### **Abstracts from the EMWA Spring Conference Poster Session**

### At this year's Spring Conference, EMWA was delighted to introduce a poster session.

There was a wide variety of posters available - all relating to aspects of medical writing or of relevance to medical writers. The poster session is an excellent way for EMWA members to see the latest thinking and research in a 'snapshot', and has been introduced as an annual addition to the educational offering from EMWA. Entry to the poster session is included in the conference registration fee, so there really was no reason not to go along to see what was on offer. In case you were unable to get to the conference, the poster abstracts are printed below.

### P1 - A Common and fundamental statistical mistake in medical manuscripts

Serene Ai Kiang Ong, Tina Ying XU

Statistics has become an indispensable part of most medical studies, from the design phase to the data analysis and results reporting stage. A basic understanding of the statistical concepts commonly used for quantitative studies is imperative for the medical researchers and writers to correctly interpret the statistical analysis results

and draw study conclusions. Failure to do so may lead to distorted study findings and predispose the manuscript to rejection by journals. This poster points out a common and fundamental statistical mistake in the preparation of medical manuscripts: the lack of a clearly formulated study hypothesis. The hypothesis is a quantitative

formulation of the research question, and it dictates research methodology, sample size planning, statistical analysis and reporting. We describe how a well written hypothesis sets out the framework for the rest of the study, and how it ties together the flow of the manuscript. Hints on how to improve a hypothesis are also provided.

### P2 - Journal choice: which factors do medical writers and publications managers value?

Noëlle L O'Regan, Andrew Desson, Catherine Hill, Antonia Panayi, Christopher C Winchester, Slavka Baronikova

Introduction: Medical Writers (MWs) and Publications Managers (PMs) advise authors of pharmaceutical industry-sponsored research on journals for publication. We set out to determine the factors influencing this decision-making process.

Methodology: A survey was created and distributed via: The Publication Plan website and LinkedIn group; the International Society for Medical Publication Professionals mailing list; the EMWA website; the Oxford PharmaGenesis LinkedIn group and Twitter page; and authors' contacts. Here, we compare responses from MWs and PMs (overall results

were presented elsewhere).

Results: Of 163 respondents, 53 (33%) were MWs (38 [72%] working for medical communications agencies) and 42 (26%) were PMs (29 [69%] working for pharmaceutical/biotechnology companies). The most valued factor was listing on PubMed (MWs: 98% of respondents; PMs: 91%). Short publication lead time was valued more by PMs (71%) than MWs (49%). High publication charges (MWs: 11%; PMs: 10%) and creative commons licences (MWs: 8%; PMs: 12%) were principal factors in deterring respondents from considering a journal. Wide distribution was deemed to be the greatest

benefit of digital media (MWs: 34%; PMs: 33%), while the time, effort and cost involved in producing digital media was deemed to be its greatest challenge (MWs: 52%; PMs: 38%). Compliance challenges were also recognised by 27% of PMs but just 9% of MWs.

Conclusions: Publication lead times are more likely to influence PMs' than MWs' preferences for journals. PMs are more aware of digital compliance challenges than MWs; PMs and MWs should work together to understand the opportunities afforded by digital media.

### P3 - The IMRaD template for original research manuscripts

Serene Ai Kiang ONG

Original research manuscripts for medical journal submissions often follow a certain format: Introduction, Methods, Results, and Discussion (colloquially known as IMRaD). The manuscripts are also subject to a word limit, commonly 3500-4500 words. At the same time, journal manuscripts must contain sufficient detail for other researchers to verify their research; the section that constitutes the dominant reason for rejection by journals is

the Methods. Poor methodology is out of the purview of the medical writer, but journal reviewers often report as well that insufficient experimental details are provided. Thus, journal manuscripts have to be comprehensive and tightly written.

An IMRaD template for journal manuscripts can simplify the writing. This poster describes the type of content that should be provided for each section, the length of each section, and how

each section should be organised. The flow through the paper and how each section connects with the other sections are also explained. Suggestions for improving readability are given, and particular focus is given to what journal reviewers look out for. Researchers sometimes assume that the key to writing a good research manuscript is a good command of language, but it is really about understanding the manuscript structure.

## P4 - Accuracy of cited claims in the medical literature by specialty: a meta-analysis Scott A. Mogull

Introduction: Accurately summarising previous research findings is essential in scientific communication. This meta-analysis compares studies evaluating the accuracy of cited claims, or quotations, in medicine.

Methodology: This analysis compares 15 studies identified from keyword searches of PubMed/MEDLINE (61 results) and Google Scholar (959 results). Studies were selected for those evaluating medical specialities and having a random selection of quotations that were evaluated by experts. For each speciality, the

average rate of misquotation was compared to the normalised average rate across all fields using a z ratio and P > 0.05 and 0.01.

Results: Across medical fields, the average rate of quotation errors normalised to the total number of claims is 21.6% (840/3880). The reported error rate by speciality ranges from 6.8% (10/147) in Psychiatry to 38.2% (152/398) in Orthopaedics. In the rare case of studies reporting the same speciality, different studies reported error rates that varied considerably. For example, a 2010 study of the Orthopaedic

literature reports a 38.2% (152/398) error rate for a 2007–2008 sample whereas a subsequent study reports 17.9% (26/153) for a 2009 sample. **Conclusion:** Although error rates of quotations are presented by field, the high variability of results between and within specialities may be partially due to differences of sampling and different evaluation of claims by experts. Thus, this average of the error rate (21.1%) from multiple studies might be a better overall estimate of the misquotation in medicine than any individual study.

### P5 - Know your audience: transparency in congress attendance reports

Ricardo Milho, Sirisha Bulusu, Julia Bárdos and Danielle Machin

**Objective:** Good Publication Practice guidelines (GPP3) discourage redundant publication. Industry-sponsored abstracts are often re-submitted to multiple congresses, based on the assumption that audiences are different. Here, we evaluated the information disclosed by biomedical congresses in delegate attendance reports, to examine whether it is possible to know in advance the typical audience of a particular congress.

**Research Design and Methods:** Congresses in eight disease areas were screened using the Conference AuthorityTM database (Sylogent);

the largest five congresses in each disease area were selected for analysis. The latest published attendance reports were identified by online search (August 2015), and the information disclosed by each report was classified according to nine information categories (detailed in Table footnote).

**Results:** 22/40 (55%) of the congresses screened provided attendance reports (Table). Congresses in oncology (5/5), cardiology (3/5), rheumatology (3/5) and neurology (2/5) published the most informative reports (mean number of information categories

provided: between 4.0 and 6.0).

Conclusions: The extent of delegate information disclosed varied with congress size, region and disease area. Congresses with ≥15000 delegates, those hosted in the USA or in oncology provided the most transparent delegate attendance reports.

#### References:

1. Battisti WP *et al.* Ann Intern Med 2015;163(6):461–4.

# P6 - Awareness, attitudes, and perceptions of Croatian-based orthopaedic and trauma surgeons towards scientific manuscripts, publishing internationally and medical writing. Results of an online questionnaire

Diarmuid De Faoite, Bore Bakota, Mario Staresinic, Mario Kopljar, Ivan Cvjetko, Ivan Dobric

Introduction: The objective of this survey was to identify the importance placed by Croatian-based surgeons on writing scientific manuscripts and publishing them internationally, as well as their awareness of and attitudes toward medical writing.

Methodology: A link to an online survey was sent to 327 Croatian-based orthopaedic and trauma surgeons. The electronic questionnaire consisted of rating scales, multiple choice questions and free text reply boxes. A total of 61

surgeons based in Croatia replied to the survey,

yielding a response rate of 19% (61/327).

Results: The survey results indicate that surgeons in Croatia are active in both research and the writing of manuscripts. There is also a high level of interest among them to publish internationally in English to further their careers. While 68% (38/56) of respondents initially claimed to know about medical writing, further questioning on the subject revealed a reduced level of familiarity with the concept. Only 19% (11/58) of respondents had ever engaged the services of a medical writer and they were generally satisfied with the work done across the three areas of language, editing

and scientific knowledge.

Conclusion: Medical writers are advised to increase awareness of their services among Croatian-based orthopaedic and trauma surgeons who may well have a need for their expertise.

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