

Brief Report

Medical Communication Companies and Industry Grants

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IMPORTANCE Medical communication companies (MCCs) are among the most significant health care stakeholders, supported mainly by drug and device companies. How MCCs share or protect physicians' personal data requires greater transparency.

OBJECTIVE To explore the financial relationships between MCCs and drug and device companies, to describe the characteristics of the large MCCs, and to explore whether they accurately represent themselves to physicians.

DESIGN We combined data from the 2010 grant registries of 14 pharmaceutical and device companies; grouped recipients into categories such as MCCs, academic medical centers, disease-targeted advocacy organizations, and professional associations; and created a master list of 19 272 grants.

MAIN OUTCOMES AND MEASURES Determine the distribution of funds from drug and device companies to various entities and assess the characteristics of large MCCs.

RESULTS Of the 6493 recipients of more than \$657 million grant awards from drug and device companies, 18 of 363 MCCs received 26%, academic medical centers received 21%, and disease-targeted organizations received 15%. For-profit MCCs received 77% of funds (208 of 363). Among the top 5% of MCCs, 14 of 18 were for-profit. All 18 offered continuing medical education: 14 offered live and 17 offered online CME courses. All required physicians to provide personal data. Ten stated that they shared information with unnamed third parties. Eight stated they did not share information, but almost all added exceptions. None required explicit physician consent to their sharing policies.

CONCLUSIONS AND RELEVANCE Medical communication companies receive substantial support from drug and device companies. Physicians who interact with MCCs should be aware that all require personal data from the physician and some share these data with unnamed third parties.

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Medical communication companies (MCCs) are among the most significant but least analyzed health care stakeholders. Supported mainly by drug and device companies, they are vendors of information to physicians and consumers and sources of information for industry.¹ Known best for arranging continuing medical education (CME) programs, they also develop prelaunch and branding campaigns and produce digital and print publications.

The MCCs' relationships to industry and to physicians are not easily investigated. Industry contracts with MCCs are not publicly available and until recently neither were industry grant awards. Neither donors nor recipients made the data available. Then in 2010, 13 pharmaceutical companies and 1 medical device company posted grant registries on their websites.² Some appeared as the result of legal settlements with the Department of Justice; others were posted voluntarily. The disclosures went beyond the stipulations of the Sunshine Act,

which mandates reports of payments only to physicians and teaching hospitals.³ These registries include the names of all health care organizations, including the names of the MCCs that received at least 1 grant, the grant's purpose, and the award's precise dollar amount. The purpose of this study was to explore the financial relationships between MCCs and drug device companies, to describe the characteristics of large MCCs, and to explore whether they accurately represent themselves to physicians.

Methods

Our database included the 2010 grant registries of 13 pharmaceutical and 1 device company. When we began data collection in the summer of 2011, these were the only companies that had reported complete 2010 data for all divisions. We sorted

recipients into organizational categories and totaled the funding they received. We then explored the relationship between MCCs and the drug and device industry.⁴ Eleven of the drug companies ranked among the top 20 in the field by annual sales. The remaining 2 ranked in the top 30 (Table 1).⁵

We combined information from quarterly reports and grant registries (each uniquely formatted), removed any duplication of the data, and normalized recipient names (using a uniform name and spelling for each recipient) to create a master list of 19 272 grants totaling \$657 643 322 awarded to 6493 recipients (eAppendix 1 in the Supplement). We grouped recipients into 7 categories, consulting master lists (such as Council on Teaching Hospitals and American Medical Association House of Delegates), and self-definitions: MCCs, academic medical centers and affiliated hospitals; hospital systems and independent providers; professional medical associations; professional associations organized by nurses, health administrators, and scientists; disease-targeted advocacy organizations established by laymen for patient education and advocacy; and research organizations such as the National Institutes of Health. The other category included community, faith-based, and non-health-specific organizations (eAppendix 2 in the Supplement). Two coders independently made the categorization; in case of disagreement, one of the authors (S.M.R.) resolved the difference.

A grant was assigned to the MCC category when an organization's website defined its primary mission as the dissemination of information on disease states, prevention, management, therapies, and drugs or medical devices and was not a subsidiary of other recipient organizations (such as an academic medical center) (eAppendix 3 in the Supplement). By these criteria, 363 grant recipients were identified as MCCs. To determine for-profit or nonprofit status, we examined the "About Us" page. When an organization defined itself as a nonprofit or as having a 501(C)(3) tax status, we verified the designation through GuideStar. When an organization defined itself as for-profit, we verified it through the owners' business profiles and the parent company's website.

We selected the top 5% of recipients (18) for in-depth analyses. These recipients received 58% of MCC industry funding and 30% of MCC industry grants. Because such a small group received such a large proportion of the funds and grants, we decided to focus on them. We relied on website content to examine the activities they pursued and the information they received from and gave to physicians. We devoted particular attention to CME because most registry grants were specified for "educational activities." Fourteen provided CME courses at "live events" such as at medical conferences and grand rounds. Seventeen offered online CME courses, including webcasts, podcasts, interviews, case-based discussions, slide sets, journal articles, and interactive games. We studied the architecture and content of the websites, including privacy policies.

Results

Medical communication companies received 26%, the largest percentage of funding (\$170 803 675), from the 14 drug and device companies, followed by 21% awarded to academic medi-

Table 1. Donor Company Grant Totals in 2010

Donor	Funds, \$
Roche/Genentech ^{a,b}	106 291 605
Merck ^a	99 481 044
Pfizer ^a	89 520 722
Abbott ^{a,b}	69 518 593
Eli Lilly ^{a,b}	54 767 686
Bristol-Myers Squibb ^{a,b}	43 570 166
Amgen ^{a,b}	43 383 578
AstraZeneca ^{a,b}	35 628 747
sanofi-aventis ^{a,b}	34 404 149
GlaxoSmithKline ^a	29 658 381
Medtronic	26 125 342
Astellas ^{a,b}	11 905 202
Forest Laboratories ^b	9 400 372
Shire ^b	3 987 736
Total	657 643 322

^a Ranked among top 20 drug companies in sales in 2010.

^b Companies for which medical communication companies were the leading grant recipients.

cal centers (\$140 928 767) and 15% to disease-target advocacy organizations (\$95 769 466, Table 2). Of the 363 MCC grant recipients, 208 were for-profit and 155 were nonprofit companies. For-profit companies received 77%. Eighteen MCCs (5%) received more than \$2 million each (total, \$101 566 252; Table 3). Of these, 14 were for-profit and 12 were subsidiaries of larger entities (Table 4).

All 18 MCCs were approved by the Accreditation Council for Continuing Medical Education to deliver CME courses. Fourteen offered live and 17 offered online CME courses. The 2 MCCs receiving the most industry funding offered only online CME courses. Medical communication companies promoted online CME courses as a convenient and cost-free alternative to live CME courses. Physicians could access the site anywhere at any time.

To enroll in the CME course, physicians had to provide personal information, such as name, e-mail address, specialty, and license number. How MCCs might use the personal data and track physician web activity was described in the Privacy Policies sections of their websites.⁶ Fourteen stated that they used such tools as "cookies" and web "beacons." Ten declared that they shared personal information with third parties, although none identified them. Eight stated that they did not share personal information, but almost all⁶ added exceptions for unnamed "educational partners" and companies with which they worked or might merge (Table 4).

Discussion

Among the 14 companies that released data in 2010, MCCs received an aggregate of \$170 million, more funds than any other recipient, including academic medical centers, professional associations, and research organizations. The top 5%, almost all

Table 2. Category of Grant Recipient by Amount and Number of Grants Received

Category	Funds		Grants	
	Amount, \$	Percent	Number	Percent
Medical marketing, communications, and consulting companies	170 803 675	26	2077	11
Academic medical centers and universities	140 928 677	21	5427	28
Disease-targeted advocacy organizations	95 769 466	15	4033	21
Professional medical associations	83 949 432	13	2063	11
Other organizations	80 745 433	12	1697	9
Professional associations	37 009 540	6	1467	8
Hospital systems and independent providers	26 339 514	4	2040	11
Research organizations	22 097 585	3	468	2
Total	657 643 322	100	19 272	100

Table 3. Top Medical Communication Company (MCC) Recipients of Company Grants

Company	Funds		Grants	
	Awarded, \$	MCC Percentage,%	Number	MCC Percentage
Medscape/WebMD	20 315 730	12	96	4.6
Postgraduate Institute for Medicine	11 274 544	7	91	4.4
Research to Practice	10 375 787	6	93	4.5
National Comprehensive Cancer Network	8 878 434	5	96	4.6
Medical Education Resources	7 749 794	5	40	1.9
PER Group	6 566 321	4	95	4.6
Network for Continuing Medical Education	4 704 447	3	16	0.8
Educational Concepts Group	4 464 220	3	52	2.5
Imedex	3 518 472	2	70	3.4
Med-IQ	3 430 104	2	19	0.9
Clinical Care Options	2 941 810	2	6	0.3
Pri-Med	2 884 215	2	33	1.6
National Foundation for Infectious Diseases	2 499 475	1	19	0.9
Institute for Medical Education and Research	2 493 452	1	21	1.0
Curatio CME Institute	2 466 663	1	11	0.5
Primary Care Network	2 423 370	1	14	0.7
Scepter	2 347 355	1	13	0.6
Discovery Institute of Medical Education	2 232 059	1	18	0.9
Total	101 566 252	59	803	38.7

Abbreviations: CME, continuing medical education; PER, Physicians' Education Resource.

for-profit companies, received 59% of the funds. Absent industry disclosures, none of this information would have become publicly available.

It appears that providing online CME courses is a common activity offered by MCCs, which allows them the opportunity to collect personal data and create digital profiles. Although MCCs did not elicit users' explicit consent, they interpreted participating in a CME course and navigating the website as an implicit agreement to share information with third parties. It is possible that physicians

using MCC websites do not appreciate the full extent of MCC-industry financial ties or are aware of data sharing practices.^{7,8}

Our study has several limitations. The analysis was restricted to only 14 companies who made data available in 2010. It is possible that the distribution of funds from industry to various groups is different among those companies not included in this report. Although 10 of the 14 companies that released data ranked among the top 20 drug companies for sales, we focused on the top 5% of MCCs who received the majority of

Table 4. Top Medical Communication Company Recipient Characteristics and Activities

Company in Top 5%	Tax Status		Has Parent Company	Live CME	Online CME	Privacy Policy	Collects User Information	Tracks Website Behavior	May Share Information With Third Parties
	For Profit	Nonprofit							
Medscape	✓		✓		✓	✓	✓	✓	✓
Postgraduate Institute for Medicine	✓		✓		✓	✓	✓	✓	✓
Research to Practice	✓		✓	✓	✓	✓	✓	✓	✓
National Comprehensive Cancer Network		✓		✓	✓	✓	✓	✓	✓
Medical Education Resources		✓		✓		✓	✓	✓	
PER	✓		✓	✓	✓	✓	✓	✓	
Network for Continuing Medical Education	✓				✓	✓	✓		
Educational Concepts Group ^a	✓		✓	✓	✓	✓			
Imedex	✓		✓	✓	✓	✓	✓		✓
Med-IQ	✓			✓	✓	✓	✓	✓	✓
Clinical Care Options	✓		✓	✓	✓	✓	✓	✓	✓
Pri-Med	✓		✓	✓	✓	✓	✓	✓	✓
National Foundation for Infectious Diseases		✓		✓	✓	✓	✓	✓	
Institute for Medical Education and Research	✓		✓	✓	✓	✓	✓	✓	✓
Curatio CME Institute	✓		✓		✓	✓	✓	✓	✓
Primary Care Network		✓		✓	✓	✓	✓		
Scepter	✓		✓	✓	✓	✓	✓	✓	
Discovery Institute of Medical Education	✓		✓	✓	✓	✓	✓	✓	✓

Abbreviations: CME, continuing medical education; PER, Physician's Education Resource.

^a Privacy policy offered no details.

funding from industry. Other MCCs may have different characteristics than those we studied. We did not evaluate the content of MCC-offered CME programs for accuracy and bias nor did we assess how the MCCs were using the physician data they obtained.

The purpose of this study was to analyze the distribution of funds from pharmaceutical and device companies to various health-related organizations and then to detail the

characteristics and activities of the leading MCCs. Medical communication companies receive substantial support from industry, and the majority are for profit, conduct CME programs, track website behavior, and may share information with third parties. Physicians who interact with MCCs should be aware that all require personal data from the physician and that some share these data with unnamed third parties.

ARTICLE INFORMATION

Author Contributions: Dr S. M. Rothman had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: S. M. Rothman, D. J. Rothman.

Acquisition of data: S. M. Rothman, Adair, Brudney.

Analysis and interpretation of data: S. M. Rothman, Adair, D. J. Rothman.

Drafting of the manuscript: S. M. Rothman, Adair, D. Rothman.

Critical revision of the manuscript for important intellectual content: Brudney, D. J. Rothman.

Statistical analysis: Adair.

Obtained funding: D. J. Rothman.

Administrative, technical, or material support: S. M. Rothman, Brudney, Adair.

Study supervision: S. M. Rothman, D. J. Rothman.

Conflict of Interest Disclosures: All authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. S. Rothman reported having served as consultant to the Office of the Attorney General of the State of Texas in litigation against Johnson & Johnson related to risperidone and receiving travel support from the North American Spine Society to attend

the society's board and ethics committee meetings. D. Rothman served as consultant and expert witness to the Office of the Attorney General of the State of Texas and as an expert witness to Sheller, P.C. in litigation against Johnson & Johnson related to risperidone and receiving travel support from the North American Spine Society to attend the society's board and ethics committee meetings. No other disclosures were reported.

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