TITLE:

Survey of Practices around Pharmaceutical Company Funding for Continuing Professional Development among Medical Oncologists and Trainees in Australia

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Drug industry

Continuing medical education

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Figure1 SurveyCPD.jpg

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ABSTRACT: word count 250

Background: Completion of continuing professional development (CPD) is mandatory for Medical Oncologists and Trainees (MO&T). Pharmaceutical companies may fund some CPD activities, but there is increasing debate about the potential for conflicts of interest (COI).

Aim: We aimed to assess current practices around funding to attend CPD activities.

Methods: An electronic survey was distributed to Australian MO&T. The survey asked questions about current practices, institutional policies and perceptions about attending CPD funded by pharmaceutical companies. The design looked at comparing responses between MO&T, as well as their understanding of and training around institutional and ethical process.

Results: 157/653 (24%) responses were received, majority from MO (76%). Most CPD activities attended by MO&T were self-funded (53%), followed by funding from institutions (19%), pharmaceutical companies (16%), and salary award (16%). Most institutions allowed MO&T to receive CPD funding from professional organisations (104/157, 66%) or pharmaceutical companies (90/157, 57%). A minority of respondents (13/157, 8%) reported that the process to use pharmaceutical funds had been considered by an ethics committee. Although 103/157 (66%) had received pharmaceutical funding for CPD, most (109/157, 69%) reported never receiving training about potential COI. The lack of education was more noticeable amongst trainees (OR 8.61, $p=0.02$). MO&T acknowledged the potential bias towards a pharmaceutical product ($p=0.05$), but believed there was adequate separation between themselves and pharmaceutical companies ($p<0.01$).

Conclusion: Majority of CPD attended by MO&T is self-funded. There is lack of clarity in institutional policies regarding external funding support for CPD activities. Formal education about potential COI is lacking.

KEYWORDS:

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BACKGROUND:

There are inevitably close ties between pharmaceutical companies and medical oncologists (MO), especially in the current era of research advances and emerging therapeutic targets in cancer treatment. These include intellectual collaborations between the two parties to develop novel therapeutics and conduct clinical trials, to negotiate access to current therapeutics, and to update the medical community, as well as the public, regarding the positive/ negative findings of clinical trial results. While these collaborations are essential to drive research productivity, concerns have been raised regarding transparency and potential conflicts of interest among MO, particularly when it involves financial sponsorships for activities such as conferences or seminars for continuing professional development (CPD).

A conflict of interest can be defined as a set of circumstances that creates a risk that professional judgment or actions regarding a primary interest will be unduly influenced by a secondary interest.¹ There is considerable debate within the medical oncology community about the appropriateness of accepting sponsorship from pharmaceutical companies to attend CPD.²⁻⁴ Arguments against include concern about biased information received at pharmaceutical-sponsored CPD⁵, and the potential for changes in patterns of prescribing. A systematic review by Spurling et al showed that contact with pharmaceutical companies, including sponsored CPD, was associated with lower prescription quality by physicians⁶. Notably, most studies thus far have focused on CPD activities that are both sponsored and organised by pharmaceutical companies.^{7,8} However, in some cases CPD may be organised by independent professional bodies, but the costs associated with attendance of the activity (including registration, transport and accommodation) by the health professional may be sponsored by a pharmaceutical body.

Little is known about the current practices, attitudes and beliefs of Australian Medical Oncologists and Trainees (MO&T) regarding receipt of pharmaceutical support to attend CPD. Therefore, this

survey was designed to better understand the current funding sources that MO&T utilise to attend CPD and their perceptions towards receiving pharmaceutical funds for CPD. In addition, we investigated MO&T knowledge about institutional policies and attitudes towards CPD funding for staff. Specifically, the objectives of this study were to describe the rates of pharmaceutical funding support for CPD in the medical oncology community, including any differences between the experiences of consultants and trainees.

METHODS

A purpose built survey was designed by the study authors as no suitable prior validated questionnaires about this topic were available. The survey was pilot tested with 10 MO&T, with minor modifications to improve clarity based on feedback received, prior to the finalised survey being disseminated to MO&T listed in the Medical Oncology Group of Australia (MOGA) directory. This was distributed between March and June, 2015 in electronic form using the online survey software, Survey Monkey. Three reminder emails were sent to encourage responses. Participation was voluntary, although an incentive was offered (raffle to receive gift vouchers, 1 of \$200, 10 of \$20) in an effort to improve the response rate.

Participants were encouraged to complete all questions, but were allowed to skip questions that were not applicable, and were able to edit or return to previous questions before the survey was submitted. All responses were reported anonymous, and participants were not asked to identify their institution.

The survey had 14 key questions seeking information on current funding to attend CPD, institutional policy about staff receiving external funds, and attitudes towards receiving CPD support from pharmaceutical companies. The final question consisted of 7 statements that the participant would

respond to using a 5-point Likert scale (strongly agree to strongly disagree). The survey included 5 additional open questions for participants to elaborate opinions on these topics.

All analyses were carried out in the SAS system (version 9.3), using standard and validated statistical procedures. Descriptive statistics were used to report current engagement of MO&T with pharmaceutical companies in relation to professional development activities, and current practices and understanding of institutional policy. For nominal questions, responses between medical oncologists and trainees were compared using exact logistic regression leaving out missing responses and “don’t know”; whilst for Likert-type statements, the two-sided Wilcoxon-Mann-Whitney test was used to compare inclination to agree or disagree with each statement. The chi-squared test was used to assess overall differences between the number of participants agreeing or disagreeing with the Likert-type statements.

This study received approval from the Peter MacCallum Cancer Centre Ethics Committee and MOGA Ethics Committee.

RESULTS:

157/653 responses (24% response rate) were received across 6 states and 1 territory in Australia, the majority from medical oncologists (120/157, 76%). The participants were a relative representation of the anticipated sample in terms of their role and geographical location of practice (Table 1). The majority of medical oncologists reported working full-time (78%) and mostly in public practice (70%), with the location and type of work not having a specific impact on the likelihood of the responses described. All trainees reported working full-time in public practice.

The majority of CPD activities attended by the participants (MO&T combined) were self-funded (53%), followed by funding from the institution (19%), a pharmaceutical company (16%), as part of

the salary award (16%), a private practice fund (3%) or redirected funds from the pharmaceutical company to the institution (1%). Figure 1 showed the difference in funding source utilised by medical oncologists compared to the trainees. Approximately half of the medical oncologists (56/120, 47%) reported having funding for CPD activities as part of their award, as compared to none of the trainees (OR 46.0, 95%CI 9.84-Inf, $p<0.01$, Table 2). Medical oncologists (89/120, 74%) were more likely than trainees (14/37, 38%) to have ever received pharmaceutical funding to participate in CPD (OR 6.65, 95% CI 2.49-18.36, $p<0.01$, Table 2).

Institutional policy

Most respondents reported that their institutions allowed staff to receive CPD funding directly from professional organisations (104/157, 66%) or pharmaceutical companies (90/157, 57%), shown in Table 2. For those receiving funds directly from pharmaceutical companies, approximately half (46/90, 51%) reported having to provide written documentation to their institution about the source and amount of the fund received. Some participants (35/157, 22%) reported that their institution receives funds from pharmaceutical companies as unrestricted educational grants, which are then used for staff CPD (Table 2). Of these participants, the majority (24/35, 69%) did not have access to the unrestricted grants for their CPD activities.

24% (38/157) of participants stated that alternate CPD funding sources were identified by their institution. The institution would typically utilise the staff's salary award allowance, private practice fund, institutional fund and research grants. Some institutions (57/157, 36%) provided CPD funding specifically for medical oncology trainees. However, it appears that MO (48/120, 40%) were more aware of such funding being available to trainees than the trainees (9/37, 24%) themselves (OR 2.78, $p=0.04$).

Conflict of interest policy

41% (64/157) of participants reported being aware that their institution had a conflict of interest (COI) policy under which they would have to declare the source for their CPD activities. When asked specifically, the majority of respondents (109/157, 69%) had not received formal training about potential COI issues when interacting with pharmaceutical companies. Notably, the lack of formal training was more apparent among the trainees than MO (24/120, 20%), as only one trainee (1/37, 3%) claimed to have received formal training (OR 8.61, $p=0.02$) (Table 2). Nevertheless, most (103/157, 66%) have previously received pharmaceutical funding support for CPD activities. In addition, only a minority (13/157, 8%) of the participants reported being aware that the process related to pharmaceutical funds received by their institution or directly to themselves had been considered by an ethics committee (Table 2). A typical free text response to the survey would be as follows: "I don't think any clinicians in my hospital are aware of any specific guidelines."

Current issues with CPD

A large number of participants (62%) described issues with their current CPD funding arrangements. The key themes from the qualitative comments were as follow: i) the need to self-fund (41%); ii) barriers to application and reimbursement process for institutional funds (17%); iii) lack of guidance about ethical considerations to CPD funding source (5%). On the contrary, 25% claimed they were satisfied with their current CPD funding arrangements. The following are representative examples of some of the free-text responses received:

"I have had to significantly cut back on conference attendance as I cannot afford it."

"Processes within the hospital are cumbersome, inflexible and multiple levels of approval required."

"Funding for CPD by pharmaceutical companies is tacitly accepted by each individual practitioner in our institution and practices vary widely. Trainees are not given specific guidance about this."

Attitudes to pharmaceutical funding support for CPD

For the 5-point Likert-type statements, although responses were mixed, there was a statistically significant overall number of participants agreeing to the following statements: there is an adequate separation between them and pharmaceutical companies ($p < 0.01$), doctors are encouraged to consider the nature of their professional relationship with the pharmaceutical companies ($p < 0.01$), most CPD activities supported by pharmaceutical companies are helpful and educational ($p < 0.01$), materials provided by the pharmaceutical company are a useful way to learn about new drugs ($p = 0.02$), and doctors may become unconsciously biased toward the pharmaceutical company's product as a result of receiving pharmaceutical support for CPD ($p = 0.05$). Notably, there was no statistically significant difference between MO&T in their inclination to agree or disagree to these statements ($p = 0.18-0.91$)

DISCUSSION:

To the best of our knowledge, this is the first study to explore MO&T CPD funding sources and provides preliminary insight towards the current institutional practices for MO&T to receive external CPD funding support in Australia.

The majority of CPD activities attended by MO&T were self-funded, whilst only a small proportion (16%) were sponsored by pharmaceutical companies. Acceptance of funding support by pharmaceutical companies is not necessarily a "wrong-doing", however it may instil doubt and adverse perception towards health professionals as highlighted by recent media coverage about this issue. The introduction of mandatory reporting of payments and transfers of value from pharmaceutical companies to individual health care practitioners from Oct 1 2016 under the Medicines Australia Code of Conduct has further highlighted the value of transparency in relation to this issue.⁹

One key finding in this study is that the majority of MO&T were not aware of institutional COI policies that might exist and had not received any formal training about potential COI when interacting with pharmaceutical companies. This is perhaps not surprising given that neither the Medical Oncology nor the Professional Qualities curriculum of the Royal Australasian College of Physicians mentions this topic. However, this alarming deficiency informs the need for formal education regarding ethical considerations when interacting with pharmaceutical companies, particularly given our finding that trainees are more likely than oncologists (27% vs 13%) to be using pharmaceutical funding to support the majority of CPD activities. MO&T should be aware of the potential for COI in these scenarios, and the importance of maintaining integrity of their research work and patient care. There is growing interest and advocacy at the leadership level to promote ethical awareness in this topic in recent years.² Educating trainees and junior MO regarding the importance of professional ethics may promote and enhance their awareness and practice behaviour¹. Professional organisations and institutions have obligations to provide clarity within their policies and ensure appropriate education occurs to inform their staff about the existence of any available policies.

Alternate funding sources for CPD were explored in this study. Some institutions pooled funds received from pharmaceutical companies as unrestricted grants or awards. However, many were unaware that such funds existed, particularly trainees. Even so, access to these funds were seemingly hindered by cumbersome paperwork and extended processing times. In addition, no trainees reported having access to funding CPD activities as part of their award. Therefore, the propensity for trainees to be more likely than oncologists to use pharmaceutical funding to support CPD may be due to the significant costs that can be associated with attending CPD activities, particularly if this involves travel and accommodation to attend a local or overseas conference. However, it may also be that trainees perceive this to be an accepted practice within the medical

oncology community as a result of modelling consultant behaviour, and would benefit from additional guidance about when COI may be a concern.

In terms of perceptions and attitudes, most participants acknowledged that physicians may become unconsciously biased toward a pharmaceutical company's product as a result of receiving their support for CPD activities. This is consistent with literature stating that contacts and acceptance of sponsored CPD are associated with changes in general prescribing practices and attitudes of doctors and trainees^{6, 8, 10}. However, most participants believed that there remains adequate separation between themselves and pharmaceutical companies, and expressed positive views about CPD activities supported by pharmaceutical companies. This is consistent with other studies in the literature that suggest that people may be aware of COI issues but believe it does not apply to them.¹¹

Our study has several inherent limitations. One is the low response rate (24%), which may be partly attributable to respondents (particularly the trainees) feeling uncomfortable to discuss this topic. Regardless, the participants in this study were representative of the anticipated sample, in terms of their role and geographical location of practice, and this imparts confidence in the generalisability of findings. Previous similar surveys had response rates between 11.5% and 39%.^{3, 10, 12} Another limitation is that data analysis could be susceptible to skew by outlier responses due to the small sample size and the relative low response rate from the trainees. In addition, our study does not provide in depth understanding of why pharmaceutical support appears to be needed for CPD for MO&T, and we have not explored pharmaceutical support related to the development of new research that is imperative to bring much needed new treatments to our patients. Finally, our findings regarding institutional policy were based solely on participants' self-perceptions, as independent assessment of hospital policies was not performed. A study of institutional policies may provide further insight on institutional attitude and ethical consideration towards CPD funding.

CONCLUSION:

This study revealed that most medical oncologists and trainees had received pharmaceutical support to attend CPD activities. However, most also reported significant lack of knowledge or any training about potential COI issues related to this practice. Importantly, this study highlights the lack of visibility of institutional policies, as well as a need for formal education, about ethical considerations when interacting with the pharmaceutical industry within the medical oncology community.

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TABLES:

Table 1: Participants representation as compare to the anticipated study sample

		Participants (N=157)	Anticipated Study sample (N=653)	Response ratio*
Role	Medical Oncologists	120 (76%)	428 (66%)	0.28
	Trainees	37 (24%)	225 (34%)	0.16
State of Practice	Australian Capital Territory	3 (2%)	15 (2%)	0.20
	New South Wales	44 (28%)	234 (36%)	0.18
	Northern Territory	0 (0%)	2 (0%)	0.00
	Queensland	24 (15%)	95 (15%)	0.24
	South Australia	18 (12%)	49 (8%)	0.35
	Victoria/Tasmania	60 (38%)	218 (33%)	0.28
	Western Australia	7 (4%)	22 (3%)	0.32
	Other (including overseas)	0	18 (3%)	

* Response ratio was calculated as the number of Participants divided by the Anticipated Study sample.
No notable differences could be observed.

Table 2. The response from medical oncologist and trainees to key survey questions

Survey Question	Response	Overall (N=157)	Medical Oncologists (N=120)	Trainees (N=37)	Odds ratio (95% CI)*	P-value*
Q1: Do you have funding (separate from conference leave) for CPD activities as part of your award?	Yes	56 (43%)	56 (54%)	0	46.0 (9.82, 1)	<.01
	No	75 (57%)	47 (46%)	28 (100%)		
	Don't know	7	3	4		
Q2: Have you ever received pharmaceutical funding to participate in CPD in the past?	Yes	103 (77%)	89 (86%)	14 (47%)	6.65 (2.49, 18.36)	<.01
	No	31 (23%)	15 (14%)	16 (53%)		
Q3: Does your institution allow staff to receive funding for CPD activities directly from professional organisations (Colleges, COSA, MOGA etc.)?	Yes	104 (99%)	82 (100%)	22 (96%)	3.57 (0.19, 1)	0.44
	No	1 (1%)	0	1 (4%)		
	Don't know	42	30	12		
Q4: Does your institution allow its staff to receive funding directly from pharmaceutical companies for CPD activities?	Yes	90 (87%)	79 (89%)	11 (79%)	2.14 (0.33, 10.22)	0.50
	No	13 (13%)	10 (11%)	3 (21%)		
	Don't know	47	25	22		
Q5: Does your institution receive funding from pharmaceutical companies for CPD of staff?	Yes	35 (47%)	28 (44%)	7 (70%)	0.34 (0.05, 1.65)	0.23
	No	39 (53%)	36 (56%)	3 (30%)		
	Don't know	69	45	24		
Q6: Has the process for use of pharmaceutical industry funds for CPD by your institution or its staff been considered by an ethics committee?	Yes	13 (25%)	9 (19%)	4 (100%)	0.05 (0.00, 0.31)	<.01
	No	39 (75%)	39 (81%)	0		
	Don't know	85	57	28		
Q7: Has an alternate source of funding for CPD of staff been identified by your institution?	Yes	38 (52%)	37 (54%)	1 (25%)	3.41 (0.26, 186.9)	0.55
	No	35 (48%)	32 (46%)	3 (75%)		
	Don't know	65	37	28		
Q8: Does your institution provide funding for trainees to attend CPD activities?	Yes	57 (50%)	48 (56%)	9 (31%)	2.78 (1.06, 7.78)	0.04
	No	58 (50%)	38 (44.18%)	20 (69%)		
	Don't know	23	20	3		
Q9: Does your institution have a conflict of interest policy?	Yes	64 (86%)	59 (87%)	5 (83%)	1.31 (0.02, 13.86)	1.00
	No	10 (14%)	9 (13%)	1 (17%)		
	Don't know	60	36	24		
Q10: Have you ever received formal training about potential conflict of interest issues when interacting with pharmaceutical companies?	Yes	25 (19%)	24 (23%)	1 (3%)	8.61 (1.28, 369.9)	0.02
	No	109 (81%)	80 (77%)	29 (97%)		

*Odds ratio, 95% CI and P-value resulting from an exact logistic regression with group (Medical Oncologists/Trainees) as a factor, comparing the two groups of responders for their answer ('Yes'/'No', excluding 'Don't know')

FIGURES:

Figure 1: Funding source for medical oncologist and trainees to attend CPD activities

(Figure 1 attached as separate files)

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