IN THIS ISSUE

Use of the Passive Voice in Medical Journal Articles

Enhancing Customer Service to Increase a Journal’s Marketability: Users’ Assessment of Mayo Clinic Proceedings Web-based Tools

In the Service of Good Writing
The AMWA Journal expresses the interests, concerns, and expertise of members. Its purpose is to inspire, motivate, inform, and educate them. The Journal furtheres dialog among all members and communicates the purposes, goals, advantages, and benefits of the American Medical Writers Association (AMWA) as a professional organization. Specifically, it functions to:

- Publish articles on issues, practices, research theories, solutions to problems, ethics, and opportunities related to effective medical communication
- Enhance theoretical knowledge as well as applied skills of medical communicators in the health sciences, government, and industry
- Address the membership’s professional development needs by publishing the research results of educators and trainers of communications skills and by disseminating information about relevant technologies and their applications
- Inform members of important medical topics, ethical issues, emerging professional trends, and career opportunities
- Report news about AMWA activities and the professional accomplishments of its departments, sections, chapters, and members

The AMWA Journal is published 4 times a year by AMWA. For details about submissions, see “Instructions for Contributors” on page 144.

Subscriptions to the Journal are included with AMWA membership. Nonmember subscriptions cost $75 per year. For inquiries regarding subscriptions, please contact AMWA headquarters.

The opinions expressed by authors contributing to this journal do not necessarily reflect the opinions of AMWA or the institutions with which the authors are affiliated. The association accepts no responsibility for the opinions expressed by contributors to the Journal.

The AMWA Journal is indexed in the MLA International Bibliography and selectively indexed in the Cumulative Index to Nursing and Allied Health Literature (CINAHL) print index, the CINAHL database, and the Cumulative Index of Journals in Education (CIJE).

The AMWA Journal is available as a PDF file in the Members Only area of www.amwa.org
FEATURES

98 Use of the Passive Voice in Medical Journal Articles
   By Robert J. Amdur, MD; Jessica Kirwan, MA; and Christopher G. Morris, MS

105 Enhancing Customer Service to Increase a Journal’s Marketability: Users’ Assessment of Mayo Clinic Proceedings’ Web-based Tools
   By Peg Wentz, on behalf of the Editorial Office, Mayo Clinic Proceedings

109 Posters to Be on Display at 2010 AMWA Annual Conference

122 In the Service of Good Writing
   By Laurie Thomas, MA, ELS

DEPARTMENTS

115 BRIEFLY NOTED
116 SPOTLIGHT ON ETHICS
117 FREELANCE FORUM
123 AMWA PUZZLER
124 CALENDAR OF MEETINGS
128 MEDIA REVIEWS
130 WEB WATCH
133 SOCIAL MEDIA
143 LETTERS TO THE EDITOR

COLUMNS

125 MELNICK ON WRITING
126 DEAR EDIE
142 PAGE BREAK

AMWA MATTERS

137 NATIONAL NEWS
138 CHAPTER CORNER
140 MEMBER MUSINGS
144 INSTRUCTIONS FOR CONTRIBUTORS

Photos on page 109 and 129 by Constance Jackson
(www.cjacksonphotography.com)
USE OF THE PASSIVE VOICE IN MEDICAL JOURNAL ARTICLES

By Robert J. Amdur, MD; Jessica Kirwan, MA; and Christopher G. Morris, MS

Professor and Interim Chair; Research Coordinator; and Biostatistics Consultant
Department of Radiation Oncology, University College of Medicine, Gainesville, FL

ABSTRACT
A common criticism of medical writing is excessive use of the passive voice, but there are no published data on its frequency in medical journal articles. The purpose of this study was to evaluate the frequency of passive voice in 3 types of medical journal articles. We studied the frequency of sentences with a passive voice construction in 3 types of articles from 3 medical journals: Opinion Papers, Review Articles, and Original Research Reports from the Journal of the American Medical Association, the New England Journal of Medicine, and The Lancet. To compare these results with those for a mainstream nonmedical publication, we also analyzed the frequency of passive voice in articles from the front page of The Wall Street Journal. The median passive voice frequency was similar in all types of medical journal articles but much higher than in The Wall Street Journal articles (20%-26% vs 3%; P < .0001). The range in percentages was very large for each medical journal, and the lowest percentage among all medical journals was less than 10%. There was no meaningful correlation between the frequency of passive voice and the use of first person pronouns (I or we) in the medical journal articles.

The wide range of passive voice frequencies recorded in this study suggests that writing with a high passive voice frequency is a style of choice rather than a requirement for publication. Our data suggest that a passive voice frequency of 10% is a reasonable upper limit for all types of medical articles because there were multiple articles in every analysis that met this standard. We recommend that medical journal editors make a passive voice frequency of ≤10% a publication requirement for all types of articles.

A common criticism of medical writing is excessive use of the passive voice.1-6 According to medical writing expert Anitra Sheen:1 “Passive voice is the bane of medical writing. It pervades medical literature with the haze and heaviness of stagnant air. Writers sometimes use passive voice in an attempt to make their work sound scholarly and scientific, when actually they are perpetuating a writing tradition that is fraught with ponderous and obscure language.”

The grammatical “voice” of a sentence is defined by the relationship of the verb to the subject. In an active voice sentence, the subject does the acting. In a passive voice sentence, the subject is acted on, or not mentioned.3 The sentences “Data were collected by a member of our research team from patients with pneumonia” and “Data were collected from patients with pneumonia,” use passive voice constructions. An active voice version of these sentences is “A member of our research team collected data from patients with pneumonia.”

Authors, editors, and publishers have a choice about the role of the passive voice in their publications, and there is considerable debate about what that role should be. On one side of the debate is the argument that medical writers should minimize use of the passive voice because it is less clear, less forceful, and more verbose than active voice alternatives.1-6 The opposing argument is that the passive voice should be the predominant style of most types of medical writing because the passive voice reflects the objectivity of the scientific method,6-9 avoids using a first person pronoun in a way that would be impolite,1,3,5,12 and conforms to the style with which medical peers are most familiar.2,5,6,9

An important void in the discussion of the use of the passive voice is the lack of data about the frequency and pattern of its use in medical writing. The primary goal of this study is to fill that void by reporting the frequency of passive voice sentences from a sample of papers from 3 major medical journals. Our secondary goals are to present a scientific framework for studying the passive voice in medical writing and to produce a reference that explains the passive voice issue.

METHODS AND MATERIALS
We calculated the percentage of sentences with a passive voice construction in 3 types of articles from 3 major medical journals: The Journal of the American Medical Association (JAMA), The New England Journal of Medicine (NEJM), and The Lancet. We chose these journals primarily because their high impact factors suggest that they are well respected and thus serve as a model for writing style. Secondary considerations were that these journals have different publishers and editorial staffs and that each issue contained articles from many different fields of medicine.

We evaluated 3 types of articles from each journal: Opinion Paper, Review Article, and Original Research Report. We use the term “Opinion Paper” to describe peer-reviewed commentaries whose author is not a journal editor.
In a study such as ours, it is difficult to interpret results without understanding how they relate to nonmedical writing. To provide a perspective on our results, we also evaluated 30 articles in The Wall Street Journal (WSJ) as a so-called nonmedical article control group. We chose the WSJ as a control publication because we thought that there are similarities between the readership of the WSJ and that of medical journal articles in terms of level of education and because the articles that we selected contain detailed analyses of complex subjects.

The year of publication of all medical journal articles in this study was 2006; the WSJ articles were published in 2007. We selected the medical journal articles at random yet ensured that the authors of the articles represented many different medical specialties. We did not screen the articles for writing style or any other feature of composition before selecting them for inclusion in the study. The sample size was 90 articles from each journal, with 10 of each type of article from each journal. Therefore, we evaluated a total of 90 medical articles: 30 Opinion Papers (10 from each journal), 30 Review Articles (10 from each journal), and 30 Original Research Reports (10 from each journal). The 90 medical journal articles and 30 WSJ articles are listed in the appendix, which is available in the online version of this article.

The main endpoint in this study was the percentage of sentences that contained at least 1 passive voice construction. We coded sentences with both active and passive constructions as passive voice sentences, and we counted sentences with 2 or more passive constructions as one passive voice sentence. We manually identified passive voice sentences. Specifically, one of us (RA) evaluated every sentence in each article to determine the number of sentences with passive voice construction. For the first 20 articles, another one of us (JK) repeated the process so that both of us independently recorded the voice as active or passive in every sentence in the article. We then discussed any discrepancies and made a final determination that we both agreed on. After doing the 2-person analysis on 20 articles, there were no differences in our calculations in the next 10 articles, so, for the remaining 90 reviews, only one of us determined passive voice frequency without a double check by the other.

Some word processing programs include a grammar-checking program that calculates passive voice frequency. It is much easier to count passive voice frequency with such a program than with a manual approach. However, the accuracy of the calculations of grammar-checking programs is unknown. To determine the accuracy of a computer program in identifying passive voice sentences, we compared the results obtained by the manual approach with the calculations made by the grammar-checking program in Microsoft Office Word 2003 (Microsoft Corporation, Redmond, WA). This is the only analysis for which we used a computer program to count passive voice sentences.

The example sentences in the Introduction section of this paper illustrate the 2 forms of passive voice construction, which we refer to as “doer mentioned” and “doer not mentioned,” where “doer” refers to the actor or doer of the action of the verb. For example, the sentence “Data were collected from patients with pneumonia,” is considered to be “doer not mentioned” because the person collecting the data is not identified. For each passive voice sentence, we recorded if the form was “doer mentioned” or “doer not mentioned.”

To address the use of first person pronouns, we recorded the percentage of sentences with an active voice construction involving a first person pronoun. Sentences with more than 1 first person pronoun were counted only once.

For all analyses in this study, we evaluated only text that was directly related to the composition of the article. We excluded text that was associated with the title of the article, header or footer text, footnotes, figure legends, text boxes, margin notes, references, conflict-of-interest statements, and references. We also excluded text that was part of a quotation because the authors of the article had no control over the construction of a passage from a previously published work or anything spoken by a person.

We used SAS and JMP software (SAS Institute, Cary, NC) for all statistical analyses. The standard analysis of variance (ANOVA) procedure provided a test of whether the percentage of sentences with passive voice differed according to both publication and type of article. For each ANOVA, the Tukey adjustment for multiple comparisons controlled the experiment-wise error rate so that it did not exceed $\alpha = .05$.

Among Original Research Reports, accurate analysis of all possible pairings of paper sections (Abstract vs Introduction vs Methods vs Results vs Discussion) required a repeated-measures ANOVA to adjust for the fact that any given paper contributes data points to the analysis; as with standard ANOVA, the Tukey adjustment controlled the experiment-wise error rate. ANOVA with Dunnet’s multiple-comparison procedure provided the analysis of WSJ vs each of these individual sections; Dunnett’s test facilitated comparison of multiple groups within a given variable to a single control (in this case, WSJ).

**RESULTS**

**Passive Voice Frequency**

The median percentage of passive voice frequency was similar for articles in the 3 medical journals but was much higher than in the WSJ articles (20%-26% vs 3%, $P < .0001$; Figure 1). The range of percentages within each medical journal was large, and the lowest percentage among all the journals was less than 10%. There was a significant difference between the median percentages for each medical journal and the WSJ ($P < .0001$), but the only comparison between medical jour-
Figure 1. Box plot of the distribution of the percentages of passive voice frequency for the 4 publications that we analyzed in this study. The standard deviation was 10% for The Journal of the American Medical Association (JAMA) and The New England Journal of Medicine (NEJM), 9% for The Lancet, and 5% for The Wall Street Journal (WSJ). The horizontal line in each box marks the median percentage. The T-bars that extend from the lower and upper borders are defined by the interquartile range; their length is 1.5 times the distance from the 25th to the 75th percentile, which is the length of the box. The length of the upper and lower T-bars may differ because the end of the T-bar must be anchored to observed data points.

Figure 2. Box plot of the distribution of the percentages of passive voice frequency for the 3 types of medical journal articles and The Wall Street Journal (WSJ) articles. The standard deviation was 10% for Opinion Papers and Original Research Reports, 9% for Review Articles, and 5% for WSJ articles. The horizontal line in each box marks the median percentage. The T-bars that extend from the lower and upper borders are defined by the interquartile range; their length is 1.5 times the distance from the 25th to the 75th percentile, which is the length of the box. The length of the upper and lower T-bars may differ because the end of the T-bar must be anchored to observed data points.

Figure 3. Box plot of the distribution of the percentages of passive voice frequency for the 5 sections of an Original Research Report and The Wall Street Journal (WSJ) articles. The standard deviation was 16% for the Abstract, 14% for the Introduction, 20% for the Methods section, 10% for the Results section, 9% for the Discussion, and 3% for WSJ articles. The horizontal line in each box marks the median percentage. The T-bars that extend from the lower and upper borders are defined by the interquartile range; their length is 1.5 times the distance from the 25th to the 75th percentile, which is the length of the box. The length of the upper and lower T-bars may differ because the end of the T-bar must be anchored to observed data points.

Figure 4. Histogram of the difference in passive voice frequency between our manual method (reading every sentence) and the grammar-checking program in Microsoft Office Word 2003. The 90 data points in this histogram correspond to the 90 medical articles that we analyzed. We did not include The Wall Street Journal (WSJ) articles in this analysis. The formula for calculating each datum point was passive voice frequency from the computer program - passive voice frequency from our manual method. A positive number indicates that the computer program overcounted, and a negative number indicates that the computer program undercounted, the passive voice sentences. The main parameters of this histogram are median difference, +3%; standard deviation, 9%; and range, -25% to +19%. We were not able to explain the computer inaccuracy in terms of factors in the article or the format of the text.
nals to reach statistical significance at the \( P < .05 \) level was between JAMA and NEJM (20% vs 26%, \( P = .03 \)).

The frequency of the passive voice in the 3 types of medical journal articles compared with the WSJ articles mirrored the results across publications (Figure 2). The median percentages were similar for the 3 types of medical journal articles, but these percentages were much higher than that for the WSJ articles (21%-24% vs 3%, \( P < .0001 \)). Again, the range in percentages was large for each type of medical journal article, and the lowest percentage was less than 10% across all medical journals. The differences in the percentages between the 3 types of medical journal articles and the WSJ articles was highly significant (\( P < .0001 \)), but the differences between the 3 types of medical journal articles were not significant (\( P > .2 \)).

When the passive voice frequency was plotted by the 5 sections of Original Research Reports, the median frequency was higher in all sections than in the WSJ articles (Figure 3). The highest median percentage was in the Methods sections, with a passive voice frequency that was more than twice that in the other sections. The following pairwise comparisons were significant (\( P < .0001 \)): Abstract vs Methods; Introduction vs Methods; and Methods vs Results and Discussion. All other pairwise comparisons were not significantly different (\( P > .5 \)). With regard to the comparison of the Original Research Report sections with WSJ articles, pairwise comparisons between the WSJ articles and the Abstract, Introduction, Methods, and Discussion sections were significant (\( P < .005 \)), whereas the comparison between WSJ articles and the Results section was not significant (\( P = .09 \)).

Evaluation of the accuracy of passive voice frequency calculated by the Microsoft Office Word 2003 grammar-checking program demonstrated that the median difference between our manual method and the computer program was small (+3%), but the range was large (-25% to +19%), with a standard deviation of 9% (Figure 4). This finding indicates that there were major errors in the results from the computer program in a small percentage of articles. We could not identify a feature that explained the major errors.

**Form of the Passive Voice: Doer Mentioned or Not Mentioned**

The “doer not mentioned” form of passive voice construction was by far the most common form among all publications, all types of medical journal articles, and all sections of Original Research Reports (Table 1).

**First Person Pronouns**

When the passive voice frequency was plotted as a function of the frequency of active voice sentences that also contained a first person pronoun, there was no meaningful correlation between the 2 variables (Figure 5). The frequency of active voice sentences with first person pronouns was low in medical journal articles (median, 2%-4%) as well as WSJ articles (0), but the ranges were wide, with values as high as 34% in the medical journal articles compared with a high of 4% in the WSJ articles (Table 2). Among the 5 sections of the Original Research Reports, the use of an active voice construction with a first person pronoun varied from a median of 3% for the Results section to a median of 12% for the Introduction. Again, there were wide ranges in the frequency, with the greatest range found for the Methods section (0% to 70%).

**DISCUSSION**

Our data show that there is a high frequency of the passive voice in medical journal articles. In our study, more than 20% of the sentences in such articles had passive voice constructions and percentages greater than 30% were not uncommon. These percentages are much higher than the

| Table 1. Passive Voice Form: Doer Mentioned or Doer Not Mentioned |
|-------------------|-------------------|-------------------|
| **Publication**   | **Overall Frequency** | **Doer Mentioned** | **Doer Not Mentioned** |
| JAMA              | 20                | 12               | 88               |
| NEJM              | 26                | 15               | 85               |
| The Lancet       | 23                | 9                | 91               |
| The Wall Street Journal | 3        | 21               | 79               |
| **Medical Journal Article Type** |
| Opinion Paper   | 21                | 15               | 85               |
| Review Article  | 22                | 17               | 83               |
| Original Research | 24            | 7                | 93               |
| **Original Research Report Section** |
| Abstract        | 16                | 0                | 100              |
| Introduction    | 15                | 0                | 100              |
| Methods         | 44                | 5                | 95               |
| Results         | 11                | 0                | 100              |
| Discussion      | 15                | 14               | 86               |

*Passive voice frequency = (passive voice sentences/total sentences) \times 100

*Passive voice form distribution = (passive voice sentences with doer mentioned (or not mentioned)/total passive voice sentences) \times 100

median frequency of 5% that we found in WSJ articles. We cannot compare our results on passive voice frequency with those of other studies because our results are the only published data on this subject. The results of our study validate what writing experts have been saying for many years about excessive use of the passive voice in medical writing.

We could not find a survey study or consensus statement addressing the question of why authors of medical journal articles use the passive voice so frequently. No publication guideline mentions goals or limits for the use of the passive voice, and some of the most prestigious references are worded in a way that may encourage authors to use the passive voice whenever it is acceptable to do so. For example, the *AMA Manual of Style* says that, "Authors should use the active voice, except in instances in which the actor is unknown or the interest focuses on what is acted on."7

Experts have suggested five possible reasons that medical writers use the passive voice so frequently: to reflect objectivity, to avoid first person pronouns, to appear scholarly and sophisticated, to avoid responsibility, and to conform to established writing style.

**Reflect Objectivity**

We could not find a publication that recommends using the passive voice specifically to demonstrate objectivity. The experts who do make a value judgment criticize the objectivity argument as being fundamentally incorrect and an obstacle to clear writing.1,10 Lester King explains it this way:

> The alleged objectivity of science has hypnotized many otherwise capable scientists, who regard anything subjective as tainted...The logic is simple. The active voice will necessarily require abundant use of *I* and *we* are subjective, to be avoided as unscientific; the only alternative is the passive voice. With this point of view I must disagree in the strongest possible terms. I maintain that objectivity in science is in large part a myth, and that if the devotees of this methodology would apply themselves to clear expression rather than to indefensible dogma, we would have far greater general benefit.10

**Avoid First Person Pronouns**

Some journals prohibit first person pronouns in the Abstract, but no publication guidelines require that authors use the passive voice when an active voice construction would be grammatically appropriate. In fact, many writing experts are passionate about changing the convention in medical writing of avoiding active voice sentences with a personal pronoun. For example,
the readability expert, Robert Flesch, noted: “If you want to write like a professional, you have to get used to the first person singular. Never mind the superstitious notion that it’s immodest to do so.” Also, in the fifth edition of his classic book on scientific writing, Robert Day reiterates this advice in the form of an appeal to young scientists: “I herewith ask all young scientists to renounce the false modesty of the previous generations of scientists. Do not be afraid to name the agent of the action in a sentence, even when it is ‘I’ or ‘we.’”

Appear Scholarly and Sophisticated
We agree with Anitra Sheen’s advice to writers who use passive voice in an attempt to appear more scholarly and sophisticated: “Formal, unassertive language does not make a work scholarly. Nor does it make it scientific; it just makes it lifeless and vague.”

Avoid Responsibility
There is some overlap between this motive and concern about the impropriety of a first person pronoun, but the references we reviewed focus on the psychologic urge to avoid “going out on a limb” as a reason for writing in the passive voice. Flesch does not mince words on this subject: “If you want to write well, about anything at all, you must be prepared to face the consequences and portray yourself quite mercilessly whenever the occasion arises.”

Conform to Established Style
We agree with those who say that frequent use of the passive voice in medical writing is a habit that writers acquire by mimicking the style of writing that they see in their medical journals and learn from reviewer feedback, without understanding the alternatives. Matthews et al “suspect that scientific writing’s heavy reliance on the passive voice is more a matter of tradition than a formal requirement.” Goodman et al also refer to reliance on the passive voice as a “fashion” that the medical community is now in the process of rejecting.

We have had a journal reviewer recommend that we revise a manuscript to use the passive voice as much as possible because it would make the paper “sound better.” Other seasoned writers report the same experience and lament how this kind of feedback decreases the quality of medical publications. In the book Successful Scientific Writing, Matthews et al explain how mentors indoctrinate young writers to use the passive voice without explaining the drawbacks of this style: “Young researchers often report that their professors have changed their vigorous sentences back into the passive, because ‘that is the way science is written.’”

We agree with authors like Tim Albert who think that in medicine and science, “Writing cultures have grown up that are, frankly, destructive of effective communication and individual talent.” However, we are not ready to accept Dr Albert’s view that the situation is so bad that authors now strive for poor-quality writing: “What seems to have happened is that authors, far from seeing pompous writing as bad, have come to value it.”

Recommendations
The distinguishing feature of the passive voice is that it makes the receiver of the action more important than the doer. Every resource on medical writing that we have cited in this paper gives examples of situations where it is appropriate to use a passive voice construction, with the main one being when the action is more important than the doer. However, writers who are concerned about using the passive voice too frequently need more detailed instructions. We recommend the following:

- Use the active voice in place of “doer mentioned” passive constructions.
- Limit the use of the passive voice to the Methods section of an Original Research Report because this is a section where describing who did the action distracts the reader from what was done methodologically.
- Use passive voice frequency in the overall paper as an endpoint for evaluating the quality of the writing.
- Medical journal editors should make a passive voice frequency of ≤10% a publication requirement for all types of articles.

The real question is not whether authors of medical journal articles use the passive voice too frequently, but why prestigious medical journals routinely publish articles that would be shorter, clearer, and easier to read if the author or an editor revised the manuscript to minimize passive voice constructions. Several veteran editors attribute the problem to a change in the role academic publications play in modern society and the workload of journal editors: “It seems that many medical articles are written to be published and cited, but not to be read.” In addition, Editors say that they try to keep things simple, but are overwhelmed by the sheer volume of articles written in bad English. To stem the flow many of them write editorials urging simpler English, or run training sessions teaching likewise. But nothing changes, which means that we need to look further than what appears to be the current assumption, which is that pompous medical prose is a kind of infection that can be cured with a quick dose of ‘common sense.’

Excessive use of the passive voice is not the only problem with modern medical writing, but it is a well-defined problem with a simple solution: medical journal editors should make passive voice frequency a standard for publication. Our data suggest that a passive voice frequency of 10% is a reasonable upper limit for all types of medical articles, as there were multiple articles in every analysis that we performed that met this standard. Commercial grammar-checking programs make it easy to
calculate passive voice frequency, but they are inaccurate in a small percentage of articles. The manual method is time consuming but manageable and brings considerable value to the finished product.

Author disclosure: The authors note that they have no commercial associations that may pose a conflict of interest in relation to this article.

References
## Appendix. Articles Analyzed in Study

<table>
<thead>
<tr>
<th>Category of Article</th>
<th>First Author</th>
<th>Title of Article</th>
<th>Date, Volume, Issue, and Pages</th>
<th>Overall Percentage of Passive Sentences (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opinion</strong></td>
<td>Albertsen PC</td>
<td>PSA Testing Public Policy or Private Pæchant?</td>
<td>2006 Nov 15;296(19):2371-3</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Carragee E</td>
<td>Surgical Treatment of Lumbar Disk Disorders</td>
<td>2006 Nov 22;296(20):2485-7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Flum DR</td>
<td>Interpreting Surgical Trials with Subjective Outcomes Avoiding Unsportsmanlike Conduct</td>
<td>2006 Nov 22;296(20):2483-5</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Ford JM</td>
<td>Predicting and Preventing Hereditary Colorectal Cancer</td>
<td>2006;296:1521-1523</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Graham DJ</td>
<td>Cox-2 Inhibitors, Other NSAIDS, and Cardiovascular Risk</td>
<td>2006 Oct 4;296(13):1653-6</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Little P</td>
<td>Delayed Prescribing—a Sensible Approach to the Management of Acute Otitis Media</td>
<td>2006;296:1290-1291</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Msall ME</td>
<td>Complexity of the Cerebral Palsy Syndromes—Toward a Developmental Neuroscience Approach</td>
<td>2006; 296:1650-1652</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Simpson RJ</td>
<td>Challenges for Improving Medication Adherence</td>
<td>2006 Dec 6;296(21):2614-6</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Thompson PD</td>
<td>Protecting Athletes from Sudden Cardiac Death</td>
<td>2006;296:1648-1650</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Wisner KL</td>
<td>Postpartum Depression: a Major Public Health Problem</td>
<td>2006 Dec 6;296(21):2616-8</td>
<td>10</td>
</tr>
<tr>
<td><strong>The Lancet</strong></td>
<td>Abgrall S</td>
<td>Initial Strategy for Antiretroviral-Naive Patients</td>
<td>2006 Dec 16;368(9553):2107-9</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Berer M</td>
<td>Hospital Admission for Complications of Unsafe Abortion</td>
<td>2006 Nov 25;368(9550):1848-9</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>deIrala J</td>
<td>Changes in Sexual Behaviours to Prevent HIV</td>
<td>2006;368:1749-1750</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Eyer P</td>
<td>Pralidoxime for Organophosphate Poisoning</td>
<td>2006 Dec 16;368(9553):2110-1</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Ferguson N</td>
<td>Poverty, Death, and a Future Influenza Pandemic</td>
<td>2006 Dec 23;368(9554):2187-8</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Garcia LA</td>
<td>The Ever-Growing Story of Cyclo-Oxygenase Inhibition</td>
<td>2006;368:1745-1747</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Horton R</td>
<td>The Evolving Doctor</td>
<td>2006;368:1750-1751</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Smith NM</td>
<td>Influenza Vaccination for Elderly People and their Care Workers</td>
<td>2006;368:1752-1753</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Trussell J</td>
<td>Preventing Unintended Pregnancy: Let Us Count the Ways</td>
<td>2006;368:1747-1748</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Turégano-Fuentes F</td>
<td>Medical Response to the 2005 Terrorist Bombings in London</td>
<td>2006 Dec 23;368(9554):2188-9</td>
<td>15</td>
</tr>
<tr>
<td><strong>NEJM</strong></td>
<td>Currier JS</td>
<td>Getting Smarter—the Toxicity of Untreated HIV Infection</td>
<td>2006 Nov 30;355(22):2359-61</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Greene MF</td>
<td>Obstetricians Still Await a Deus ex Machina</td>
<td>2006 Nov 23;355(21):2247-8</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Hillis LD</td>
<td>Myocardial Infarction and the Open-Artery Hypothesis</td>
<td>2006;355:2475-2477</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Iseman MD</td>
<td>Rapid Detection of Tuberculosis and Drug-Resistant Tuberculosis</td>
<td>2006;355:1606-1608</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Karlawish J</td>
<td>Alzheimer's Disease—Clinical Trials and the Logic of Clinical Purpose</td>
<td>2006;355:1604-1606</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>McCullough AJ</td>
<td>Thiazolidinediones for Nonalcoholic Steatohepatitis—Promising but not Ready for Prime Time</td>
<td>2006 Nov 30;355(22):2361-3</td>
<td>21</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Muscucci M</td>
<td>Reducing the Door-to-Balloon Time for Myocardial Infarction with ST-Segment Elevation</td>
<td>2006 Nov 30;355(22):2364-5</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Nabel EG</td>
<td>Conflict of Interest—or Conflict of Priorities?</td>
<td>2006 Nov 30;355(22):2365-7</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Stewart PM</td>
<td>Aging and Fountain-of-Youth Hormones</td>
<td>2006;355:1724-1726</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Stone EM</td>
<td>A Very Effective Treatment for Neovascular Macular Degeneration</td>
<td>2006;355:1493-1495</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Original</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bradley EH</td>
<td>Hospital Quality for Acute Myocardial Infarction—Correlation Among Process Measures and Relationship with Short-Term Mortality</td>
<td>2006;296:72-78</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Heilbronn LK</td>
<td>Effect of 6-Month Calorie Restriction on Biomarkers of Longevity, Metabolic Adaptation, and Oxidative Stress in Overweight Individuals</td>
<td>2006;295:1539-1548</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Joe S</td>
<td>Prevalence of and Risk Factors for Lifetime Suicide Attempts Among Blacks in the United States</td>
<td>2006;296:2112-2123</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Lange LA</td>
<td>Association of Polymorphisms in the CRP Gene with Circulating C-Reactive Protein Levels and Cardiovascular Events</td>
<td>2006;296:2703-2711</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Lee JK</td>
<td>Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein Cholesterol: a Randomized Controlled Trial</td>
<td>2006;296:2563-2571</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Mctigue K</td>
<td>Mortality and Cardiac and Vascular Outcomes in Extremely Obese Women</td>
<td>2006;296:79-86</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Tonstad S</td>
<td>Effect of Maintenance Therapy with Varenicline on Smoking Cessation—a Randomized Controlled Trial</td>
<td>2006;296:64-71</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Werner RM</td>
<td>Relationship Between Medicare’s Hospital Compare Performance Measures and Mortality Rates</td>
<td>2006;296:2694-2702</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Wong Y</td>
<td>Survival Associated with Treatment vs Observation of Localized Prostate Cancer in Elderly Men</td>
<td>2006;296:2683-2693</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td><strong>The Lancet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannon CP</td>
<td>Cardiovascular Outcomes with Etoricoxib and Diclofenac in Patients with Osteoarthritis and Rheumatoid Arthritis in the Multinational Etoricoxib and Diclofenac Arthritis Long-Term (Medal) Programme: a Randomized Comparison</td>
<td>2006;368:1771-1781</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Cleland J</td>
<td>Sexual Abstinence, Contraception, and Condom Use by Young African Women: a Secondary Analysis of Survey Data</td>
<td>2006;368:1788-1793</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Danel C</td>
<td>CD4-Guided Structured Antiretroviral Treatment Interruption Strategy in HIV-Infected Adults in West Africa (Trivasan Anrs 1269 Trial): a Randomised Trial</td>
<td>2006;367:1981-1989</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Overall</td>
<td>Lindstrom J</td>
<td>Sustained Reduction in the Incidence of Type 2 Diabetes by Lifestyle Intervention: Follow-Up of the Finnish Diabetes Prevention Study</td>
<td>2006 Nov 11;368(9548):1673-9</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Moss SM</td>
<td>Effect of Mammographic Screening from Age 40 Years on Breast Cancer Mortality at 10 Years’ Follow-up: a Randomised Controlled Trial</td>
<td>2006 Dec 9;368(9552):2053-60</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Ronsmans C</td>
<td>Socioeconomic Differentials in Caesarean Rates in Developing Countries: a Retrospective Analysis</td>
<td>2006 Oct 28;368(9546):1516-23</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Thomas RE</td>
<td>Effect of Enhanced Feedback and Brief Educational Reminder Messages on Laboratory Test Requesting in Primary Care: a Cluster Randomised Trial</td>
<td>2006; 367:1990-1996</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Vanags D</td>
<td>Therapeutic Efficacy and Safety Of Chaperonin 10 in Patients with Rheumatoid Arthritis: a Double-Blind Randomised Trial</td>
<td>2006 Sep 2;368(9538):855-63</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>NEJM Belfort R</td>
<td>A Placebo-Controlled Trial of Pioglitazone in Subjects with Nonalcoholic Steatohepatitis</td>
<td>2006;355:2297-307</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Bloom SL</td>
<td>Fetal Pulse Oximetry and Cesarean Delivery</td>
<td>2006;355:2195-202</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>El-Sadr WM</td>
<td>CD4+ Count–Guided Interruption of Antiretroviral Treatment</td>
<td>2006;355:2283-96</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Haland G</td>
<td>Reduced Lung Function at Birth and the Risk of Asthma at 10 Years of Age</td>
<td>2006;355:1682-1689</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>International Early Lung Cancer Action Program Investigators</td>
<td>Survival of Patients with Stage I Lung Cancer Detected on CT Screening</td>
<td>2006;355:1763-1771</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Kandun IN</td>
<td>Three Indonesian Clusters of H5N1 Virus Infection in 2005</td>
<td>2006;355:2186-94</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Mas JL</td>
<td>Endarterectomy Versus Stenting in Patients with Symptomatic Severe Carotid Stenosis</td>
<td>2006;355:1660-1671</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Nair KS</td>
<td>DHEA in Elderly Women and DHEA or Testosterone in Elderly Men</td>
<td>2006;355:1647-1659</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Oner AF</td>
<td>Avian Influenza A (H5N1) Infection in Eastern Turkey in 2006</td>
<td>2006;355:2179-85</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Palareti G</td>
<td>D-Dimer Testing to Determine the Duration of Anticoagulation Therapy</td>
<td>2006;355:1780-1789</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Chen LH</td>
<td>Prevention of Malaria in Long-Term Travelers</td>
<td>2006;296:2234-2244</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Gehi AK</td>
<td>Evaluation and Management of Patients After Implantable Cardioverter-Defibrillator Shock</td>
<td>2006;296:2839-2847</td>
<td>28</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Lindor NM</td>
<td>Recommendations for the Care of Individuals with an Inherited Predisposition to Lynch Syndrome</td>
<td>2006;296:1507-1517</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Mozaffarian D</td>
<td>Fish Intake, Contaminants, and Human Health: Evaluating the Risks and the Benefits</td>
<td>2006;296:1885-1899</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Pannu P</td>
<td>Prophylaxis Strategies for Contrast-Induced Nephropathy</td>
<td>2006;295:2765-2779</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Schievink WI</td>
<td>Spontaneous Spinal Cerebrospinal Fluid Leaks and Intracranial Hypotension</td>
<td>2006;295:2286-2296</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Cleland J</td>
<td>Family Planning: the Unfinished Agenda</td>
<td>2006 Nov 18;368(9549):1810-27</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Grandjean P</td>
<td>Developmental Neurotoxicity of Industrial Chemicals</td>
<td>2006 Dec;368(9553):2167-2178</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Low N</td>
<td>Global Control of Sexually Transmitted Infections</td>
<td>2006 Dec 2;368(9551):2001-16</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Moss M</td>
<td>Alcohol Abuse in the Critically Ill Patient</td>
<td>2007 Jan;368(9554):2231-2242</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Sliwa K</td>
<td>Peripartum Cardiomyopathy</td>
<td>2006 Aug 19;368(9536):687-93</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Tyrer P</td>
<td>Generalised Anxiety Disorder</td>
<td>2006 Dec;368(9553):2156-2166</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Yoon KH</td>
<td>Epidemic Obesity and Type 2 Diabetes in Asia</td>
<td>2006 Nov;368(9548):1681-1688</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>NEJM Bergan JJ</td>
<td>Chronic Venous Disease</td>
<td>2006 Aug 3;355(5):488-498</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Federman DD</td>
<td>The Biology of Human Sex Differences</td>
<td>2006 Apr 6;354(14):1507-1514</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Kaushansky K</td>
<td>Lineage-Specific Hematopoietic Growth Factors</td>
<td>2006 May 11;354(19):2034-2045</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Seeman E</td>
<td>Bone Quality—the Material and Structural Basis of Bone Strength and Fragility</td>
<td>2006 May 25;354(21):2250-2261</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Stern DT</td>
<td>The Developing Physician—Becoming a Professional</td>
<td>2006;355:1794-9</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Van De Beek D</td>
<td>Community-Acquired Bacterial Meningitis in Adults</td>
<td>2006 Jan 6;354(1):44-53</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>WSJ Bandler J</td>
<td>Living Large and Bouncing Back</td>
<td>2006 Dec 30; A1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Overall</td>
<td>Bravin J</td>
<td>Court Rulings Could Hit Utilities, Auto Makers: White House Strategy Toward CO2 Emissions Is Faulted by Justices</td>
<td>2007 April 3; Page A1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Bravin J</td>
<td>The Conscience of The Colonel: Lt. Col. Stuart Couch Volunteered to Prosecute Terrorists. Then He Decided One Had Been Tortured.</td>
<td>2007 March 31; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Davie P</td>
<td>Law Firm’s Work on Tax Shelters Leads to Demise: Litigation, Penalty Fell Jenkens &amp; Gilchrist; ‘An Orderly Transition’</td>
<td>2007 March 30; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Ellson S</td>
<td>Zell Wins Tribune in Bid to Revive a Media Empire: Budget Cuts Are Likely as Developer Takes Helm; Debt, ESOP Sew Up Deal</td>
<td>2007 April 3; Page A1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Etter L</td>
<td>Ethanol Creates a Pricing Puzzle for Corn Farmers: Boom Complicates Bets on Planting, Contracts; Straddling Two Markets</td>
<td>2007 March 29; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Francis T</td>
<td>Medical Dilemma Spread of Records Stirs Patient Fears of Privacy Erosion</td>
<td>2006 Dec 26; A1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Hilsenrauth J</td>
<td>How Much Does a Neighborhood Affect the Poor?</td>
<td>2006 Dec 28; A1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Ip G</td>
<td>Productivity Lull Might Signal Growth Is Easing: Ripples Could Confuse Interest-Rate Outlook; Fred Remains Optimistic</td>
<td>2007 March 31; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Jaffe G</td>
<td>Commanders Bound for Iraq Tailor Strategies to a Fragmented Nation</td>
<td>2006 Dec 26; Page A1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Kahn G</td>
<td>Tangled Network: Behind Telecom Italia Fight, Business and Politics Meet. Key Shareholder’s Talks with AT&amp;T, Others Spark National Angst</td>
<td>2007 April 3; Page A1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lahart J</td>
<td>How the Bulls Stole Wall Street</td>
<td>2006 Dec 30; A1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Lueck S</td>
<td>In Nursing Homes, a Drug Middleman Finds Big Profits</td>
<td>2006 Dec 23; Page A1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Meckler L</td>
<td>Pump Games: Fill Up with Ethanol? One Obstacle Is Big Oil. Rules Keep a Key Fuel Out of Some Stations; Car Makers Push Back</td>
<td>2007 April 2; Page A1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mullins B</td>
<td>Strings Attached as Earmarked Funding Swells, Some Recipients Don’t Want It</td>
<td>2006 Dec 26; A1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Shishkin P</td>
<td>Sectarian Land Grab: Iraqi Families Lose Homes in Baghdad</td>
<td>2006 Dec 26; A1</td>
<td>7</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Shishkin P</td>
<td>Blood and Faith: In Turkey, a Judge's Murder Puts Religion in Spotlight. A Teacher's Headscarf Led to Protest, Violence; Muslim vs. Public Life</td>
<td>2007 March 30; Page A1</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Slater J</td>
<td>To Make Lemons into Lemonade Try 'Miracle Fruit': Berry Turns Sour to Sweet by Altering Taste Buds</td>
<td>2007 March 30; Page A1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Trofimov V</td>
<td>At African Waterfall, Visitors Confront a Tale of Two Cities</td>
<td>2006 Dec 29; A1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Trofimov Y</td>
<td>Murdered Mistress Becomes Whodunit for Malaysia Elite</td>
<td>2007 March 29; Page A1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Wessel D</td>
<td>As Health Middlemen Thrive, Employers Try to Tame Them</td>
<td>2006 Dec 29; A1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Whalen J</td>
<td>Slim Pickings: 'Miracle' Obesity Pill Looks Less Miraculous. Repeated FDA Delays, European Restrictions Ail Sanofi's Acomplia</td>
<td>2007 March 29; Page A1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Wingfield N</td>
<td>Jobs Helped Pick 'Favorable' Dates for Option Grants</td>
<td>2006 Dec 30; A1</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Wysocki B</td>
<td>Private Practice: Is U.S. Government 'Outsourcing Its Brain?' Boom in Tech Contracts Sparks Complex Debate; a Mecca in Virginia</td>
<td>2007 March 30; Page A1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Zhang J</td>
<td>Squeamish Consumers may Balk as FDA Backs Cloned Meat, Milk</td>
<td>2006 Dec 29; A1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
ABSTRACT
This study was undertaken to assess users’ perceptions of and practices when using the Web-based manuscript submission and review system (ie, ScholarOne Manuscripts, formerly known as Manuscript Central) employed by Mayo Clinic Proceedings. Using the survey tool SurveyMonkey, the editorial office staff conducted a 16-question survey. The survey was sent by broadcast e-mail on January 23, 2009, and was resent on February 2, 2009; the survey period ended February 6, 2009. The recipients were 1,688 people with active user accounts in the database. Response percentages for each question were calculated on the basis of the number of people who answered the question. Of the 1,688 potential respondents, 462 (27%) completed the survey. Most respondents (374 of 400 [94%]) found that access to and navigation within the system were good, and most (396 of 402 [99%]) thought that required tasks for each role (eg, reviewer, author) were clear. Nearly all respondents (188 of 194 [97%]) noted that suggestions to authors for improving manuscript quality (as provided in decision letters) were helpful, and 32% (66 of 205) noted that turnaround times for reviews were better than those at other journals to which they had submitted their work. Among authors, the top reasons for submitting a manuscript to Mayo Clinic Proceedings were the journal’s reputation (149 of 217 [69%]), its readership (133 of 214 [62%]), and its impact factor (111 of 214 [52%]). Of 105 respondents, 39 (37%) thought that the current acknowledgment of reviewers was adequate or had no suggestions for improvement. In conclusion, although only selected aspects of the Web-based manuscript submission and review processes were investigated in this survey, authors and reviewers were, in general, highly satisfied with these processes and the services received when using the Web-based system. Mayo Clinic Proceedings can use the suggestions provided by respondents to improve its customer service, increase the satisfaction of system users, and sustain the success of the journal.

METHODS
Editorial office staff at MCP sent a 16-question survey to all persons with “active author” user accounts in the journal’s Web-based system. When a user account is created in the system, the user is by default given both author and reviewer status, unless the person creating the account limits these roles or the account is added during manuscript submission with coauthor status only. Hence, a person who performs only reviewer duties may also be included in the broadcast e-mail list for authors. The “active author” list was therefore chosen to avoid sending multiple surveys to people with multiple roles. Surveys were electronically mailed on January 23, 2009, and February 2, 2009, using the “Broadcast” e-mail feature in the system. The survey ended on February 6, 2009.

The survey tool SurveyMonkey (SurveyMonkey.com, Portland, OR) was used to obtain, collate, and analyze the results. Specifically, using the “Analyze Results” feature, numeric data were transferred into an Excel spreadsheet (Microsoft Corporation, Redmond, WA). Not all questions were applicable for every respondent; therefore, response percentages for each question were calculated on the basis of the number of people who answered the particular question. Fifteen of the questions offered answer options, and 1 question was open-ended. (The survey questions are included in the Appendix, which is available in the online version of this article.) In addition, respondents were invited to provide comments about any of the questions.

RESULTS
Of the 1,770 survey invitations sent by e-mail, 1,688 were delivered successfully. Of these potential respondents,
462 (27%) completed the survey. Of the 462 respondents, 171 (37%) indicated that they were primary authors, 143 (31%) were coauthors, 378 (82%) were reviewers, and 29 (6%) were editorial board members. As such, many respondents performed multiple (at least 2) roles.

Several questions addressed the functionality of the system and the services provided by the MCP editorial office staff. Most respondents (374 of 400 [94%]) said that navigating through the system and accessing records were easy tasks, and most reported that the number and frequency of e-mail reminders received were adequate (386 of 402 [96%] and 378 of 398 [95%], respectively). Of 402 respondents, 396 (99%) thought that the required tasks for each role were clearly represented within the system, and 296 (of 411; 72%) noted that they did not routinely access the user instructions and tutorials that are available within the system.

Another group of questions addressed a variety of indicators related to quality. One of these questions asked respondents their views about the portion of MCP decision letters dedicated to “quality review,” which includes recommendations provided by editorial office staff to help authors address formatting and information deficiencies that would hinder final acceptance and publication of the manuscript. Of 194 respondents to this question, 188 (97%) thought that the quality review items were helpful to authors when revising their submissions, whereas 6 (4%) thought they were unhelpful. Turnaround times at MCP were deemed similar to those of other journals in which respondents had published their work, and 66 (32%) of 205 respondents noted that turnaround times were better than those of other journals. Respondents generally thought that MCP reviewer comments were better than those of other journals (Figure 1). In response to a request to identify the leading motivators for choosing MCP for manuscript submission, the 3 top choices were the journal’s reputation, its readership, and its impact factor (Figure 2). When asked about the frequency of invitations to review manuscripts for MCP, 257 (75%) of 342 respondents thought the invitation rate was adequate, 78 (23%) indicated that they would like to be invited more often, and 7 (2%) noted that they would like to be asked less frequently.

Two questions solicited feedback on compensating reviewers for their services (in other than monetary ways) and the potential effects of a submission fee. For the open-ended question about reviewer compensation, 105 people provided a written response (Table 1). The most common additional suggestions were to provide continuing medical education credits or to send a letter documenting the reviewer’s contribution. Among the 283 respondents to the question about effects of a submission fee, the response rates were generally equivalent: 101 (36%) indicated that they would no longer submit manuscripts to MCP if a submission fee were imposed, 93 (33%) stated that they would still submit, and 89 (31%) stated that they were undecided. Of the overall sample, 87 participants skipped this question, and 92 indicated that the question was not applicable.

**DISCUSSION**

The sign of a successful product (in this case, a medical journal) is its ability to recruit and retain customers. The best way to determine if customers are satisfied is to ask them directly.\(^3\)\(^4\) Therefore,
we asked authors and reviewers for insights into ways we could enhance their experience with MCP. Survey respondents were asked to rate the tools and services provided through the Web-based manuscript system, and to suggest new concepts that would help to improve their satisfaction with the journal and the manuscript system, which would provide specific user-driven options for ways the journal might improve its marketability.

As has been the case for other journals and publishers who have explored ways to increase their author and reviewer bases and to assess user satisfaction, our survey results helped us in assessing the needs and wants of our customers. The ScholarOne system is designed to perform all tasks for all users’ roles during the processing of a manuscript, from submission to publication; however, from the user’s point of view, this process is more complex than the previous paper-and-ink system. Challenges in using the system may result from unfamiliarity with the basic principles or processes for performing these complex tasks. Despite the potential for frustration, 72% of respondents did not routinely access the ScholarOne instructions and tutorials. Thus, it appears that we could do a better job of communicating the value of resources within the system for users who encounter problems.

Respondents’ reasons for submitting their manuscripts to MCP were extremely helpful for planning future efforts to recruit manuscripts. Communications with potential authors could mention those factors identified through the survey as being of great importance to potential authors: MCP’s reputation, its impact factor, and its readership, as well as readers’ loyalty to the journal and confidence resulting from recognition of the Mayo Clinic brand.

About 40% of respondents thought that the annual publication, in the December issues of the journal, of a list of peer reviewers’ names was adequate acknowledgment, but additional suggestions provided by respondents will be explored further. Of note, about 5% of respondents suggested that no acknowledgment was necessary because participation as a reviewer is an expected part of the academic process. Given the roughly 500 reviewers per year for MCP, respondents’ suggestions for other forms of recognition may not be economically feasible.

Respondents’ answers to the question about manuscript submission fees intimated the effect that fees might have on overall submissions to MCP. The even distribution among the 3 categories of response indicated no particular “best course”; however, respondents’ additional comments implied that they were generally not supportive of manuscript submission or processing fees, and those who were supportive recommended dollar amounts that would provide only marginal gains in income for the journal. Some additional comments indicated that unless the use of fees became an industry-wide trend, it would not be wise to implement this strategy.

Our first foray into surveying our customer base yielded considerations for surveys that may be of use for other journals wishing to complete a customer survey and that will guide us when we undertake our next user survey. Using the ScholarOne broadcast e-mail feature and SurveyMonkey allowed us to easily create and implement the survey. Questions with a multiple-choice answer format yielded higher response rates. The additional comments from respondents added clarity and offered deeper insights into the statistical data obtained. In retrospect, we think that asking fewer questions would have been more effective and wonder what question form—open-ended, multiple choice, or matrix—would have yielded more detailed results.

The insights gained from surveying customers of MCP led to several changes in manuscript processing and customer service that we chose to implement or that coincided with ScholarOne upgrades. An “automated e-mail” notification has been placed at the end of reminders to authors and reviewers, providing an explanation for communications that are sometimes misdirected. A list of current reviewers

Table 1. Respondents’ Suggestions for Recognizing Reviewers’ Participation

<table>
<thead>
<tr>
<th>Suggested Compensation</th>
<th>Number Responding</th>
<th>Percentage of Total Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>No suggestions/retain current process</td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>Offer CME credits for reviewers who complete high-quality reviews</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Provide a document or letter that reviewers can share with department heads/supervisors to document their contributions</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Provide free materials (eg, journal subscriptions, pens, cups, or other items) with Mayo Clinic Proceedings logo</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Provide a reviewer rating or ranking to distinguish repeat or high-quality reviewers</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>No recognition is necessary—being a reviewer is just part of the publishing process</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Send high-quality reviewers an invitation to be an editorial board member</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hold a “Thank you” party or reception</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Publish a list of reviewers on the Proceedings Web site</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*aPercentages are based on the 105 respondents who answered this open-ended question. CME = continuing medical education.*
is now sent monthly to our circulation manager, who activates a free online subscription, as requested by some respondents. Our “thank you” e-mail to reviewers has been revised to include notification of the complimentary online subscription and current journal metrics. Deep links have been added to e-mail templates for editorial board members to simplify their access to and processing of manuscripts. Printable letterhead has been made available, and the Editorial Office provides the letterhead to reviewers upon request. A “Cover Letter” button has been added to the system, which gives reviewers quicker and easier access to the author-supplied cover letter.

For future surveys, we plan to establish clear goals regarding the frequency of and time-interval between surveys and/or to have a specific purpose for the survey (e.g., change in service provider or process that would affect system users) purpose for the survey. We may also explore the creation of separate surveys for each user role, to avoid some of the limitations of a universal user survey, as described below.

As noted, this study had several limitations that should be considered when interpreting the results. Although a 27% response rate is considered statistically poor in the field of medical research, voluntary participation in surveys such as ours has been declining across many survey genres.10 Furthermore, according to sources at our publisher, Dowden Health Media (Trevor Deal, Publisher, written communication, September 24, 2009), a 10%-15% response rate is the norm in the realms of journalism and publishing, so a 27% response rate would be considered very good. By using only the “Active Author” list, we limited our ability to invite representative samples of those who used the system exclusively as reviewers or editorial board members. However, about half of the respondents reported that they performed multiple roles, so our approach to sampling gave us insights into the views of users with diverse backgrounds, without requiring individual respondents to fill out multiple surveys according to their various roles. The existence of multiple roles for many respondents introduced additional limitations, in that dual roles in the database (author, reviewer, or both) might hamper more detailed analyses. Another limitation was potential selection bias, in that frequent users would be more likely to be comfortable with the system and hence more likely to respond to the survey and more likely to suggest system alterations. Some questions had relatively few respondents, which limited the generalizability of our interpretation for those particular questions. Finally, we collected no demographic data beyond the roles that each respondent fulfilled; thus, the responses might have been affected by the duration of a user’s experience with the system.

CONCLUSION

The findings of this study reminded us that although the right tool for the right job will assist with timely and efficient completion of a task, the value of the human element and common courtesy when dealing with authors, reviewers, and editorial board members are extremely important. As revealed by our survey, authors have diverse reasons for forming and maintaining a relationship with a given journal. Reviewers gain knowledge from their peers during the review process but also want to know that their services are valued and appreciated. Finally, loyalty to institutions of stature, like the Mayo Clinic and MCP, is still highly prized and remains a strong motivator.

Author disclosure: The author notes no commercial associations that may pose a conflict of interest in relation to the study reported here.

Acknowledgment

Kimberly D. Sankey provided assistance with preparing the survey questions, with all technical details for contracting and setting up the survey on SurveyMonkey, with sending the broadcast e-mail, and with compiling survey results.

References


Appendix. Survey Questions

1. Please specify what role(s) you fulfill for Mayo Clinic Proceedings (check all that apply). (primary author, co-author, reviewer, editorial board member)

2. Do you routinely access the User Instructions, Quick Start Tutorials, and Online Training Documentation resources that are provided for all users? (yes, no)

3. Are you easily able to locate required manuscript documents (eg, reviewer forms and comment, decision letters, revised manuscripts, attachments, instructions, etc.) within Manuscript Central? (yes, no)

4. Are the number of e-mail reminders that you receive from the Editorial Office adequate? (adequate, too many, too few)

5. Please evaluate the frequency of the e-mail reminders received from the Editorial Office. (adequate, too frequent, not timely enough)

6. Are the tasks required for each User Center (author, reviewer, editorial board, member) clear? (yes, no)

7. As a Reviewer or Editorial Board Member, you receive a copy of the decision letter on the manuscript you reviewed, containing the comments to the author supplied by all of the reviewers. Is this information helpful to you? (yes, no, not applicable)

8. As an Editorial Board member, are the “Select Reviewer” search tools useful? (yes, no, not applicable)

9. As an Editorial Board member, does the structure of the reviewer score sheet provide adequate information for you to provide a recommendation to the Editor-in-Chief? (yes, no, not applicable)

10. As an Author, are the “Quality Review Items Requiring Attention” comments provided in the decision letter helpful to you in revising your manuscript(s)? (yes, no, not applicable)

11. As an Author, how does our publication turn-around time compare to other journals you have published with? (better, comparable, worse, not applicable, other)

12. As an Author, how do our reviewer comments compare to those received from other journals? (Please check all that apply). (more helpful, less helpful, more detailed, less detailed, not applicable, other)

13. As an Author, what most interested you in submitting your manuscript(s) to Mayo Clinic Proceedings? (Please check all that apply). (Mayo Clinic Proceedings' reputation, the quality of the final print and on-line product, Mayo Clinic Proceedings' impact factor, the service provided by the editorial office staff, processing turn-around time, Mayo Clinic Proceedings' readership, not applicable, other)

14. We publish a list of reviewer names in the journal on an annual basis. Do you have any additional suggestions for ways we can provide recognition (other than monetary compensation) for reviewer participation in the process?

15. As an author, would you defer from submitting your manuscript to Mayo Clinic Proceedings if there were a nominal submission fee (ie, $50 or less) per manuscript? (I would not submit my manuscript, I would submit my manuscript regardless of a submission fee, I am undecided, not applicable)

16. As a reviewer, please evaluate the interval between receipt of invitations to review manuscripts for Mayo Clinic Proceedings. (I would like to be invited more often, I would like to receive less invitations, the number of invitations I receive is adequate, not applicable)
Learning to Communicate in Multi-disciplinary Teams

Stephanie Christopher, Research laboratory supervisor, Medical College of Wisconsin, Center for Patient Care and Outcomes Research, Milwaukee, WI

Introduction: Innovative clinical research is dependent on multi-disciplinary teams to envision, design and implement complex research protocols. However, varied backgrounds and approaches can also cause culture clashes within a team when team members from one field have trouble communicating with team members from other fields. Such culture clashes can cause more than frustration; they can be a serious detriment to team function. When it comes to writing and disseminating results, medical writers may find themselves in the middle of team cultural clashes, making the writing process all the more difficult.

Objectives: Drawing on existing research and the experiences of a multi-disciplinary communication research lab, the poster examines how group dynamics, environment and perceived involvement in decision-making can influence communication and team productivity.

Methods: A review was conducted of existing research on group dynamics, team function and how education and training influence communication behavior. The reviewed literature was integrated with a case study of the author’s multi-disciplinary research teams.

Results: Themes include how the group socialization process affects new group members, how team members respond in supportive versus defensive environments, and strategies for overcoming barriers to communication.

Implications: Effective team communication enhances team functioning and can strengthen team members’ attachment and commitment to the team, as well as facilitate the process of collaboration on research manuscripts. Therefore, it is important to identify potential barriers to communication and team functioning and develop strategies for overcoming barriers and maximizing the benefits of a multi-disciplinary research team.

Clinical Practice Guidelines when Writing In-services for Nurses

P.A. Fong, Pharmacist II, Leahi Hospital; G. C. Okamura, Oahu Region Education Director, Hawaii Health Systems Corporation; Honolulu, HI

Introduction: In his 2005 book “Lexical Priming: a New Theory of Words and Language”, Michael Hoey presents a general hypothesis that for an individual’s encounters with a word, such cumulative stimuli prime the word for use in discourse. Through an individual’s encounters with words, such stimuli prime every word so that each occurs with particular other words that appear as collocations. (According to Hoey, collocation is a psychological association between words up to...
Objective: To present lexical priming as a hypothesis that underlies verbal repetition in medical communication; for example, when writing continuing education (CE) documents that transmit a clinical practice guideline (CPG), the recommendations of the CPG should appear mostly verbatim.

Methods: From January to March 2010, we wrote CE in-service materials for nurses. These gave the recommendations of CPGs as mostly verbatim text. The mostly verbatim texts are examples of intentional encounters with words. In these intentional encounters with words, we incorporated deliberate collocations.

Conclusion: Hoey’s theory of lexical priming supports the use of mostly verbatim text of the recommendations of CPGs as illustrated by development of CE in-service documents for nurses.

#3 Seminal Moments in AMWA History: 70 Years of Medical Communication Excellence

Melanie H. Fridl Ross, MSJ, ELS, Director, News and Communications, University of Florida Health Science Center, Ocala, FL; Scott C. Thompson, ELS, Senior Medical Writer, Medtronic, Spinal and Biologics, Medical Affairs, Memphis, TN

Introduction: The American Medical Writers Association (AMWA), founded in 1940, has distinguished itself as the leading professional organization and source of education for medical communicators.

Objective: To present seminal moments in AMWA history.

Methods: A literature search of electronic records available through http://www.amwa.org was performed to identify the people, places, programs, policies, and publications that have shaped AMWA.

Results: On September 25, 1940, Harold Swanberg, MD, brought together a group of six physicians who were interested in learning more about medical writing, which led to the formation of the Mississippi Valley Medical Editors Association (MVMEA). In 1948, the Association had 42 members. To increase its scope and appeal, the MVMEA was reorganized on September 28, 1948, and its name was changed to the American Medical Writers Association (AMWA). Seminal moments in AMWA history have included, but are not limited to, the following: annual meetings (1940); rewritten constitution and not-for-profit corporation (1951); fellowships (1952); American Association for the Advancement of Science (AAAS) affiliation (1952); local chapters (1956); bylaws (1961); specialty sections (1972); code of ethics (1973); freelance directory (1975); core curriculum and certificate program (1979); annual conferences (1979); AMWA Journal (1986); textbooks, e.g., Biomedical Communication: Selected AMWA Workshops (1994); Web site, http://www.amwa.org (1998); Position Statement on the Contribution of Medical Writers to Scientific Publications (2003); Webinars, e.g., “What’s New in the 10th Edition of the AMA Manual of Style” (2007); expanded certificate program (2009); and History Project and Written Memories initiative (2009). In 2010, AMWA had more than 5,600 members serving 20 chapters across North America, including the United States and Canada.

Conclusions: Throughout its 70 years of history, AMWA has promoted excellence in medical communication through the development of an extensive educational program, various publications and online informational resources, and unparalleled opportunities for networking.

#4 Efficiency in Clinical Study Report Writing

Helle-Mai Gawrylewski & Paul Sokol, Johnson & Johnson PRD, USA; Nimita Limaye, Neera Shetty & Aarti Tatke; SIRO Clinpharm Pvt. Ltd, India

Introduction: Developing a clinical study report (CSR) is time-consuming. Key results and messages may be missed due to extensive documentation and “overwriting”. Lean principles such as Six Sigma in the manufacturing industries are designed to track and reduce sources of error and waste. In medical writing these occur in rewriting, redoing, redundancy, verbosity, and review cycles, for example.

Objectives: To apply Lean principles in CSR writing.

Methods: Lean methods were applied in different areas. To standardize, the CSR template included embedded instructions. Plain language was recommended and used. To streamline, we used collaborative review tools, conducted data review meetings before drafting results, and highlighted changes after each review. To simplify, numbers are not repeated in the text when summarized in tables and graphs. To leverage technology and tools, we developed macros for project management, creating mapping tables, finding abbreviations, and extracting comments. Several tools for PDF splitting and document comparator were acquired to eliminate tedious tasks and compare draft versions. We also leveraged time-zone differences among global teams to optimize turn around by using efficient hand-offs, around-the-clock work, and clear communication.

Results: Process improvements and Lean thinking resulted in a 10% to 15% time saving from CSR drafting to approval and minimized variation across clinical teams for a CSR type. The most important time savings were...
due to the use of macros for tedious tasks, e.g., for 50 Phase 1 CSRs, 200 hours were cut for mapping tables, 37.5 hours for abbreviation checks, and 37.5 hours for collating review comments. Quality control checks indicated a reduction in error rates.

Conclusion: Systematic elimination of waste demonstrated a breakthrough focus on what is important in CSR writing, while ensuring consistent quality.

#5 Innovative Learning
Incorporating Live Patients: A Best Practice CME Initiative to Improve Injection Technique and Aesthetic Outcomes Among Aesthetic Medicine Specialists

Nic Gazonas, MS & Wendy Glosske, PhD; Athena Education Group, LLC, Lambertville, NJ; Danny Vleggaar, MD & Rebecca Fitzgerald, MD, University of California Los Angeles, Los Angeles, CA; Jonathan M. Sykes, MD, FACS, University of California Davis, Sacramento, CA; Erin Fletcher & Robyn Brown, Dannemiller Inc., San Antonio, TX.

Introduction: Our goal was to build an innovative, outcomes-oriented medical education activity for an international audience based upon:
(a) A robust needs assessment
(b) Sound adult learning concepts
(c) Best practices in patient care
(d) The unique needs associated with the confluence of facial anatomy, aesthetic evaluation, injection device, and product characteristics when performing facial rejuvenation.

Methods: We used integrated learning activities incorporating elements that support clinician learning styles and provide opportunities for patient assessment and discussion with experts. The program featured a blend of didactic presentations with audience participation and immediate feedback from peers, videos and live patient injection sessions. Activities built upon one another as participants progressed from didactic to video to hands-on experiences. Offering the program in an on-line format allowed us to reach an international audience. Assessment included immediate measurement of specific changes relative to baseline prior to the activity and subsequent follow-up to assess application of program concepts and tactics in clinical practice.

Results: We have successfully utilized this model in other clinical education settings and achieved a far greater level of competency than would have been achieved via a lecture-only didactic presentation. In one recent activity, outcomes assessment showed that the percentage of participants who were able correctly identify skin lesions improved from a baseline of 19% prior to the activity to 62% after working with live patients. In addition, prior analyses have shown that participants exceeded learning expectations and achieved more than the baseline learning objectives. Final assessment results and outcomes will be reported.

Conclusion: Medical writers who develop medical education content for live programs are often challenged to integrate effective educational activities into brief clinical experiences. The incorporation of real patients and live technique demonstrations is a powerful teaching tool, but it is not frequently used in continuing medical education (CME). CME providers should explore how to use this model in different therapeutic settings; the best use in varied clinical scenarios may be different.

Disclosure: Athena Education Group, LLC and Pri-Med Institute gratefully acknowledge an educational grant from Sanofi-Aventis U.S. LLC in support of this CME activity.

#6 Outsourcing and Other Trends in Medical Writing in Pharmaceutical Companies

Sue Hudson, Medical Writing Associates, Simi Valley, CA; Thomas P. Gegney, Envision Scientific Solutions, Southport, CT; Lawrence Liberti, CMR Institute for Regulatory Science, Holland, PA; Paul Verdin, Hans Poulsen & Ravi Degun, CMR International, London, UK; Cindy W. Hamilton, Hamilton House, Virginia Beach, VA

Background: Pharmaceutical companies employ many medical writers, but little is known about their work environments or how work quality and productivity are measured.

Objective: To explore these issues, the American Medical Writers Association (AMWA) and CMR International (a Thomson Reuters company that conducts industry research) surveyed medical communication managers at pharmaceutical companies.

Methods: The survey was conducted between October and December 2009. Potential participants were identified from AMWA membership and CMR client companies. A fee was required to participate and to access resulting data, including general reports and comparisons of company-specific versus aggregate data.

Results: Of 13 responding companies (15 respondents), 61% were headquartered in the US, 31% in Europe, and 8% in Japan. All were among the 50 largest in the industry; 62% were among the 20 largest. The number of full-time equivalent employees within medical communication groups ranged from <20 (53% of respondents) to >40 (13%). Medical communication was usually organized into separate departments (80%); regulatory writing and scientific publication functions were always separate. Outsourcing of writing projects increased during the past 3 years for 47% of respondents; 60% expected
it to increase over the next 3 years. Over half (57%) of respondents said work produced by internal staff members was generally of better quality. Quality measures most often considered useful included numbers of errors requiring correction (67%) and arising after document publication (53%). Managers rated relative productivity as not different between outside vendors and internal staff (61%), favoring staff (31%), and favoring vendors (8%). Productivity measures most commonly used included number of completed documents in a given timeframe (87%) and time to generate a specific draft of a document (80%).

Conclusions: Among medical communication departments in large pharmaceutical companies, outsourcing is increasing more than decreasing, despite the perception that work produced by internal staff was of better quality.

#7 Planning is Key: Lessons Learned from a Recent Biologics License Application Submission

Kim Millar, Senior Medical Writer, Dendreon Corporation, Seattle, WA

Introduction: Careful planning and coordination are vital factors in the timely submission of a Biologics License Application (BLA) or New Drug Application, the final step in obtaining regulatory approval to market a product. Writing the submission itself can all adversely affect project timelines. Such issues can be particularly detrimental for small organizations with limited personnel and financial resources. A proactive approach to planning every aspect of the submission process will enhance the quality of the document, ease the work of the contributors, and keep the project on track.

Objective: To share the lessons we learned and offer suggestions for managing the processes involved in submitting a BLA.

Method: The poster will share our experiences by describing our processes, stating what worked and what did not, and discussing operating procedures we would use in the future. In particular, we will discuss the importance of the following: including the writer(s) in all planning activities; having the writer(s) become familiar with available programs, infrastructure, and resources; setting limits on what is included; communicating problems as they arise; and scheduling adequate time for revisions and quality control review.

Conclusion: Careful planning, anticipation of possible issues, prioritization, and proactive communication with team members are essential for the successful completion of a BLA or New Drug Application submission.

#8 Rooting Out the Greek and Latin in Medical Terminology: A Highly Selective Look at Some Useful Principles

Steve Parker, Manager, Medical Communications, Scientific Communications, Cephalon, Inc., Frazer, PA

Introduction: According to one estimate, over 90% of medical terms are derived from Greek and Latin. Most medical writers are unlikely to have studied these languages or given serious consideration to the evolution of medical terminology. Gaining some knowledge of the etymology or origins of medical terms, understanding the pronunciation and characters associated with the language from which they originate, and knowing the rules to apply when using the plural form will give the writer a better understanding of medical terms and make it easier to transition from one therapeutic field to another.

For example, knowing that “hematopoiesis” (from the Greek words for blood and making) shares one of its roots with the word “poet” (a maker of verse) helps to familiarize the term. Similarly, understanding that “etiology” is Greek for “the explanation of causes” helps distinguish it from the Latin-based word, “causes,” with which it is often conflated. Understanding a few Greek characters can explain why British spellings like “aetiology” and “oedema” express the Greek roots of those words, whereas the American versions do not; similarly, understanding a few pluralization patterns can reveal why a Greek-Latin compound like “condylopa acuminatum” is pluralized, confusingly, as “condylomata acuminata.”

Objective: To strengthen the writer’s grasp of medical terms by demonstrating the influence of the Greek and Latin languages on their origins.

Methodology: This presentation will illustrate the relationship of selected Greek sounds and characters to Latin/English spelling, the distinct endings of Greek versus Latin singulars and plurals, and the formation of some medical terms from roots with simple, concrete meanings. Illustrations will be used to make the point that such meanings are often based on visual associations; for example, the mitral valve and the miter worn by a bishop have the same root and appearance.

Conclusion: Medical writers would benefit from an understanding of the
Greek and Latin origins of the medical terms they use.

#9 The Importance of Quality Systems for Publications

Patti Shirey, Mary Ann Thomas, Robert Achenbach, Mary Whitman; Centocor Ortho Biotech Inc., Horsham, PA

Introduction: The demand for quality in publications is so compelling that recent updates of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals, promulgated by the International Committee of Medical Journal Editors (ICMJE), include the provision that one or more authors serve as “guarantors.” Guarantors must assure the veracity and validity of the data and content of a manuscript. While quality-related processes are routine when preparing regulatory documents, few medical writing groups in the pharmaceutical industry integrate formal quality-related processes in working with authors on peer-reviewed publications. Professional medical writers have an obligation to the authors to assure the highest level of publication integrity in providing writing assistance to authors who serve as guarantors.

Objective: To describe quality assurance processes and techniques that maximize the integrity of peer-reviewed publications.

Discussion: It is difficult for authors to spot many errors or inconsistencies in a complicated scientific manuscript. This is not necessarily a reflection of the authors, who can benefit significantly from the special expertise of a quality assurance reviewer. Quality issues (e.g., methodological inadequacies; data errors, weaknesses, and omissions; inaccurate reporting; unstated study limitations; unsubstantiated conclusions; and erroneous literature citations) have been reported to be rampant in the medical literature. Quality assurance can improve the quality of the manuscript by calling attention to errors, inconsistencies, data misinterpretations, biases, and other weaknesses that compromise the quality of a peer-reviewed manuscript. Quality is achieved through detailed processes validating ethical adherence, data and reporting consistency, standardization, and uniformity with the ICMJE, World Association of Medical Editors (WAME), Committee on Publication Ethics (COPE), Council of Science Editors (CSE), as well as journal level requirements (e.g., CONSORT, independent statistical review and specifications).

Conclusion: Incorporating quality-related processes (e.g., quality assurance and quality control) into the development of peer-review publications can help to attain the highest level of publication integrity.

#10 Tools and Procedures to Improve Transparency, Facilitate Compliance with Authorship Guidelines, and Minimize the Potential for Bias in Scientific Publications: One Company’s Perspective

Michelle Zakson, Robert Ahlstrom, Kathryn J. Boorer, Erica Rockabrand, Vidya Setty, Dikran Toroser, Holly Zoog, Juli Clark; Amgen Inc., Thousand Oaks, CA

Introduction: Individuals conducting medical research have an ethical obligation to publish their discoveries. The ethics surrounding authorship of medical publications with industry involvement have been a persistent issue of scrutiny. The integrity of published scientific information is called into question when claims of “ghostwriting” or “guest authorship” are raised.

Objective: We present how our company ensures that their publication practices are aligned with current industry guidelines and best practices so that the merits of the scientific research can be the focal point.

Methods: We have an existing company-wide publication policy that defines interactions with authors, establishes standards, and ensures transparency. This policy has been adapted into a standard operating procedure (SOP). The SOP was established to ensure that authors: 1) are involved in publications at the earliest stage of development; 2) provide clear direction throughout the development of the publication; and 3) recognize and disclose financial and other potential conflicts of interest.

Results: Tools have been developed to assist employees in executing and documenting compliance with the SOP. These include author agreement letters, agenda templates for publication kickoff meetings, standardized language for obtaining final approvals and confirmations from authors that they meet ICMJE authorship guidelines, and a publications manual that provides further guidance and recommendations. Representatives from legal, compliance, publication-planning, and medical writing functions worked together to create the SOP and related tools. All staff involved with planning, developing, approving, and/or submitting publications must be trained to be compliant with this SOP.

Conclusions: Best practices for implementing an SOP related to interactions with authors, establishment of standards, and assurance of transparency will be discussed, including how the SOP corresponds with the Good Publication Practices (GPP2) guidelines.
If you attend only 1 conference this year, AMWA’s 70th Annual Conference is the best value!

AMWA offers one of the most extensive, diverse, and cost-effective education programs available to communicators in the medical and allied scientific fields.

- In today’s uncertain economic times, investing in your professional development is a must! With AMWA’s annual conference, you will gain benefits in the form of new skills and knowledge and return to the office with real-time solutions that can be implemented immediately—a tangible return on your investment.
- The budget-friendly conference registration fee includes 2 receptions, the keynote address, 40 open sessions, complimentary beverages throughout the conference, and special events like Creative Readings and the Friday Breakfast With the Exhibitors.
- The informative open sessions, included in the registration fee, provide excellent educational opportunities—there’s no limit to how many you can attend and no limit on what you can learn.
- Networking, networking, and networking! Make the connections and build your network of industry colleagues, peers, vendors, and potential clients and employers.
- Start, add to, or finish a certificate program with the many workshops being offered, including 16 new workshops.
- Attend one of the Breakfast Roundtables offered on Thursday or Saturday—or attend both days—to discuss information relevant to medical communicators.
- Location, location, location! Milwaukee is an easily accessible and affordable Great Lakes location with an unlimited number of things to see and do.
- AMWA’s annual conference is the most budget-friendly conference offered for the medical communication professional. With registration fees and hotel room rates that are much lower than those of related organizations, the AMWA conference provides a sound return on your investment.

AMWA’s 2010 Annual Conference—the most cost-effective professional development choice you will make all year!
“Authors’ Submission Toolkit: A Practical Guide to Getting Your Research Published” summarizes best practices in areas that have “traditionally been seen as mysterious to authors,” such as selecting a journal, conducting a pre-submission inquiry, adhering to journal guidelines, writing a cover letter, and responding to reviewers. The Toolkit also aims to increase authors’ confidence about acknowledging professional medical writers. It was created by the Medical Publication Practices and Insights Initiative, a project of 4 pharmaceutical companies and the International Society for Medical Publication Professionals. According to AMWA President Tom Gegeny, the Toolkit differs from GPP2 (www.gpp-guidelines.org) in that it is a more “hands-on” description of various practices, applies to non–industry-sponsored research, and was developed with input from journal editors. It was published in the August issue of Current Medical Research & Opinion; the e-pub version is free at http://digbig.com/5bbxcb.

Speaking of journal selection, every year The New England Journal of Medicine (NEJM) hires an independent company to survey physicians in 12 specialties about what journals they consider essential to their practice. Publication planners should be aware that primary care journals rank high among physicians in nearly every specialty. For example, among the top 10 journals read by cardiologists are NEJM, The Journal of the American Medical Association, Annals of Internal Medicine, Mayo Clinic Proceedings, and American Journal of Medicine. The 2009 survey report is at http://digbig.com/5bbxje.

Brief tutorials about searching ClinicalTrials.gov (including one about how to set up an RSS feed for a search) are now available at http://digbig.com/5bbwbn (scroll to the Cs). Wisely, the creators broke the instruction into 1- to 4-minute segments. At the same site (top of the page), check out the tutorials about searching PubMed for details.

“Genomic Medicine—An Updated Primer” is free online in the May 27 issue of NEJM (http://digbig.com/5bbxjg). Genomic medicine assumes knowledge of “interactions between the entire genome and nongenomic factors that result in health and disease,” say the authors, Dr. Francis Collins among them. “Regardless of where medicine is practiced, genomics is inexorably changing our understanding of the biology of nearly all medical conditions.” Use this review and its glossary to better understand the new tests and therapeutics being incorporated into routine care.

Four pharmaceutical manufacturer associations around the world, including the Pharmaceutical Research and Manufacturers of America, have issued a joint position statement on publication of clinical trial results (http://digbig.com/5bbxht). All industry-sponsored interventional trials should be considered for publication, according to the statement, regardless of whether the results are positive. At a minimum, results from all phase 3 trials and “any clinical trial results of significant medical importance” should be submitted, even if the development program has been discontinued. For products already being marketed, submission should take place within 12 to 18 months of trial completion; for investigational products, submission should occur 12 to 18 months after regulatory approval or the decision to discontinue development. Regarding the content of manuscripts, nothing in the statement will be new to experienced medical writers, except the associations are now promising that industry will, on request, provide journals with copies of study protocols and amendments. The position statement recommends acknowledging medical writers along with their affiliations, source of funding, and “any other potential competing interests.”

ARRIVE (Animal Research: Reporting of In Vivo Experiments) is a new set of guidelines intended to improve the reporting of bioscience research in which laboratory animals were used. Already adopted by more than a dozen journals, the 20-point checklist reminds authors to say how the study was designed, conducted, and analyzed. See http://digbig.com/5bbxjh for the guidelines and an associated editorial. Funding came from the National (UK) Centre for the Replacement, Refinement and Reduction of Animals in Research.

Items in Briefly Noted appear earlier on AMWA’s Editing-Writing listserv. To subscribe to this listserv, go to www.amwa.org and click on Members Only>Networking>Listserves.
The new AMWA Essential Skills certificate requires a workshop on ethics, which will be presented for the first time at the annual conference in Milwaukee this November (2 sessions). Through lecture and small-group discussion of cases, participants will consider the perspectives of various stakeholders involved in ethical dilemmas in medical communication, steps for resolving ethical problems, and practical applications for the AMWA Code of Ethics. The workshop was created and will be taught by Immediate Past President Cindy Hamilton.

The electronic form for authors to use in disclosing potential conflicts of interest, developed by the International Committee of Medical Journal Editors (“Briefly Noted,” AMWA Journal 2009;24:182) has been revised in accord with suggestions received during the first comment period. Authors who used the pilot version of the form when submitting a journal manuscript need not redo it, but the new form should be used henceforth (it’s posted at www.icmje.org). Medical writers should make sure employers/clients/authors are aware of the form and that authors report having received writing assistance and other forms of support, if applicable. Don’t forget to check individual journal requirements for disclosure, too. A second comment period on the form is open until May 1, 2011.

The Council of Medical Specialty Societies (CMSS), which represents about 650,000 of the estimated 920,000 US physicians, has released a voluntary “Code for Interactions with Companies” (http://www.cmss.org/coodeforinteractions.aspx). One of the Code’s many provisions is that medical society journals should “adopt policies prohibiting the submission of ‘ghost-written’ manuscripts prepared by or on behalf of Companies.” AMWA president Tom Gegeny and two other officers sent a letter to the CMSS expressing support for that statement, noting that it is consistent with guidelines that distinguish between ghostwriting and the legitimate roles of professional medical writers.

New guidance from the Accreditation Council for Continuing Medical Education (ACCME) softens its earlier stance that industry employees cannot serve as planners or speakers in accredited CME activities related to their company’s products. ACCME now says activities can include scientific data presented or published by employees of “commercial interests” so long as the CME provider controls the content (for the exact requirements, see questions 9–12 at http://digbig.com/5bbxcia). ACCME lists additional examples of factors for providers—and writers—to consider in ensuring the independence of CME programs: research by industry employees should not include patient care recommendations; it should be at a basic science level, be about drug discovery itself, or cover very early, pre-product research; or the target learners themselves should be scientists.

The University of Michigan Medical School will ban industry funding of its CME programs beginning January 1, 2011, according to an article in The New York Times. It is believed to be the first US medical school to adopt such a policy. (Tip of the nib to Meg Phelan.) The article generated much discussion within the Continuing Medical Education Group on LinkedIn (www.linkedin.com): join the group to review insights from CME professionals.

At the other end of the CME debate spectrum, physicians have spoken out in support of commercial funding for CME. More than 60 hematologists-oncologists responded to a recent editorial in the Mayo Clinic Proceedings to express concern about the “increasing scrutiny and regulation of the relationship we, as clinical educators and investigators, have with our partners in industry and the continuing medical education (CME) providers with whom we work. What has been missing from this important dialogue is a concerted response from those who have worked with the pharmaceutical industry and providers of CME to present the opinion that these interactions are in fact of real value. Certain evolving institutional and national trends now in the public domain may seriously curtail the interactions between clinical educators and investigators, industry, and CME providers. This will diminish clinical investigation and education alike, with a consequent negative effect on patient care.” The authors refer to the work of Thomas Stossel, MD, who is this year’s AMWA McGovern Award recipient and will deliver “Product Money in Health Care: Sin or Salvation?” at the 2010 AMWA Annual Conference. The full text of the physicians’ letter can be read at www.mayoclinicproceedings.com/content/85/2/197.full.

“Tackling the Authorship Debate in Publication Planning,” an in-depth report from The International Publication Planning Association’s (TIPPA’s) 2010 Midwest Meeting, can be downloaded for free at http://www.keywordpharma.com. Among the sessions summarized in the report, prepared by Clare Nolan, is “Can we re-establish confidence in the industry? The case for self-advocacy,” which was moderated by AMWA member (and past president) Art Gertel and included a presentation by AMWA Immediate Past President Cindy Hamilton.

Items contributed by Faith Reidenbach, ELS, and Lori Alexander, MTPW, ELS.
What is the ideal background for a medical communicator to have before becoming a freelance?

My approach to this question is, in all likelihood, different from some of my esteemed freelance colleagues. Three qualities that will help medical communicators make the transition to a successful freelance career are 1) experience, 2) contacts, and 3) insight into the real world of freelancing.

Experienced medical communicators who have a large portfolio of projects in several disciplines, in an assortment of media, and for diverse audiences will be able to position themselves to potential clients as a freelance resource for many different types of projects.

Contacts are also essential to make the move from in-house to freelance. Medical communicators must be able to convey to many different potential clients that they are dedicated to their freelance career and would be able to partner with them on projects. How do you find these contacts? Begin by contacting everyone you have ever worked with or met during the course of an in-house career. Evaluate each potential client’s business to determine if your experiences could translate into paid freelance assignments from them. Be active in AMWA and, at the least, subscribe to the Freelance Directory.

Third, an understanding of the realities of freelancing is essential. Talking with other freelance colleagues, participating in the AMWA Freelance Listserve, and participating in the many AMWA workshops and open sessions will give valuable insight into this fascinating and sometimes challenging career move. Good luck!

The 4 E’s! Experience, Education, Enthusiasm, Endurance. Freelance writing is not for the faint of heart. It is not the glamorous job most imagine. In fact, it is about 10 jobs all rolled into one every single day. Remember, you are the CEO and the janitor. So you need to be prepared for a lot more than just writing. A fair amount of experience is necessary to launch a freelance career and a minimum of 5 years in a writing environment is ideal. Note, I said writing environment, not just as a person who can write. I’m talking necessary to launch a freelance career and a minimum of 5 years in a writing environment is ideal. Note, I said writing environment, not just as a person who can write. I’m talking about working in a job where you have to meet the demands of writing full time. A job full of deadlines, moving targets, unique client needs, style guides, understanding project trafficking, familiarity with journal requirements, working with overlings and underlings, and all the myriad facets of an internal writing career. Then you may be ready for freelance. But not so fast; you need an education. Not a formal education. I’m talking about an education in the aspects of a freelance career. Of course my answer to this is AMWA workshops and networking with other freelances. Next, enthusiasm is a daily component of freelance. You have to motivate yourself every day to perform and you must perform well because you are only as good as your last job. You need to be a marketer one day and a collection agent the next; a researcher on Monday and a proofreader on Friday; a computer troubleshooter in the morning and a mechanism-of-action expert in the afternoon. Which leads me to the last
to market your freelance medical communication services. Understand your limitations before deciding how and where to determine their strengths and weaknesses. It is important to take a personal assessment of their training and experience to make the transition. I would also advise them to do ample experience in medical/scientific writing before trying to freelance. It is not like there is a published checklist! I am not going to answer this by saying you have to have a science background (I do not) or a degree in medical writing from one of the few institutions that have such a thing (ditto). I do think the following things may be especially important, however.

- Training and experience in the kind of writing you plan to do

By this, I mean sufficient training and experience that you can sell yourself as being able to do this solo. If you've written 2 clinical study reports but no other regulatory documents, I would not consider this experience sufficient enough to market yourself as a regulatory writer. The training and experience I received in company settings were invaluable to my success as a freelance. The time it takes for a writer to obtain the training and experience needed to function as a freelance will vary widely among individuals, of course.

- Working knowledge of the players in your proposed business niche

Who might be your clients? Have you identified them? How do you contact them and determine what sort of medical writing needs they may have? Who might be your competition? How do you know you can do a better job than they? These are things you should know something about prior to launching a freelance career.

- Financial situation that will allow you to have a lean beginning and still be ok

It may take awhile to get established as a freelance, and it may be very slow going at first. Can you cover all your payments (including health insurance) if it takes as much as a year to have fairly steady work? Can you afford to buy any necessary equipment and software you may need? If you are uncomfortable having a less-than-steady income, then freelancing may not be for you.

- Personality conducive to freelance work

Not everyone has the personality to be a freelance. Some people feel really isolated working alone and need more human interaction. Some people cannot overcome the distractions of working at home like raiding the refrigerator or doing chores. It takes some discipline and self-control to do freelance work!

—Sherri Bowen

This is a tough question for me to answer because I am among the most unqualified to do what I do for a living. I was a devout theater major who graduated with a BA in communications from a college so far on the lunatic fringe (at the time, now it's actually quite a respectable place) we had to design our own majors and petition for the right to graduate with them.

My entrance into the world of medical communications only briefly preceded my entrance into freelancing; and then, it began in animal health pharmaceuticals. If I were
the type to be discouraged, I would be very discouraged reading the AMWA freelance job listings because I am consistently grossly underqualified for nearly all of them, even now, because they are typically based on educational qualifications. But I am not easily discouraged.

I know there is a big to-do about whether scientists and post-docs are qualified to write manuscripts. Frankly, they’re all more qualified than me when it comes to education, and they are more experienced than I was starting out when it comes to relevant work experience. So I don’t get it.

Perhaps I’m too simplistic, but I believe that if you can demonstrate an ability to write and you know or can learn the subject matter quickly and to a sufficient degree for the project at hand, you are qualified to be a medical communicator. Having an advanced scientific or medical degree (whether it’s a BS, RPh, PA, RN, NP, PharmD, PhD, DDS, DMD, DVM, DO, MD, or whatever) says as much about your ability to write well as having an English degree says about your ability to perform surgery. It doesn’t. So we all have to prove ourselves in the real world.

Becoming a freelance medical communicator, that is a completely different animal. Regardless of how you came to medical communication, and no matter how good at it you are, being a medical communicator does not automatically qualify you for becoming a freelance. In fact, thinking it does can be a real detriment to one’s career. Freelancing is a completely separate skill set; one that not nearly as many people have as think they have. Likewise, there are many medical communicators who I believe could become successful freelances if only they would take the leap. But this is another question for another day.

—Brian Bass

The field of medical communication has several different areas of specialization, for example, regulatory writing, consumer health writing, patient education, continuing medical education (CME), promotional/marketing, public relations—the list goes on. I believe that anyone who is capable of reading and understanding complex topics, whether or not they have an advanced degree, is capable of becoming a medical communicator. However, in some areas, such as regulatory writing and CME, most of the job descriptions do ask for an advanced degree in a science or a professional medical degree, such as an RN. Whether an advanced degree actually makes a person more capable of doing the work of a medical writer is subject to debate, but the reality is that trying to get work without an advanced degree, in some areas of medical writing, is a challenge. This is true whether a medical communicator is seeking a staff job or freelance work.

I think over my past 10 years working as a freelance medical writer, the specific subject area of my doctoral dissertation (Jun N-terminal kinase [JNK], in case you care) was relevant to what I was writing about maybe once or twice, and even then it was only peripherally related. So it’s not the knowledge conferred by an advanced degree that is helpful. I think the graduate school experience taught me how to sift through cumbersome stacks of scientific papers without panicking and perhaps where to look things up. But maybe you get that by experience also. Whether or not it is justified, that advanced degree is definitely a marketing tool when it comes to getting freelance work. I think at least a science undergraduate degree is useful for anyone planning to write about medicine, although an intelligent, skillful writer can write about any topic if he or she has access to information and the willingness to acquire some background knowledge.

More important than educational background perhaps are specific skills/qualities that a medical communicator brings to a freelance or staff job. These skills/qualities can be honed by any number of backgrounds and degree areas. Some skills/qualities that I think are essential are having the type of intelligence that can accurately assess and identify logical connections between ideas; the ability to see the big picture while being extremely detail oriented; the ability to work in a still, quiet environment without social interaction for long periods; and the ability to concentrate for long periods. You must also learn the fundamentals of grammar and good writing, obviously. People have varying degrees of natural talent, but no one comes out of the womb knowing how to write. The knowledge of how to write can be gained through classes or even by reading several books on writing. It’s also important to have your writing critiqued by others a few times.

The ideal background for both staff and freelance medical communicators is for the most part identical; however, freelance medical communicators in particular would benefit from the added attribute of being thick-skinned—revisions and even criticism are a part of the job no matter how good and experienced you are (and editors aren’t as always as polite to a freelance as they would be with a coworker). In addition, freelances must be highly organized with good bookkeeping skills (or ability to use QuickBooks)—otherwise they won’t know who has paid them and they may get in trouble with the IRS. People skills, at least by e-mail, are extremely important for turning freelance clients into long-term clients, as well as for holding onto a staff job.

—Emma Hitt, PhD

Before becoming a serious freelance medical writer/communicator—ie, establishing a business as a self-employed person who will make a living as a freelance medical writer—I believe one should have extensive experience as a medical writer (maybe not the 10,000 hours recommended by Malcolm Gladwell, but at least a few thousand hours!). This is a sine qua non. Because our profession offers few apprenticeships or internships, this kind of in-depth experience is generally best acquired as a full-time employee of an organization that hires medical writers/editors.
(The background necessary to obtain these positions is a different topic, to be addressed another time.)

I do not recommend trying to be a freelance medical writer until you’ve first acquired all the background, skills, employment history, and experience of a good medical writer. (Would you hire a gardener to remodel a room in your house simply because she or he built a garden shed for you, and now wants to try out other skills as a professional builder at your expense? I don’t think so.) The freelance must not only be quite expert in medical writing and communications, she or he must also be able to set up and manage a business, which requires an entirely different skill set.

So . . . assuming you are a qualified professional medical writer with proven experience in your chosen field, now you must learn what it means to be “in business” and be prepared to operate accordingly. Most businesses require the same specific functions. For example, there must be a chief executive officer, president, or proprietor. The functions of marketing director, sales manager, director of finance, bookkeeper/accountant, administrative or other office assistant, public relations officer, purchasing manager, shipping clerk, etc, must be performed. Regardless of how you structure your business, someone has to perform all of these duties—and in the beginning, this is likely to be you!

If you don’t already have a background in business and don’t want to go to business school or get an MBA, you’ll need help. The Small Business Association (SBA) (www.sba.gov/index.html) is a fabulous resource for information, training, and counseling. I don’t mean to be a walking advertisement for SCORE (formerly Service Corps of Retired Executives), but this organization has partnered with SBA for the specific purpose of teaching people how to start small businesses. SCORE gives free seminars as well as online counseling (www.score.org). I suggest that you attend a class in your own city as soon as you’ve decided to start a freelance business. It’s probably the least expensive, easiest, and most enjoyable way to learn what you need to know about business. And your questions will be answered in person by a live human being! Discussions with other participants, who bring their own background/experience to the table, enhance the learning experience. I attended a seminar when I first started my business and then repeated it a couple of years ago just to update.

In addition, AMWA offers workshops on the business of freelancing as well as other courses specific to the freelance. The AMWA Freelance Listserv is also a valuable tool for the experienced writer who needs help with freelance issues. I’ve found other freelances to be very generous in helping with business-related questions (contracts, estimating, computer issues and resources, billing/collecting, etc).

You can buy software to help you write a business plan. (You can find it through a search on Google.) Personally, I don’t think you need the software; for an experienced writer, this is an unnecessary expense. SBA/SCORE also offers relevant and useful publications and samples. Once you’ve learned the structure of a business plan (which is easy through SBA/SCORE), you can write your own. And once you’ve written even a first draft of a business plan, it will be crystal clear what you really want and don’t want, where your strengths and weaknesses lie, and what you might need to continue moving forward.

In summary, the background and qualities a freelance medical writer needs include the following.

• Substantial experience as a medical writer in your chosen field
• Good understanding of the structure and operation of a business
• Willingness to perform the many functions required in business
• Commitment to self-employment
• High level of energy (!)
• Ability to manage time well
• Flexibility required to undertake enormously varied types of projects
• Willingness to learn something new . . . constantly
• Ability to go out and make contacts
• Ability to handle rejection
• Patience, persistence, and a sense of humor

—Cathryn D. Evans

AMWA FIRST-TIME ATTENDEES NEED YOU!

Help welcome first-time conference attendees to AMWA’s 70th Annual Conference in Milwaukee—be a conference coach!

If you plan to attend the conference in Milwaukee, please consider volunteering as a conference coach. With just a little bit of your time and knowledge you can help make the AMWA experience a memorable one for the newcomers!

To volunteer, check the appropriate box on the conference registration form or contact Dane Russo, Education Manager, at (301) 294-5303; e-mail: dane@amwa.org.
RPS has created the industry’s first Pharmaceutical Resource Organization (PRO) to provide business process outsourcing solutions for clinical drug development. Pharmaceutical, Biotechnology and Medical Device companies that partner with RPS have experienced:

- Increased integrated control of clinical trials;
- Improved and substantially better on-time delivery of programs; and
- Marked reduction in the overall lifecycle costs compared with traditional outsourcing strategies.

By combining the largest recruitment team with true clinical oversight, RPS has achieved a service level that is well above the capabilities of any CRO or staffing company in this industry.

As a member of our team, you will enjoy the flexibility of contract work with the security and benefits of a permanent industry position. You’ll have the opportunity to work in an area of interest and expertise at the top Sponsors. At RPS you’ll appreciate:

- A team of RPS professionals fully dedicated to the enhancement of your career
- Exciting positions, designated to a project for the life of the project
- Highly competitive salary
- Comprehensive benefits package:
  - Medical and dental insurance
  - Vision care
  - Company sponsored disability and life insurance plans
  - 401(k) plan
  - Generous paid vacation
  - Paid corporate holidays
  - Corporate credit cards and calling cards

Join An Industry Leader!
If you went to public school in the United States in the 1960s or later, you probably did not have much formal instruction in English grammar. I have helped many people achieve dramatic improvements in their writing skills simply by having them review the parts of speech and learn some simple rules of Standard English syntax. It’s particularly important for editors to be conversant with these rules. This knowledge will enable you to decide what editorial changes are truly necessary and to explain the need for those changes to your authors. “In the Service of Good Writing” is a new Journal series designed to show writers and editors how to use the mechanics of Standard English to improve clarity and style.

Word Order and Prepositional Phrases

Some musicians naturally have perfect pitch, and some writers naturally have a knack for putting words in a logical order. Somehow, the naturally gifted writers have spontaneously absorbed the rules of Standard English syntax. They automatically put each modifier in exactly the right place, so that it modifies exactly what it’s supposed to modify. As a result, their writing is clear and easy to read.

Even if you don’t have that natural gift, you can improve your prose style by learning and applying some simple rules for how and where to use modifiers. I have seen people improve their prose style dramatically within a matter of days after I taught them these rules. The simplest of these rules deals with prepositional phrases.

If you put a prepositional phrase in the wrong place, it can change from adverbial to adjectival (or vice versa). If the phrase is clearly adverbial, it can still end up modifying the wrong thing if you put it in the wrong place. As a result, their writing is clear and easy to read.

Even if you don’t have that natural gift, you can improve your prose style by learning and applying some simple rules for how and where to use modifiers. I have seen people improve their prose style dramatically within a matter of days after I taught them these rules. The simplest of these rules deals with prepositional phrases.

Misplaced Adverbial Phrases

Even if a phrase is clearly adverbial, it can still modify the wrong thing if you put it in the wrong place. That’s because adverbs are so versatile. They can modify almost anything. See how much trouble even a clearly adverbial phrase can cause if it’s put in the wrong place:

She decided to abstain from drinking after going to church.

The prepositional phrase after going to church is clearly adverbial, but ordinary readers will figure out the meaning of the sentence anyway. That’s because they have enough of what artificial intelligence researchers call commonsense knowledge to know that products, not distributors, are found in bottles. It may take your readers an extra fraction of a second to decipher what you meant; but as long as you are writing about commonplace things, they can usually figure it out. Unfortunately, medical writing often deals with things that are not commonplace, and about which no one has commonsense knowledge. In that situation, the reader needs every contextual clue you can provide.

Adjectival or Adverbial?

Prepositional phrases can act as adjectives or adverbs. Adjectives can modify a noun, pronoun, or other substantive (ie, something that acts as a noun). Adjectives pose or answer such questions as what kind or how many. Adverbs are much more versatile. They can modify verbs (including infinitives and participles), adjectives, other adverbs, prepositions, phrases, clauses, or whole sentences. Adverbs pose or answer such questions as how, when, where, why, or how often.
They simply explain *when* she made a decision, not *why* she made it or *how well* she followed through with it. Good technical writing would clarify those issues, if they are relevant.

**Improving Your Skills**

I have seen people make dramatic and lasting improvements in their writing abilities, virtually overnight, as a result of studying the parts of speech and learning a few simple rules of syntax. Back when I was responsible for training copyeditors and proofreaders, I asked new employees to spend their first few days on the job reviewing Capital Community College’s Guide to Grammar and Writing ([http://grammar.ccc.commnet.edu/grammar/index.htm](http://grammar.ccc.commnet.edu/grammar/index.htm)). I asked them to read the discussions, take the quizzes, and watch the presentation on how to diagram sentences. I told them that when they encounter a confusing or ugly sentence while editing, they should try diagramming it. If they can’t figure out what parts of speech a word can be, they should look it up in *Merriam-Webster* ([www.merriam-webster.com](http://www.merriam-webster.com)).

If you are self-employed or are working somewhere that doesn’t have a formal training program, you’ll need to develop your own curriculum. I strongly recommend that you include something that has quizzes with answers, so that you can test your skills. The sidebar lists some further references that might be useful.

Even naturally gifted writers can benefit from learning the rules of syntax, especially if they become editors. This knowledge gives the editor a rational basis for deciding whether any particular editorial change is truly necessary. It also enables the editor to justify his or her changes to an author. Editors who can provide this kind of explanation for any change they recommend will earn the respect of most authors. This kind of feedback also helps the authors become better writers, which saves us all time and hassle in the long run!

---

**AMWA Puzzler**

Developed by Laura Ninger, ELS, Rutherford, NJ

If you have found a valuable online resource, please send it to the AMWA Journal Editor at amwajournaleditor@editorialrx.com.
**November**

National Association of Science Writers
Workshops/Council for the Advancement of Science Writing New Horizons in Science Conference
November 4-9, 2010
New Haven, CT
Phone: (304) 754-5077
E-mail: diane@nasw.org (Diane McGurgan)
Web site: [www.casw.org](http://www.casw.org)

Association of American Medical Colleges (AAMC) Annual Meeting
November 5-10, 2010
Washington, DC
Phone: (202) 828-0400
E-mail: annmeeet@aamc.org
Web site: [www.aamc.org](http://www.aamc.org)

American Public Health Association
November 6-10, 2010
Denver, CO
Phone: (202) 777-2742
E-mail: annualmeeting@apha.org
Web site: [www.apha.org/meetings](http://www.apha.org/meetings)

European Association of Science Editors
November 11-13, 2010
Nice, France
Web site: [www.ease.org.uk](http://www.ease.org.uk)

**April**

International Society for Medical Publication Professionals
April 4-6, 2011
Arlington, VA
Phone: (914) 945-0507
E-mail: kgolden@ismpp.org (Kimberly Goldin)
Web site: [www.ismpp.org](http://www.ismpp.org)

Health Academy, Public Relations Society of America
April 27-29, 2011
Washington, DC
Phone: (212) 460-1456
E-mail: don.bill@prsa.org (Don Bill)
Web site: [www.healthacademy.prsa.org](http://www.healthacademy.prsa.org)

American Society for Indexing
April 28-30, 2011
Providence, RI
Phone: (303) 463-2887; Fax: (303) 422-8894
E-mail: info@asindexing.org
Web site: [www.asindexing.org](http://www.asindexing.org)

Council of Science Editors
April 29-May 3, 2011
Baltimore, MD
Phone: (703) 437-4377; Fax: (703) 435-4390
E-mail: cse@councilscienceeditors.org
Web site: [www.councilscienceeditors.org](http://www.councilscienceeditors.org)

**February**

American Academy for the Advancement of Science
February 17-21, 2011
Washington, DC
Phone: (202) 326-6400
E-mail: aaasmeeting@aaas.org
Web site: [www.aaas.org](http://www.aaas.org)

**March**

American Pharmacists Association
March 25-28, 2011
Seattle, WA
Phone: (800) 237-2742 (ext. 7578)
E-mail: sberkowitz@aphanet.org (Stacy Berkowitz)
Web site: [www.aphanet.org](http://www.aphanet.org)

**June**

Society for Scholarly Publishing
June 1-3, 2011
Boston, MA
Phone: (303) 422-3914; Fax: (303) 422-8894
Web site: [www.sspnet.org](http://www.sspnet.org)

Health and Science Communications Association
June 1-4, 2011
Phoenix, AZ
Phone: (860) 376-5915
Web site: [www.hesca.org](http://www.hesca.org)
I shudder. I close my eyes. I take a deep breath. And then I go back to reality. I ask myself whether I am being too critical or whether my concepts are wrong.

What in the world does this to me—almost every time? A common grammatical error! No, not just any error but one that finds itself repeated frequently in the public eye, or ear, one that may be exemplified by “John lauded him getting the award” or by the title of this column.

They sound good, but they are wrong, and the people who use these phrasings do not generally know they are wrong. And I’ll admit that at times it is difficult to determine rightness or wrongness or how to go about making that judgment. Because of the difficulty in understanding this faulty phrasing, I often overlook it when it is said by an individual in a conversation. I go completely beserk when it is spoken in a formal speech by a well-educated person, or worse, when it appears in an advertisement (usually national) that we presume has gone through several levels of editing or through the machinations of an advertising agency, or in an article in a respected newspaper that also uses several layers of editing. There is no justification for the error in these latter cases. I’ve been riled by constructions such as “My teacher approved me getting the certificate,” or (on the sports page) “The other coach hated us winning the game,” or (in a graduation story) “The dean extolled him finishing first in the class,” or, or, or…. Because of the frequency with which this error occurs, it has become one of my pet peeves.

But determining which pronoun to use is difficult. Patricia T. O’Conner, a former editor at The New York Times Book Review, gives us a great clue in her fabulously titled work on grammar, Woe is I.

O’Conner presents first a test question for her readers: Which, she challenges, is correct?

1. He resents my going.
2. He resents me going.

As if you didn’t know, the answer is number 1. To understand clearly, she says, if you can substitute a noun for the -ing word, then treat the -ing word as a noun. Then she adds, “That makes the word in front a possessive (my, not me).”

Her point is exemplary. Look again at the 2 previous sentences.

He resents my going.
He resents me going.

Now substitute the noun departure for the verb going. It then becomes clear: He resents my departure is right and (obviously) He resents me departure is wrong. So then, He resents my going is the correct form. O’Conner’s clue is a great one that should be remembered.

As in so many things grammatical, rhetorical, or compositional, when in doubt, cut it out—that is, start over again.
Edie has been in a rehabilitation facility since having a stroke last year. She is thrilled to continue helping members solve their grammar and usage questions through her column, although without her valuable resources on hand, her answers are concise.

DEAR EDIE: You and I go back a long way in terms of our own relationship and in the field of editing for medical journals and books—in my case, 32 years, and in your case, I suspect, even longer. Would you care to revisit your views on the “slippery slope” of grammar, spelling, and usage during this time? In particular, I see the tendencies of “alphabet soup” and the elimination of articles (“the”) to reduce word count, the dropping of commas before words in apposition, and the elimination of apostrophes for words/expressions acting grammatically as possessives (from non-Hodgkin’s lymphoma to non-Hodgkin lymphoma; from Wilcoxon’s test to Wilcoxon test). Constantly, I see dangling modifiers combined with passive voice to create ridiculous expressions (“Combining the categories and analyzing the data, the results were consistent…”), where the results themselves could not combine or analyze anything.

My question: How do we defend against this slippery slope when the authors are happy with the paper as is, when the publishers seek instant publishing upon peer review acceptance, and when readers online probably never notice the difference between a well-written and well-edited paper and one that is not? Or, should we forego the principles of good writing and simply “go with the flow”? In these days of instant text messaging and even more cryptic communications, are we out of sync with the rest of the world? What are your views?

AMY REDMON-NORWOOD, MA, ELS
Baltimore, MD

DEAR AMY: My plea to medical writers: Please do not dumb down the language. The examples you cite are the result of a lack of education in grammar in elementary school that goes back many years. Regarding alphabet soup, acronyms and other abbreviations are overused. A word about that: Remember that not all abbreviations are acronyms. An acronym must be pronounced as a word (for example, NATO or NIMBY). Otherwise, it is just a lowly abbreviation. In any case, abbreviations should be used judiciously to aid in comprehension. Where possible, stick to a limited number of well-known abbreviations. Unusual abbreviations should be used only if necessary to avoid repetition of long multiword terms. Text that is overloaded with abbreviations is difficult to read, especially if those abbreviations are not well known. A final note on the subject: One must be careful to use the appropriate article before an abbreviation. The choice is always based on how the abbreviation is pronounced, not on whether the first letter is a consonant or a vowel. One would say “an NYU student,” never “a NYU student.”

[Sidebar: This reminds me of the term warfarin. This is an acronym. The –in comes from coumarin, and the front end of the word comes from the Wisconsin Alumni Research Foundation.]

The elimination of articles (“the” or “an”) to save space in newsprint and medical journals has come about because of the cost of printing. Economic pressures have also resulted in other space-saving measures, such as the elimination of spaces before and after a colon in literature references. Journals have also cut down considerably on what they consider necessary punctuation. Of course, I disagree with them. Clarity begins at home. We should never defer to the short version when it is ambiguous.

The issue of whether or not to use the possessive or nonpossessive forms, as in the names of diseases or statistical tests, is an old, old controversy. A historical note: A few decades ago, I posed this question to the editor of Dorland’s Illustrated Medical Dictionary. She said matter-of-factly that there had been much discussion at Dorland’s. Her conclusion was, “Whatever is most used by physicians and medical writers should be the guiding light.” That was then, this is now. The trend today is to omit the possessive ending in the names of conditions and syndromes. However, one should be careful not to omit the apostrophe in the names of medical devices. For instance, if you want to mention the Holter monitor in talking about the professor’s invention, it would be “Holter’s monitor,” because he holds the patent (or used to).

My response to your point about dangling modifiers is simple: “Don’t do it!”
DEAR EDIE: Is it correct to use the preposition “on” rather than “about” in the following examples?
   “General Comments on Treating Diabetes”
   “Educate on benefits of…”

I feel the need to change “on” to “about” in both of these examples, but since my writers keep using “on,” I am beginning to doubt my editorial skills. Is it now correct to use the preposition “on” to mean “about”?

JENNIFER MAYBIN, MA, ELS
Branchburg, NJ

DEAR JENNIFER:
Prepositions are probably the most difficult thing for nonnative speakers. “On” is perfectly OK to use since it does mean “about” in this context. Consider “Reflections on a Productive Life.” One can usually detect that a person was not born in the US by the incorrect use of a preposition.

DEAR EDIE: When performing reviews of clinical documents, I often use phrases such as “the protocol states that XXX” or “the guidance document states, XXX.” A colleague uses the phrase “the protocol reads, XXX.”

Which, if any, of these statements is grammatically correct? A third colleague believes that none of these statements is appropriate since the protocol/document (an inanimate object) cannot do anything—it cannot speak, so it cannot “state.” I am now rephrasing when possible, using “according to the protocol, XXX.” However, I would appreciate having options. We have not been able to find any guidance online, although I have noticed that various journals use “state” and occasionally “read” in the same manner.

AMANDA (ZIEHM) SACHTLEBEN
Frederick, MD

DEAR AMANDA: Contrary to popular belief, a study or trial or inanimate object can show things. This is accepted and acceptable in the literature. One can find one’s way out of this paper bag by quoting the protocol directly. The protocol states: “...”

In your direct allusion, make sure that your grammar is correct. If you quote directly, of course it will be exactly as the protocol reads, within quotation marks.

DEAR EDIE: During a recent conversation about house style, some colleagues insisted that the phrase “pH between 5.0 and 7.0” means “from 5.1 to 6.9” because “between” excludes the endpoints. My colleagues were not amused at my suggestion that “between 5 and 7 = 6.” What are your thoughts on this?

STEFAN SCHUBER
Gaithersburg, MD

DEAR STEPHAN: If there is anything that requires preciseness, it is exactly this kind of wording. I would take it to mean that the figures are inclusive.

DEAR EDIE: I am summarizing studies on hepatitis C for an audience of substance abuse treatment counselors. The literature refers to injection drug use, needle sharing, and the like as “risk behaviors” (behaviors that put people at risk of contracting the hepatitis C virus), but my editor keeps changing it to “risky behavior.” For example: “Interviews with people who inject heroin found that knowledge of possible consequences of injection drug use … was not enough to change risky behaviors in people who were indifferent to or fatalistic about death.”

I look forward to your thoughts on this.

KRIS RUSCH
Baltimore, MD

DEAR KRIS: Funny you should write about that—many years ago, I encountered the same kind of question about arrhythmia. I first thought that arrhythmia is arrhythmia is arrhythmia and there could not be a plural. However, as all of you know, there are many kinds of arrhythmias, and so there can be many kinds of behavior. You are correct, in that the plural “behaviors” may cause dysphagia at first, when you think about it, you will realize that there is more than one kind of behavior. I do not like “risky behavior.” I would use the plural, “behaviors.”

I thank Robert Hand and Kelly Flaherty for their invaluable help in composing this column.

Edie Schwager, a freelance writer, medical editor, and workshop teacher, lives in Philadelphia. She is the author of Medical English Usage and Abusage and of Better Vocabulary in 30 Minutes a Day. She welcomes queries and comments by e-mail, and in publishable form. Edie’s e-mail address, not surprisingly, is dearedie@verizon.net. Questions may also be sent to the Journal Editor at amwajournaleditor@editorialrx.com. Answers to Dear Edie questions will be published in the Journal but will not be sent in e-mails to correspondents.

To avoid back-and-forth, time-consuming messages, please include permission to publish along with the questions or comments. For verification, correspondents must provide all addresses, especially the city and state, of the correspondent or the affiliate.
Everything You Ever Wanted to Know About Social Media, but were afraid to ask…
Hilary JM Topper, MPA
iUniverse, Inc., 2009; 172 pages

If you’re thinking about dipping your toes into social media but don’t know where to begin, pick up a copy of Hilary JM Topper’s book, *Everything You Ever Wanted to Know About Social Media, but were afraid to ask…* Hilary is the founder of HJMT Communications, LLC, a boutique public relations, social media, event planning, and graphic design agency. She uses her nearly 30 years of public relations, advertising, and marketing experience to provide simple instructions on how to begin using social media to promote your business. And the key word is “beginner.” If you are already adept at using social media sites such as LinkedIn, Twitter, and Facebook, you probably won’t find this book useful. *Everything You Ever Wanted to Know About Social Media, but were afraid to ask…* is a quick read, written in a conversational, sitting-around-the-coffee-table, first-person voice. The chapters, which are short and thoughtfully organized, begin with 5 introductory chapters that introduce the basics of social media. Here, Hilary defines some common social networking terms and phrases, such as “building a community,” “friends and followers,” and “link shrinking,” to name a few. The next 21 chapters focus on selected social media sites starting with Bebo and Brightkite and ending with Second Life and YouTube. Each review includes instructions for signing up, tips to personalize your profile, and a list of the site’s differentiating features and applications. Hilary concludes each review with a paragraph or two that reflects her personal opinion about the site’s benefits and usefulness. The final 5 chapters briefly touch on the use of social media by nonprofit organizations, dealing with bad media, going viral, and emerging social media trends.

Thousands of social networking sites exist on the Internet, with new ones emerging almost daily. Deciding which sites to review was probably a challenge for the author. I would have liked to know more about the selection process, since certain sites I find useful (Biznik, as one example) are not mentioned. (See page 133 for details on Biznik.) What I enjoyed most were the reviews of some less familiar social media sites, including hi5, Indenti.ca, Plurk, Plaxo, and Spoke, as well as Hilary’s personal take on each site. The concise and engaging chapters are written in a way that eases readers into the social media process and enables them to identify the social media tools that best suit their goals.

I did find the book’s title to be a bit of a misnomer. With the constantly changing world of social media, it is impossible to teach readers everything they need to know in only one book. For social media novices, however, this book is a good place to start.

To order a copy of *Everything You Ever Wanted to Know About Social Media, but were afraid to ask…* or for more information call 516-997-1950, visit www.hjmt.com, or go to Amazon.com or BarnesandNoble.com.

—Cyndy Kryder

Cyndy is a freelance medical writer in Phoenixville, PA, and is a Co-Editor of the Social Media Section of the AMWA Journal.

The Fight to Survive: A Young Girl, Diabetes, and the Discovery of Insulin
Caroline Cox
New York: Kaplan Publishing, 2009; 288 pp

*The Fight to Survive* weaves together 2 interesting stories—that of a young girl, Elizabeth Evans Hughes, and of medical researchers struggling to find a cure or treatment for diabetes. The author draws on interviews, newspaper reports, and letters from the young girl to chronicle this story that would later save the lives of millions.

In 1919, 11-year-old Elizabeth Hughes was diagnosed with what we now know as type 1 diabetes, or juvenile diabetes. Her family had great
wealth and influence. Her father, Charles Evans Hughes, was a governor of New York, candidate for president, and a Supreme Court justice. Because of the family’s wealth and ability to travel, they were able to get the “best care” known at the time. For years, Elizabeth was kept on a demanding 800-calorie-per-day diet, known as starvation therapy. The courage and fortitude of this young girl was amazing. She made plans for the future, read constantly, and loved people. Although she was weak, she claimed life on her own terms.

Two young scientists then enter the picture. At the University of Toronto, Frederick Banting and Charles Best researched the literature about the latest in diabetes research and experimented tirelessly to make one of the greatest scientific discoveries of the twentieth century. Another scientist, John McLeod, joined the team. The story of their frustrations, anxieties, and even personal rivalries offers a profound understanding of the research team.

In the summer of 1922, Elizabeth, at 14, weighed only 45 pounds and was barely able to move. She was near death. But Banting and colleagues now had a version of insulin, which they wanted to test, and Elizabeth agreed to be one of the first recipients. The results were amazing. Elizabeth began to feel better immediately. Living to the age of 74, she was able to fulfill many of her dreams. Banting and the researchers won the Nobel Prize in medicine for their remarkable discovery.

This book is a very inspiring and quick read. It is valuable in its information about medical history and the history of treating one of the world’s great scourges, and the courage of this young girl will encourage people today. AMWA members will not only find the book valuable for the medical content but will enjoy the 2 beautiful stories with such happy endings. It would be a great gift for a young reader.

—Evelyn Kelly, PhD

Evelyn is a medical writer and educator in Ocala, FL.

**Reporters and Bloggers Wanted!**

Make the most out of the 2010 AMWA Annual Conference by covering a session or speaker for the AMWA Journal and/or the AMWA Conference Blog. Writing a summary for the Journal will not only give you a published piece to add to your portfolio but will also help bring the conference to hundreds of AMWA members who are unable to attend. Add to your blogging experience by highlighting a session or lecture in the Conference Blog, which helps inform non-attendees as well as those at the conference. If this will be your first conference, a summary of your experience for the AMWA Journal can help promote the value of the conference to others who have not attended yet. If you are interested in any of these opportunities, send an e-mail to the AMWA Journal Editor at amwajournaleditor@editorialrx.com.

**AMWA's 5th self-study workshop, Elements of Medical Terminology, will be released at AMWA's 2010 Annual Conference in Milwaukee.**

Self-study workshops are a great way to earn credits toward an AMWA Essential Skills certificate or to expand your skill set and knowledge base. They are also excellent references. All 5 modules will be available at AMWA’s registration area for a special discounted price for conference attendees. Each module includes a CD, a laminated Quick Reference Guide, and test sheet to return for certificate credit.

Stop at registration to purchase:
- Basic Grammar and Usage module
- Punctuation for Clarity and Style module
- Sentence Structure and Patterns module
- Statistics for Medical Writers and Editors module
- Elements of Medical Terminology module

Buy the entire set of AMWA self-study modules at the annual conference for substantial savings over the regular price. The modules can also be ordered online.

We’ll see you in Milwaukee November 11-13, 2010!
Changes in the AMWA Listserves

Since 2006, when AMWA acquired the Listserv software, all AMWA members have had the opportunity to subscribe to 1 or more of 5 different listserves—Editing and Writing, Educators, Public Relations and Marketing (PRAM), Pharmaceuticals (Pharma), and Freelance—created to reflect the educational opportunities available through the AMWA certificate program. Not surprisingly for a group of medical communicators, the Editing-Writing listserv currently has the largest number of subscribers (2,370), with Freelance (1,942) and Pharma (1,760) not far behind. The PRAM and Educators listservs currently have 984 and 885 subscribers respectively.

Although all 5 listserves have a healthy number of subscribers, the Freelance listserv, which was originally intended to provide an opportunity for freelances to share information about the business aspects of freelancing, quickly became a daily forum for questions and discussions about a wide variety of topics, many of which were topics unrelated to the business aspects of freelancing that would be of interest to subscribers of the Editing-Writing and Pharma lists. This frequently created a daily deluge of e-mails that resulted in many members deciding to “unsubscribe” from the Freelance list. In addition, there were frequent complaints about posts that were viewed as inappropriate and/or did not adhere to the established guidelines and rules. For these reasons, the WIT committee decided it was time to do a thorough review of the listserves to see if we could reconfigure them in a way that would better serve all AMWA members.

Results from an analysis of listserv activity and types of postings over the last 3 years indicate that most AMWA members are registered for either the Freelance listserv or the Editing-Writing listserve; and, in fact, the majority of these members (about 1,600) subscribe to both of these listserves. Although the Pharma listserv also has a large number of subscribers (1,760), it is rarely used, averaging about 1 post a week from January through May of this year. The majority of Pharma subscribers also subscribe to either the Editing-Writing list (1,400) or the Freelance list (119). The Educators and PRAM listservs are virtually inactive.

New Listserve Descriptions

Based on our analysis, the subcommittee and the EC have agreed that the number of AMWA listserves should be reduced to the following 3.

- **Editing-Writing**: For discussion of composition and publishing issues and medical topics of general interest to medical communicators
- **Freelance-biz**: For discussion of topics related to running a freelance business
- **Pharma**: For discussion of topics related to the pharmaceutical, biotechnology, and medical device industries, especially regulatory issues and documents

For the time being, the “Watercooler” aspect of the Freelance-biz listserve will remain the same and will be applied to the Editing/Writing listserve. Subscribers will be required to label all topics that are not specifically related to freelance business or editing/writing issues as “Watercooler” posts. The PRAM and Educators listservs will be phased out by the end of the year but will remain in the archives. These changes do not affect the Freelance Opportunities listserv, which is available only to members who advertise in the Freelance Directory, or the Chapters listserve, which is available to Chapter officers. The rules and guidelines have been revised to incorporate these changes and to address some of the issues related to misuse of the listservs. The necessary adjustments have also been made on the AMWA Web site and in printed membership materials.

The changes in the Freelance and Editing-Writing listserves were introduced to subscribers in April and, after some initial resistance, they have adjusted and are correctly targeting their posts to the appropriate lists.

Other Avenues of Communication

The listserves are not the only forum for AMWA members. You can now communicate with fellow members through the LinkedIn AMWA Group, the AMWA Facebook page, and AMWA tweets on Twitter. See the Social Media section, beginning on page 133, for more information on how to communicate with other AMWA members online.
Web Wanderings

By Barbara Woldin
Freelance Writer/Editor, High Bridge, NJ

The AMWA Journal brings you this new section to tell you about resources that can help make your work as a medical communicator easier and more productive. In each issue, we will provide an overview of a few Web sites that we hope you will want to bookmark.

Health on the Net (HON)
http://www.hon.ch/med.html

The Health on the Net Foundation is a Swiss foundation operating out of Geneva and is one of the most respected nonprofit portals to medical information on the Internet, as well as one of the must-have resources for medical communicators. Of the 4 sections within the Medical Professional portal, HONsearch and HONtools are the most useful for medical writers. HONsearch offers specialized medical search engines, including the molecular biology and rare diseases databases, to make searching easier, allow viewers to look up health conferences taking place all over the world, or search http://www.clinicaltrials.gov and PubMed. In HONsearch, medical information can be searched by word(s), URL, or MeSH term or selected by any of these categories: Diseases, Anatomy, Viruses & Drugs, and Psychiatry & Psychology. One can search any or all medical Web sites and refine the search using the search engine MedHunt. For example, typing in myotonic muscular dystrophy and selecting North America returns 94 listings from their robot MARVIN. HONmedia, found within HONsearch, is an image database with a repository of over 6,800 medical images and videos and can be searched using an A to Z index. Looking up under P and clicking on Prion diseases, for instance, returns an immunohistochemical staining of cerebellar tissue of a patient who died of variant Creutzfeldt-Jakob disease. There is also a medical dictionary that contains medical terms, abbreviations, and acronyms, but please note that it is an Australian site.

In the HONtools portal, medical communicators can use the tool WRAPIN to access topics in scientific databases such as MEDLINE or receive updates regarding upcoming health and medical conferences around the world. Clicking on CME provides access to a directory of Continuing Medical Education, a service provided through the Foundation’s collaboration with the World Health Organization (WHO) and a tool endorsed by the International Medical Informatics Association (IMIA). The HONcode portal describes the Foundation’s history and code of ethics; HONtopics contains European sites.

International Committee of Medical Journal Editors (ICMJE)
http://www.icmje.org

The International Committee of Medical Journal Editors’ Web site is one of the essential resources for medical communicators who write or edit manuscripts for journal publication. ICMJE was originally called The Vancouver Group when medical journal editors first met in 1978 to establish guidelines to writing manuscripts for journal publication. The group consists of representatives from 12 member journals, plus the National Library of Medicine (NLM) and the World Association of Medical Editors, who together authored the Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication. Several revisions to the Uniform Requirements for Manuscripts (URM) have been issued over the years, primarily to incorporate further guidance regarding ethical considerations—Authorship and Contributorship, Editorship, Peer Review, Conflicts of Interest, Privacy and Confidentiality, Protection of Human Subjects, and Animals in Research. Clarification of such issues can be made by clicking on the appropriate topic. The latest version (October 2008) of the URM, available only as a PDF file, can be downloaded from the ICMJE Web site.

Coupling ethical standards with recommendations for manuscript preparation that improve clarity and quality and ease the task of editing, the URM document is the manifesto authors and medical writers follow in conducting and reporting research. A large number of journals adhere to URM; an alphabetical list can be found on the ICMJE Web site by clicking on the menu bar at the top of the homepage.
the art of follow-up

Job hunting can be a painstakingly slow process sometimes. Delays in hearing about a job are often related to the fact that people hiring are probably overworked (or they wouldn’t need to hire someone). After submitting an application or having an interview, make a follow-up call every 2-3 weeks to simply ask, “Where are you in the decision-making process?” This call can be a sanity saver for you (sometimes they’re still interviewing) and also helps keep your name in front of the hiring person’s mind.

— Heather Haley

Writers and Editors
http://writersandeditors.com/index.htm

Of interest to those of you whose passion goes beyond medical communication, Writers and Editors is a blog-type Web site hosted by Pat McNees, an award-winning writer and editor whose comprehensive, but somewhat disordered site (I would recommend clicking on the Site Map), is meant to connect writers and editors with each other and with resources, markets, and audiences covering a host of subjects from About blogs to Well designed authors’ websites. Originally McNees was in academia and then worked in book publishing before launching a freelance career. She has written about health, medicine, and medical research and authored a book for the National Science Foundation, New Formulas for America’s Workforce: Girls in Science and Engineering.

Once at the Site Map, one can navigate straight to Science and Medical Writing and bring up sections with links to the following

- Organizations for medical, health care, and science writers (AMWA listed)
- Resources for science and medical writers, including the Delaware Valley Chapter’s toolkit for new medical writers and AMWAs medical links (2-star rating)
- Books for science and medical writers
- On health care reform and health care policy


There is a large section, Freelancing, contracting, telecommuting, where AMWA freelances can find information on topics such as setting rates, insurance issues, marketing tips, and links to freelance directories (AMWAs Freelance Directory is not listed); another section titled The Writing Life goes hand-in-hand. Back on the home page and down the left-hand column, there is a link to a salary survey with a section on rates for Medical Science (Writers and Editors Freelance Rate Survey for 2011 edition of Writers’ Market).

Browsing down the Site Map, medical communications will find many other sections of interest such as Communicating and marketing online; For editors; Style, grammar, word choice, and pronunciation; and Tips on tact and tone. There are also sections for those interested in fiction writing; film, drama, and documentaries; journalism; and poetry and verse, among many others topics.

Puzzler Solution

CLIPS CAR AOL MENCODEITA VERBAGARDIC LENSEJECT ETHICSRAD GHOSTPODPE T DASHCDCFADE ATTPCR WAGES PHDCLIENT MEDIAPEER AMAREALUSED STRMAILSINE SSNARDSENGL
If you’re a freelance, entrepreneur, or owner of a small business, you might want to familiarize yourself with Biznik (www.biznik.com). Lara Feltin and husband Dan McComb, Biznik founders, describe the site as a “community of entrepreneurs and small businesses dedicated to helping each other succeed.” Since its inception in 2005, this award-winning community has grown exponentially. Today more than 30,000 members around the globe belong to Biznik. About 30% of these members are located in the Seattle area, where Biznik was founded, but membership has grown in other cities as well, including San Francisco, Austin, Los Angeles, New York, and San Diego.

Created to provide small businesses and freelances a way to network, this fast-growing site is a bit of a hybrid because it marries online social networking with member-driven, local, face-to-face networking events. As with other social networking sites, you join by creating a unique user name and password and populating your profile with information about you and your business. Then you begin making connections with other Biznik members, participating in the online community, and creating and attending offline events.

On Biznik, you’re expected to do more than post your resume, add a few recommendations, and search for connections that can help you climb the corporate ladder. The site is designed for people interested in building their businesses rather than in looking for a job. Collaboration, networking, and education are more than just buzz words on the site. Members are encouraged to develop real lasting relationships with other small business owners and share what they know about growing and succeeding in their businesses regardless of the industry. That’s why your geographic location is important in the Biznik world. Members create and host local events that pertain to growing a business. This combination of online collaboration and member-hosted real-world interactions is what differentiates Biznik from other business networking sites.

A basic Biznik membership is free and enables you to create an online profile, join groups, start and respond to forum discussions, and host events. You can also publish articles that other Biznik members can read and respond to, import Twitter updates, post directly to Facebook, and send a limited number of messages to other Biznik members. Upgraded membership options for $10 or $24 a month offer enhanced features such as unlimited messaging, the ability to share videos, links to your blog feed, and more ways to increase your visibility.

Biznik’s tagline, “Business networking that doesn’t suck,” may seem irreverent to some people. But considering Biznik’s rapid growth, the approach must be working. How can medical communicators use Biznik? If you’re a freelance medical communicator, then you are the de facto owner of a small business. On Biznik, you can share what you’ve learned about being an entrepreneur and running a small business and engage in conversations with other Biznik members that can help you grow your business or make it more efficient. Collaboration often breeds success, and the opportunities to collaborate on Biznik seem endless.
Networking sites like LinkedIn ([www.linkedin.com](http://www.linkedin.com)) reflect people's desire to stay connected, voice concerns, and seek advice from like-minded professionals. As the possibilities for cyber communication continue to expand, the old adage, "It's not what you know; it's who you know," adds an even broader aspect with, "how many you know." LinkedIn's growth statistics reflect the virtual community's popularity. In 2003, its 5 founders invited 350 initial contacts. By the end of the first month, 4,500 people had joined, and now, LinkedIn touts more than 70 million members in over 200 countries on all 7 continents. AMWA's LinkedIn Group continues to gain momentum as medical communication professionals reach out for discussion, news, and opportunities.

AMWA's LinkedIn Group was established and is maintained by AMWA volunteer members. Donna Miceli, AMWA Web and Internet Technology (WIT) Administrator, notes that although she is listed as the group's "owner" and "manager," AMWA member Jeannie Fiber, PhD, a medical and scientific writer in Portland, OR, was primarily responsible for the group's success. "From the beginning, she worked with former WIT administrator, Mary Royer, to establish the LinkedIn group. Jeannie has been the one who has done most of the work and has guided us in making decisions about monitoring the discussions, setting up LinkedIn subgroups for each of the AMWA chapters, and much, much more," says Miceli, who estimates that the group currently includes about 975 members. "We do not allow members to advertise their services or products for which they benefit monetarily; we do not allow recruiters; and we expect people to be courteous (no personal attacks or "flaming")." WIT committee member Kristina Wasson-Blader, PhD, is assigned to monitor the discussions and alert Miceli or Fiber of any infraction.

A primary difference between the discussions within AMWA's LinkedIn Group and those within the AMWA listserves is that the discussions are of general interest to all medical communicators, regardless of specialty, whereas the 5 AMWA listserves are devoted to specific areas of interest, and each must be subscribed to separately. (See Web Watch on page 130 to learn about recent changes to the AMWA listserves.)

"I've found that the listserves seem to be more formal and specific (sort of question/answer-question/answer), whereas LinkedIn is more like a conversation you would have at an AMWA conference open session or coffee klatch," says Duane Brewster, Marketing Manager at AMWA. He has not monitored the listserves in some time because AMWA employees are not supposed to take an active part in the listserv conversations, but LinkedIn does not restrict employees from responding. He notes, "I basically try to keep my involvement strictly to AMWA marketing, although I enjoy being part of the conversations. AMWA members are a smart group of people and some of the nicest and most helpful people I've met."

Arlene Walters, a freelance copywriter, points out an advantage of LinkedIn over the AMWA listserves: "A member can't un-join or rejoin a conversation on an e-mail-based listserv, such as AMWA's. On LinkedIn, you can 'stop follow-
ing’ a conversation when it goes on too long.” Walters uses her LinkedIn profile to generate new business leads and to connect with past colleagues. In groups, she learns about new jobs and reads topics of interest. She adds, however, “The disappointing part about our AMWA Group is that people have to join AMWA to join the Group. So those who are not yet using LinkedIn and nonmembers’ opinions won’t make it on there.”

To increase event visibility, Brewster has posted notices on the LinkedIn discussion board. “A number of members used the information to get other people interested in visiting us at the Critical Care Expo and consider AMWA membership. We had a great response from the nurses who visited our booth at that show,” he says. Brewster notices that the AMWA LinkedIn Group has “generated interest from doctors, nurses, and other health care practitioners looking for a new career path that can utilize the education and experience they have.”

Reaction from AMWA members has been mostly positive; any issues seem to be related to LinkedIn as a whole, rather than to the AMWA Group. Christine Welniak, founder and principal at Upside Communications, who has been active on LinkedIn for about 6 months, says that while she checks the discussion postings and sometimes finds interesting topics, overall, she is disappointed in the way LinkedIn participants use the entire site. “I’d like it to be a forum for the exchange of meaningful, relevant information, not entrepreneurs ‘hawk- ing their wares,’” she says. Despite this, she has made contact with some people who helped her with research, and she has acquaintances who report “good outcomes with LinkedIn.” She suggests that investing more time to explore the site’s business possibilities or to research the latest treatment trends might add to her satisfaction.

Roxanna Guilford-Blake, of Guilford-Blake Corp., Stone Mountain, GA, comments that she uses the AMWA LinkedIn Group as a database of business-related contacts and would like to increase its future business potential. The discussions “can be interesting, and it’s a chance to connect with other writers. If I’m feeling social, I can exchange ideas with people in my same line of work.” As an indirect benefit, she landed a “terrific freelance gig through someone I met in a particularly heated discussion.”

While some members are actively involved in the discussions, others, such as Stacey Chapman Tobin, PhD, ELS, of Chicago, IL, prefer to “lurk.” Although she posts discussions only occasionally, she adds, “I always get great feedback and opinions from my professional peers.” Since freelances lack much of the opportunity for interaction with other medical editors and writers in a workplace environment, “Social networking, particularly on LinkedIn, has been a great outlet for me to bounce ideas off of other professionals. It gives me a venue where I can ask very detailed and specific questions about real-world issues and expect to get back very practical advice,” says Tobin. She continues, “All the interactions I have had on LinkedIn have been positive, and discussion board participants are really forthright with their opinions, likes, and dislikes.” She adds that a “bonus” of the discus-

sion boards on a professional networking site like LinkedIn is increased visibility as a professional medical writer. “I am able to drive traffic to my company Web site, and I often get contacted about my services because someone has seen my LinkedIn profile.”

The AMWA LinkedIn Group continues to evolve, with coordination of dedicated AMWA volunteers and member input. A new member joins LinkedIn’s greater community every second. As members become more aware of how to take advantage of the AMWA Group’s varied opportunities, the Group also promises to grow in both in size and scope. Brewster, like many others new to the networking world, was at first skeptical but is beginning to realize its benefits. “I’m old-fashioned and used to think this was a waste of time, but since I’ve started using it, I’ll admit, it can be very useful and definitely a great networking tool.”

Joining the AMWA group is as easy as 1, 2, 3:

1) Click on Groups at the top of the LinkedIn homepage (you must already be a LinkedIn member; to join LinkedIn, follow the instructions to join)
2) Type “American Medical Writers Association” in the search box
3) Click on “Join this group” in the search results

As a member, your opinions will count, you will be privy to news, advice, and different viewpoints, and best of all, you will be connected to a group that reflects the evolving and diverse personalities of the medical communication community. Please check it out, and encourage your colleagues to join. Become a part of the LinkedIn chain that keeps information flowing and writing businesses growing. We look forward to connecting with you soon!

**IN THE NEWS**

Otis Brawley, MD, chief medical officer for the American Cancer Society, expressed his opinion about the current state of medical writing (and industry sponsorship of medical meetings) in the online article “Bad Medical Writing Hurts Public Health,” on CNN Opinion. Dr Brawley’s commentary includes the statement: “This decline of the professional medical and science writer is a threat to the public health as important as the latest scare story in the headlines—perhaps even more so.” You can read the full text of the commentary at [www.cnn.com/2010/OPINION/06/08/brawley.medical.writers/index.html](http://www.cnn.com/2010/OPINION/06/08/brawley.medical.writers/index.html). The article generated many comments in the AMWA Group on LinkedIn ([www.linkedin.com](http://www.linkedin.com)), including a note from Tom Gegeny, AMWA President, who posted the full text of a letter he sent in response to Dr Brawley’s article.
Social Networking for AMWA Members

By Victoria White, MA, ELS, Tampa, FL

Not too many years ago, AMWA news arrived in the mailbox. Period. End of story. Today’s AMWA members have an ever-growing list of ways to hear from the organization’s leadership and to communicate directly with each other. The latest offering is the AMWA Facebook page at www.facebook.com/amwa.org.

The Facebook page is maintained by AMWA staff and volunteers who provide updates on organization news or links to content elsewhere on the Web that may be of interest to medical communicators. Anyone is free to post messages or photos or to comment on other posts. Inappropriate material may be removed. The Facebook page is open to the public, making it a useful tool to spread the word about the AMWA mission and the value of professional medical writers and editors.

AMWA also is communicating through Twitter, the short-message service that has a fast-growing base of users. The organization’s tweets can be found at: www.twitter.com/AmMedWriters.

For members interested in more private networking, AMWA is active on LinkedIn, with a group created exclusively for AMWA members. AMWA membership is required to participate in and view group discussions at: www.linkedin.com/groups?home=&gid=55526. (A shorter URL also works: http://bit.ly/AMWAlinked.) (See page 134 for more details on AMWA’s LinkedIn Group.)

Members-only discussions also continue to take place through AMWA’s listerves. Sign up for the listerves through the members-only page of the AMWA Web site (www.amwa.org). You can choose to receive each posting as an individual e-mail or as a daily digest of posts. Searchable archives of the discussions are available through the members-only area of the AMWA Web site.

Another forum for AMWA members is the new Journal blog (http://amwajournal.blogspot.com), where visitors can comment on Journal contents and access related materials. (See page 133 for more information on the Journal blog.)

All of these services will be in use during the upcoming annual conference in Milwaukee. Expect to see regular updates on Twitter and Facebook as well as coverage on AMWA’s conference blog at http://amwaconference.blogspot.com. Like last year, volunteers will be writing about the conference as it progresses, providing valuable information for those in attendance as well as for those unable to make it to the meeting.

Facebook, LinkedIn, Twitter, blogs, and listerves are all social networking tools that provide a scaffolding for up-to-the-minute sharing of information. They will become ever-more useful to the AMWA membership as readers join in and become active participants in the discussion.

Blog Log

By Debra Gordon, MS
Williamsburg, VA

I spent several days in June covering the American Diabetes Association meeting in Orlando, which is why the first blog highlighted in this month’s column deals with the ever-more-prevalent disease. This issue’s Blog Log also highlights a fellow freelance’s blog and a couple that I included on a recent Grand Rounds. (Grand Rounds is a compilation of medical blogs that is sent out weekly.) You can get information on Grand Rounds at one of the Web sites noted here (www.getbetterhealth.com) and can read my Grand Rounds at my own blog (http://debragordon.blogspot.com).

Diabetes Mine: www.diabetesmine.com
This blog is written from the patient perspective, which I think we sometimes forget about in our focus on physicians and science.

GetBetterHealth.com: www.getbetterhealth.com
This site is actually a compendium of health/medical-related blogs. I think it is one of the best-aggregated sites on the Web (and not just because they occasionally feature my blog).

The Happy Hospitalist:
http://thehappyhospitalist.blogspot.com
Written by, duh, a hospitalist, this blog provides an interesting peek into the daily life of a physician who rarely leaves the fluorescent-lighted environs of inpatient care.

Health News Review: www.healthnewsreview.org/blog
If you haven’t found this Web site (healthnewsreview.org), you likely haven’t found Gary Schwitzer’s blog of the same name. The Web site focuses on improving the accuracy of news stories about medical treatments, tests, products, and procedures and helping consumers evaluate the evidence for and against new ideas in health care. Schwitzer, a lifelong journalist, has his own voice on the blog, which was voted Best Medical Blog in 2009 by Medgadget.com.

Cynically Proven: www.cynicallyproven.com
This is a revamped Web site from one of our own, Tracy Bunting-Early, PhD. So far, she’s written about hiring medical writers and speech-to-text software, among other postings.

Please send me your suggestions of interesting blogs to follow so I can highlight them in this column.

Happy blogging!
It is difficult for me to believe that this is my fourth, and final, note as AMWA President to be published in the AMWA Journal. As I reflect on the past year, I believe that progress can be measured in both inches and miles. Small, but significant, progress has been made toward researching and pursuing certification of medical communicators. The launch of an expanded education program has led to a robust wave of new enrollments and growing demand for AMWA’s self-study workshops.

While education is at the core of AMWA’s mission, with significant staffing and resources dedicated to administrating the workshop program, a large part of this work is volunteer-driven. Workshop leaders are our peers who volunteer time and effort to share information that is pertinent to the work we do as professional medical communicators. Considering how little free time seems to be available these days, the act of proposing, developing, and leading an AMWA workshop (including developing and grading homework) shows tremendous dedication and commitment to the profession. I am grateful for AMWA’s corps of workshop leaders.

As its educational program demonstrates, AMWA is as much a resource for professionals as it is an opportunity. Through volunteer activities (just to name a few) such as teaching workshops, organizing a conference session, or serving on a committee, AMWA members can contribute to the organization while often gaining valuable experience and honing their own skills. Opportunities to volunteer exist at both the chapter and national levels. One way to get involved is to contact your chapter leadership to offer assistance (rarely refused!). Another is to submit a Willingness to Serve Form (available online at http://www.amwa.org/default/members.only/willingnesstoserve.pdf). This form lists various roles for contributing to activities within chapters, the annual conference, the Journal, and more.

Such volunteerism not only is an asset to the organization itself but also provides solid hands-on experience with various skills and activities that are of high value in our profession, including writing and/or editing, developing programs/content, managing projects, organizing meetings, giving presentations, and applying technical skills (such as use of software). Volunteering is one way to advance yourself professionally—whether you are more proficient in a specific area and want to share or apply that information, or if you are seeking direct experience to learn new skills.

Like many professional organizations, AMWA relies on its volunteer members to help plan and implement its various programs. Even a small number of volunteers can have a big impact across the membership. The success of our organization is built on the volunteer contributions of hundreds of members across the years, from plenary organizers to presidents. Every contribution has moved us forward and in turn provided that volunteer with the direct experience (and I hope satisfaction) of that effort. Volunteering in AMWA has often been described as an experience that results in “getting back more than you put in,” with the yield being greater than the sum of the parts.

Personally, my own volunteering with AMWA began when I was approached to help with publicity efforts for chapter meetings of the Southwest Chapter in 1998−1999. From that small beginning, I helped organize meeting programs, began teaching some Internet-based workshops, led roundtable discussions at local and national meetings, served on the national Board of Directors, participated in local and national committees, and so on. It has been said that the reward for hard work is the opportunity to do more. While I agree with that sentiment to an extent, I would qualify it when it comes to AMWA, where the reward for hard work is an opportunity to learn, to teach, to participate, and to build for the future—yours and that of the profession.

As members, we all benefit from the activities of our fellow member volunteers. Whenever you get a chance, please be sure to thank these individuals for everything they do, and continue to do, for AMWA. If you have not volunteered before, please consider doing so! You can always start with something small to “test the waters” and move on from there. All contributions, whether large or small, are valuable. Find out how to get more involved by contacting your local chapter leaders (listed under “Chapters” at www.amwa.org) or write to me at president@amwa.org.
Southwest Chapter’s McGovern Banquet Goes Dramatic

By Lynn Alperin

Southwest Chapter’s McGovern Award recipient, actor and writer Megan Cole, unraveled the mystery of Maud—Maud Mellish Wilson, that is, the first medical editor of the Mayo Clinic—when medical writing and theater came together in January for the 2010 Annual McGovern Award Banquet and Lecture. Cole titled her lecture cum performance “For the Love of Words: a Medical Writer’s Story on Stage.” Cole was commissioned by the Mayo Clinic to research, write, and perform a one-woman play about Maud Mellish Wilson in 2007. The McGovern Award event drew far-flung members from Dallas, Austin, and even one from the Big Bend region of Texas. And for the first time in the 28 years that the John P. McGovern Foundation has supported this event, Mrs. Kathy McGovern attended. Chapter members enjoyed having the opportunity to meet her.

Cole began her professional life as an actor on regional stages and television. Her portrayal of an English professor fighting the ravages of terminal cancer (a role that she originated in Margaret Edson’s Pulitzer Prize-winning play “Wit” in 1995) earned her the Los Angeles Drama Critics’ Circle Award. In 2000, she reprised her role in “Wit” at the Alley Theatre in Houston. On-stage discussions with physicians after the performances stimulated her interest in the connections between health care and the arts. For the past decade, she has lectured, performed, and taught throughout the country at many academic health science centers and health care institutions. The topics she addresses range from empathic communication and the doctor-patient relationship to literature and medicine. Her goals include identifying the components of high-quality health care communication and exploring the skills and tools of effective health care encounters.

Ms. Cole’s lecture and performance delved creatively into the life of Maud, a little-known pioneer in medical editing. She set out to paint a dramatic portrait of a woman, whose accomplishments are by now legendary, but who wrote almost nothing about herself. In fact, she didn’t like to write, although she was passionate about language and the use of words. According to Cole, Maud was “a gentle powerhouse, a compassionate taskmaster, an intimidating scholar who didn’t boast about it.”

Maud was invited by Dr Will Mayo to come to Rochester “to organize and develop a library and to do editorial work in conjunction with the preparation of scientific materials.” She arrived there in 1907 and within 2 years had developed such a well-organized collection that a special building was constructed to accommodate it. During her 26-year career, she developed the Mayo library and directed the Division of Publications, which included the editorial section, the medical library, and the art studio.

In 1926, Maud began the weekly Proceedings of the Staff Meetings of the Mayo Clinic. Today, this publication has evolved into the internationally recognized Mayo Clinic Proceedings. The scope of her work was extensive, and her book, The Writing of Medical Papers, was published in 1922; an additional 2 editions were subsequently published. The Staff Meetings of the Mayo Clinic states, “Her clear thinking, her unbiased judgments, and her insistence on the truth and nothing but the truth, stated so that readers could understand it, made her influence on the physicians with whom she worked prodigious and inescapable.” Mrs. Wilson died of abdominal cancer in 1933.

Cole described the steps she took to write a dramatic portrayal based on what she could piece together from extensive archival research. She organized the project into 3 major areas of consideration: format, how to determine the context (Maud’s living room) and to communicate the important information; focus, how to distill hundreds of pages of raw material into a 35-minute play; and language, how to make the audience feel as if they were in Maud’s living room having a chat.

In the performance half of her program, Cole became Maud and presented excerpts from her play “The Mystery of Maud Mellish Wilson,” shedding light on her character’s temperament and responses to events in her life. Periodically, Cole removed Maud’s glasses and stepped into her own persona, commenting on what had been omitted and elaborating on the preceding action. As Maud’s character was fleshed out, the audience gained insights into the thoughts and personality of this early medical editor in what was an enlightening and entertaining evening. Had Maud not died before AMWA was founded 70 years ago, we have little doubt that she would have been the rare woman among its founding fathers.

Lynn Alperin is a medical writer in Galveston, TX.
REMINDER: Plan Your Chapter Event at the Annual Conference

The Chapter Greet & Go at the 2010 Annual Conference is designed to give attendees the chance to meet with members of their chapter. The Chapter Greet & Go is scheduled for Thursday, November 11, 5:30–6:15 PM and is intended to be a launching point for your unique chapter event at the conference. The event is scheduled earlier this year to allow chapter members more time to meet with each other before the start of the Coffee and Dessert Klatches. Talk to your chapter members and make plans early to get together for dinner at a nearby restaurant or another venue to socialize and network.

Need a book full of information that you can use almost daily...how about 2 books of collected essays from selected AMWA workshops?

**Essays for Biomedical Communicators**

These practical guides contain essays that provide valuable information on writing, editing, and skills development.

The essays in this collection complement the information and skills gained from AMWA credit workshops. Whether you want to refresh your memory or learn new techniques, these volumes will serve as a valuable resource.

Each book can be purchased online from the AMWA Web site (www.amwa.org). Click on the Products/Services link.

Member price—$35.00 each
Nonmember—$75.00 each
Shipping and Handling additional

---

Medical Writing and Editing

CERTIFICATE PROGRAM

Master the necessary knowledge and skills of excellent medical writers and editors.

- Apply medical writing and editing elements effectively
- Organize and write well-structured medical articles
- Evaluate and report statistics correctly
- Learn to design and edit medical tables and graphs
- Track medical nomenclature through search
- Network with others in the profession

Courses start soon. Enroll today.
graahmschool.uchicago.edu/medicalwritingandediting/amwa

For more information, please contact Amber Neff at:
773/702-1682
aneff@uchicago.edu

The UNIVERSITY of CHICAGO
Graham School of General Studies
MEMBER PROFILE:  

Michael L. Jones

By Bettijane Eisenpreis, New York, NY

Michael Jones holds a BA in biology with minors in chemistry and education and an MS with an area of concentration in botany. Today, she is Director of Medical Writing of TKL Research, Inc., her latest achievement in a long career of medical writing.

Writing—wait a minute! Her education was in science. Where did writing come in?

Jones decided early on that a career in the laboratory was not for her. After teaching botany and biology at Cheyney State University near Philadelphia, she went on to a job as Senior Information Analyst for BioSciences Information Service (BIOSIS) where her job responsibilities included some technical writing, proofreading, editing, and indexing of biologic abstracts. In 1977, she and her husband moved to New Jersey. While raising her children, she held part-time positions, including a position with Nursing Publications as the Managing Editor of 2 nursing journals. It was there that the idea of becoming a medical writer was first introduced to Jones by another editor who had recently retired from Hoffmann-LaRoche. Destiny ultimately led Jones to apply for a position at Hoffmann-LaRoche, where she was hired as a temporary writer in the Professional Services Department. Her writing responsibilities in the Professional Services Department included the writing and editing of package inserts and the preparation of various types of promotional materials for the Marketing Department. The position at Hoffmann-LaRoche convinced Jones that medical writing was her niche. In 1983, she was hired as a contract writer for 6 months with Schering-Plough in Kenilworth, NJ. That job evolved into a full-time position, and she remained there for 20 years, ultimately as Principal Medical Writer. In January 2004, she joined TKL Research, Inc., Rochelle Park, NJ, as Manager of Medical Writing, moving up to her present position as Director of Medical Writing 3 years later.

Jones learned of AMWA when she was at Hoffmann-LaRoche, but as a part-time employee she didn’t qualify to attend conferences. As soon as she went to Schering-Plough, she joined AMWA and has attended every conference since then. She credits AMWA with her education in medical writing and holds both core and advanced AMWA certificates.

In addition to learning from AMWA, Jones soon began giving back. “In 1993, AMWA asked for volunteer workshop leaders. I signed up and soon someone called and asked if I would lead the Scope of Medical Communications workshop. Since the workshop was a panel discussion, I had to solicit various seasoned AMWA members to participate on the panel and pull the workshop together. That was my first experience, and I’ve been leading workshops ever since.”

After that first workshop, Jones assumed the responsibility of serving as the co-leader of a workshop originally titled Biomedical Research Design.

The name has since been changed to Interventional and Observational Research Design; the workshop remains popular and Jones’ commitment to it unwavering.

“A lot of individuals who come into this workshop are not familiar with clinical trial design and don’t know what goes into the development of a protocol,” says Jones. In addition to protocol design, as a part of the workshop, Jones explains the drug development process from its beginning to its culmination with the approval of a drug that is ready to be marketed.

In 1994, when Joel Tau, then AMWA President, invited Jones to chair AMWA’s regional conference in West Point, NY, Art Gertel, then head of the Schering-Plough Medical Writing Department and a member of the AMWA Board of Directors, encouraged her to do so. In that same year, she led an annual conference workshop, co-chaired a roundtable, and was on the Public Relations Committee. Thus began a 10-year period of participation on AMWA’s Board of Directors and Executive Committee.

Jones has held a number of positions at the national level, including Sections Administrator, Awards Administrator, Secretary, and Constitution and Bylaws Chair. One of her biggest responsibilities was serving as Coordinator of the Annual Conference held in Miami, FL, in the fall of 2000. Concurrently, she chaired the committee that selected the winner of the Alvarez Award.

“Anyone who regularly attends AMWA’s annual conference has no doubt crossed paths or taken a workshop from Michael,” says AMWA Secretary Mary Royer. “Throughout her long and successful medical writing career, she has contributed to AMWA through her long-time service on the Executive Committee, her workshops and roundtables, and the open sessions she has moderated or presented. I have known Michael as a client, colleague, and friend. She always greets me with her beautiful warm smile and asks me how things are going in my life. In addition to her professional contributions, Michael and her husband have raised 2 outstanding children. Although she is now a grandmother, she...”
is still as gorgeous as ever and not looking a day over 30!”

Jones notes, “AMWA members have helped to form the foundation for my career by serving as mentors, willingly agreeing to serve when called upon, and working with me as co-leaders in various programs. Many have ultimately become life-long friends who I look forward to reuniting with at each year’s annual conference. When giving advice to people aspiring to become medical writers, I advise them to become involved with AMWA and to attend the annual conference if at all possible. I consider the conference to be the perfect opportunity for networking. Most importantly, I encourage new members to volunteer, to get involved.”

**IN MEMORIAM**

**Harold Laufman, MD, PhD**

1912-2010 Long-time AMWA member Harold Laufman, MD, PhD, died on May 3, 2010, at the age of 98. Dr Laufman joined AMWA in 1957 and served as the 1968-1969 AMWA President. He was honored with AMWA fellowship in 1962 and with the Harold Swanberg Distinguished Service Award in 1973. Two of Dr Laufman’s AMWA colleagues pay tribute to him here.

In his 2007 autobiography, *One Man’s Century,* Harold (Hal) Laufman describes an adventurous, exciting life. He was a Renaissance man: an artist, violinist, surgeon, writer, editor, and bio-engineer. Among his many contributions to AMWA, he was the first president of the Chicago chapter and served as our national president in 1968-1969. Most likely, his most significant action was when he and Chuck Roland were the prime movers in changing our bylaws so that any member in good standing could serve as president. Until this change was made, only a member with an MD degree could be president. This change made it possible for Eric Martin, PhD, to become president and for Virginia Eicholtz to be the first of a number of women who were outstanding presidents of AMWA. It is well to remember that when Eicholtz was elected, few women became medical doctors.

But all of the above doesn’t tell us what he was like as a man, or his character, and why we honor his memory. Hal enriched the lives of all his friends. He was a role model for us in the way he reacted to adversity. He was the most loyal of friends and a fierce fighter against injustice of any kind. His energy and innovative ideas stimulated us. For example, during the past year he started a project to describe the quality of life after age 95. We had a lively exchange of e-mails and I tried some of his questions on residents who live in my retirement center.

While we mourn his passing and will miss him greatly, we may find some solace and comfort in remembering how he enriched our lives and how fortunate we are to have had his friendship.

—M. J. Schiffrin, PhD, AMWA Past President

What can you adequately say about someone who has been a friend for more than 50 years? I knew Harold Laufman when we were both at Northwestern University when Loyal Davis (Nancy Reagan’s father) was head of surgery and later in New York when he was at Montefiore setting up the Institute for Surgical Studies and I was in New York writing books and covering medical meetings. We were both part of AMWA back in the early days, serving on the Board together, handling many events, including one in which he was able to get Arthur Godfrey to be part of a panel I chaired on then-environmental problems. (Godfrey reported that there already were piles of beer cans and other debris on the ocean floor in Antarctica—who knew how much worse things would get?) We called Dr Laufman our Renaissance man because he was so knowledgable and talented in many fields. We also called him one of the “no-sweats” because no matter how hot and humid it was on a tour bus, while the rest of us sweatingly suffered he, in white shirt, tie and coat, would be cool and in charge.

I learned even more about him when I worked with him on his book *One Man’s Century,* when he at age 95 looked at his life and his 75 years in the medical world. Who else but Harold would be working on another book at the time of his death at age 98, or have a Web site ([www.haroldlaufman.com](http://www.haroldlaufman.com))? Hal, we will miss you so much.

—Shirley Linde

To learn more about Dr Laufman, read Shirley Linde’s profile of him in the *AMWA Journal* [2002;17(2):47-48], available at [www.amwa.org/default/publications/journal/vol17.2/amwa17.2p47.pdf](http://www.amwa.org/default/publications/journal/vol17.2/amwa17.2p47.pdf).
Lately I’ve been very happy. Not euphoric, mind you, but steadily, reliably content and upbeat, even joyful. I walk down the street, Buddha-like, a slight grin playing at the corners of my mouth. Why—at age 62—am I so happy?

When I did an Internet search on happiness, reams of material popped up including a New York Times article headlined “Happiness May Come With Age, Study Says.” A large Gallup poll has found that people get happier as they get older. Researchers aren’t sure why.

Although I wasn’t among the 340,000 adults between the ages of 18 and 85 included in the study, I have some theories on this topic.

“Life gets mighty precious when there’s less of it to waste.” Those words, penned by Bonnie Raitt for her midlife anthem, “Love in the Nick of Time,” sum it up.

The older I get, the more I appreciate each tree, each bite of food, each sensation of my foot hitting the pavement. It’s the ordinary things that make my life happy—and I see them very differently than I did 20 or 30 years ago. Rather than being humdrum or routine, each moment seems to sparkle. Life feels full and rich.

I am freer now than I have been at any time in my life—most of the responsibilities I have are self-chosen, not imposed by the outside world. I am healthy and I work hard to keep it that way—daily yoga and hour-long walks, weekly weight training sessions, healthy food, moderation in my 2 chief vices (green tea and dark chocolate), and a warm and loving network of family and friends.

Some authors argue that life circumstances actually have little to do with happiness. Rather, we decide to be happy. And we can train ourselves to be happier. In their book, How We Choose to Be Happy, authors Rick Foster and Greg Hicks say that extremely happy people make 9 fundamental choices about how they conduct their lives. These choices generate and increase happiness.

Happiness is highly correlated with health, and the authors argue that our health care system ought to teach people about what would make them happier. Happiness is not feeling bubbly and perky every moment, according to Foster and Hicks. Instead it is composed of an enduring and profound feeling of contentment, capability, and centeredness. People who engage with life and live in the moment, “enjoying life’s bounty and abundance,” are happier than those who get caught up with overwork and worry and let life’s ordinary moments pass them by.

I won’t reveal all 9 of the choices—you can read the book—but the foundational choice is intention. We have to intend to be happy and consciously choose the attitudes and behaviors that lead to happiness.

I believe that if we stay awake, open, and attentive to our needs, life will teach us how to choose happiness. That’s why older people are happier. We’ve learned not to sweat the small stuff. We’re grateful for each moment. Or as George Burns famously said, “It’s good to be here. At 98, it’s good to be anywhere.”

The study I mentioned shows that people become increasingly unhappy from age 18 to 50, and then suddenly their happiness increases, often dramatically. Look on the bright side—you are getting older. One day you may be positively ecstatic.

Eleanor Vincent is the author of the memoir Swimming with Maya: A Mother’s Story (Capital Books, 2004). She lives and writes in Oakland, CA.
I must fault Arnold Melnick for the lack of research evident in his column in the June issue of the AMWA Journal [2010;25(2):76-77], specifically on the word “cockle.”

Melnick states that “cockles of your heart” is one of his favorite expressions. Fine! But he seems to think that the singular form of this word has little use. However, it has ancient roots in the Greek and Roman languages, as well as in Old French and Middle English, and the singular form is still in use today.

For example, cockle as a noun is 1) any bivalve mollusk of the genus Cardium, having somewhat heart-shaped, radially ribbed valves, especially C. edule, the common edible species of Europe; 2) any of various allied or similar mollusks; 3) a wrinkle, a pucker (eg, a cockle in fabric); 4) a small, crisp candy of sugar and flour, bearing a motto.

These are just a few of the current definitions of cockle as a noun. It can also be used as a verb. For starters, see what www.dictionary.com has to say about the word.

Robert Dunbar
Gardiner, ME

It’s always nice to be called to task by an old AMWA friend, one you haven’t seen in many years. Let me address your concerns. First, I do not read Greek and Roman languages or Old French (or even new French) or Middle English. Second, you say “…and the singular form is still in use today.” I confess that I have never used the word “cockle” in my entire lifetime of 90 years (or heard it used), and unless you are in the shellfish business on the side, I challenge you to remember how many times you have used it over your lifetime of great writing—certainly, never as the singular of “cockles of my heart.”

I stand by my definition (taken from Merriam-Webster’s Collegiate Dictionary and several others) and it totally agrees in context with your definition. I found no evidence that the word is in use today (other than the almost-as-rare use for mollusks)—not even colloquially, in slang, or in comedic or any other form. Being in the dictionary does not mean “in use.” I apologize if I gave the impression that it does not exist at all, but its existence is so minor and frugal (only with shellfish) that the word almost doesn’t exist.

As for references, I shy away from using Internet sources, because they are so fragile and easily contaminated. I use published sources as authoritative. (I wrote 2 AMWA Journal columns about Internet references [2003;18(1):28-29 and 2003;18(3):129-131].)

It was great hearing from you; “it warmed the cockles of my heart.”

Arnold Melnick, DO
Aventura, FL

Barry Smoger, MD
Broomall, PA

Thank you for your great question. It’s inspiring to know someone reads so carefully. The sentence is correct. To elaborate, most uses of the slide format are inappropriate, resulting in ineffective or “bad” slides. These may be any of the types described in the article and many more. The most well-known example is that provided on Dr Tufte’s Web site about his work examining the Challenger disaster. Here is a third-party’s version of the tragedy explaining what can happen from ineffective slides used inappropriately: www.asktog.com/books/challengerExerpt.html.

My point was that it is not the software program, PowerPoint, at fault, but that we have lost the knowledge of how to use visual information well and wisely. Fortunately, most ineffective slides used inappropriately have less tragic results.

Sara Lou O’Connor
Palm Coast, FL
The *AMWA Journal* encourages the submission of manuscripts and suggestions for content for its recurring sections. Unless otherwise noted, submit contributions and suggestions for content to the Journal Editor at amwajournaleditor@editorialrx.com.

**Feature Articles:** Original compositions that are timely and relevant for medical writers and editors (approximately 3,000 words).

**Science Series:** Articles that provide an overview of a specific anatomical or physiologic topic or of a particular disease (approximately 3,000 words). Send manuscripts (and suggestions for content) to the Journal Editor at amwajournaleditor@editorialrx.com.

**Practical Matters:** Articles that provide advice to medical writers and editors at all levels of experience and in all types of practice settings (approximately 700-1,000 words).

**Professional Development:** Information on career development issues and opportunities for professional development (educational programs, writing competitions) for medical writers and editors of all levels of experience.

**Sounding Board:** Forum for members’ opinions on topics relevant to medical writing and editing (approximately 1,000 words).

**Chapter Corner:** Forum for chapters to share experiences and expertise. Send suggestions for content to Chapter Corner Editor, Tracey Fine, MS, ELS, at finemedpubs@earthlink.net.

**Member Musings:** Forum for members to share personal essays (related to medical writing and editing) and creative work, as well as news about member achievements.

**Freelance Forum:** Forum for questions pertaining to freelance medical communication.

**Media Reviews:** Send suggestions or books to the Book Reviews Editor, Evelyn Kelly, PhD, at evelykell@aol.com. Send suggestions for other media (CD-ROMs, videos, Web sites) to the Journal Editor.

**Dear Edie:** Send questions on English usage to Edie Schwager, Dear Edie Column Editor, at dearedie@verizon.net or 4404 Sherwood Road, Philadelphia, PA 19131-1526.

**Letters to the Editor:** Comment on topics published in the *AMWA Journal* (approximately 500 words or less). Letters should refer to Journal contents within the past 2 issues.

**MANUSCRIPT SUBMISSION**

Manuscripts are accepted for consideration with the understanding that they have not been published elsewhere and are not under review elsewhere.

Submit the manuscript as a Word document attached to an e-mail to the Editor (amwajournaleditor@editorialrx.com). Include the following information in the e-mail:

- Name, address, phone and fax numbers, and e-mail address of the author to whom correspondence should be sent
- Written permission of author(s) and publisher(s) to use any material published previously (figures, tables, or quotations of more than 100 words)

Hard copies of figures, if necessary, should be sent (with complete documentation of the manuscript they accompany) by postal mail to:

Lori Alexander, MTPW, ELS
Editor, *AMWA Journal*
American Medical Writers Association
30 West Gude Drive #525
Rockville, MD 20850-1161

All manuscripts must be accompanied by a completed author responsibility disclosure and a signed copyright form. Both of these forms are available in the *AMWA Journal* Information for Contributors section of the AMWA Web site (www.amwa.org).

**COPYRIGHT POLICY**

The authors of manuscripts contained in the *AMWA Journal* grant to AMWA exclusive worldwide first publication rights and further grant a nonexclusive license for other uses of the manuscripts for the duration of their copyright in all languages, throughout the world, in all media. Copyright ownership of these articles remains with the authors. Readers of the manuscripts in the *AMWA Journal* may copy them without the copyright owner’s permission, if the author and publisher are acknowledged in the copy and copy is used for educational, nonprofit purposes.

**REVIEW AND PRODUCTION PROCESS**

Manuscripts are reviewed by the Editor and at least 2 additional reviewers. Decisions of the Editor are final. All submitted material is subject to editing and copyediting. Authors will receive the edited version of the manuscript before publication, and all queries and editorial changes should be carefully reviewed at this time. Authors are responsible for the content of their entire work, including changes made during the editorial process and approved by the corresponding author.

Information on style and manuscript preparation is provided in the complete set of Instructions for Contributors on the AMWA Web site (www.amwa.org).
AMWA appreciates the generous support provided by its corporate sponsors.

**PATRON**

LIVESTRONG.COM

Demand Media
(www.demandmedia.com)

Sponsorships as of July 12, 2010.

Maximize your company's visibility to AMWA members and others in the field of medical communication by becoming a corporate or conference sponsor. There are many levels of sponsorship opportunities that can fit almost any budget.

**Corporate sponsors** are valuable partners that enable AMWA to continue providing excellent programs and services for AMWA's members, and gives your company continued exposure and presence to medical communicators.

**Conference sponsors** have direct contact with an estimated 1,000 prospective customers, partners, and even future employees. In addition, through conference publicity and promotion, your company will have the opportunity to make a lasting impression on more than 5,600 AMWA members worldwide.

Visit www.amwa.org for sponsorship information and forms.
### Appendix. Articles Analyzed in Study

<table>
<thead>
<tr>
<th>Category of Article</th>
<th>First Author</th>
<th>Title of Article</th>
<th>Date, Volume, Issue, and Pages</th>
<th>Overall Percentage of Passive Sentences (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinion</td>
<td>Albertsen PC</td>
<td>PSA Testing Public Policy or Private Pecant?</td>
<td>2006 Nov 15;296(19):2371-3</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Carragee E</td>
<td>Surgical Treatment of Lumbar Disk Disorders</td>
<td>2006 Nov 22;296(20):2485-7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Flum DR</td>
<td>Interpreting Surgical Trials with Subjective Outcomes Avoiding Unsportsmanlike Conduct</td>
<td>2006 Nov 22;296(20):2483-5</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Ford JM</td>
<td>Predicting and Preventing Hereditary Colorectal Cancer</td>
<td>2006;296:1521-1523</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graham DJ</td>
<td>Cox-2 Inhibitors, Other NSAIDS, and Cardiovascular Risk</td>
<td>2006 Oct 4;296(13):1653-6</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Little P</td>
<td>Delayed Prescribing—a Sensible Approach to the Management of Acute Otitis Media</td>
<td>2006;296:1290-1291</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Msall ME</td>
<td>Complexity of the Cerebral Palsy Syndromes—Toward a Developmental Neuroscience Approach</td>
<td>2006; 296:1650-1652</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Simpson RJ</td>
<td>Challenges for Improving Medication Adherence</td>
<td>2006 Dec 6;296(21):2614-6</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Thompson PD</td>
<td>Protecting Athletes from Sudden Cardiac Death</td>
<td>2006;296:1648-1650</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Wisner KL</td>
<td>Postpartum Depression: a Major Public Health Problem</td>
<td>2006 Dec 6;296(21):2616-8</td>
<td>10</td>
</tr>
<tr>
<td>The Lancet</td>
<td>Abgrall S</td>
<td>Initial Strategy for Antiretroviral-Naive Patients</td>
<td>2006 Dec 16;368(9553):2107-9</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Berer M</td>
<td>Hospital Admission for Complications of Unsafe Abortion</td>
<td>2006 Nov 25;368(9550):1848-9</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>deIrala J</td>
<td>Changes in Sexual Behaviours to Prevent HIV</td>
<td>2006;368:1749-1750</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Eyer P</td>
<td>Pralidoxime for Organophosphate Poisoning</td>
<td>2006 Dec 16;368(9553):2110-1</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Ferguson N</td>
<td>Poverty, Death, and a Future Influenza Pandemic</td>
<td>2006 Dec 23;368(9554):2187-8</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Garcia LA</td>
<td>The Ever-Growing Story of Cyclo-Oxygenase Inhibition</td>
<td>2006;368:1745-1747</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Horton R</td>
<td>The Evolving Doctor</td>
<td>2006;368:1750-1751</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Smith NM</td>
<td>Influenza Vaccination for Elderly People and their Care Workers</td>
<td>2006;368:1752-1753</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Trussell J</td>
<td>Preventing Unintended Pregnancy: Let Us Count the Ways</td>
<td>2006;368:1747-1748</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Turégano-</td>
<td>Medical Response to the 2005 Terrorist Bombings in London</td>
<td>2006 Dec 23;368(9554):2188-9</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Fuentes F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEJM</td>
<td>Currier JS</td>
<td>Getting Smarter—the Toxicity of Undertreated HIV Infection</td>
<td>2006 Nov 30;355(22):2359-61</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Greene MF</td>
<td>Obstetricians Still Await a Deus ex Machina</td>
<td>2006 Nov 23;355(21):2247-8</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Hillis LD</td>
<td>Myocardial Infarction and the Open-Artery Hypothesis</td>
<td>2006;355:2475-2477</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Iseman MD</td>
<td>Rapid Detection of Tuberculosis and Drug-Resistant Tuberculosis</td>
<td>2006;355:1606-1608</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Karlawish J</td>
<td>Alzheimer's Disease—Clinical Trials and the Logic of Clinical Purpose</td>
<td>2006;355:1604-1606</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Mccullough AJ</td>
<td>Thiazolidinediones for Nonalcoholic Steatohepatitis—Promising but not Ready for Prime Time</td>
<td>2006 Nov 30;355(22):2361-3</td>
<td>21</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>------------------</td>
<td>-------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Reducing the Door-to-Balloon Time for Myocardial Infarction with ST-Segment Elevation</td>
<td>Muscucci M</td>
<td>2006 Nov 30;355(22):2364-5</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Conflict of Interest—or Conflict of Priorities?</td>
<td>Nabel EG</td>
<td>2006 Nov 30;355(22):2365-7</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Aging and Fountain-of-Youth Hormones</td>
<td>Stewart PM</td>
<td>2006;355:1724-1726</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>A Very Effective Treatment for Neovascular Macular Degeneration</td>
<td>Stone EM</td>
<td>2006;355:1493-1495</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Hospital Quality for Acute Myocardial Infarction—Correlation Among Process Measures and Relationship with Short-Term Mortality</td>
<td>Bradley EH</td>
<td>2006;296:72-78</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Effect of 6-Month Calorie Restriction on Biomarkers of Longevity, Metabolic Adaptation, and Oxidative Stress in Overweight Individuals</td>
<td>Heilbronn LK</td>
<td>2006;295:1539-1548</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Prevalence of and Risk Factors for Lifetime Suicide Attempts Among Blacks in the United States</td>
<td>Joe S</td>
<td>2006;296:2112-2123</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Association of Polymorphisms in the CRP Gene with Circulating C-Reactive Protein Levels and Cardiovascular Events</td>
<td>Lange LA</td>
<td>2006;296:2703-2711</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein Cholesterol: a Randomized Controlled Trial</td>
<td>Lee JK</td>
<td>2006;296:2563-2571</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Mortality and Cardiac and Vascular Outcomes in Extremely Obese Women</td>
<td>Mctigue K</td>
<td>2006;296:79-86</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Effect of Maintenance Therapy with Varenicline on Smoking Cessation—a Randomized Controlled Trial</td>
<td>Tonstad S</td>
<td>2006;296:64-71</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Relationship Between Medicare's Hospital Compare Performance Measures and Mortality Rates</td>
<td>Werner RM</td>
<td>2006;296:2694-2702</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Survival Associated with Treatment vs Observation of Localized Prostate Cancer in Elderly Men</td>
<td>Wong Y</td>
<td>2006;296:2683-2693</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Outcomes with Etoricoxib and Diclofenac in Patients with Osteoarthritis and Rheumatoid Arthritis in the Multinational Etoricoxib and Diclofenac Arthritis Long-Term (Medal) Programme: a Randomized Comparison</td>
<td>Cannon CP (The Lancet)</td>
<td>2006;368:1771-1781</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Sexual Abstinence, Contraception, and Condom Use by Young African Women: a Secondary Analysis of Survey Data</td>
<td>Cleland J</td>
<td>2006;368:1788-1793</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>CD4-Guided Structured Antiretroviral Treatment Interruption Strategy in HIV-Infected Adults in West Africa (Trivasan Anrs 1269 Trial): a Randomised Trial</td>
<td>Danel C</td>
<td>2006;367;1981-1989</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Overall</td>
<td>Lindstrom J</td>
<td>Sustained Reduction in the Incidence of Type 2 Diabetes by Lifestyle Intervention: Follow-Up of the Finnish Diabetes Prevention Study</td>
<td>2006 Nov 11;368(9548):1673-9</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Moss SM</td>
<td>Effect of Mammographic Screening from Age 40 Years on Breast Cancer Mortality at 10 Years’ Follow-up: a Randomised Controlled Trial</td>
<td>2006 Dec 9;368(9552):2053-60</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Ronsmans C</td>
<td>Socioeconomic Differentials in Caesarean Rates in Developing Countries: a Retrospective Analysis</td>
<td>2006 Oct 28;368(9546):1516-23</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Thomas RE</td>
<td>Effect of Enhanced Feedback and Brief Educational Reminder Messages on Laboratory Test Requesting in Primary Care: a Cluster Randomised Trial</td>
<td>2006; 367:1990-1996</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Vanags D</td>
<td>Therapeutic Efficacy and Safety Of Chaperonin 10 in Patients with Rheumatoid Arthritis: a Double-Blind Randomised Trial</td>
<td>2006 Sep 2;368(9538):855-63</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>NEJM</td>
<td>A Placebo-Controlled Trial of Pioglitazone in Subjects with Nonalcoholic Steatohepatitis</td>
<td>2006;355:2297-307</td>
<td>35</td>
</tr>
<tr>
<td>Review</td>
<td>Bloom SL</td>
<td>Fetal Pulse Oximetry and Cesarean Delivery</td>
<td>2006;355:2195-202</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>El-Sadr WM</td>
<td>CD4+ Count–Guided Interruption of Antiretroviral Treatment</td>
<td>2006;355:2283-96</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Haland G</td>
<td>Reduced Lung Function at Birth and the Risk of Asthma at 10 Years of Age</td>
<td>2006;355:1682-1689</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>International Early Lung Cancer Action Program Investigators</td>
<td>Survival of Patients with Stage I Lung Cancer Detected on CT Screening</td>
<td>2006;355:1763-1771</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Kandun IN</td>
<td>Three Indonesian Clusters of H5N1 Virus Infection in 2005</td>
<td>2006;355:2186-94</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Mas JL</td>
<td>Endarterectomy Versus Stenting in Patients with Symptomatic Severe Carotid Stenosis</td>
<td>2006;355:1660-1671</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Nair KS</td>
<td>DHEA in Elderly Women and DHEA or Testosterone in Elderly Men</td>
<td>2006;355:1647-1659</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Oner AF</td>
<td>Avian Influenza A (H5N1) Infection in Eastern Turkey in 2006</td>
<td>2006;355:2179-85</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Palareti G</td>
<td>D-Dimer Testing to Determine the Duration of Anticoagulation Therapy</td>
<td>2006;355:1780-1789</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Chen LH</td>
<td>Prevention of Malaria in Long-Term Travelers</td>
<td>2006;296:2234-2244</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Gehi AK</td>
<td>Evaluation and Management of Patients After Implantable Cardioverter-Defibrillator Shock</td>
<td>2006;296:2839-2847</td>
<td>28</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Lindor NM</td>
<td>Recommendations for the Care of Individuals with an Inherited Predisposition to Lynch Syndrome</td>
<td>2006;296:1507-1517</td>
<td>30</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Mozaffarian D</td>
<td>Fish Intake, Contaminants, and Human Health: Evaluating the Risks and the Benefits</td>
<td>2006;296:1885-1899</td>
<td>22</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Pannu P</td>
<td>Prophylaxis Strategies for Contrast-Induced Nephropathy</td>
<td>2006;295:2765-2779</td>
<td>19</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Schievink WI</td>
<td>Spontaneous Spinal Cerebrospinal Fluid Leaks and Intracranial Hypotension</td>
<td>2006;295:2286-2296</td>
<td>46</td>
</tr>
<tr>
<td>The Lancet</td>
<td>Cleland J</td>
<td>Family Planning: the Unfinished Agenda</td>
<td>2006 Nov 18;368(9549):1810-27</td>
<td>18</td>
</tr>
<tr>
<td>The Lancet</td>
<td>Grandjean P</td>
<td>Developmental Neurotoxicity of Industrial Chemicals</td>
<td>2006 Dec;368(9553):2167-2178</td>
<td>25</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Low N</td>
<td>Global Control of Sexually Transmitted Infections</td>
<td>2006 Dec 2;368(9551):2001-16</td>
<td>25</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Moss M</td>
<td>Alcohol Abuse in the Critically Ill Patien</td>
<td>2007 Jan;368(9554):2231-2242</td>
<td>25</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Sliwa K</td>
<td>Peripartum Cardiomyopathy</td>
<td>2006 Aug 19;368(9536):687-93</td>
<td>30</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Tyrer P</td>
<td>Generalised Anxiety Disorder</td>
<td>2006 Dec;368(9553):2156-2166</td>
<td>31</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Yoon KH</td>
<td>Epidemic Obesity and Type 2 Diabetes in Asia</td>
<td>2006 Nov;368(9548):1681-1688</td>
<td>12</td>
</tr>
<tr>
<td>NEJM</td>
<td>Bergan JJ</td>
<td>Chronic Venous Disease</td>
<td>2006 Aug 3;355(5):488-498</td>
<td>22</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Eder W</td>
<td>The Asthma Epidemic</td>
<td>2006 Nov 23;355(21):2226-35</td>
<td>28</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Federman DD</td>
<td>The Biology of Human Sex Differences</td>
<td>2006 Apr 6;354(14):1507-1514</td>
<td>10</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Kaushansky K</td>
<td>Lineage-Specific Hematopoietic Growth Factors</td>
<td>2006 May 11;354(19):2034-2045</td>
<td>17</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Seeman E</td>
<td>Bone Quality—the Material and Structural Basis of Bone Strength and Fragility</td>
<td>2006 May 25;354(21):2250-2261</td>
<td>11</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Stern DT</td>
<td>The Developing Physician—Becoming a Professional</td>
<td>2006;355:1794-9</td>
<td>14</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Van De Beek D</td>
<td>Community-Acquired Bacterial Meningitis in Adults</td>
<td>2006 Jan 6;354(1):44-53</td>
<td>47</td>
</tr>
<tr>
<td>WSJ</td>
<td>Bandler J</td>
<td>Living Large and Bouncing Back</td>
<td>2006 Dec 30; A1</td>
<td>3</td>
</tr>
<tr>
<td>Overall Percentage of Passive Sentences (%)</td>
<td>Block P</td>
<td>An L.A. Police Bust Shows New Tactics for Fighting Terror</td>
<td>2006 Dec 29;A1</td>
<td>9</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Bravin J</td>
<td>The Conscience of The Colonel: Lt. Col. Stuart Couch Volunteered to Prosecute Terrorists. Then He Decided One Had Been Tortured.</td>
<td>2007 March 31; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Davies P</td>
<td>Law Firm's Work on Tax Shelters Leads to Demise: Litigation, Penalty Fell Jenkens &amp; Gilchrist; 'An Orderly Transition'</td>
<td>2007 March 30; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Ellison S</td>
<td>Zell Wins Tribune in Bid to Revive a Media Empire: Budget Cuts Are Likely as Developer Takes Helm; Debt, ESOP Sew Up Deal</td>
<td>2007 April 3; Page A1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Etter L</td>
<td>Ethanol Creates a Pricing Puzzle for Corn Farmers: Boom Complicates Bets on Planting, Contracts; Straddling Two Markets</td>
<td>2007 March 29; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Francis T</td>
<td>Medical Dilemma Spread of Records Stirs Patient Fears of Privacy Erosion</td>
<td>2006 Dec 26; A1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Hilsenrath J</td>
<td>How Much Does a Neighborhood Affect the Poor?</td>
<td>2006 Dec 28; A1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Ip G</td>
<td>Productivity Lull Might Signal Growth Is Easing: Ripples Could Confuse Interest-Rate Outlook; Fred Remains Optimistic</td>
<td>2007 March 31; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Jaffe G</td>
<td>Commanders Bound for Iraq Tailor Strategies to a Fragmented Nation</td>
<td>2006 Dec 26; Page A1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Kahn G</td>
<td>Tangled Network: Behind Telecom Italia Fight, Business and Politics Meet. Key Shareholder's Talks with AT&amp;T, Others Spark National Angst</td>
<td>2007 April 3; Page A1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lahart J</td>
<td>How the Bulls Stole Wall Street</td>
<td>2006 Dec 30; A1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Lueck S</td>
<td>In Nursing Homes, a Drug Middleman Finds Big Profits</td>
<td>2006 Dec 23; Page A1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Meckler L</td>
<td>Pump Games: Fill Up with Ethanol? One Obstacle Is Big Oil. Rules Keep a Key Fuel Out of Some Stations; Car Makers Push Back</td>
<td>2007 April 2; Page A1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Millman J</td>
<td>Bar-Mitzvah Boom: Families Discover Caribbean Temples: Americans Heading South Form 'Offshore Market;' No Sand On The Torah [Author: Please check all words in title to confirm accuracy.]</td>
<td>2007 March 31; Page A1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mullins B</td>
<td>Strings Attached as Earmarked Funding Swells, Some Recipients Don't Want It</td>
<td>2006 Dec 26; A1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Shishkin P</td>
<td>Sectarian Land Grab: Iraqi Families Lose Homes in Baghdad</td>
<td>2006 Dec 26; A1</td>
<td>7</td>
</tr>
<tr>
<td>Category of Article</td>
<td>First Author</td>
<td>Title of Article</td>
<td>Date, Volume, Issue, and Pages</td>
<td>Overall Percentage of Passive Sentences (%)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Shishkin P</td>
<td>Blood and Faith: In Turkey, a Judge's Murder Puts Religion in Spotlight. A Teacher's Headscarf Led to Protest, Violence; Muslim vs. Public Life</td>
<td>2007 March 30; Page A1</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Slater J</td>
<td>To Make Lemons into Lemonade Try 'Miracle Fruit': Berry Turns Sour to Sweet by Altering Taste Buds</td>
<td>2007 March 30; Page A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Trofimov V</td>
<td>At African Waterfall, Visitors Confront a Tale of Two Cities</td>
<td>2006 Dec 29; A1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Trofimov Y</td>
<td>Murdered Mistress Becomes Whodunit for Malaysia Elite</td>
<td>2007 March 29; Page A1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Wessel D</td>
<td>As Health Middlemen Thrive, Employers Try to Tame Them</td>
<td>2006 Dec 29; A1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Whalen J</td>
<td>Slim Pickings: 'Miracle' Obesity Pill Looks Less Miraculous. Repeated FDA Delays, European Restrictions Ail Sanofi's Acomplia</td>
<td>2007 March 29; Page A1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Wingfield N</td>
<td>Jobs Helped Pick 'Favorable' Dates for Option Grants</td>
<td>2006 Dec 30; A1</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Wysocki B</td>
<td>Private Practice: Is U.S. Government 'Outsourcing Its Brain?' Boom in Tech Contracts Sparks Complex Debate; a Mecca in Virginia</td>
<td>2007 March 30; Page A1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Zhang J</td>
<td>Squeamish Consumers may Balk as FDA Backs Cloned Meat, Milk</td>
<td>2006 Dec 29; A1</td>
<td>2</td>
</tr>
</tbody>
</table>