients
15	My medical records could be reviewed
16	I was offered alternatives to the trial
17	Consent form describes insurance
18	The informed consent listed contact persons
19	I could have declined to sign consent form
20	I will have to remain even if I want to withdraw

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	1
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	2
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	5
	2b	Specific objectives or hypotheses	5
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	5
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	
Participants	4a	Eligibility criteria for participants	5
	4b	Settings and locations where the data were collected	
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	6
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	6
	6b	Any changes to trial outcomes after the trial commenced, with reasons	
Sample size	7a	How sample size was determined	6
	7b	When applicable, explanation of any interim analyses and stopping guidelines	
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	6
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	6

Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	6
	11b	If relevant, description of the similarity of interventions	
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	13 - 16
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	19
	13b	For each group, losses and exclusions after randomisation, together with reasons	
Recruitment	14a	Dates defining the periods of recruitment and follow-up	
	14b	Why the trial ended or was stopped	6
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	12,13
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	19
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	3,8
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	8
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	
Other information			
Registration	23	Registration number and name of trial registry	2
Protocol	24	Where the full trial protocol can be accessed, if available	
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	8

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.

REFERENCES

1 Mills EJ, Seely D, Rachlis *et al*. Barriers to participation in clinical trials of cancer: a meta-analysis and systematic review of patient-reported factors. *Lancet Oncol* 2006;7:141-48.

2 Joffe S, Cook EF, Cleary PD, *et al*. Quality of informed consent in cancer clinical trials: a cross-sectional survey. *Lancet* 2001;358:172-77.

3 Jefford M, Mileshkin L, Matthews J *et al*. Satisfaction with the decision to participate in cancer clinical trials is high, but understanding is a problem. *Support Care Cancer* 2011;19:371-79.

4 Jenkins VA, Fallowfield LJ, Souhami A, Sawtell M. How do doctors explain randomized clinical trials to their patients? *Europ J Cancer* 1999;35:1187-93.

5 Brehaut JC, Saginur R, Elwyn G. Informed consent documentation necessary but not sufficient. *Contemp Clin Trials* 2009;30:308-9.

6 Brehaut JC, Fergusson DA, Kimmelman J *et al*. Using decision aids may improve informed consent for research. *Contemp Clin Trials* 2010;31:218-20.

7 Juraskova I, Butow P, Lopez AL *et al*. Improving informed consent in clinical trials: successful piloting of a decision aid. *J Clin Oncol* 2007;25:1443-44.

8 Spiegle G, Al-Sukhni E, Schmocker S *et al*. Patient decision aids for cancer treatment: Are there any alternatives? *Cancer* 2013;119:189-200.

9 Butow PN, Dunn SM, Tattersall MHN *et al*. Patient participation in the cancer consultation: evaluation of a question prompt sheet. *Ann Oncol* 1994;5:199-204.

10 Dimoska A, Tattersall MHN, Butow PN *et al*. Can a "prompt list" empower cancer patients to ask relevant questions? *Cancer* 2008;113:225-37.

11 Joffe S, Cook EF, Cleary PD *et al*. Quality of informed consent: a new measure of understanding among research subjects ; [abstract]. *J Natl Cancer Inst* 2001;93:139-47.

12 Bergenmar M, Molin C, Wilking N *et al.* Knowledge and understanding among cancer patients consenting to participate in clinical trials. *Europ J Cancer* 2008;44:2627-33.

13 Childs AM, Nattress K, Cox KM *et al*. Presented at 5th State Cancer Nursing Research Perth 2005.

14 Brown RF, Shuk E, Butow P *et al*. Identifying patient information needs about cancer clinical trials using a Question Prompt List [abstract]. *Patient Educ Couns* 2011;84:69-77

15 Cassileth BR, Zupkis RV, Sutton-Smith K *et al.* Information and participation preferences among cancer patients. *Ann Intern Med* 1980; 92: 832-36.

16 Degner LF, Sloan JA, Venkatech P. The control preferences scale. *Can J Nursing Res* 1197;29:21-43.

17 Fallowfield LJ, Jenkins B, Brennan C, *et al*. Attitudes of patients to randomized clinical trials of cancer therapy. *Europ J Cancer* 1998;34:1554-59.

18 Spielberger CD. Manual for the State Trait Anxiety Inventory (Form Y). Consulting Psychologists Press; Palo Alto Ca. 1983

19 Roter D. Patient participation in the patient provider interaction: the effects of patient question asking on the quality of interaction, satisfaction and compliance. *Health Educ Monographs* 1977;5:281-315.

20 Holmes-Rovner M, Kroll J, Schmitt N et al. Patient satisfaction with health care decisions; the satisfaction with decision scale. *Med Decis Making*. 1994;16:1864-66

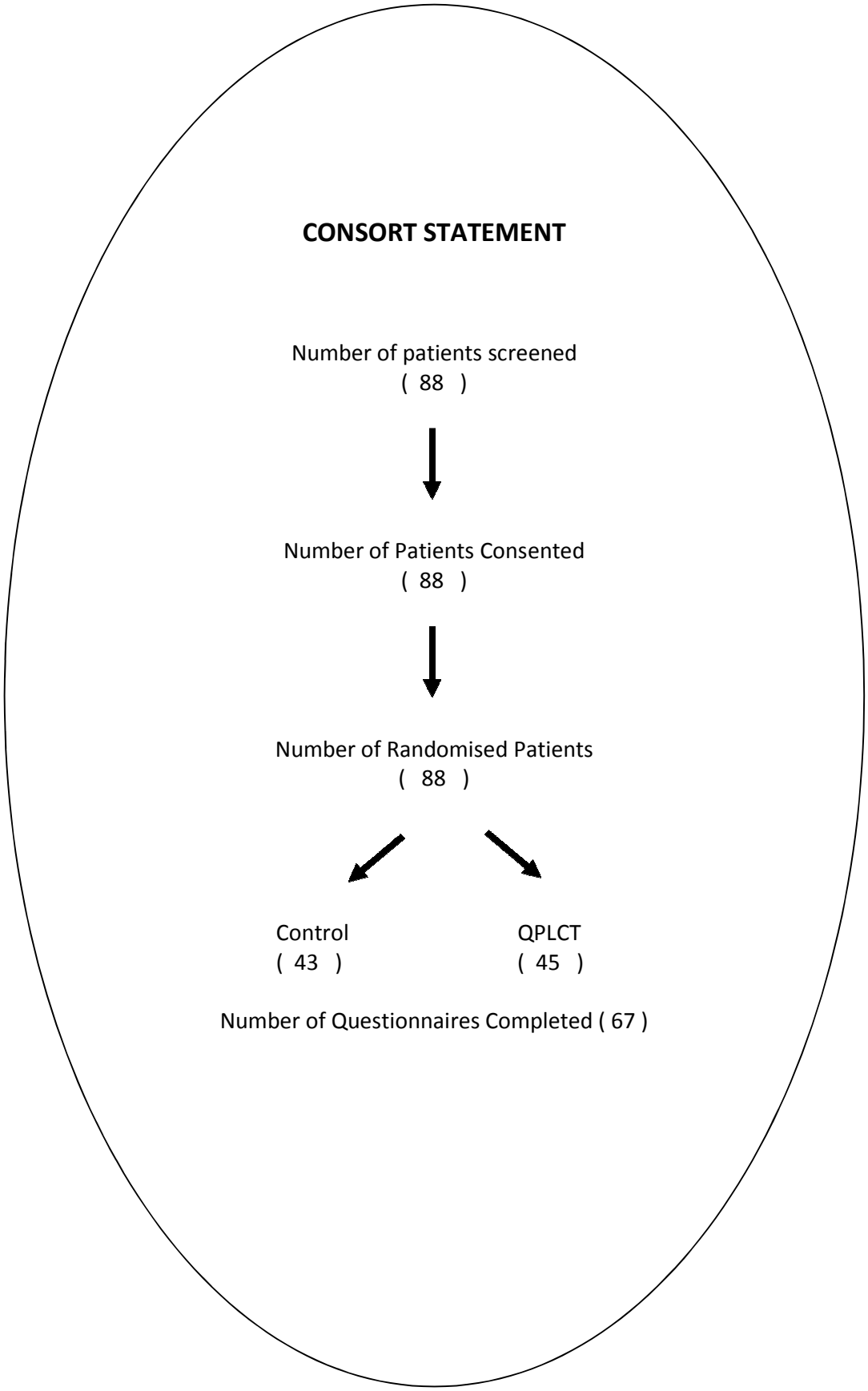
21 Ellis P, Butow PN, Simes RJ *et al.* Barriers to participation in randomized clinical trials for early breast cancer among Australian cancer specialists. *Aust NZ J Surg*. 1999;69:505-10.

22 Ellis PM, Butow PN, Tattersall MHN *et al.* A randomized trial evaluating the impact of an education booklet on willingness to join randomized trials. *Clin Oncol Soc Aust, Ann Sci Conf;* Melbourne 1999.

23 Clayton JM, Butow PN, Tattersall MHN *et al*. Randomized controlled trial of a prompt list to help advanced cancer patients and their caregivers to ask questions about prognosis and end-of-life care. *J Clin Oncol* 2007;25:715-23.

24 Clayton JM**,** Natalia C, Butow PN *et al*. Physician endorsement alone may not enhance question-asking by advanced cancer patients during consultations about palliative care. *Support Care Cancer* 2012;20:1457-64.

25 Stryker JE, Wray RJ, Emmons KM *et al*. Understanding the decisions of cancer clinical trial participants to enter research studies: Factors associated with informed consent, patient satisfaction, and decisional regret. *Patient Educ Couns* 2006;63:104-9.



BMJ Open

A parallel multicentre randomised trial of a clinical trial question prompt list in patients considering participation in Phase 3 cancer treatment trials

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2016-012666.R1
Article Type:	Research
Date Submitted by the Author:	16-Sep-2016
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A parallel multicentre randomised trial of a clinical trial question prompt list in patients considering participation in Phase 3 cancer treatment trials

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ABSTRACT

Objective: To evaluate the effect of a clinical trial question prompt list in patients considering enrolment in cancer treatment trials.

Setting: Tertiary cancer referral hospitals in three state capital cities in Australia.

Participants: 88 cancer patients attending three cancer centres in Australia, who were considering enrolment in Phase 3 treatment trials, were invited to enrol in an unblinded randomised trial of provision of a clinical trial Question Prompt List (QPL) before consenting to enrol in the treatment trial.

Interventions: We developed and pilot tested a targeted QPL for cancer patients considering clinical trial participation (The Clinical Trial QPL). Consenting patients were randomised to receive the Clinical Trial QPL or not before further discussion with their oncologist and/or trial nurse about the treatment trial.

Primary and Secondary Outcomes: Questionnaires were completed at baseline and within three weeks of deciding on treatment trial participation. Main outcome measure: Scores on the Quality of Informed Consent questionnaire (QuIC).

Results: 88 patients of 130 sought for the study were enrolled (43 males), and 45 received the clinical trial QPL. Forty nine percent of trials were chemotherapy interventions for patients with advanced disease, 35% and 16% were surgical adjuvant and radiation adjuvant trials respectively. Seventy patients completed all relevant questionnaires. Twenty eight of 43 patients in the control arm compared to 39 of 45 patients receiving the Clinical Trial QPL completed the QuIC (p=0.0124). There were no significant differences in the QuIC scores between the randomised groups (QuIC Part A p=0.08 and QuIC Part B p= 0.92). There were no differences in patient satisfaction with decisions or in anxiety levels between the randomised groups.

Conclusion: Use of a question prompt list did not significantly change the QuIC scores in this randomised trial.

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STRENGTHS AND LIMITATIONS OF THIS STUDY

- The clinical trial question prompt list contained 51 questions grouped under 10 headings.
- The Quality of Informed Consent Questionnaire (QuIC) is widely used to measure clinical trial participants' actual and perceived understanding of cancer clinical trials.
- The trial was stopped prematurely due to low accrual rates and on the advice of an independent data monitoring committee.
- Participants had only a few minutes to review the clinical trial QPL before continuing discussion about the randomised cancer treatment trial.
- Information about the duration of the informed consent discussion in the trial is not available.
- The time patients receiving QPL list had to review the QPL before continuing he discussion about the cancer treatment is not available.

INTRODUCTION

Surveys of the public have found widespread support for the concept of clinical trials as an important and ethical means of developing improved medical care. However, only a small percentage of eligible patients are recruited to clinical trials in many institutions that promote clinical trial participation.

A significant proportion of non-trial participation is explained by patient refusal [1]. Reasons for trial refusal by eligible patients include concerns regarding experimentation and uncertainty and loss of control over treatment decisions. Even when patients agree to participate, they frequently do not understand basic components of the trial that they have consented to enter [2-3]. In the United Kingdom Jenkins *et al* [4] audiotaped discussions between oncologists and patients during which consent was being obtained for a randomised clinical trial. In most, the concept of the trial was introduced by describing uncertainty about treatment decisions. The word randomisation was mentioned in 51 consultations (62.2%). The median duration of 'consent' interviews was less than 15 minutes, and most patients signed the consent document at the first consultation at which the clinical trial was discussed.

Brehaut *et al* [5-6] argue that the existing approach to obtaining informed consent for clinical research may be improved by using decision aids. Juraskova *et al* [7] reported successful piloting of a decision aid to assist women considering participation in a breast cancer prevention trial. Spiegle *et al* [8] performed a systematic review to identify alternative types of decision support interventions (DSIs) for cancer treatment and a meta-analysis to compare the effectiveness of DSIs compared to patient decision aids. The study showed that the effectiveness of other DSIs, including QPLs and audio recordings of the consultation, is similar to patient decision aids. This finding is important because less complex DSIs such as a targeted QPL may be all that is necessary to achieve similar outcomes as patient decision aids for cancer treatment. QPLs have been shown to increase question asking in cancer patients [9-10].

The quality of informed consent questionnaire (QuIC) was designed to measure participants' actual (objective) and perceived (subjective) understanding of cancer clinical trials. Joffe *et al* [11] derived 13 independent domains of informed consent and wrote one or more questions to measure participants' objective and subjective understanding of their clinical trials. After feedback from pilot testing and input from expert panels, the QuIC was sent to adult cancer patients enrolled in Phase 1,2 and 3 clinical trials. Test retest reliability was good, as was face and content validity. The QuIC took an average of 7.2 minutes to complete.

Joffe *et al* [2] reported the use of the QuIC to measure the quality of understanding among 207 cancer clinical trial participants in Boston who had signed a clinical trial consent form a median of 16 days earlier. Almost half of the consent discussions had lasted one hour. The consent form was signed a median of six days after the initial discussions about the trial and a quarter signed during the first consultation. There was considerable variation in the proportion of correct answers across individual questions in the QuIC.

Bergenmar *et al* [12] used the QuIC questionnaire to survey 282 patients who had been informed in Swedish about a Phase 2 or Phase 3 trial and had signed a consent form. The patients were asked about the duration of the consent discussion. Thirty nine patients (14%) reported the duration of the consent discussion was less than 15 minutes, 139 patients (50%) responded between 15 and 30 minutes and 50 patients (11%) between 45 and 60 minutes.

The proportion of correct responses to the 16 items applicable to all patients, irrespective of trial phase were presented. High levels of knowledge (>80%) were found for seven items, and five items were responded to correctly by 50-80% of the patients. Less than 50% responded correctly to four items, namely risks related to the trial, the unproven nature of the trial and issues about insurances in connection to participating in the trial.

We used the QuIC to survey cancer patients in Sydney and Melbourne who had been approached to participate in a clinical trial. The mean score on Part A of the QuIC among 100 patients studied in Sydney was 76.8 [13]. In 72 cancer patients studied in Melbourne, the median objective knowledge score was 77.6/100, and perceived (subjective) understanding (QuIC Part B) 91.5 [3]. Some questions were answered particularly poorly. Higher knowledge score (QuIC Part A) was associated with English as a first language. Calculation of the summary score questions included is presented in http://jnci.oxfordjournals.org/content/93/2/139.full. This also shows the questions that are not scored for particular phase trials.

We developed a targeted QPL for clinical trials in order to identify questions which might facilitate patient participation in clinical trial discussions with their oncologist and clinical trial nurse [14]. We conducted a series of focus groups with cancer patients and their carers. The focus groups were audio-taped and transcribed. The transcripts were analysed using rigorous qualitative methodology. The final draft of the QPL was pilot tested to evaluate content validity, and acceptability and perceived efficacy in satisfying information needs about clinical trials needs and achieving involvement preference using a sample of 10 cancer patients considering participation in a Phase 3 clinical trial at each of the participating institutions. The clinicians, oncologists and clinical research nurses were encouraged to endorse and refer to the QPL during their discussion. Feedback from these patient/clinician cohorts informed the final version of the clinical trial QPL. The final version of the clinical trial QPL used in the randomised trial includes 51 questions grouped under 10 headings is presented in Figure 1.

Figure 1 here

The aims of this study were to determine whether providing patients who are considering clinical trial participation with a QPL about clinical trials enhances: (1) the patient's quality of understanding of the cancer clinical trial; (2) patient achievement of his or her involvement/participation preference, (3) patient satisfaction with the informed consent to treatment decision-making process, and (4) oncologist and research nurse satisfaction with the clinical trial discussion and decision-making process.

We hypothesised that cancer patients receiving a clinical trial QPL which was endorsed by the oncologist and trial nurse prior to deciding whether to participate in a randomised cancer clinical trial compared to patients not receiving this intervention would: have a higher mean knowledge score in the informed consent questionnaire (QuIC Part A) [primary outcome]; have enhanced achievement of their information and involvement/participation preference; and, be more satisfied with the informed consent and decision-making process. We also hypothesised that the intervention would not reduce clinical trial participation.

METHODS

All patients invited to participate in a randomised cancer treatment clinical trial at three participating cancer centres were eligible for the study evaluating use of the clinical trial QPL unless the cancer treatment protocol excluded patients entered in a second randomized trial. Eligible patients were approached by a research nurse prior to their written consent to the cancer treatment trial being sought, and invited to participate in the evaluation of the clinical trial question prompt list. After their written consent had been obtained, patients completed a questionnaire containing measures of information and involvement preferences [15-16], their attitudes to clinical trials [17] and their anxiety level [18] (Appendix 1).

A randomisation sequence was generated by an independent service. Patients were randomized by opening a numbered blank envelope containing the treatment group allocation: to receive or not receive the clinical trial QPL. Patients in the control group continued their discussion with the oncologist/research nurse about the clinical treatment trial. Patients randomized to receive the clinical trial QPL had at least a few minutes to review it before continuing discussion with their oncologist and/or clinical research nurse about the cancer trial proposed. During this latter discussion the clinicians specifically referred to the QPL and encouraged patients to review the list of questions. Thus participants were not blinded to intervention assignment; however, data entry personnel were blinded. There was no control of QPL exposure time nor was the time documented. There was no researcher control of items in the QPL raised by the patient or clinician.

After the decision about cancer treatment clinical trial participation, and within three weeks, patients were asked to complete the QuIC [2] and questionnaires measuring anxiety [18], their satisfaction with the consent discussion and decision-making [19] and achievement of their information and involvement preferences [20]. Clinician satisfaction with the informed consent process was measured using an adapted form of an existing seven item scale measuring physician satisfaction with the decision-making process [21-22] (Appendix 2).

The primary outcome measure was the QuIC. Part A of this scale contains questions covering 13 domains which are summed to produce a total score capped at 100. The authors of the QuIC reported a mean total score of 79.7 and standard deviation of 7.7 on Part A of the scale. An improvement of understanding of one entire domain score is considered to be a clinically significant improvement. A sample of 130 patients was sought for the study to have 80% power at the 5% two-sided level of significance to detect a clinically meaningful difference.

The trial accrued slowly and was stopped after 88 patients had been randomized on the advice of an independent data monitoring committee who determined that the probability of detecting a clinically meaningful difference with continued recruitment was very low (i.e. the conditional power at this point in the study was well under 20%).

RESULTS

Eighty eight patients were enrolled of whom 43 were males and 45 received the clinical trial QPL. Fifty one were recruited from Royal Prince Alfred Hospital, 28 from Peter MacCallum Cancer Centre and nine from Royal Adelaide Hospital. Table 1 presents demographic and disease details including the clinical treatment trial intervention, participating hospital and randomization group. Patients' attitudes to clinical trials [15], clinical trial knowledge score [21-22], and status of completed questionnaires are also presented. Participants were

balanced for gender, marital status and education level. Seventy patients completed all relevant questionnaires, but 13 in the control arm and five in the intervention arm did not complete the first and/or second questionnaires (Figure 2).

Figure 2.

	Intervention	Control
Age		
N	45	43
Mean	57	56.9
Median	58	60
Std Dev	13.2	14.5
Minimum	28	22
Maximum	85	84
Gender		
Female	25 (56%)	20 (47%)
Marital Status		
Never married	5 (11%)	7 (16%)
Married/Defacto	30 (67%)	30 (70%)
Widowed	2 (4%)	3 (7%)
Divorced/Separated	7 (16%)	3 (7%)
Other	1 (2%)	0 (0%)
Education		
Year 10 or below	18 (41%)	16 (37%)
Year 12	6 (14%)	12 (28%)
Certificate/Diploma	10 (23%)	8 (19%)
University Degree	5 (11%)	7 (16%)
Higher Degree/Postgrad	5 (11%)	0 (0%)
Country of Birth		
Australia	38 (84%)	40 (93%)
Other	3 (7%)	0 (0%)
Croatia	1 (2%)	0 (0%)
Italy	0 (0%)	1 (2%)
Hungary	1 (2%)	0 (0%)
United Kingdom	1 (2%)	1 (2%)
New Zealand	0 (0%)	1 (2%)
Poland	1 (2%)	0 (0%)
Hospital		
RPAH	26 (58%)	25 (58%)
PETER MAC	15 (33%)	13 (30%)
ROYAL ADELAIDE	4 (9%)	5 (12%)

TABLE 1: Patient Demographic, Randomisation Group, Attitude to clinical trials

TABLE 1: Cont'd

	Intervention	Control
Trial Context		
Chemotherapy for Advanced Disease	22	24
Adjuvant surgery	12	15
Adjuvant Radiation	8	7
Specialist who was involved in the Trial discussion		
Medical Oncologist	20 (44%)	23 (53%)
Surgeon	16 (36%)	15 (35%)
Radiation Oncologist	6 (13%)	4 (9%)
Medical + Radiation Oncologist	3 (7%)	1 (2%)
Positive Attitude		
N	45	43
Mean	14	13.4
Standard Deviation	3	4.4
Median	15	15
Minimum	8	0
Maximum	18	18
Negative Attitude		
N	45	43
Mean	4.9	4.3
Standard Deviation	2.1	2.6
Median	5	4
Minimum	0	0
Maximum	10	10
Clinical Trial Knowledge Score		
N	45	43
Mean	4	3.6
Standard Deviation	1.8	2.1
Median	4	4
Minimum	0	0
Maximum	7	7
Withdrawal/Missing		
No	40 (89%)	30 (70%)
Did not complete questionnaire	0 (0%)	3 (7%)

2nd questionnaire not completed	5 (11%)	10 (23%)

Table 2 presents the results of the QuIC scores, and the Spielberger State Anxiety Inventory [18]. Twenty eight of 43 patients in the control arm compared to 39 of 45 receiving the clinical trial QPL completed the informed consent questionnaire (p=0.02). There were no significant differences in the QuIC scores between the randomized groups (QuIC Part A p=0.08 and QuIC Part B p=0.92). We tested whether patient age or gender modified the effect of the QPL on the QuIC, and found no statistical evidence for this.

TABLE 2: Results of the QuIC scores, and the Spielberger State Anxiety Inventory [18].

Measure	Intervention	Control	Difference (95% CI)	p-value*
QuIC Part A Summary				
N	39	28		
Mean	75.5	79.9	4.5 (95% CI:-0.5 to 9.5)	0.0801
Standard Deviation	9.9	10.4		
Minimum	53.8	51.9		
Maximum	94.2	100		
QuIC Part B Summary				
N	39	28		
Mean	88.4	88.1	-0.3 (95% CI:-6.1 to 5.5)	0.9205
Standard Dev	12.1	11.4		
Minimum	51.8	64.3		
Maximum	100	100		
Spielberger State Anxiety Inventory (Follow-up)				
N	38	26		
Mean	34.81579	37.15385	2.3 (95% CI:-3.7 to 8.3)	0.4388
Standard Dev	10.8	13.1		
Minimum	20	20		
Maximum	63	66		

There was no difference in anxiety between the randomised groups.

Table 3 presents the results of patient satisfaction with the decision scores. There is no difference between the randomized groups in these results.

TABLE 3: Patient satisfaction with decision scores.

Measure	Intervention	Control	p-value
Adequately informed			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	2 (5%)	2 (7%)	
Agree	20 (51%)	12 (43%)	
Agree strongly	16 (41%)	13 (46%)	
Total	39	28	0.6315
Best decision			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	3 (8%)	3 (11%)	
I agree	13 (33%)	10 (36%)	
Agree strongly	22 (56%)	14 (50%)	
Total	39	28	0.6575
Consistent with values			
Disagree strongly	0 (0%)	1(4%)	
Neutral	5 (13%)	3 (11%)	
I agree	17 (35%)	12 (43%)	
Agree strongly	16 (42%)	12 (43%)	
Total	38	28	0.6935
Carry out decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	0 (0%)	
I agree	17 (46%)	14 (50%)	
Agree strongly	18 (49%)	13 (46%)	
Total	37	28	0.4063
I am satisfied this was my decision to make			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	1 (4%)	
I agree	13 (33%)	14 (50%)	
Agree strongly	24 (62%)	12 (43%)	
Total	39	28	0.3002
I am satisfied with my decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	4 (11%)	3 (11%)	
I agree	14 (37%)	11 (39%)	
Agree strongly	20 (53%)	13 (46%)	
Total	38	28	0.6806

Table 4 presents the results of physician satisfaction with the consultation and with decision scores. There is no difference between the randomized groups in these results.

TABLE 4: Clinical satisfaction with the consent consultation and with decision scores.

	Intervention	Control	p-value*
I am satisfied that I provided enough information about the treatment options			
Strongly disagree	1 (2%)	2 (6%)	
Not sure	1 (2%)	1 (3%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	18 (44%)	12 (33%)	
Total	41	36	0.77
I am satisfied that I clearly communicated the clinical trial and treatment options			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	3 (8%)	
Agree	20 (49%)	21 (58%)	
Strongly agree	18 (44%)	11 (31%)	
Total	41	36	0.68
I am satisfied that I involved the patient in the decision-making process			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	2 (6%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	17 (41%)	12 (33%)	
Total	41	36	0.93
The patient understood the clinical trial being proposed			
Strongly disagree	1 (2%)	1 (3%)	
Disagree	0 (0%)	1 (3%)	
Not sure	1 (2%)	3 (8%)	
Agree	26 (63%)	25 (69%)	
Strongly agree	13 (32%)	6 (17%)	
Total	41	36	0.33

TABLE 4: Cont'd

	Intervention	Control	p-value*
Overall, I am satisfied with the decision-making process for this patient			
Strongly disagree	2 (5%)	1 (3%)	
Disagree	1 (2%)	0 (0%)	
Not sure	2 (5%)	5 (14%)	
Agree	22 (54%)	23 (64%)	
Strongly agree	14 (34%)	7 (19%)	
Total	41	36	0.32

* Fisher's exact test

DISCUSSION

Use of the clinical trial QPL did not significantly change patient knowledge scores measured by the Quality of Informed Consent Questionnaire (QuIC). The percentage of patients in the control arm completing the QuIC was significantly reduced compared to the intervention group (p=0.02). There was a trend towards lower knowledge scores (QuIC A) in the intervention group compared to control (p=0.08). The reason for this is unknown. Patients in the control group who actually completed the assessment achieved favourable results. These patients who comprised 28 of 43 patients in the control arm constituted a self-selected cohort of patients who were more engaged in the clinical trial process.

We have no information about the duration of the consent interviews in our trial, but it is likely that use of the clinical trial QPL extended the consent interview by a few minutes. Patients only had the QPL for a few minutes before continuing with the clinical trial consent discussion so the 'dose' of the QPL may be low, and therefore not effective. Physician endorsement of QPL use by the patient in other contexts has been an important contributor to the efficacy of QPLs [23-24]. As QPLs have previously demonstrated benefit, it may have been these exposure and endorsement factors that prevented efficacy of the clinical trial QPL in this instance.

The patients in our trial all consented to participate in the informed consent trial at the first consultation when trial participation was sought. This finding differs from the experience reported by Joffe *et al* [2] where the consent form for the treatment trial was signed a median of six days after the initial discussion about the trial, and only 28% consented at the first consultation. There is great variation in the interval from considering participation in a clinical trial to consenting to enroll in the trial. We do not know when patients consented to participate in the cancer treatment trial but patients were asked to complete the QuIC within three weeks after the decision about cancer trial participation had been made.

Stryker *et al* [25] studied the factors associated with informed consent, patient satisfaction, and decisional regret in 87 patients who were eligible to participate in twelve selected Phase 1,2 and 3 clinical trials. They found that patients who enrolled in clinical trials quickly, may not believe they fully understand the implications of trial participation and ultimately regret

their decision to participate. However, there was no relationship between timing of consent and decisional regret.

Limitations of the study include the low accrual rate, the imbalance in completion of the QuIC in the randomised groups and the brief exposure to the clinical trial QPL. Future studies of clinical trial question prompt lists should document the duration of the consent interview, the time taken for consent to be given, and consideration of when is the optimal time for patient understanding of their clinical trial to be sought.

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No additional unpublished data are available.

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REFERENCES

1 Mills EJ, Seely D, Rachlis *et al*. Barriers to participation in clinical trials of cancer: a meta-analysis and systematic review of patient-reported factors. *Lancet Oncol* 2006;7:141-48.

2 Joffe S, Cook EF, Cleary PD, *et al*. Quality of informed consent in cancer clinical trials: a cross-sectional survey. *Lancet* 2001;358:172-77.

3 Jefford M, Mileshkin L, Matthews J *et al*. Satisfaction with the decision to participate in cancer clinical trials is high, but understanding is a problem. *Support Care Cancer* 2011;19:371-79.

4 Jenkins VA, Fallowfield LJ, Souhami A, Sawtell M. How do doctors explain randomized clinical trials to their patients? *Europ J Cancer* 1999;35:1187-93.

5 Brehaut JC, Saginur R, Elwyn G. Informed consent documentation necessary but not sufficient. *Contemp Clin Trials* 2009;30:308-9.

6 Brehaut JC, Fergusson DA, Kimmelman J *et al*. Using decision aids may improve informed consent for research. *Contemp Clin Trials* 2010;31:218-20.

7 Juraskova I, Butow P, Lopez AL *et al*. Improving informed consent in clinical trials: successful piloting of a decision aid. *J Clin Oncol* 2007;25:1443-44.

8 Spiegle G, Al-Sukhni E, Schmocker S *et al*. Patient decision aids for cancer treatment: Are there any alternatives? *Cancer* 2013;119:189-200.

9 Butow PN, Dunn SM, Tattersall MHN *et al*. Patient participation in the cancer consultation: evaluation of a question prompt sheet. *Ann Oncol* 1994;5:199-204.

10 Dimoska A, Tattersall MHN, Butow PN *et al*. Can a "prompt list" empower cancer patients to ask relevant questions? *Cancer* 2008;113:225-37.

11 Joffe S, Cook EF, Cleary PD *et al*. Quality of informed consent: a new measure of understanding among research subjects. *J Natl Cancer Inst* 2001;93:139-47.

12 Bergenmar M, Molin C, Wilking N *et al.* Knowledge and understanding among cancer patients consenting to participate in clinical trials. *Europ J Cancer* 2008;44:2627-33.

13 Childs AM, Nattress K, Cox KM *et al*. Presented in the program of the of 5th State Cancer Nursing Research Perth 2005.

14 Brown RF, Shuk E, Butow P *et al*. Identifying patient information needs about cancer clinical trials using a Question Prompt List. *Patient Educ Couns* 2011;84:69-77

15 Cassileth BR, Zupkis RV, Sutton-Smith K *et al.* Information and participation preferences among cancer patients. *Ann Intern Med* 1980; 92: 832-36.

16 Degner LF, Sloan JA, Venkatech P. The control preferences scale. *Can J Nursing Res* 1197;29:21-43.

17 Fallowfield LJ, Jenkins B, Brennan C, *et al*. Attitudes of patients to randomized clinical trials of cancer therapy. *Europ J Cancer* 1998;34:1554-59.

18 Spielberger CD. Manual for the State Trait Anxiety Inventory (Form Y). Consulting Psychologists Press; Palo Alto Ca. 1983

19 Roter D. Patient participation in the patient provider interaction: the effects of patient question asking on the quality of interaction, satisfaction and compliance. *Health Educ Monographs* 1977;5:281-315.

20 Holmes-Rovner M, Kroll J, Schmitt N et al. Patient satisfaction with health care decisions; the satisfaction with decision scale. *Med Decis Making*. 1994;16:1864-66

21 Ellis P, Butow PN, Simes RJ *et al.* Barriers to participation in randomized clinical trials for early breast cancer among Australian cancer specialists. *Aust NZ J Surg*. 1999;69:505-10.

22 Ellis PM, Butow PN, Tattersall MHN *et al.* A randomized trial evaluating the impact of an education booklet on willingness to join randomized trials. *Clin Oncol Soc Aust, Ann Sci Conf;* Melbourne 1999.

23 Clayton JM, Butow PN, Tattersall MHN *et al*. Randomized controlled trial of a prompt list to help advanced cancer patients and their caregivers to ask questions about prognosis and end-of-life care. *J Clin Oncol* 2007;25:715-23.

24 Clayton JM**,** Natalia C, Butow PN *et al*. Physician endorsement alone may not enhance question-asking by advanced cancer patients during consultations about palliative care. *Support Care Cancer* 2012;20:1457-64.

25 Stryker JE, Wray RJ, Emmons KM *et al*. Understanding the decisions of cancer clinical trial participants to enter research studies: Factors associated with informed consent, patient satisfaction, and decisional regret. *Patient Educ Couns* 2006;63:104-9.

FIGURE 1: Questions you may wish to ask your doctor about clinical trials. This Question Prompt List is intended to help you to make a decision about participating in a cancer clinical trial. It provides you with some questions that you might like to think about and ask your doctor now or later.

1. Understanding my choices

- ☐ What is the usual (standard) treatment for people in my situation?
- ☐ Why are you offering me this particular trial?
- ☐ Are there choices other than the trial and standard treatment?
- ☐ What other trials am I suitable for? What makes me suitable (or not)?

2. Finding out about this trial

- ☐ Is there a Patient Information Statement and would you please go through it with me?
- ☐ How can I learn more about the trial?
- ☐ Can I talk to someone who's already on the trial?

3. Understanding the trial's purpose and background

- ☐ What is the purpose of the trial?
- ☐ What makes this trial an experiment?
- ☐ What is already known about this treatment's success?
- ☐ How does the treatment work?
- ☐ Does the trial ask an important question in cancer treatment?

4. Understanding the possible benefits

- ☐ What benefits could I get by joining in the trial?
- ☐ If I join this trial, how might others benefit?
- ☐ Has this treatment's benefit already been proven?
- ☐ What does response rate mean?
- ☐ How long would a response last?
- ☐ How do you measure response? What is meant by "measurable disease"?

5. Understanding the possible risks

- ☐ What are the risks of taking the new treatment?
- ☐ Could there be any long term or permanent changes from the treatment?
- ☐ Are there any serious or rare side effects I should know about?
- ☐ Whom can I call if something goes wrong?
- ☐ If I get a side effect or injury because of being in the trial, will I get compensation?

6. The differences between going on the trial & having standard treatment

- ☐ If I enter the clinical trial, will I need to have extra tests, go to more clinics and will it cost me any money? (extra parking, extra medication) How is this different from standard treatment?
- ☐ Will there be side effects on the trial which I won't get on the standard treatment?
- ☐ Where will treatment for the trial be given? Is that somewhere different from standard treatment?
- ☐ Can I have the trial treatment at my local hospital?

7. Understanding how the trial is being carried out

- ☐ Is the new treatment only available through joining the trial?
- ☐ How long has the trial been going on?
- ☐ How many hospitals are involved?
- ☐ How many people will be studied?
- ☐ How many people are in the trial already? Do you have any concerns about this trial or treatment so far?
- ☐ Apart from the hospital staff, will other people have access to my medical records? Who?
- ☐ How will my confidentiality be protected?
- ☐ How will I be informed of the results of the trial?
- ☐ If the new treatment is beneficial, how can I get it (if I'm not already on it)?

8. .Understanding "randomisation"

- ☐ Is this trial "randomised"? What does that mean?
- ☐ Will I know what treatment I'm getting?
- ☐ What is a treatment arm? How many treatment arms are there in this trial?
- ☐ Are there different side effects depending on which arm of the trial I am randomised to?
- ☐ Why is random isation important in this trial? Is this trial "blinded"? What does that mean? Will I ever know what treatment I'm getting?
- ☐ Why is "blinding" important in this trial?

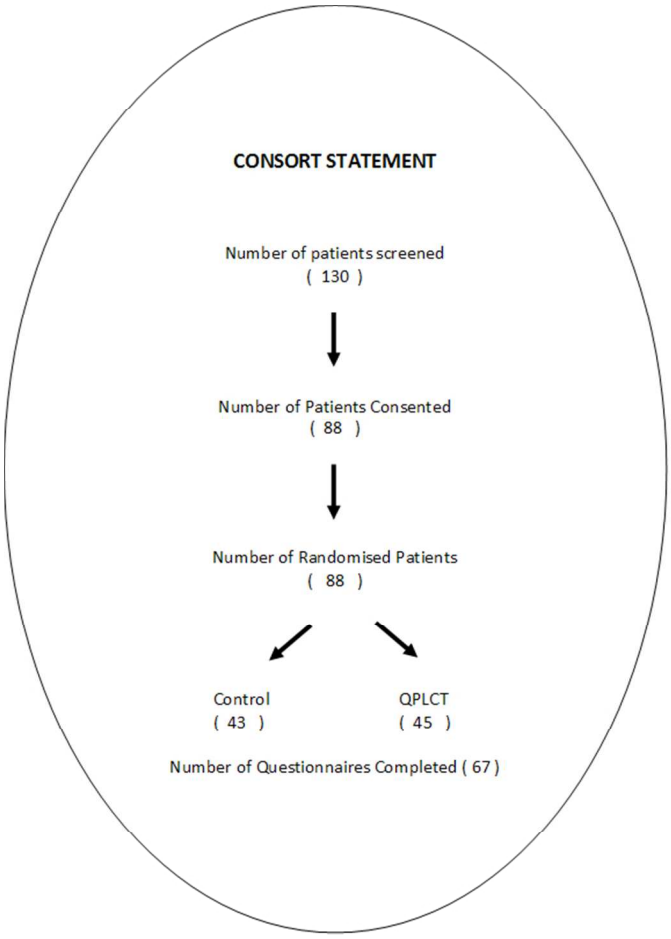
9. Understanding possible conflicts of interest

- ☐ Are you in charge of the trial (the principal investigator)? If not, what's your role in the trial?
- ☐ Who is paying for the trial? What is the relationship between you and the sponsor/company?
- ☐ Is there a payment made by the sponsor/company to the hospital or to you as my doctor if I go on this trial? Could you tell me how much money, and is this usual? How is the money spent?

10.Understanding my right to join or not to joi trial

- ☐ Will you still treat me if I decide not to go o trial?
- ☐ Do I have time to think about whether to g the trial (a day or two, or a week)?
- ☐ If I do take some time to decide will that aff how well the treatment works?
- ☐ If I join the trial, but later change my mind how can I stop? Will this make a difference my treatment?
- ☐ If I join the trial, will I lose out on any new treatment opportunities (e.g. another trial, standard treatment later)?
- ☐ Can I still use alternative therapies if I go on trial?

491x312mm (300 x 300 DPI)



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Medical Psychology Research Unit

Questionnaire 1

ID No. _____
Date. _____

Enhancing informed consent – Evaluation of a QPL in cancer clinical trials.

CONFIDENTIALITY:
We would like to ask you to complete the following questionnaire. All the information will be treated as *strictly confidential* and your identity will never be revealed in any reports. The completed questionnaires will be kept separately from any information that could identify you and will be kept securely under lock and key. There is no need for you to write your name on this questionnaire.

INSTRUCTIONS:
There are no right or wrong answers. Just tick (✓) those answers that most apply to you.

Some of the questions may not be relevant to you. However, it is important for the study that, if at all possible, you answer all the questions that do apply to you.

Thank you very much for your help in this study

This first section of the questionnaire asks some general questions about you.

Today's date: _____

Date of Birth: _____

Gender: ❑ Male ❑ Female

What is your present marital status?

☐ 0 Never married
☐ 1 Married/ De facto
☐ 2 Widowed
☐ 3 Divorced/separated
☐ 4 Other

What is the highest education qualification you obtained?

☐ 1 Year 10 or below (intermediate)
☐ 2 Year 12 / HSC (leaving)
☐ 3 TAFE certificate/diploma
☐ 4 University degree
☐ 5 Higher degree (postgraduate)

What is your occupation (or previous occupation if retired)?

_____

In which country were you born? ❑ Australia ❑ Other _____

(*Please specify*)

Do you speak a language other than English at home?

☐ 0 No, only English
☐ 1 Yes I speak _____

Have you had any medical or allied health training?

☐ 0 No
☐ 1 Yes

If yes, what training have you had? _____

. Which clinical trial are you considering? _____

A number of statements which people have used to describe themselves are given below. Please read each statement and tick the appropriate box to the right of the statement to indicate how you feel **right now**, that is **at this moment.** There are no right or wrong answers.

(Spielberger State Anxiety Inventory)		**Not at all**	**Somewhat**	**Moderately so**	**Very much so**
1.	I feel calm	❑	❑	❑	❑
2.	I feel secure	❑	❑	❑	❑
3.	I feel tense	❑	❑	❑	❑
4.	I feel strained	❑	❑	❑	❑
5.	I feel at ease	❑	❑	❑	❑
6.	I feel upset	❑	❑	❑	❑
7.	I am presently worrying over possible misfortunes	❑	❑	❑	❑
8.	I feel satisfied	❑	❑	❑	❑
9.	I feel frightened	❑	❑	❑	❑
10.	I feel comfortable	❑	❑	❑	❑
11.	I feel self-confident	❑	❑	❑	❑
12.	I feel nervous	❑	❑	❑	❑
13.	I am jittery	❑	❑	❑	❑
14.	I feel indecisive	❑	❑	❑	❑
15.	I am relaxed	❑	❑	❑	❑
16.	I feel content	❑	❑	❑	❑
17.	I am worried	❑	❑	❑	❑
18.	I feel confused	❑	❑	❑	❑
19.	I feel steady	❑	❑	❑	❑
20.	I feel pleasant	❑	❑	❑	❑

Pre-consultation information and involvement preferences.

Some patients prefer to have very few details about their illness while others prefer to have as many details as possible. Please circle on a scale from 1 to 5, the number that best represents your preference for information.

Prefer as few details as possible **1** **2** **3** **4** **5** Prefer as many details as possible

Please tick the statement that best describes how you feel:

❑ I want only information needed to care for myself properly.

❑ I want additional information only if it is good news.

❑ I want as much information as possible, good and bad.

Some patients prefer to leave decisions about treatment up to their doctor, while others prefer to participate in these decisions. **Please tick the statement that best describes how you feel now**.

❑ The **doctor** should make the decisions using all that's known about the treatments

❑ The **doctor** should make the decisions but strongly consider my needs and priorities.

❑ The **doctor and I** should make the decisions together on an equal basis.

❑ **I** should make the decisions, but strongly consider the doctor's opinion

❑ **I** should make the decisions using all I know or learn about the treatments.

Knowledge about clinical trials

		True	False	Don't know
1	In a randomised trial the treatment you get is decided by chance	❑	❑	❑
2	Clinical trials are not only used when standard treatments have not worked	❑	❑	❑
3	Clinical trials test treatments which nobody knows anything about	❑	❑	❑
4	Randomised trials are the best way to find out whether one treatment is better than another	❑	❑	❑
5	Clinical trials are not appropriate for serious diseases like cancer	❑	❑	❑
6	My doctor would know which treatment in a clinical trial was better	❑	❑	❑
7	My doctor would make sure I got the better treatment in a clinical trial	❑	❑	❑

Attitudes to Clinical Trials Scale

We have talked to a number of people about clinical trials. Below are a range of comments others have made about clinical trials. Please indicate whether you think the comment is true or false.

		True	False
1.	A clinical trial includes the best treatment available.	❑	❑
2.	I trust the doctor treating me.	❑	❑
3.	Joining the clinical trial will help the doctor's research.	❑	❑
4.	The doctor has told me everything I need to know about the clinical trial.	❑	❑
5.	I may benefit personally from the clinical trial.	❑	❑
6.	The doctor wants me to join the clinical trial.	❑	❑
7.	The benefits appear to outweigh any side effects.	❑	❑
8.	The clinical trial may disrupt my life at home.	❑	❑
9.	The clinical trial may involve extra inconvenience eg, further travel, extra visits to the doctor.	❑	❑
10.	I might receive better care on the clinical trial.	❑	❑
11.	A clinical trial feels like a gamble.	❑	❑
12.	A clinical trial may be the only way to receive a new drug.	❑	❑
13.	I won't know which treatment I will receive on the clinical trial.	❑	❑
14.	The doctor may not know as much about the treatment on the clinical trial.	❑	❑
15.	I can leave the trial at any stage.	❑	❑
16.	I may receive more detailed information about my treatment on the clinical trial.	❑	❑
17.	The doctor treating me is an expert in the field.	❑	❑
18.	I might feel I was unable to say no.	❑	❑
19.	Other people will benefit from the clinical trial results	❑	❑

		True	False
20.	The doctor is unable to tell me which treatment is better.	❑	❑
21.	Clinical trials are not appropriate for serious diseases like cancer	❑	❑
22.	I may be monitored more closely on the clinical trial.	❑	❑
23.	My children may benefit if they fall ill in the future.	❑	❑
24.	At the moment I feel my own needs are more important than those of future patients	❑	❑
25.	I would feel like a guinea pig on the clinical trial.	❑	❑
26.	The clinical trial may have a greater effect on my daily activities.	❑	❑
27.	Others (family and friends) want me to join the clinical trial	❑	❑
28.	I don't like the idea of my treatment being selected at random.	❑	❑
29.	The treatments on the clinical trial may be quite different (e.g. chemotherapy versus hormone therapy).	❑	❑
30.	The treatment given in the clinical trial may be too severe for me.	❑	❑
31.	Any of the treatments on the clinical trial may help me.	❑	❑
32.	Asking me to join the clinical trial may make me trust my doctor less.	❑	❑
33.	I may have less say in what happens to me on the clinical trial.	❑	❑
34.	The treatment given in the clinical trial may have a greater chance of cure.	❑	❑
35.	The clinical trial may have extra effects on my family.	❑	❑
36.	The doctor seems more interested in the clinical trial than me.	❑	❑

Thank you very much for completing this questionnaire.

Medical Psychology Research Unit

Questionnaire 2

ID No. _____
Date. _____

Enhancing informed consent – Evaluation of a QPL in cancer clinical trials.

CONFIDENTIALITY:
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INSTRUCTIONS:
There are no right or wrong answers. Just tick (✓) those answers that most apply to you.

Some of the questions may not be relevant to you. However, it is important for the study that, if at all possible, you answer all the questions that do apply to you.

Thank you very much for your help in this study

A number of statements which people have used to describe themselves are given below. Please read each statement and tick the appropriate box to the right of the statement to indicate how you feel **right now**, that is **at this moment.** There are no right or wrong answers.

(Spielberger State Anxiety Inventory)		**Not at all**	**Somewhat**	**Moderately so**	**Very much so**
1.	I feel calm	❑	❑	❑	❑
2.	I feel secure	❑	❑	❑	❑
3.	I feel tense	❑	❑	❑	❑
4.	I feel strained	❑	❑	❑	❑
5.	I feel at ease	❑	❑	❑	❑
6.	I feel upset	❑	❑	❑	❑
7.	I am presently worrying over possible misfortunes	❑	❑	❑	❑
8.	I feel satisfied	❑	❑	❑	❑
9.	I feel frightened	❑	❑	❑	❑
10.	I feel comfortable	❑	❑	❑	❑
11.	I feel self-confident	❑	❑	❑	❑
12.	I feel nervous	❑	❑	❑	❑
13.	I am jittery	❑	❑	❑	❑
14.	I feel indecisive	❑	❑	❑	❑
15.	I am relaxed	❑	❑	❑	❑
16.	I feel content	❑	❑	❑	❑
17.	I am worried	❑	❑	❑	❑
18.	I feel confused	❑	❑	❑	❑
19.	I feel steady	❑	❑	❑	❑
20.	I feel pleasant	❑	❑	❑	❑

Satisfaction with decision scale

Now, thinking about the choice you just made, please look at the following comments made by people having decided about your treatment. Please show how strongly you agree or disagree with these comments by ticking (✓) the box from **(strongly agree)** to **(strongly disagree)**, which best shows how you feel about the decision you just made.

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
I am satisfied that I was adequately informed about the issues important to my decision	❑	❑	❑	❑	❑
The decision I made was the best decision possible for me personally	❑	❑	❑	❑	❑
I am satisfied that my decision was consistent with my personal values	❑	❑	❑	❑	❑
I expect to successfully carry out or continue to carry out the decision I have made	❑	❑	❑	❑	❑
I am satisfied that this was my decision to make	❑	❑	❑	❑	❑
I am satisfied with my decision	❑	❑	❑	❑	❑

Quality of Informed Consent (QuIC)

Part A. INSTRUCTIONS: below you will find several statements about cancer clinical trials. Thinking about your clinical trial, please read each statement carefully. Then tell us whether you agree with the statement, you disagree with the statement, or you are unsure about the statement by **circling** the appropriate response. **Please respond to each statement as best you can. We are interested in your opinions.**

A1.	When I signed the consent form for my current cancer therapy, I knew that I was agreeing to participate in a clinical trial.	Disagree	Unsure	Agree
A2.	The main reason cancer clinical trials are done is to improve the treatment of future cancer patients.	Disagree	Unsure	Agree
A3.	I have been informed how long my participation in this clinical trial is likely to last.	Disagree	Unsure	Agree
A4.	All the treatments and procedures in my clinical trial are standard for my type of cancer.	Disagree	Unsure	Agree
A5.	In my clinical trial, one of the researchers' major purposes is to compare the effects (good and bad) of two or more different ways of treating patients with my type of cancer, in order to see which is better.	Disagree	Unsure	Agree
A6.	In my clinical trial, one of the researchers' major purposes is to test the safety of a new drug or treatment.	Disagree	Unsure	Agree
A7.	In my clinical trial, one of the researchers' major purposes is to find the highest dose of a new drug or treatment than can be given without causing severe side effects.	Disagree	Unsure	Agree
A8.	In my clinical trial, one of the researchers' major purposes is to find out what effects (good and bad) a new treatment has on me and my cancer.	Disagree	Unsure	Agree
A9.	The treatment being researched in my clinical trial has been proven to be the best treatment for my type of cancer.	Disagree	Unsure	Agree
A10	In my clinical trial, each group of patients receives a higher dose of the treatment than the group before, until some patients have serious side effects.	Disagree	Unsure	Agree

A11.	After I agreed to participate in my clinical trial, my treatment was chosen randomly (by chance) from two or more possibilities.	Disagree	Unsure	Agree
A12.	Compared with standard treatments for my type of cancer, my clinical trial does not carry any additional risks or discomforts.	Disagree	Unsure	Agree
A13.	There may not be direct medical benefit to me from my participation in this clinical trial.	Disagree	Unsure	Agree
A14.	By participating in this clinical trial, I am helping the researchers learn information that may benefit future cancer patients.	Disagree	Unsure	Agree
A15.	Because I am participating in a clinical trial, it is possible that the study sponsor, various government agencies, or others who are not directly involved in my care could review my medical records.	Disagree	Unsure	Agree
A16.	My doctors did not offer me any alternatives besides treatment in this clinical trial.	Disagree	Unsure	Agree
A17.	The consent form I signed describes who will pay for treatment if I am injured or become ill as a result of participation in this clinical trial.	Disagree	Unsure	Agree
A18.	The consent form I signed lists the name of the person (or persons) whom I should contact if I have any questions or concerns about the clinical trial.	Disagree	Unsure	Agree
A19.	If I had not wanted to participate in this clinical trial, I could have declined to sign the consent form.	Disagree	Unsure	Agree
A20.	I will have to remain in the clinical trial even if I decide someday that I want to withdraw.	Disagree	Unsure	Agree

Part B. When you signed the consent form to participate in your clinical trial, how well did you understand the following aspects of the clinical trial? **If you didn't understand the item at all, please circle 1. If you understood it very well, please circle 5. If you understand it somewhat, please circle a number between 1 and 5.**

		I didn't understand this at all				I understood this very well
B1	The fact that your treatment involves research	1	2	3	4	5
B2	What the researchers are trying to find out in the clinical trial	1	2	3	4	5
B3	How long you will be in the clinical trial	1	2	3	4	5
B4	The treatments and procedures are experimental	1	2	3	4	5
B5	Which of these treatments and procedures are experimental	1	2	3	4	5
B6	The possible risks and discomforts of participating in the clinical trial	1	2	3	4	5
B7	The possible benefits to you of participating in the clinical trial	1	2	3	4	5
B8	How your participation in this clinical trial may benefit future patients	1	2	3	4	5
B9	The alternatives to participation in the clinical trial	1	2	3	4	5
B10	The effect of the clinical trial on the confidentiality of your medical records	1	2	3	4	5
B11	Who will pay for treatment if you are injured or become ill because of participation in this clinical trial	1	2	3	4	5
B12	Whom you should contact if you have questions or concerns about the clinical trial	1	2	3	4	5
B13	The fact that participation in the clinical trial is voluntary	1	2	3	4	5
B14	Overall, how well did you understand your clinical trial when you signed the consent form?	1	2	3	4	5

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	1
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	2
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	5
	2b	Specific objectives or hypotheses	5
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	5
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	
Participants	4a	Eligibility criteria for participants	5
	4b	Settings and locations where the data were collected	
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	6
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	6
	6b	Any changes to trial outcomes after the trial commenced, with reasons	
Sample size	7a	How sample size was determined	6
	7b	When applicable, explanation of any interim analyses and stopping guidelines	
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	6
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	6

Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	6
	11b	If relevant, description of the similarity of interventions	
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	13 - 16
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	19
	13b	For each group, losses and exclusions after randomisation, together with reasons	
Recruitment	14a	Dates defining the periods of recruitment and follow-up	
	14b	Why the trial ended or was stopped	6
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	12,13
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	19
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	3,8
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	8
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	
Other information			
Registration	23	Registration number and name of trial registry	2
Protocol	24	Where the full trial protocol can be accessed, if available	
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	8

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.

BMJ Open

A parallel multicentre randomised trial of a clinical trial question prompt list in patients considering participation in Phase 3 cancer treatment trials

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Primary Subject Heading:	Oncology
Secondary Subject Heading:	Patient-centred medicine, Communication, Health services research
Keywords:	Question Prompt List, Informed Consent Questionnaire, Clinical trials < THERAPEUTICS

A parallel multicentre randomised trial of a clinical trial question prompt list in patients considering participation in Phase 3 cancer treatment trials

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Key words: Question Prompt List, Clinical Trial, Informed Consent Questionnaire

Word count: 2756

ABSTRACT

Objective: To evaluate the effect of a clinical trial question prompt list in patients considering enrolment in cancer treatment trials.

Setting: Tertiary cancer referral hospitals in three state capital cities in Australia.

Participants: 88 cancer patients attending three cancer centres in Australia, who were considering enrolment in Phase 3 treatment trials, were invited to enrol in an unblinded randomised trial of provision of a clinical trial Question Prompt List (QPL) before consenting to enrol in the treatment trial.

Interventions: We developed and pilot tested a targeted QPL for cancer patients considering clinical trial participation (The Clinical Trial QPL). Consenting patients were randomised to receive the Clinical Trial QPL or not before further discussion with their oncologist and/or trial nurse about the treatment trial.

Primary and Secondary Outcomes: Questionnaires were completed at baseline and within three weeks of deciding on treatment trial participation. Main outcome measure: Scores on the Quality of Informed Consent questionnaire (QuIC).

Results: 88 patients of 130 sought for the study were enrolled (43 males), and 45 received the clinical trial QPL. Forty nine percent of trials were chemotherapy interventions for patients with advanced disease, 35% and 16% were surgical adjuvant and radiation adjuvant trials respectively. Seventy patients completed all relevant questionnaires. Twenty eight of 43 patients in the control arm compared to 39 of 45 patients receiving the Clinical Trial QPL completed the QuIC (p=0.0124). There were no significant differences in the QuIC scores between the randomised groups (QuIC Part A p=0.08 and QuIC Part B p= 0.92). There were no differences in patient satisfaction with decisions or in anxiety levels between the randomised groups.

Conclusion: Use of a question prompt list did not significantly change the QuIC scores in this randomised trial.

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STRENGTHS AND LIMITATIONS OF THIS STUDY

- The clinical trial question prompt list contained 51 questions grouped under 10 headings.
- The Quality of Informed Consent Questionnaire (QuIC) is widely used to measure clinical trial participants' actual and perceived understanding of cancer clinical trials.
- The trial was stopped prematurely due to low accrual rates and on the advice of an independent data monitoring committee.
- Participants had only a few minutes to review the clinical trial QPL before continuing discussion about the randomised cancer treatment trial.
- Information about the duration of the informed consent discussion in the trial is not available.
- The time patients receiving QPL list had to review the QPL before continuing he discussion about the cancer treatment is not available.

INTRODUCTION

Surveys of the public have found widespread support for the concept of clinical trials as an important and ethical means of developing improved medical care. However, only a small percentage of eligible patients are recruited to clinical trials in many institutions that promote clinical trial participation.

A significant proportion of non-trial participation is explained by patient refusal [1]. Reasons for trial refusal by eligible patients include concerns regarding experimentation and uncertainty and loss of control over treatment decisions. Even when patients agree to participate, they frequently do not understand basic components of the trial that they have consented to enter [2-3]. In the United Kingdom Jenkins *et al* [4] audiotaped discussions between oncologists and patients during which consent was being obtained for a randomised clinical trial. In most, the concept of the trial was introduced by describing uncertainty about treatment decisions. The word randomisation was mentioned in 51 consultations (62.2%). The median duration of 'consent' interviews was less than 15 minutes, and most patients signed the consent document at the first consultation at which the clinical trial was discussed.

Brehaut *et al* [5-6] argue that the existing approach to obtaining informed consent for clinical research may be improved by using decision aids. Juraskova *et al* [7] reported successful piloting of a decision aid to assist women considering participation in a breast cancer prevention trial. Spiegle *et al* [8] performed a systematic review to identify alternative types of decision support interventions (DSIs) for cancer treatment and a meta-analysis to compare the effectiveness of DSIs compared to patient decision aids. The study showed that the effectiveness of other DSIs, including QPLs and audio recordings of the consultation, is similar to patient decision aids. This finding is important because less complex DSIs such as a targeted QPL may be all that is necessary to achieve similar outcomes as patient decision aids for cancer treatment. QPLs have been shown to increase question asking in cancer patients [9-10].

The quality of informed consent questionnaire (QuIC) was designed to measure participants' actual (objective) and perceived (subjective) understanding of cancer clinical trials. Joffe *et al* [11] derived 13 independent domains of informed consent and wrote one or more questions to measure participants' objective and subjective understanding of their clinical trials. After feedback from pilot testing and input from expert panels, the QuIC was sent to adult cancer patients enrolled in Phase 1,2 and 3 clinical trials. Test retest reliability was good, as was face and content validity. The QuIC took an average of 7.2 minutes to complete.

Joffe *et al* [2] reported the use of the QuIC to measure the quality of understanding among 207 cancer clinical trial participants in Boston who had signed a clinical trial consent form a median of 16 days earlier. Almost half of the consent discussions had lasted one hour. The consent form was signed a median of six days after the initial discussions about the trial and a quarter signed during the first consultation. There was considerable variation in the proportion of correct answers across individual questions in the QuIC.

Bergenmar *et al* [12] used the QuIC questionnaire to survey 282 patients who had been informed in Swedish about a Phase 2 or Phase 3 trial and had signed a consent form. The patients were asked about the duration of the consent discussion. Thirty nine patients (14%) reported the duration of the consent discussion was less than 15 minutes, 139 patients (50%) responded between 15 and 30 minutes and 50 patients (11%) between 45 and 60 minutes.

The proportion of correct responses to the 16 items applicable to all patients, irrespective of trial phase were presented. High levels of knowledge (>80%) were found for seven items, and five items were responded to correctly by 50-80% of the patients. Less than 50% responded correctly to four items, namely risks related to the trial, the unproven nature of the trial and issues about insurances in connection to participating in the trial.

We used the QuIC to survey cancer patients in Sydney and Melbourne who had been approached to participate in a clinical trial. The mean score on Part A of the QuIC among 100 patients studied in Sydney was 76.8 [13]. In 72 cancer patients studied in Melbourne, the median objective knowledge score was 77.6/100, and perceived (subjective) understanding (QuIC Part B) 91.5 [3]. Some questions were answered particularly poorly. Higher knowledge score (QuIC Part A) was associated with English as a first language. Calculation of the summary score questions included is presented in http://jnci.oxfordjournals.org/content/93/2/139.full. This also shows the questions that are not scored for particular phase trials.

We developed a targeted QPL for clinical trials in order to identify questions which might facilitate patient participation in clinical trial discussions with their oncologist and clinical trial nurse [14]. We conducted a series of focus groups with cancer patients and their carers. The focus groups were audio-taped and transcribed. The transcripts were analysed using rigorous qualitative methodology. The final draft of the QPL was pilot tested to evaluate content validity, and acceptability and perceived efficacy in satisfying information needs about clinical trials needs and achieving involvement preference using a sample of 10 cancer patients considering participation in a Phase 3 clinical trial at each of the participating institutions. The clinicians, oncologists and clinical research nurses were encouraged to endorse and refer to the QPL during their discussion. Feedback from these patient/clinician cohorts informed the final version of the clinical trial QPL. The final version of the clinical trial QPL used in the randomised trial includes 51 questions grouped under 10 headings is presented in Figure 1.

Figure 1 here

The aims of this study were to determine whether providing patients who are considering clinical trial participation with a QPL about clinical trials enhances: (1) the patient's quality of understanding of the cancer clinical trial; (2) patient achievement of his or her involvement/participation preference, (3) patient satisfaction with the informed consent to treatment decision-making process, and (4) oncologist and research nurse satisfaction with the clinical trial discussion and decision-making process.

We hypothesised that cancer patients receiving a clinical trial QPL which was endorsed by the oncologist and trial nurse prior to deciding whether to participate in a randomised cancer clinical trial compared to patients not receiving this intervention would: have a higher mean knowledge score in the informed consent questionnaire (QuIC Part A) [primary outcome]; have enhanced achievement of their information and involvement/participation preference; and, be more satisfied with the informed consent and decision-making process. We also hypothesised that the intervention would not reduce clinical trial participation.

METHODS

All patients invited to participate in a randomised cancer treatment clinical trial at three participating cancer centres were eligible for the study evaluating use of the clinical trial QPL unless the cancer treatment protocol excluded patients entered in a second randomized trial. Eligible patients were approached by a research nurse prior to their written consent to the cancer treatment trial being sought, and invited to participate in the evaluation of the clinical trial question prompt list. After their written consent had been obtained, patients completed a questionnaire containing measures of information and involvement preferences [15-16], their attitudes to clinical trials [17] and their anxiety level [18] (Appendix 1).

A randomisation sequence was generated by an independent service. Patients were randomized by opening a numbered blank envelope containing the treatment group allocation: to receive or not receive the clinical trial QPL. Patients in the control group continued their discussion with the oncologist/research nurse about the clinical treatment trial. Patients randomized to receive the clinical trial QPL had at least a few minutes to review it before continuing discussion with their oncologist and/or clinical research nurse about the cancer trial proposed. During this latter discussion the clinicians specifically referred to the QPL and encouraged patients to review the list of questions. Thus participants were not blinded to intervention assignment; however, data entry personnel were blinded. There was no control of QPL exposure time nor was the time documented. There was no researcher control of items in the QPL raised by the patient or clinician.

After the decision about cancer treatment clinical trial participation, and within three weeks, patients were asked to complete the QuIC [2] and questionnaires measuring anxiety [18], their satisfaction with the consent discussion and decision-making [19] and achievement of their information and involvement preferences [20]. Clinician satisfaction with the informed consent process was measured using an adapted form of an existing seven item scale measuring physician satisfaction with the decision-making process [21-22] (Appendix 2).

The primary outcome measure was the QuIC. Part A of this scale contains questions covering 13 domains which are summed to produce a total score capped at 100. The authors of the QuIC reported a mean total score of 79.7 and standard deviation of 7.7 on Part A of the scale. An improvement of understanding of one entire domain score is considered to be a clinically significant improvement. A sample of 130 patients was sought for the study to have 80% power at the 5% two-sided level of significance to detect a clinically meaningful difference.

The trial accrued slowly and was stopped after 88 patients had been randomized on the advice of an independent data monitoring committee who determined that the probability of detecting a clinically meaningful difference with continued recruitment was very low (i.e. the conditional power at this point in the study was well under 20%).

Human Ethics approval from South Sydney Western Area Health Services, Royal Prince Alfred Hospital (SSWAHS, RPAH) (Approval No: X06-0045 - letter dated 5 April 2006). Upon approval from SSWAHS, RPAH, the University of Sydney then approved our study (Approval No: 9304 - letter dated 16 June 2006).

RESULTS

Eighty eight patients were enrolled of whom 43 were males and 45 received the clinical trial QPL. Fifty one were recruited from Royal Prince Alfred Hospital, 28 from Peter MacCallum Cancer Centre and nine from Royal Adelaide Hospital. Table 1 presents demographic and disease details including the clinical treatment trial intervention, participating hospital and randomization group. Patients' attitudes to clinical trials [15], clinical trial knowledge score [21-22], and status of completed questionnaires are also presented. Participants were balanced for gender, marital status and education level. Seventy patients completed all relevant questionnaires, but 13 in the control arm and five in the intervention arm did not complete the first and/or second questionnaires (Figure 2).

Figure 2.

TABLE 1: Patient Demographic, Randomisation Group, Attitude to clinical trials

	Intervention	Control
Age		
N	45	43
Mean	57	56.9
Median	58	60
Std Dev	13.2	14.5
Minimum	28	22
Maximum	85	84
Gender		
Female	25 (56%)	20 (47%)
Marital Status		
Never married	5 (11%)	7 (16%)
Married/Defacto	30 (67%)	30 (70%)
Widowed	2 (4%)	3 (7%)
Divorced/Separated	7 (16%)	3 (7%)
Other	1 (2%)	0 (0%)
Education		
Year 10 or below	18 (41%)	16 (37%)
Year 12	6 (14%)	12 (28%)
Certificate/Diploma	10 (23%)	8 (19%)
University Degree	5 (11%)	7 (16%)
Higher Degree/Postgrad	5 (11%)	0 (0%)
Country of Birth		
Australia	38 (84%)	40 (93%)
Other	3 (7%)	0 (0%)
Croatia	1 (2%)	0 (0%)
Italy	0 (0%)	1 (2%)
Hungary	1 (2%)	0 (0%)
United Kingdom	1 (2%)	1 (2%)
New Zealand	0 (0%)	1 (2%)
Poland	1 (2%)	0 (0%)
Hospital		
RPAH	26 (58%)	25 (58%)
PETER MAC	15 (33%)	13 (30%)
ROYAL ADELAIDE	4 (9%)	5 (12%)

TABLE 1: Cont'd

	Intervention	Control
Trial Context		
Chemotherapy for Advanced Disease	22	24
Adjuvant surgery	12	15
Adjuvant Radiation	8	7
Specialist who was involved in the Trial discussion		
Medical Oncologist	20 (44%)	23 (53%)
Surgeon	16 (36%)	15 (35%)
Radiation Oncologist	6 (13%)	4 (9%)
Medical + Radiation Oncologist	3 (7%)	1 (2%)
Positive Attitude		
N	45	43
Mean	14	13.4
Standard Deviation	3	4.4
Median	15	15
Minimum	8	0
Maximum	18	18
Negative Attitude		
N	45	43
Mean	4.9	4.3
Standard Deviation	2.1	2.6
Median	5	4
Minimum	0	0
Maximum	10	10
Clinical Trial Knowledge Score		
N	45	43
Mean	4	3.6
Standard Deviation	1.8	2.1
Median	4	4
Minimum	0	0
Maximum	7	7
Withdrawal/Missing		
No	40 (89%)	30 (70%)
Did not complete questionnaire	0 (0%)	3 (7%)
2nd questionnaire not completed	5 (11%)	10 (23%)

Table 2 presents the results of the QuIC scores, and the Spielberger State Anxiety Inventory [18]. Twenty eight of 43 patients in the control arm compared to 39 of 45 receiving the clinical trial QPL completed the informed consent questionnaire (p=0.02). There were no significant differences in the QuIC scores between the randomized groups (QuIC Part A p=0.08 and QuIC Part B p=0.92). We tested whether patient age or gender modified the effect of the QPL on the QuIC, and found no statistical evidence for this.

TABLE 2: Results of the QuIC scores, and the Spielberger State Anxiety Inventory [18].

Measure	Intervention	Control	Difference (95% CI)	p-value*
QuIC Part A Summary				
N	39	28		
Mean	75.5	79.9	4.5 (95% CI:-0.5 to 9.5)	0.0801
Standard Deviation	9.9	10.4		
Minimum	53.8	51.9		
Maximum	94.2	100		
QuIC Part B Summary				
N	39	28		
Mean	88.4	88.1	-0.3 (95% CI:-6.1 to 5.5)	0.9205
Standard Dev	12.1	11.4		
Minimum	51.8	64.3		
Maximum	100	100		
Spielberger State Anxiety Inventory (Follow-up)				
N	38	26		
Mean	34.81579	37.15385	2.3 (95% CI:-3.7 to 8.3)	0.4388
Standard Dev	10.8	13.1		
Minimum	20	20		
Maximum	63	66		

* *t-test.*

There was no difference in anxiety between the randomised groups.

Table 3 presents the results of patient satisfaction with the decision scores. There is no difference between the randomized groups in these results.

TABLE 3: Patient satisfaction with decision scores.

Measure	Intervention	Control	p-value*
Adequately informed			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	2 (5%)	2 (7%)	
Agree	20 (51%)	12 (43%)	
Agree strongly	16 (41%)	13 (46%)	
Total	39	28	0.6315
Best decision			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	3 (8%)	3 (11%)	
I agree	13 (33%)	10 (36%)	
Agree strongly	22 (56%)	14 (50%)	
Total	39	28	0.6575
Consistent with values			
Disagree strongly	0 (0%)	1(4%)	
Neutral	5 (13%)	3 (11%)	
I agree	17 (35%)	12 (43%)	
Agree strongly	16 (42%)	12 (43%)	
Total	38	28	0.6935
Carry out decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	0 (0%)	
I agree	17 (46%)	14 (50%)	
Agree strongly	18 (49%)	13 (46%)	
Total	37	28	0.4063
I am satisfied this was my decision to make			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	1 (4%)	
I agree	13 (33%)	14 (50%)	
Agree strongly	24 (62%)	12 (43%)	
Total	39	28	0.3002
I am satisfied with my decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	4 (11%)	3 (11%)	
I agree	14 (37%)	11 (39%)	
Agree strongly	20 (53%)	13 (46%)	
Total	38	28	0.6806

* Fisher's exact test

Table 4 presents the results of physician satisfaction with the consultation and with decision scores. There is no difference between the randomized groups in these results.

TABLE 4: Clinical satisfaction with the consent consultation and with decision scores.

	Intervention	Control	p-value*
I am satisfied that I provided enough information about the treatment options			
Strongly disagree	1 (2%)	2 (6%)	
Not sure	1 (2%)	1 (3%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	18 (44%)	12 (33%)	
Total	41	36	0.77
I am satisfied that I clearly communicated the clinical trial and treatment options			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	3 (8%)	
Agree	20 (49%)	21 (58%)	
Strongly agree	18 (44%)	11 (31%)	
Total	41	36	0.68
I am satisfied that I involved the patient in the decision-making process			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	2 (6%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	17 (41%)	12 (33%)	
Total	41	36	0.93
The patient understood the clinical trial being proposed			
Strongly disagree	1 (2%)	1 (3%)	
Disagree	0 (0%)	1 (3%)	
Not sure	1 (2%)	3 (8%)	
Agree	26 (63%)	25 (69%)	
Strongly agree	13 (32%)	6 (17%)	
Total	41	36	0.33

TABLE 4: Cont'd

	Intervention	Control	p-value*
Overall, I am satisfied with the decision-making process for this patient			
Strongly disagree	2 (5%)	1 (3%)	
Disagree	1 (2%)	0 (0%)	
Not sure	2 (5%)	5 (14%)	
Agree	22 (54%)	23 (64%)	
Strongly agree	14 (34%)	7 (19%)	
Total	41	36	0.32

* Fisher's exact test

DISCUSSION

Use of the clinical trial QPL did not significantly change patient knowledge scores measured by the Quality of Informed Consent Questionnaire (QuIC). The percentage of patients in the control arm completing the QuIC was significantly reduced compared to the intervention group (p=0.02). There was a trend towards lower knowledge scores (QuIC A) in the intervention group compared to control (p=0.08). The reason for this is unknown. Patients in the control group who actually completed the assessment achieved favourable results. We hypothesise that those in the control group who comprised 28 of 43 patients in the control arm constituted a self-selected cohort of patients who were more engaged in the clinical trial process.

We have no information about the duration of the consent interviews in our trial, but it is likely that use of the clinical trial QPL extended the consent interview by a few minutes. Patients only had the QPL for a few minutes before continuing with the clinical trial consent discussion so the 'dose' of the QPL may be low, and therefore not effective. Physician endorsement of QPL use by the patient in other contexts has been an important contributor to the efficacy of QPLs [23-24]. As QPLs have previously demonstrated benefit, it may have been these exposure and endorsement factors that prevented efficacy of the clinical trial QPL in this instance.

The patients in our trial all consented to participate in the informed consent trial at the first consultation when trial participation was sought. This finding differs from the experience reported by Joffe *et al* [2] where the consent form for the treatment trial was signed a median of six days after the initial discussion about the trial, and only 28% consented at the first consultation. There is great variation in the interval from considering participation in a clinical trial to consenting to enroll in the trial. We do not know when patients consented to participate in the cancer treatment trial but patients were asked to complete the QuIC within three weeks after the decision about cancer trial participation had been made.

Stryker *et al* [25] studied the factors associated with informed consent, patient satisfaction, and decisional regret in 87 patients who were eligible to participate in twelve selected Phase 1,2 and 3 clinical trials. They found that patients who enrolled in clinical trials quickly, may not believe they fully understand the implications of trial participation and ultimately regret

their decision to participate. However, there was no relationship between timing of consent and decisional regret.

Limitations of the study include the low accrual rate, the imbalance in completion of the QuIC in the randomised groups and the brief exposure to the clinical trial QPL. Future studies of clinical trial question prompt lists should document the duration of the consent interview, the time taken for consent to be given, and consideration of when is the optimal time for patient understanding of their clinical trial to be sought.

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DATA SHARING STATEMENT:

No additional unpublished data are available.

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REFERENCES

1 Mills EJ, Seely D, Rachlis *et al*. Barriers to participation in clinical trials of cancer: a meta-analysis and systematic review of patient-reported factors. *Lancet Oncol* 2006;7:141-48.

2 Joffe S, Cook EF, Cleary PD, *et al*. Quality of informed consent in cancer clinical trials: a cross-sectional survey. *Lancet* 2001;358:172-77.

3 Jefford M, Mileshkin L, Matthews J *et al*. Satisfaction with the decision to participate in cancer clinical trials is high, but understanding is a problem. *Support Care Cancer* 2011;19:371-79.

4 Jenkins VA, Fallowfield LJ, Souhami A, Sawtell M. How do doctors explain randomized clinical trials to their patients? *Europ J Cancer* 1999;35:1187-93.

5 Brehaut JC, Saginur R, Elwyn G. Informed consent documentation necessary but not sufficient. *Contemp Clin Trials* 2009;30:308-9.

6 Brehaut JC, Fergusson DA, Kimmelman J *et al*. Using decision aids may improve informed consent for research. *Contemp Clin Trials* 2010;31:218-20.

7 Juraskova I, Butow P, Lopez AL *et al*. Improving informed consent in clinical trials: successful piloting of a decision aid. *J Clin Oncol* 2007;25:1443-44.

8 Spiegle G, Al-Sukhni E, Schmocker S *et al*. Patient decision aids for cancer treatment: Are there any alternatives? *Cancer* 2013;119:189-200.

9 Butow PN, Dunn SM, Tattersall MHN *et al*. Patient participation in the cancer consultation: evaluation of a question prompt sheet. *Ann Oncol* 1994;5:199-204.

10 Dimoska A, Tattersall MHN, Butow PN *et al*. Can a "prompt list" empower cancer patients to ask relevant questions? *Cancer* 2008;113:225-37.

11 Joffe S, Cook EF, Cleary PD *et al*. Quality of informed consent: a new measure of understanding among research subjects. *J Natl Cancer Inst* 2001;93:139-47.

12 Bergenmar M, Molin C, Wilking N *et al.* Knowledge and understanding among cancer patients consenting to participate in clinical trials. *Europ J Cancer* 2008;44:2627-33.

13 Childs AM, Nattress K, Cox KM *et al*. Presented in the program of the of 5th State Cancer Nursing Research Perth 2005.

14 Brown RF, Shuk E, Butow P *et al*. Identifying patient information needs about cancer clinical trials using a Question Prompt List. *Patient Educ Couns* 2011;84:69-77

15 Cassileth BR, Zupkis RV, Sutton-Smith K *et al.* Information and participation preferences among cancer patients. *Ann Intern Med* 1980; 92: 832-36.

16 Degner LF, Sloan JA, Venkatech P. The control preferences scale. *Can J Nursing Res* 1197;29:21-43.

17 Fallowfield LJ, Jenkins B, Brennan C, *et al*. Attitudes of patients to randomized clinical trials of cancer therapy. *Europ J Cancer* 1998;34:1554-59.

18 Spielberger CD. Manual for the State Trait Anxiety Inventory (Form Y). Consulting Psychologists Press; Palo Alto Ca. 1983

19 Roter D. Patient participation in the patient provider interaction: the effects of patient question asking on the quality of interaction, satisfaction and compliance. *Health Educ Monographs* 1977;5:281-315.

20 Holmes-Rovner M, Kroll J, Schmitt N et al. Patient satisfaction with health care decisions; the satisfaction with decision scale. *Med Decis Making*. 1994;16:1864-66

21 Ellis P, Butow PN, Simes RJ *et al.* Barriers to participation in randomized clinical trials for early breast cancer among Australian cancer specialists. *Aust NZ J Surg*. 1999;69:505-10.

22 Ellis PM, Butow PN, Tattersall MHN *et al.* A randomized trial evaluating the impact of an education booklet on willingness to join randomized trials. *Clin Oncol Soc Aust, Ann Sci Conf;* Melbourne 1999.

23 Clayton JM, Butow PN, Tattersall MHN *et al*. Randomized controlled trial of a prompt list to help advanced cancer patients and their caregivers to ask questions about prognosis and end-of-life care. *J Clin Oncol* 2007;25:715-23.

24 Clayton JM**,** Natalia C, Butow PN *et al*. Physician endorsement alone may not enhance question-asking by advanced cancer patients during consultations about palliative care. *Support Care Cancer* 2012;20:1457-64.

25 Stryker JE, Wray RJ, Emmons KM *et al*. Understanding the decisions of cancer clinical trial participants to enter research studies: Factors associated with informed consent, patient satisfaction, and decisional regret. *Patient Educ Couns* 2006;63:104-9.

FIGURE 1: Questions you may wish to ask your doctor about clinical trials. This Question Prompt List is intended to help you to make a decision about participating in a cancer clinical trial. It provides you with some questions that you might like to think about and ask your doctor now or later.

Figure 2. Consort Statement

FIGURE 1: Questions you may wish to ask your doctor about clinical trials. This Question Prompt List is intended to help you to make a decision about participating in a cancer clinical trial. It provides you with some questions that you might like to think about and ask your doctor now or later.

1. Understanding my choices

- ☐ What is the usual (standard) treatment for people in my situation?
- ☐ Why are you offering me this particular trial?
- ☐ Are there choices other than the trial and standard treatment?
- ☐ What other trials am I suitable for? What makes me suitable (or not)?

2. Finding out about this trial

- ☐ Is there a Patient Information Statement and would you please go through it with me?
- ☐ How can I learn more about the trial?
- ☐ Can I talk to someone who's already on the trial?

3. Understanding the trial's purpose and background

- ☐ What is the purpose of the trial?
- ☐ What makes this trial an experiment?
- ☐ What is already known about this treatment's success?
- ☐ How does the treatment work?
- ☐ Does the trial ask an important question in cancer treatment?

4. Understanding the possible benefits

- ☐ What benefits could I get by joining in the trial?
- ☐ If I join this trial, how might others benefit?
- ☐ Has this treatment's benefit already been proven?
- ☐ What does response rate mean?
- ☐ How long would a response last?
- ☐ How do you measure response? What is meant by "measurable disease"?

5. Understanding the possible risks

- ☐ What are the risks of taking the new treatment?
- ☐ Could there be any long term or permanent changes from the treatment?
- ☐ Are there any serious or rare side effects I should know about?
- ☐ Whom can I call if something goes wrong?
- ☐ If I get a side effect or injury because of being in the trial, will I get compensation?

6. The differences between going on the trial & having standard treatment

- ☐ If I enter the clinical trial, will I need to have extra tests, go to more clinics and will it cost me any money? (extra parking, extra medication) How is this different from standard treatment?
- ☐ Will there be side effects on the trial which I won't get on the standard treatment?
- ☐ Where will treatment for the trial be given? Is that somewhere different from standard treatment?
- ☐ Can I have the trial treatment at my local hospital?

7. Understanding how the trial is being carried out

- ☐ Is the new treatment only available through joining the trial?
- ☐ How long has the trial been going on?
- ☐ How many hospitals are involved?
- ☐ How many people will be studied?
- ☐ How many people are in the trial already? Do you have any concerns about this trial or treatment so far?
- ☐ Apart from the hospital staff, will other people have access to my medical records? Who?
- ☐ How will my confidentiality be protected?
- ☐ How will I be informed of the results of the trial?
- ☐ If the new treatment is beneficial, how can I get it (if I'm not already on it)?

8. .Understanding "randomisation"

- ☐ Is this trial "randomised"? What does that mean?
- ☐ Will I know what treatment I'm getting?
- ☐ What is a treatment arm? How many treatment arms are there in this trial?
- ☐ Are there different side effects depending on which arm of the trial I am randomised to?
- ☐ Why is random isation important in this trial? Is this trial "blinded"? What does that mean? Will I ever know what treatment I'm getting?
- ☐ Why is "blinding" important in this trial?

9. Understanding possible conflicts of interest

- ☐ Are you in charge of the trial (the principal investigator)? If not, what's your role in the trial?
- ☐ Who is paying for the trial? What is the relationship between you and the sponsor/company?
- ☐ Is there a payment made by the sponsor/company to the hospital or to you as my doctor if I go on this trial? Could you tell me how much money, and is this usual? How is the money spent?

10.Understanding my right to join or not to joi trial

- ☐ Will you still treat me if I decide not to go o trial?
- ☐ Do I have time to think about whether to g the trial (a day or two, or a week)?
- ☐ If I do take some time to decide will that aff how well the treatment works?
- ☐ If I join the trial, but later change my mind how can I stop? Will this make a difference my treatment?
- ☐ If I join the trial, will I lose out on any new treatment opportunities (e.g. another trial, standard treatment later)?
- ☐ Can I still use alternative therapies if I go on trial?

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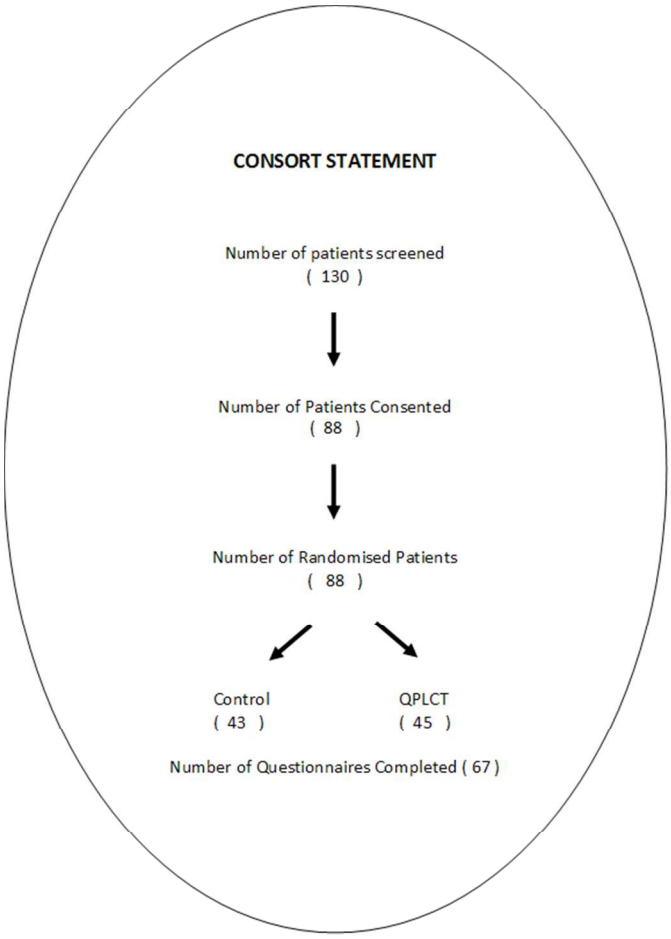

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Medical Psychology Research Unit

Questionnaire 1

ID No. _____
Date. _____

Enhancing informed consent – Evaluation of a QPL in cancer clinical trials.

CONFIDENTIALITY:
We would like to ask you to complete the following questionnaire. All the information will be treated as *strictly confidential* and your identity will never be revealed in any reports. The completed questionnaires will be kept separately from any information that could identify you and will be kept securely under lock and key. There is no need for you to write your name on this questionnaire.

INSTRUCTIONS:
There are no right or wrong answers. Just tick (✓) those answers that most apply to you.

Some of the questions may not be relevant to you. However, it is important for the study that, if at all possible, you answer all the questions that do apply to you.

Thank you very much for your help in this study

This first section of the questionnaire asks some general questions about you.

Today's date: _____

Date of Birth: _____

Gender: ❑ Male ❑ Female

What is your present marital status?

☐ 0 Never married
☐ 1 Married/ De facto
☐ 2 Widowed
☐ 3 Divorced/separated
☐ 4 Other

What is the highest education qualification you obtained?

☐ 1 Year 10 or below (intermediate)
☐ 2 Year 12 / HSC (leaving)
☐ 3 TAFE certificate/diploma
☐ 4 University degree
☐ 5 Higher degree (postgraduate)

What is your occupation (or previous occupation if retired)?

_____

In which country were you born? ❑ Australia ❑ Other _____

(*Please specify*)

Do you speak a language other than English at home?

☐ 0 No, only English
☐ 1 Yes I speak _____

Have you had any medical or allied health training?

☐ 0 No
☐ 1 Yes

If yes, what training have you had? _____

. Which clinical trial are you considering? _____

A number of statements which people have used to describe themselves are given below. Please read each statement and tick the appropriate box to the right of the statement to indicate how you feel **right now**, that is **at this moment.** There are no right or wrong answers.

(Spielberger State Anxiety Inventory)		**Not at all**	**Somewhat**	**Moderately so**	**Very much so**
1.	I feel calm	❑	❑	❑	❑
2.	I feel secure	❑	❑	❑	❑
3.	I feel tense	❑	❑	❑	❑
4.	I feel strained	❑	❑	❑	❑
5.	I feel at ease	❑	❑	❑	❑
6.	I feel upset	❑	❑	❑	❑
7.	I am presently worrying over possible misfortunes	❑	❑	❑	❑
8.	I feel satisfied	❑	❑	❑	❑
9.	I feel frightened	❑	❑	❑	❑
10.	I feel comfortable	❑	❑	❑	❑
11.	I feel self-confident	❑	❑	❑	❑
12.	I feel nervous	❑	❑	❑	❑
13.	I am jittery	❑	❑	❑	❑
14.	I feel indecisive	❑	❑	❑	❑
15.	I am relaxed	❑	❑	❑	❑
16.	I feel content	❑	❑	❑	❑
17.	I am worried	❑	❑	❑	❑
18.	I feel confused	❑	❑	❑	❑
19.	I feel steady	❑	❑	❑	❑
20.	I feel pleasant	❑	❑	❑	❑

Pre-consultation information and involvement preferences.

Some patients prefer to have very few details about their illness while others prefer to have as many details as possible. Please circle on a scale from 1 to 5, the number that best represents your preference for information.

Prefer as few details as possible **1** **2** **3** **4** **5** Prefer as many details as possible

Please tick the statement that best describes how you feel:

❑ I want only information needed to care for myself properly.

❑ I want additional information only if it is good news.

❑ I want as much information as possible, good and bad.

Some patients prefer to leave decisions about treatment up to their doctor, while others prefer to participate in these decisions. **Please tick the statement that best describes how you feel now**.

❑ The **doctor** should make the decisions using all that's known about the treatments

❑ The **doctor** should make the decisions but strongly consider my needs and priorities.

❑ The **doctor and I** should make the decisions together on an equal basis.

❑ **I** should make the decisions, but strongly consider the doctor's opinion

❑ **I** should make the decisions using all I know or learn about the treatments.

Knowledge about clinical trials

		True	False	Don't know
1	In a randomised trial the treatment you get is decided by chance	❑	❑	❑
2	Clinical trials are not only used when standard treatments have not worked	❑	❑	❑
3	Clinical trials test treatments which nobody knows anything about	❑	❑	❑
4	Randomised trials are the best way to find out whether one treatment is better than another	❑	❑	❑
5	Clinical trials are not appropriate for serious diseases like cancer	❑	❑	❑
6	My doctor would know which treatment in a clinical trial was better	❑	❑	❑
7	My doctor would make sure I got the better treatment in a clinical trial	❑	❑	❑

Attitudes to Clinical Trials Scale

We have talked to a number of people about clinical trials. Below are a range of comments others have made about clinical trials. Please indicate whether you think the comment is true or false.

		True	False
1.	A clinical trial includes the best treatment available.	❑	❑
2.	I trust the doctor treating me.	❑	❑
3.	Joining the clinical trial will help the doctor's research.	❑	❑
4.	The doctor has told me everything I need to know about the clinical trial.	❑	❑
5.	I may benefit personally from the clinical trial.	❑	❑
6.	The doctor wants me to join the clinical trial.	❑	❑
7.	The benefits appear to outweigh any side effects.	❑	❑
8.	The clinical trial may disrupt my life at home.	❑	❑
9.	The clinical trial may involve extra inconvenience eg, further travel, extra visits to the doctor.	❑	❑
10.	I might receive better care on the clinical trial.	❑	❑
11.	A clinical trial feels like a gamble.	❑	❑
12.	A clinical trial may be the only way to receive a new drug.	❑	❑
13.	I won't know which treatment I will receive on the clinical trial.	❑	❑
14.	The doctor may not know as much about the treatment on the clinical trial.	❑	❑
15.	I can leave the trial at any stage.	❑	❑
16.	I may receive more detailed information about my treatment on the clinical trial.	❑	❑
17.	The doctor treating me is an expert in the field.	❑	❑
18.	I might feel I was unable to say no.	❑	❑
19.	Other people will benefit from the clinical trial results	❑	❑

		True	False
20.	The doctor is unable to tell me which treatment is better.	❑	❑
21.	Clinical trials are not appropriate for serious diseases like cancer	❑	❑
22.	I may be monitored more closely on the clinical trial.	❑	❑
23.	My children may benefit if they fall ill in the future.	❑	❑
24.	At the moment I feel my own needs are more important than those of future patients	❑	❑
25.	I would feel like a guinea pig on the clinical trial.	❑	❑
26.	The clinical trial may have a greater effect on my daily activities.	❑	❑
27.	Others (family and friends) want me to join the clinical trial	❑	❑
28.	I don't like the idea of my treatment being selected at random.	❑	❑
29.	The treatments on the clinical trial may be quite different (e.g. chemotherapy versus hormone therapy).	❑	❑
30.	The treatment given in the clinical trial may be too severe for me.	❑	❑
31.	Any of the treatments on the clinical trial may help me.	❑	❑
32.	Asking me to join the clinical trial may make me trust my doctor less.	❑	❑
33.	I may have less say in what happens to me on the clinical trial.	❑	❑
34.	The treatment given in the clinical trial may have a greater chance of cure.	❑	❑
35.	The clinical trial may have extra effects on my family.	❑	❑
36.	The doctor seems more interested in the clinical trial than me.	❑	❑

Thank you very much for completing this questionnaire.

Medical Psychology Research Unit

Questionnaire 2

ID No. _____
Date. _____

Enhancing informed consent – Evaluation of a QPL in cancer clinical trials.

CONFIDENTIALITY:
We would like to ask you to complete the following questionnaire. All the information will be treated as *strictly confidential* and your identity will never be revealed in any reports. The completed questionnaires will be kept separately from any information that could identify you and will be kept securely under lock and key. There is no need for you to write your name on this questionnaire.

INSTRUCTIONS:
There are no right or wrong answers. Just tick (✓) those answers that most apply to you.

Some of the questions may not be relevant to you. However, it is important for the study that, if at all possible, you answer all the questions that do apply to you.

Thank you very much for your help in this study

A number of statements which people have used to describe themselves are given below. Please read each statement and tick the appropriate box to the right of the statement to indicate how you feel **right now**, that is **at this moment.** There are no right or wrong answers.

(Spielberger State Anxiety Inventory)		**Not at all**	**Somewhat**	**Moderately so**	**Very much so**
1.	I feel calm	❑	❑	❑	❑
2.	I feel secure	❑	❑	❑	❑
3.	I feel tense	❑	❑	❑	❑
4.	I feel strained	❑	❑	❑	❑
5.	I feel at ease	❑	❑	❑	❑
6.	I feel upset	❑	❑	❑	❑
7.	I am presently worrying over possible misfortunes	❑	❑	❑	❑
8.	I feel satisfied	❑	❑	❑	❑
9.	I feel frightened	❑	❑	❑	❑
10.	I feel comfortable	❑	❑	❑	❑
11.	I feel self-confident	❑	❑	❑	❑
12.	I feel nervous	❑	❑	❑	❑
13.	I am jittery	❑	❑	❑	❑
14.	I feel indecisive	❑	❑	❑	❑
15.	I am relaxed	❑	❑	❑	❑
16.	I feel content	❑	❑	❑	❑
17.	I am worried	❑	❑	❑	❑
18.	I feel confused	❑	❑	❑	❑
19.	I feel steady	❑	❑	❑	❑
20.	I feel pleasant	❑	❑	❑	❑

Satisfaction with decision scale

Now, thinking about the choice you just made, please look at the following comments made by people having decided about your treatment. Please show how strongly you agree or disagree with these comments by ticking (✓) the box from **(strongly agree)** to **(strongly disagree)**, which best shows how you feel about the decision you just made.

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
I am satisfied that I was adequately informed about the issues important to my decision	❑	❑	❑	❑	❑
The decision I made was the best decision possible for me personally	❑	❑	❑	❑	❑
I am satisfied that my decision was consistent with my personal values	❑	❑	❑	❑	❑
I expect to successfully carry out or continue to carry out the decision I have made	❑	❑	❑	❑	❑
I am satisfied that this was my decision to make	❑	❑	❑	❑	❑
I am satisfied with my decision	❑	❑	❑	❑	❑

Quality of Informed Consent (QuIC)

Part A. INSTRUCTIONS: below you will find several statements about cancer clinical trials. Thinking about your clinical trial, please read each statement carefully. Then tell us whether you agree with the statement, you disagree with the statement, or you are unsure about the statement by **circling** the appropriate response. **Please respond to each statement as best you can. We are interested in your opinions.**

A1.	When I signed the consent form for my current cancer therapy, I knew that I was agreeing to participate in a clinical trial.	Disagree	Unsure	Agree
A2.	The main reason cancer clinical trials are done is to improve the treatment of future cancer patients.	Disagree	Unsure	Agree
A3.	I have been informed how long my participation in this clinical trial is likely to last.	Disagree	Unsure	Agree
A4.	All the treatments and procedures in my clinical trial are standard for my type of cancer.	Disagree	Unsure	Agree
A5.	In my clinical trial, one of the researchers' major purposes is to compare the effects (good and bad) of two or more different ways of treating patients with my type of cancer, in order to see which is better.	Disagree	Unsure	Agree
A6.	In my clinical trial, one of the researchers' major purposes is to test the safety of a new drug or treatment.	Disagree	Unsure	Agree
A7.	In my clinical trial, one of the researchers' major purposes is to find the highest dose of a new drug or treatment than can be given without causing severe side effects.	Disagree	Unsure	Agree
A8.	In my clinical trial, one of the researchers' major purposes is to find out what effects (good and bad) a new treatment has on me and my cancer.	Disagree	Unsure	Agree
A9.	The treatment being researched in my clinical trial has been proven to be the best treatment for my type of cancer.	Disagree	Unsure	Agree
A10	In my clinical trial, each group of patients receives a higher dose of the treatment than the group before, until some patients have serious side effects.	Disagree	Unsure	Agree

A11.	After I agreed to participate in my clinical trial, my treatment was chosen randomly (by chance) from two or more possibilities.	Disagree	Unsure	Agree
A12.	Compared with standard treatments for my type of cancer, my clinical trial does not carry any additional risks or discomforts.	Disagree	Unsure	Agree
A13.	There may not be direct medical benefit to me from my participation in this clinical trial.	Disagree	Unsure	Agree
A14.	By participating in this clinical trial, I am helping the researchers learn information that may benefit future cancer patients.	Disagree	Unsure	Agree
A15.	Because I am participating in a clinical trial, it is possible that the study sponsor, various government agencies, or others who are not directly involved in my care could review my medical records.	Disagree	Unsure	Agree
A16.	My doctors did not offer me any alternatives besides treatment in this clinical trial.	Disagree	Unsure	Agree
A17.	The consent form I signed describes who will pay for treatment if I am injured or become ill as a result of participation in this clinical trial.	Disagree	Unsure	Agree
A18.	The consent form I signed lists the name of the person (or persons) whom I should contact if I have any questions or concerns about the clinical trial.	Disagree	Unsure	Agree
A19.	If I had not wanted to participate in this clinical trial, I could have declined to sign the consent form.	Disagree	Unsure	Agree
A20.	I will have to remain in the clinical trial even if I decide someday that I want to withdraw.	Disagree	Unsure	Agree

Part B. When you signed the consent form to participate in your clinical trial, how well did you understand the following aspects of the clinical trial? **If you didn't understand the item at all, please circle 1. If you understood it very well, please circle 5. If you understand it somewhat, please circle a number between 1 and 5.**

		I didn't understand this at all				I understood this very well
B1	The fact that your treatment involves research	1	2	3	4	5
B2	What the researchers are trying to find out in the clinical trial	1	2	3	4	5
B3	How long you will be in the clinical trial	1	2	3	4	5
B4	The treatments and procedures are experimental	1	2	3	4	5
B5	Which of these treatments and procedures are experimental	1	2	3	4	5
B6	The possible risks and discomforts of participating in the clinical trial	1	2	3	4	5
B7	The possible benefits to you of participating in the clinical trial	1	2	3	4	5
B8	How your participation in this clinical trial may benefit future patients	1	2	3	4	5
B9	The alternatives to participation in the clinical trial	1	2	3	4	5
B10	The effect of the clinical trial on the confidentiality of your medical records	1	2	3	4	5
B11	Who will pay for treatment if you are injured or become ill because of participation in this clinical trial	1	2	3	4	5
B12	Whom you should contact if you have questions or concerns about the clinical trial	1	2	3	4	5
B13	The fact that participation in the clinical trial is voluntary	1	2	3	4	5
B14	Overall, how well did you understand your clinical trial when you signed the consent form?	1	2	3	4	5

TABLE 1: Patient Demographic, Randomisation Group, Attitude to clinical trials

	Intervention	Control
Age		
N	45	43
Mean	57	56.9
Median	58	60
Std Dev	13.2	14.5
Minimum	28	22
Maximum	85	84
Gender		
Female	25 (56%)	20 (47%)
Marital Status		
Never married	5 (11%)	7 (16%)
Married/Defacto	30 (67%)	30 (70%)
Widowed	2 (4%)	3 (7%)
Divorced/Separated	7 (16%)	3 (7%)
Other	1 (2%)	0 (0%)
Education		
Year 10 or below	18 (41%)	16 (37%)
Year 12	6 (14%)	12 (28%)
Certificate/Diploma	10 (23%)	8 (19%)
University Degree	5 (11%)	7 (16%)
Higher Degree/Postgrad	5 (11%)	0 (0%)
Country of Birth		
Australia	38 (84%)	40 (93%)
Other	3 (7%)	0 (0%)
Croatia	1 (2%)	0 (0%)
Italy	0 (0%)	1 (2%)
Hungary	1 (2%)	0 (0%)
United Kingdom	1 (2%)	1 (2%)
New Zealand	0 (0%)	1 (2%)
Poland	1 (2%)	0 (0%)
Hospital		
RPAH	26 (58%)	25 (58%)
PETER MAC	15 (33%)	13 (30%)
ROYAL ADELAIDE	4 (9%)	5 (12%)

TABLE 1: Cont'd

	Intervention	Control
Trial Context		
Chemotherapy for Advanced Disease	22	24
Adjuvant surgery	12	15
Adjuvant Radiation	8	7
Specialist who was involved in the Trial discussion		
Medical Oncologist	20 (44%)	23 (53%)
Surgeon	16 (36%)	15 (35%)
Radiation Oncologist	6 (13%)	4 (9%)
Medical + Radiation Oncologist	3 (7%)	1 (2%)
Positive Attitude		
N	45	43
Mean	14	13.4
Standard Deviation	3	4.4
Median	15	15
Minimum	8	0
Maximum	18	18
Negative Attitude		
N	45	43
Mean	4.9	4.3
Standard Deviation	2.1	2.6
Median	5	4
Minimum	0	0
Maximum	10	10
Clinical Trial Knowledge Score		
N	45	43
Mean	4	3.6
Standard Deviation	1.8	2.1
Median	4	4
Minimum	0	0
Maximum	7	7
Withdrawal/Missing		
No	40 (89%)	30 (70%)
Did not complete questionnaire	0 (0%)	3 (7%)
2nd questionnaire not completed	5 (11%)	10 (23%)

TABLE 2: Results of the QuIC scores, and the Spielberger State Anxiety Inventory [18].

Measure	Intervention	Control	Difference (95% CI)	p-value*
QuIC Part A Summary				
N	39	28		
Mean	75.5	79.9	4.5 (95% CI:-0.5 to 9.5)	0.0801
Standard Deviation	9.9	10.4		
Minimum	53.8	51.9		
Maximum	94.2	100		
QuIC Part B Summary				
N	39	28		
Mean	88.4	88.1	-0.3 (95% CI:-6.1 to 5.5)	0.9205
Standard Dev	12.1	11.4		
Minimum	51.8	64.3		
Maximum	100	100		
Spielberger State Anxiety Inventory (Follow-up)				
N	38	26		
Mean	34.81579	37.15385	2.3 (95% CI:-3.7 to 8.3)	0.4388
Standard Dev	10.8	13.1		
Minimum	20	20		
Maximum	63	66		

* t-test

TABLE 3: Patient satisfaction with decision scores.

Measure	Intervention	Control	p-value*
Adequately informed			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	2 (5%)	2 (7%)	
Agree	20 (51%)	12 (43%)	
Agree strongly	16 (41%)	13 (46%)	
Total	39	28	0.6315
Best decision			
Disagree strongly	0 (0%)	1(4%)	
I disagree	1 (3%)	0 (0%)	
Neutral	3 (8%)	3 (11%)	
I agree	13 (33%)	10 (36%)	
Agree strongly	22 (56%)	14 (50%)	
Total	39	28	0.6575
Consistent with values			
Disagree strongly	0 (0%)	1(4%)	
Neutral	5 (13%)	3 (11%)	
I agree	17 (35%)	12 (43%)	
Agree strongly	16 (42%)	12 (43%)	
Total	38	28	0.6935
Carry out decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	0 (0%)	
I agree	17 (46%)	14 (50%)	
Agree strongly	18 (49%)	13 (46%)	
Total	37	28	0.4063
I am satisfied this was my decision to make			
Disagree strongly	0 (0%)	1(4%)	
Neutral	2 (5%)	1 (4%)	
I agree	13 (33%)	14 (50%)	
Agree strongly	24 (62%)	12 (43%)	
Total	39	28	0.3002
I am satisfied with my decision			
Disagree strongly	0 (0%)	1(4%)	
Neutral	4 (11%)	3 (11%)	
I agree	14 (37%)	11 (39%)	
Agree strongly	20 (53%)	13 (46%)	
Total	38	28	0.6806

* Fisher's exact test

TABLE 4: Clinical satisfaction with the consent consultation and with decision scores.

	Intervention	Control	p-value*
I am satisfied that I provided enough information about the treatment options			
Strongly disagree	1 (2%)	2 (6%)	
Not sure	1 (2%)	1 (3%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	18 (44%)	12 (33%)	
Total	41	36	0.77
I am satisfied that I clearly communicated the clinical trial and treatment options			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	3 (8%)	
Agree	20 (49%)	21 (58%)	
Strongly agree	18 (44%)	11 (31%)	
Total	41	36	0.68
I am satisfied that I involved the patient in the decision-making process			
Strongly disagree	1 (2%)	1 (3%)	
Not sure	2 (5%)	2 (6%)	
Agree	21 (51%)	21 (58%)	
Strongly agree	17 (41%)	12 (33%)	
Total	41	36	0.93
The patient understood the clinical trial being proposed			
Strongly disagree	1 (2%)	1 (3%)	
Disagree	0 (0%)	1 (3%)	
Not sure	1 (2%)	3 (8%)	
Agree	26 (63%)	25 (69%)	
Strongly agree	13 (32%)	6 (17%)	
Total	41	36	0.33

TABLE 4: Cont'd

	Intervention	Control	p-value*
Overall, I am satisfied with the decision-making process for this patient			
Strongly disagree	2 (5%)	1 (3%)	
Disagree	1 (2%)	0 (0%)	
Not sure	2 (5%)	5 (14%)	
Agree	22 (54%)	23 (64%)	
Strongly agree	14 (34%)	7 (19%)	
Total	41	36	0.32

* Fisher's exact test

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	1
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	2
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	5
	2b	Specific objectives or hypotheses	5
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	5
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	N/A
Participants	4a	Eligibility criteria for participants	5
	4b	Settings and locations where the data were collected	1 NHMRC CTC
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	6
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	6
	6b	Any changes to trial outcomes after the trial commenced, with reasons	N/A
Sample size	7a	How sample size was determined	6
	7b	When applicable, explanation of any interim analyses and stopping guidelines	6
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	6
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	6

Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	6
	11b	If relevant, description of the similarity of interventions	N/A
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	13 - 16
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	19
	13b	For each group, losses and exclusions after randomisation, together with reasons	2
Recruitment	14a	Dates defining the periods of recruitment and follow-up	
	14b	Why the trial ended or was stopped	6
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	12,13
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	19
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	N/A
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	N/A
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	3,8
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	8
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	
Other information			
Registration	23	Registration number and name of trial registry	2
Protocol	24	Where the full trial protocol can be accessed, if available	
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	8

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.