# Payment for participation in clinical research: Review of proposals submitted to the ethics committees

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Abstract Objective: In view of dearth of information in national and international guidelines on payment practices in research, the present study was done to find out payments for participation allowed by 3 Ethics committees (ECs) and reasons for payment.

**Method:** This was a retrospective observational study which analysed research proposals reviewed by 2 institutional and 1 non-institutional ECs over a period of 2 years. The permission of ECs was obtained and confidentiality of data was maintained.

**Results:** Of the 73 studies requiring payment, 89.04% were interventional and 10.96% observational. Reimbursement of travel expenses (60%) was the major reason for payment followed by inconvenience due to participation, loss of wages and time spent. The queries raised by EC in more than 50 % of studies were related to informing patients about the payment in the informed consent document. The investigators complied with the EC requirements regarding payment (15/21) and the remaining provided explanations. The median amount of payment in pharmaceutical sponsored studies was higher compared to investigator initiated studies. Higher payments were approved by ECs on case to case basis in a few studies. The ECs did not have any policy/ standard operating procedure for payment practices.

**Conclusion:** The present study first of its kind in India, demonstrated that quantum of payment was not uniform for pharmaceutical sponsored and investigator initiated studies and payments were not considered for majority of observational studies. Travel reimbursement was the most common reason for payment. There is a need to develop guidelines for determining appropriate payment/incentives to participants for specific types of research related activities.

Keywords: Clinical research, incentive, inducement, investigator-initiated studies, payment

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## **INTRODUCTION**

The practice of payment for participation in clinical research has been existing since more than 100 years. In 1900, Walter Reed paid \$100 to volunteers who participated

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in a research study to identify the vector for the transmission of yellow fever. Participants allowed themselves to be bitten by infected mosquitos and if they did contract the infection, they were given an additional \$100.<sup>[1]</sup> In the early 1950s,

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healthy volunteers taking part in biomedical research at the National Institute of Health Clinical Center, USA, were either paid for their participation or money was given to the church or group that organized and recruited these volunteers.<sup>[2]</sup> Payment (cash, gift cards, vouchers, etc.) or nonmonetary reward (promotional items, course credit, etc.) to participants as remuneration for travel cost, time, and inconvenience of participation, also other medical benefits (free treatment and investigations/food/ancillary care/poststudy benefits/referrals) may be considered as incentives. Payment to healthy volunteers who participate in nontherapeutic research is often made as an incentive to encourage participation or as a token of gratitude for the risks they undertake such as in phase I studies.<sup>[2,3]</sup>

The term incentive means something that encourages people to participate in research and reimburses them for their participation.<sup>[4]</sup> Although payment to research participants is a common practice by all stakeholders, it is challenging and there is moral connotation involved.<sup>[5]</sup> The incentive offered for participation may be 'due' or 'undue.' "Undue inducement" means an excessively attractive offer that leads the participant to do something or agree to something to which he or she would normally decline to do based on risks, interests, or other personal reasons. The Council for International Organizations of Medical Sciences states: "Payment in money or in kind to research subjects should not be so large as to persuade them to take undue risks or volunteer against their better judgment. Payments or rewards that undermine a person's capacity to exercise free choice invalidate consent."[6] Individuals with limited resources in developing countries are more susceptible to undue inducements. They act against their own interests and overlooking the risks and discomforts involved in research.<sup>[7-10]</sup> The aspects which are important in determining incentive as undue inducement are that the offer should be valuable and attractive to the participant and that there should be bad judgment on part of the participant leading to exposure to unreasonable risks.<sup>[10]</sup>

The requirement that research participants should be appropriately paid and that such payment should not be exploitative or undue is the consensus of all international and national guidelines.<sup>[6,11-14]</sup> An Ethics Committee (EC) is required to review the amount and method of payment to ensure that there is neither exploitation nor possibility of undue influence on the research participants. Although the national and international research ethics guidelines state the need for payment, strangely there is no provision in these guidelines about how to calculate the quantum of payment.<sup>[6,11-14]</sup> Majority of the literature available till date on this topic discusses the challenges in determining appropriate payments in different contexts with the underlying possibility of undue inducement.<sup>[2,15,16]</sup> Considering this scenario, it was felt that data should be generated on the practices followed by investigators and ECs related to payments for participation and on the common issues and challenges faced by them. Hence, the present study was undertaken with the objectives to study practices followed by selected ECs regarding payment for participation in research and to identify the ethical issues related to payment for participation.

#### **METHODOLOGY**

This study was a retrospective observational study which involved analysis of research studies reviewed by three ECs in Mumbai, India. The study period was from September 2011 to November 2011 and the research studies reviewed by the three ECs over the preceding 2 years were assessed. The two institutional ECs belonged to a public hospital affiliated to a medical college and one was a non-institutional EC. The permissions from the respective ECs were obtained for conducting the study. The standard operating procedures (SOPs) of the respective ECs were followed for retrieving the records of the ECs. For each research study, the documents reviewed by the authors included the application form, study protocol, informed consent document, and correspondence of EC with the investigators. The SOPs of the ECs were referred to for finding out whether review policy on provision of payment/incentives was available. There were no interactions/discussion with the past/present members of ECs, investigators, research participants, or staff of ECs. The data were obtained from the above-stated documents and was analyzed using descriptive statistics. Confidentiality regarding the details of the research study, names of sponsor and/or the investigators was maintained.

The following details were noted: (a) type of study: observational/interventional (including phases of clinical trials and bioavailability/bioequivalence studies), (b) categories: pharmaceutical (PHARMA)/government agency sponsored (GOVT)/investigator initiated (studies planned and funded by investigators), (c) number of studies in which provision for payment of participation proposed by principal investigator as stated in the application form and/or in the informed consent document, (d) queries related to payment for participation raised by the ECs, (e) responses received from the investigators on the EC queries, (f) amount of payment finally approved by the ECs, and (g) research activity/reasons (time spent/blood collection/hospital visit/hospital stay/inconvenience due

Table 1: Types of	research st	tudies rev	viewed by the	
institutional Ethi	cs Committ	ees ( <i>n</i> =17	'9)	

Type of studies	Interventional studies ( <i>n</i> =62)	Observational studies ( <i>n</i> =117)	
PHARMA sponsored ( <i>n</i> =54)	48 (Phase II clinical trial-9, Phase III-29, and Phase IV-8, BA/BE-2)	6	
Government agency sponsored ( <i>n</i> =20)	4	16	
Investigator initiated ( <i>n</i> =105)	10	95	

PHARMA=Pharmaceutical, BA/BE=Bioavailability and bioequivalence studies

Table 2: Types of research studies reviewed by the non-institutional Ethics Committee (n=48)

Type of studies	Interventional studies ( <i>n</i> =33)	Observational studies ( <i>n</i> =15)
PHARMA sponsored ( <i>n</i> =48)	33 (Phase II clinical trial-7, Phase III-17 and Phase IV-7, educational intervention, procedure-related intervention-2)	15
Government agency sponsored	0	0
Investigator initiated	0	0

HARMA=Pharmaceutica

to participation, etc.) for which payment was proposed by the investigators and/or recommended by the ECs.

#### RESULTS

Out of a total of 227 research studies, which fulfilled the selection criteria, 179 were from the institutional ECs whereas 48 belonged to the non-institutional EC. The two institutional ECs received 62 interventional (34.64%) and 117 (65.36%) observational studies. The data of the two institutional ECs have been pooled since the two ECs belonged to the same institution and followed similar SOPs. The non-institutional EC reviewed 33 (68.75%) interventional and 15 observational studies (31.25%). The types of studies reviewed by the ECs are described in Tables 1 and 2.

For presenting the detailed analysis regarding payment, the data of institutional and non-institutional ECs have been combined as the observations regarding reasons for and amount of payments were similar. Of the 227 studies reviewed, in 69 studies (44 from institutional EC and 25 from non-institutional EC), payment for participation was proposed by the investigator (as indicated in the clause mentioned about provision of payment for participation in the informed consent document or in the application form) whereas in 4 studies, the institutional EC recommended payment. Thus, in a total of 73 studies, (32.16%, 73/227), the provision of payment was found to be applicable, and hence these were included for evaluating payment related practices. Of these 73 studies, 40 interventional (PHARMA-27, GOVT-10, and investigator initiated-3) and 8 observational (PHARMA-1, GOVT-4, and investigator initiated-3) studies were from the institutional ECs (n = 48), whereas 25 interventional (PHARMA sponsored) studies belonged to the non-institutional EC. Considering the three ECs together, 89.04% (65/73) interventional and 10.96% (8/73) observational studies included payments to participants. In 154 studies which included 30 interventional (investigator-initiated, GOVT-sponsored, phase IV, educational interventions, etc.) and 124 observational (questionnaire-based studies, drug utilization studies, epidemiological studies, medical educational research) studies, payment was not found to be essential by the ECs and hence these studies were not considered in the analysis. Thus, the no. of studies for which payment considerations were not found applicable were 93.93% (124/132) of all the observational studies and 31.57% (30/95) of the interventional studies reviewed by the institutional and non-institutional ECs during the study period.

The institutional ECs raised queries for 21/48 studies (PHARMA-12, GOVT-6, and investigator initiated-3). No payment-related queries were sent by the non-institutional EC to the investigators. It was observed that the amount and reason for payment were stated appropriately in the informed consent documents of all PHARMA studies reviewed by the non-institutional EC. The queries raised by the institutional ECs pertained to the need for describing amount of payment in the informed consent document (n = 13/21; PHARMA-11, GOVT-2) and need to increase the amount of payment from Rs. 100–200 (n = 2/21, PHARMA-1, GOVT-1). In two cases (investigator-initiated studies), the investigators were asked to provide payments at each visit instead of at the end of the study. In case of three studies (2 PHARMA - phase IV studies and 1 investigator initiated), travel allowance for follow-up visits was not provided and was recommended by the institutional ECs. One investigator planning to conduct a PHARMA study was asked to provide payment for loss of wages to patients due to hospitalization required for the purpose of pharmacokinetic study. Thus, recommendation for providing payment was made by the individual ECs in 4 cases out of 73 (5.47%, 4/73).

Out of the 21 studies reviewed by the institutional ECs, for which either queries regarding payment were raised (n = 17)or recommendations given (n = 4), the investigators of 15 studies complied with the institutional EC requirements. Four studies out of remaining 6 were discontinued (reasons

Table 3: Research activities/reasons for payment to	
participants ( <i>n</i> =73 studies)	

No. of studies (percentage of the total studies wherein provision for payment was applicable)	
44 (60.27)	
10 (13.70) 12 (16.44) 7 (9.59)	

 Table 4: Amount of payment approved by the institutional and non-institutional Ethics Committees (n=73 studies)

Amount (Rs.)	No. of studies (percentage of the total studies wherein provision for payment was applicable)	
≤200	15 (20.55)	
201-500	29 (39.73)	
501-1000	5 (6.85)	
>1000	3 (4.11)	
As per	21 (28.77)	
actuals*		

\*As per actuals - actual amount (with an upper limit set by the EC) spent by participant is reimbursed by investigator on producing bill/voucher. EC=Ethics Committee

given by investigators were "budgetary constraints"). Two investigators (PHARMA – phase IV studies) who were asked to provide travel allowance clarified that payment was not required since there were no additional visits needed for the purpose of the study. The research activities/reasons for which participants were offered payment (as mentioned in the informed consent documents) included reimbursement of travel expenses (60%, 44/73), inconvenience due to participants in the study-related activities [Table 3]. In one study, the reason for payment was mentioned as expenses for accommodation along with travel.

Table 4 presents the range of payments approved by the 3 ECs for all types of studies. The payment of  $\leq$ Rs. 200/- was recommended in 20.55% (15/73) of studies. Of these, 6 studies were investigator initiated. Three of the 6 investigator initiated studies were interventional and required payments for study-related visits. In the remaining three observational studies, payments were proposed for blood draws. For blood collection, Rs. 50/- and Rs. 100/- were approved by EC for single blood collection in healthy volunteers. In one study, an amount as low as Rs. 25/- was allowed for a single blood collection in healthy volunteers. The median payment was Rs. 100/- (range Rs. 25-200/-) for investigator-initiated studies. It was observed that 7 PHARMA and 2 GOVT sponsored studies mentioned payment of Rs. 200. The median payment approved by ECs was Rs. 250/- (range Rs. 201-500/-) for 39.73% (29/73) sponsored studies which included 26 PHARMA sponsored and 3 GOVT sponsored studies. None of the investigator-initiated studies provided payment in this range. In 21/73 (28.77%) of studies, payment was allowed to participants to cover travel expenses. Higher travel allowance (Rs. 2500/-) was paid in one case for a study involving a child participant staying far away from the city. For two bioavailability/ bioequivalence studies of marketed drugs in healthy volunteers, Rs. 2500/- per 24 h hospitalization was approved by the ECs. No review policy for payment for participation was available in the SOPs of institutional and non-institutional ECs.

#### DISCUSSION

Extensive literature review revealed that this study is the first of its kind in India which documents the practices of investigators and ECs related to payment of cash incentives to research participants. Our study focussed only on assessments of cash payments and did not include other medical benefits which are available/offered to participants. This study revealed that making a provision of payment for participation in the study protocol was not considered necessary for a majority of observational studies (94%) and over a third of the interventional studies (32%), reviewed by the three ECs over 2 years. A total of 32% of the research studies submitted for review during the study period included payment provision, most of which were interventional (89.04%) and only 10.96% were observational. The institutional ECs raised queries in almost half the no of studies requiring payment for participation. In case of four studies, payment provision was missing and was recommended by the institutional ECs. In the remaining studies, amount of payment was satisfactory and the queries pertained to the description in the informed consent document or mode of payment. Most investigators complied with the requirements of ECs. The study demonstrated that investigators seemed to be aware about basic requirement of making provision of payment for participation in research. The overall payment practices (reasons for payment and amount) were similar across the institutional and non-institutional ECs. Investigator-initiated studies mentioned low amounts of payments compared to PHARMA and GOVT studies. Budgetary constraints and investigator's judgment about degree of risks involved could be the probable reasons for low payment in investigator initiated studies. The ECs too seemed to find the lower amounts "reasonable" in investigator-initiated studies. Larger amount of payment in PHARMA studies were allowed probably because of the interventional nature of the studies involving high risks and longer duration of participation. For two bioavailability/bioequivalence studies, high amount was paid to healthy volunteers. Thus, in the present study, EC review practices regarding payment appeared variable and influenced by the potential risks and capacity of the investigator/sponsor to pay. The possibilities of inadequate reimbursement or undue inducement to participants cannot be ruled out as the ECs lacked uniform policy or SOPs to determine the appropriate quantum. Other studies have also reported higher amount of payment to healthy volunteers than patients undergoing similar procedures or similar research studies.<sup>[17,18]</sup> There is usually a risk of undue inducement of healthy participants and this is a debated topic.<sup>[19]</sup>

There is a dearth of literature on the issue of payment for participation from India. Akin to our findings, global data show that comments related to revision of protocol and informed consent documents to include details of payment are often raised by EC.<sup>[2,20]</sup> A study by Ripley et al. reported that the most common question asked by EC to investigator was about missing details of payment in the protocol. In the same study, around 90% of chairpersons and investigators interviewed insisted that the payment should be stated in the informed consent document.<sup>[21]</sup> Usually, payments are not made when the research activities undertaken by patients are also part of their routine clinical management protocol. Patients are never paid for their contribution in most of the observational studies. In our study, we observed that both the investigators and the ECs considered that payment to participants was not necessary for 32% of all interventional and 94% of the total observational studies. There is some evidence that paying a reasonable amount to patients in observational studies may help getting better responses. A study by Brealey et al. reported that there was improved response when monetary incentive was provided along with reminder for the completion of questionnaire. The response rate following reminder alone was 78.1% (82 of 105) compared with 88.0% (389 of 442) for those patients who received the payment. Only 12 of 442 patients declined the payment.<sup>[22]</sup> A pertinent question is, "Should patients be paid even for observational studies requiring no extra interventions?" Christine Grady has stated that "Payment may not be necessary for recruiting patient-subjects into research, especially if they are motivated by an opportunity for therapeutic benefit. However, if the goal of payment is to reduce the financial sacrifice that research subjects have to make, to compensate people for their time, or to show appreciation for their contribution, patient-subjects are equally deserving and should be paid comparably to healthy subjects."[2] It may be appropriate to consider that the two sets of research participants contribute to the advancement of medical science for benefit of society and deserve equivalent level of payment. Interestingly, in a study by Mduluza *et al.*, participants too felt that reward of reasonable value determined by local EC and documented in the research protocol is appropriate for participation in a research study.<sup>[23]</sup> Approaches such as paying participants based on local wages patterns prevailing in the region or payment as per individual research activity/blood draws are followed by non-Indian ECs.<sup>[4,24]</sup> Although various models to guide payment calculations (market model, wage model, reimbursement model, appreciation model and fair-share model) have been recommended in literature,<sup>[2,20,22,25]</sup> they are not universally followed and preferred by EC and investigators.<sup>[21]</sup>

The present study is limited by the fact that the numbers of research studies evaluated in each category are small. Furthermore, since there was no interaction with EC members or investigators, the basis for ECs to allow the specific payments and whether ECs discussed about possibilities of undue inducement are not known. Further, the research studies wherein payments were not considered applicable were excluded from the analysis. It would be worthwhile to find out reasons for negative decisions by ECs regarding payments for participation. Although the study period was 2010-2011, the findings are still pertinent in today's research scenario. The actual amounts of payment made to participants that have been presented and discussed in this paper may be slightly lower compared to current practices considering the inflation. However, the observations made, issues and challenges regarding how to decide payment and its appropriateness are contemporary in view of lack of local policy, national, or international guidelines related to payment for participation.

The questions regarding how much is adequate for whom, for which type of research activity and from whose perspective (participant/investigator/EC) remain unanswered in literature and guidelines. Furthermore, the issues such as 'should there be consideration of educational and financial status while calculating payment?' 'how to measure loss of time, inconvenience and discomfort, risk, psychological stress precisely?' need attention and deliberation in the ethical guidelines. Each institutional EC should have elaborate written policy/SOP for payments (to patients and to healthy volunteers) for various research-related activities including an algorithm for payment calculations. A reasonable amount of payment may be considered for distance travelled (fixed amount per kilometer travelled), prorated amount per hour of time spent and/or inconvenience faced, fixed amount per prick for blood collection, and payment for daily loss of wages. Dickert and Grady have suggested a method of consistent payment based on loss of daily wages of a nonskilled laborer since research activities require similar levels of skill, harm, and social contribution.<sup>[20]</sup> This method may be acceptable and relevant in India as the formulae based on wages of unskilled laborers are already in use for calculation of amount of compensation for study-related injury. A small completion bonus which is an additional amount calculated as percentage of the total payment may be paid to the participant if he/she remains in the study for its entire duration.<sup>[4,26]</sup> A research study protocol should describe rationale for payment, calculation of quantum for protocol specific activities, and timing of payment. Payment-related information (amount/visit and purpose) should feature in the informed consent document.

#### CONCLUSION

The present study revealed that payments to research participants were made in majority of the interventional studies. Reimbursement of travel expenses was the main reason for payment to participants. Payments were higher in pharmaceutical-sponsored studies compared to investigator-initiated studies. Higher payments were approved by ECs on case-to-case basis. To provide rational basis for deciding appropriate payments for participation, national guidelines and local policies need to be developed.

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## **Conflicts of interest**

There are no conflicts of interest.

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