INTRODUCTION

The relationship between industry and medicine has been well documented. While these ties have produced notable results for science and beneficial treatments for patients, there are concerns that a greater association between industry and medicine may jeopardize the reliability and durability of research, create bias in medical research, improperly influence medical decision making, and may be responsible for contradictions that lead to medical reversal. The ASTRO annual meeting is an important conference for the field of radiation oncology, with an abundance of the latest information communicated through hundreds of on-site presentations. ASTRO annual meeting sessions have the potential to influence clinical practice. The relationships that the presenters may have with industry, financial or otherwise, must be disclosed to ensure transparency.

AIM

We investigated the use of conflicts of interest (COI) slides at the ASTRO annual meeting and reconciled this with the amount of payments received from industry as determined through Open Payments. The duration the COI slide was visible and the number of words on the slide were used to determine readability. Our working hypothesis was that COI disclosure slides were not displayed for many presenters or were displayed too fast for the average reader to process.

MATERIALS & METHODS

We examined videos of 435 presentations from the ASTRO annual meetings for the years 2014, 2015, and 2016. For each presentation, the category, presenter name, and presenter institution was noted. Variables collected include the credentials and institute of the presenter, whether a COI slide was presented, and the number of disclosures on the slide. Each presentation was viewed and the length of time that the COI slide was displayed was recorded. The number of words on each COI slide was noted. A negative binomial model was fit with the covariates gender, PhD status, number of disclosures and number of words as predictors with the length of time that the COI slide was displayed as an outcome.

RESULTS

- Of the 435 presentations, 307 (70.6%) included a COI slide or verbally discussed no conflict of interest.
- 274 presenters (62.9%) had COI slides specific to their presentation (non-general COI slides).
- After excluding presenters from institutes outside the US and those without an MD or DO, 288 presenters remained.
- 74.3% of presenters were male, 29.9% of presentations examined were from 2014, 36.8% from 2015 and 38.3% from 2016.
- Among US physicians, 66.3% (191) had a COI slide. Reconciliation with the OP database revealed 94 (46.9%) discrepancies correlating to the year of the presentation.
- Of those with discrepancies, 21.4% had COIs related to research, 20.7% had COIs related to consulting, 40.7% travel, 5.9% honoraria, 1.5% entertainment, 1% ownership in stock, 4.4% grants, 16.3% education, and 11.1% compensation for services other than consulting.
- COIs related to food and beverage were not included.

Mean duration in seconds for COI slides was 7.2s, the mean total word count was 18.92 words, and the median number of disclosures was 0. Figure 1 shows a waterfall plot of words per second for all three years. The baseline is set as 4 words per second as a measure of maximum reading ability based on previous literature. A total of 68 of 191 presentations (35.6%) exceeded this standard.

Multivariable regression was consistent with univariable results and revealed male gender (IRR 0.58; 95% CI: 0.41-0.81) and the number of words (IRR 1.01; 95% CI: 1.00-1.02) on a slide were associated with a greater length of time for a COI slide to be displayed.

No significant association was observed with duration of COI slide being displayed and the number of disclosures or having a discrepancy.

Table 2. Multivariable regression, endpoint duration of COI slide in seconds

<table>
<thead>
<tr>
<th>Variable</th>
<th>P value</th>
<th>IRR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>COI Discrepancy</td>
<td>0.46</td>
<td>0.89</td>
<td>0.65-1.23</td>
</tr>
<tr>
<td>Gender</td>
<td>&lt;0.001</td>
<td>0.57</td>
<td>0.40-0.80</td>
</tr>
<tr>
<td>Word Count</td>
<td>&lt;0.001</td>
<td>1.01</td>
<td>1.00-1.02</td>
</tr>
<tr>
<td>Number of Disclosures</td>
<td>0.24</td>
<td>1.03</td>
<td>0.98-1.10</td>
</tr>
</tbody>
</table>

SUMMARY / CONCLUSION

- There were discrepancies in the COIs disclosed by presenters; the Open Payments database revealed disclosures that were not displayed on presenters’ COI slides.
- Most presenters displayed a COI slide, however a large minority did not.
- There was variability in the length of time that COI slides were displayed, raising concern regarding readability by the audience.
- There were 68 of 191 presentations (35.6%) at ASTRO meetings over the last three years with COI disclosure slides that were displayed too fast for the average reader to process.
- More guidelines are needed regarding the nature of COIs that need to be disclosed as well as the methodology of displaying relevant information in order to improve clarity of disclosure in our field.

REFERENCES