Scientific Communications in a Fast-Paced World: Fighting Fit for the Future—A Showcase of the 2019 European Meeting of ISMPP

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"Scientific Communications in a Fast-Paced World: Fighting Fit for the Future" was the energetic, forward-looking theme for the 2019 European Meeting of the International Society for Medical Publication Professionals (ISMPP).¹ The meeting, now in its seventh year and premiering at a new, bigger London venue, was held on January 22–23, 2019, and shone a spotlight on the need for agility and excellence in scientific communications in today's rapidly evolving world. The meeting comprised 4 plenary sessions, 2 keynote addresses, 3 parallel sessions, and numerous oral and poster presentations of cutting-edge research.

It was a unique opportunity for distinguished multidisciplinary experts and ISMPP members from across Europe to immerse themselves in thought-leadership and state-of-the-art approaches to scientific communications and to debate some of the toughest challenges we face as an industry. The program took attendees on a journey through communicating robust evidence in a data-overloaded environment, maximizing impact, value, and readership of scientific communications for all stakeholders, being nimble to adapt to technological advances, and maintaining integrity through authentic leadership in the face of "fake news."

Here, we provide an overview of the key themes and takeaways from the meeting through exploration of 4 big questions we should continue to challenge ourselves with.

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Overwhelmed by data overload? How can we harness the power of the most robust evidence and cut through the noise to communicate effectively?

The first session, "Harnessing the Power of Evidence in a Data-Led Future," provided valuable insight into how the community can elevate the value of publications and respond to new requirements for data sharing and transparency. The amount of data and information accessible to healthcare professionals is growing exponentially with the advent of real-world and "big" data; the potential impact of such evidence is massive as it enables us to evaluate therapies in much more diverse patient populations than clinical trials, and in settings that may be more reflective of the real-world environments in which clinicians practice. As publications professionals, we need to help our audiences navigate through the relevant evidence and show how real-world data can be used appropriately to complement the current gold standard of randomized, controlled trials in healthcare decision-making. In doing this, we also need to recognize and educate that there can be issues with data quality, completeness of data sets, or bias. In the future, publications may be seen as part of a wider data ecosystem with a focus on accurate data interpretation. To enable such an approach will require the appropriate use of meta-data, but there will also be an increased focus on the sharing of data to answer additional research questions. The International Committee of Medical Journal Editors (ICMJE) has recently published guidelines that start to address aspects of data sharing; this guidance covers the need for a data-sharing statement and a data-sharing plan (as part of trial registration for clinical trials enrolling patients on or after January 1, 2019) for manuscripts to be published in ICMJE member journals. Pharmaceutical companies are starting to develop their own policies and set up teams to review data-sharing statements and assess data requests.

The ongoing debate regarding open access to pharmaceutical company-supported research manuscripts

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featured heavily at the meeting, with the hot topic of the Plan S model included as a keynote debate. The Plan S^2 model aims to make all publicly funded scientific research fully open access across Europe by 2020. The keynote address brought two important players together to debate the benefits and challenges of funding, implementing, and delivering the Plan S model. Representing cOAlition S, David Sweeney of Research England explained how to make full and immediate open access a reality, the process of which is not short of major challenges for all stakeholders involved. He acknowledged that achieving "full and immediate" open access to publications from publicly funded research requires a paradigm shift towards new sustainable models of scholarly publishing that are "more transparent, efficient, and fair." Representing the publishing side, Claire Moulton of The Company of Biologists emphasized that non-profit community journals are ready to embrace innovation and change. She advised that more open debate is needed to address concerns from stakeholders regarding hybrid journals and the hurdles in transitioning these to become fully open access, with realistic article processing charges for funders, and within the proposed implementation timelines for Plan S.

As curators and communicators in a datarich environment, medical publications professionals need to keep up to date with best practice for transparent information sharing, and ensure the most robust evidence is easily accessible for healthcare professionals.

Maximizing impact, value, and readership: How can we stay abreast of our continuingly expanding role within publications planning while building value for all key stakeholders?

Understanding the value and impact of publications to different stakeholders is pivotal to the successful evolution of medical publications professionals in their continually broadening roles. "Boxing Clever: the Expanding Role of the Publication Professional" featured a multidisciplinary panel of experts, from a healthcare professional to experts working directly with payers and in the pharmaceutical industry. They explored how publications professionals can expand their skills and presence as ambassadors for impactful scientific communications and provide maximum value to all.

The ways healthcare professionals access and keep apprised of the latest research in a fast, data-led environment were explored. The days of reading entire journals have gone—there is an increasing need for tailored content delivered via journal alerts, collated on websites, or synthesized in systematic reviews. It was agreed that systematic reviews and meta-analyses are extremely important resources. However, it was recommended that interpretation of research data from randomized clinical trials for evidence-based decision-making must be supported by real-world evidence. The process for assessing data for inclusion in systematic reviews was considered ripe for technological advancement as the



screening of abstracts is hugely time-consuming; in the future, machine learning technology could help to automate this process and extract data from the entire manuscript, not just the abstract.

Another key recommendation from this session was to reframe publications planning teams to become more strategic and cross-functional, placing publications at the core of strategically aligned multichannel scientific communications plans (comprising medical, product, local, and health economics and outcomes research [HEOR] strategies). The need for market access functions to align payer and healthcare provider communications, while ensuring the inclusion of outcomes meaningful to payers, was also reflected on in the "Early Rise Evidence Boot Camp" parallel session. HEOR and clinical/medical teams must work closely to ensure strategic alignment of observational studies, real-world evidence, and randomized clinical trials early in the process. Finally, but absolutely critically, planning by cross-functional teams should integrally involve patients, for example in protocol optimization, trial communications, and publications. Patient involvement must not be tokenistic.

Maximum value from publications can only be realized by engaging all stakeholders in cross-functional teams throughout the journey, and fully appreciating their needs and behaviors.

Adapting to the changing world: are we aware of all of the changes that will impact us, and are we ready to tackle them head-on?

Our environment is changing rapidly, not least with the advent of new technologies and artificial intelligence (AI). We need to understand how to utilize all the technologies that are currently available to us, as well as understand where new technologies will add real value to our profession.

In his keynote address, "No More Robowars," Simon Fry of Springer Healthcare took the audience on a journey to better understand the potential of using AI in healthcare and medical publishing. He emphasized that increased use of technology can potentially raise the value of processes that cannot be automated, such as doctor–patient interaction. So

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while Al will be utilized more across healthcare, it is important to remember that human interactions cannot be replaced. It is also essential to understand that our audiences are made up of individuals with different personas and preferred learning styles. The parallel session "Innovations in Data Publishing: Hitting the Ground Running, and Making Each Step Count" showcased a number of innovations already being utilized by journals and congresses to help address this, including videos of authors and visual infographics to represent complex concepts. Outside of the journal publishing world, medical congresses are often early adopters of innovative approaches and there is a growing interest in the use of social media and virtual platforms to expand the reach of scientific exchange outside the confines of the congress itself.

Improving public perceptions of publications is a key area of focus for all publications professionals, and various advances that address this topic are currently under discussion. Three of these were covered in the parallel session "Leveraging Medical Data-Ways to Maximize Impact for the Long Run": current trends in preprints, open peer review, and blockchain. The use of preprints prior to publication has the potential to speed up access to medical research; however, this has to be balanced with the potential for harm that could occur when sharing a publication with data or interpretation errors. The role of open peer review has been mooted to increase transparency, although there are still some concerns about whether inherent bias exists in this approach. There is evidence to suggest that conducting peer review in an open forum can improve the quality of comments received from reviewers, and that including patient reviewers can also add valuable insights. The concept of blockchain may well seem at odds with a presentation about publications, but its implementation in the pharmaceutical and publishing industries could allow for tracking of any modifications/usage through a decentralized digital database, ultimately democratizing the control of data and increasing trust in the data we are communicating.

We need to take a proactive, leadership stance on the continual incremental innovations and industry-shaking disruptors coming our way. We need to understand and capitalize on how they can complement, enhance, and potentially revolutionize our efforts.

What does it take to ensure integrity through leadership?

Ensuring that publications practices meet the highest ethical standards and are universally trusted is a critical aim for all publications professionals. The session on "Maintaining Our Core Strength: Driving Publication Integrity Through

Leadership" addressed the ever-increasing eminence of publications ethics, and the past and present challenges faced by different publications stakeholders. The audience was challenged to guestion whether all the learnings from the past years have in fact been learned and whether we are really in the most able and empowered place to be able to identify dubious practices to ensure patients are not put at harm in the future. There is a positive argument that escalating demands for clinical trial transparency and data sharing are increasing voluntary compliance across the pharmaceutical industry, and in doing so make it harder for bad practice to slip through. Promoting patient engagement across all stages of drug development to market launch and beyond will also be a step towards improving public perceptions and understanding of the clinical trial process. Patient lay summaries are becoming increasingly popular, but there is still a lot to be done to promote engagement of patients in the communication of research outcomes. Publishers also have a major role to play in maintaining integrity and have been introducing a number of processes to help achieve this, including robust conflict of interest disclosures, data sharing, appropriate authorship practices, and tackling predatory publishing. It is also important to highlight that ISMPP as an organization has a continued leadership role in driving and ensuring integrity in medical publishing.

"Fake news" has become endemic in all areas of communication, not least within the interpretation of scientific research by the media and lay public. Understanding our role as publications professionals within this arena is critical we cannot put our heads in the sand and ignore the issue; we have to proactively help to ensure there is less room for misinterpretation of the data and communications that we deliver. Adopting a light-hearted approach to the topic, Andy Powrie-Smith of the European Federation of Pharmaceutical Industries and Associations engaged an eminent and highly dynamic panel in a lively debate about what it means to be ambassadors of healthcare communications and how to better prepare to fight "fake news." The role that all stakeholders play in maintaining scientific integrity was explored and how publications professionals can help to ensure there is less room for misinterpretation was considered. Three key takeaways were particularly applicable for medical publications professionals: (1) proactively communicate to a wider audience beyond just specialist healthcare professionals, starting by ensuring plain-language summaries are applicable and accessible to all audiences; (2) be careful when providing bite-sized information to explain the context and robustness of research as a lack of detail could make it easier for misinterpretation; and (3) be willing as publications professionals to stand up for the integrity of good quality scientific research.

Delivering accessible, robust, and trustworthy content, expertly tailored to inform different audiences, should be at the heart of everything we do.

Acknowledgment

The authors would like to acknowledge the European Meeting Programme Committee for its extraordinary contribution to organizing this dynamic meeting. Access the 2019 European Meeting program³ to learn more.

Links and Notes

 The International Society for Medical Publication Professionals (ISMPP; https://www.ismpp.org) is a not-for-profit organization whose mission is to advance the medical publications and communications professions globally through enhanced integrity and transparency in medical publications and wider communications; improved standards and best practices; and education, advocacy, and professional collaborations. The Society also offers an ISMPP Certified Medical Publication Professional™ (ISMPP CMPP™; https://www.ismpp.org/overview) credential that confirms expertise as a medical publications professional, proficiency in good publications practices, commitment to ethical and transparent data dissemination standards, and leadership in upholding and fostering integrity and excellence in medical publications. The CMPP exam is offered twice annually in March and September.

- 2. https://www.coalition-s.org/
- 3. https://www.ismpp.org/schedule-of-events

ISMPP hosts educational conferences worldwide (https://www.ismpp.org/upcoming-meetings) to focus on regional and global practices related to medical publications. Upcoming conferences include:

- 15th Annual Meeting of ISMPP, April 15–17, 2019, National Harbor, MD
- 2019 Asia Pacific Meeting of ISMPP, September 6, 2019, Tokyo, Japan
- ISMPP West 2019, November 14-15, 2019, San Diego, CA
- 2020 European Meeting of ISMPP, January 21–22, 2020, London, UK