ROUNDTABLE: OPTIMIZING PUBLICATION PLANNING FOR IMPACT: HARNESSING KEY SIGNALS AND AI FOR SMARTER JOURNAL SELECTION

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DISCUSSION SUMMARY:

In today's complex scientific environment, Medical Affairs teams face growing pressure to ensure that publications are in alignment with the medical objectives and provide a measurable impact. Publication planning has evolved into full scientific communications and is a core strategic function, supporting scientific exchange, the development of market access materials for launch initiatives, regulatory transparency, and clinical decision-making. However, aligning publication efforts with the overarching medical strategy, stakeholder needs, and external expectations remains challenging.

Traditional success metrics like journal impact factor and citation counts often fail to reflect real-world impact and overlook clinical and patient reach as well as engagement. Internal stakeholders and external audiences, such as healthcare professionals (HCPs), regulators, and guideline committees, often hold differing views on what constitutes a "successful" publication. This disconnect can complicate journal selection, dilute strategic focus, and obscure the true value of scientific communications.

Journal selection has become increasingly complex with the rise of open-access and niche journals, each offering varying reach, engagement potential, and suitability for specific study types. Evaluating journal fit now requires consideration of multiple dynamic factors beyond prestige, including turnaround times, audience relevance, open access options, and dissemination performance, often without standardized data to guide decisions. Coupled with tighter timelines, regulatory constraints, and the high cost of misalignment, this landscape underscores the urgent need for a more integrated, data-informed, and agile approach to publication planning in Medical Affairs.

This complexity creates an opportunity for advanced analytics and artificial intelligence (AI)-enhanced solutions to play a transformative role. By analyzing large volumes of data across journals, study types, and audience engagement signals, AI has the potential to uncover hidden patterns, predict journal acceptance likelihood and intended impact, and support a more strategic decision-making. However, the integration of AI into publication planning is still in its early stages, and many organizations are exploring how best to balance algorithmic insights with human expertise and organizational priorities.

To explore these critical issues, Digital Science held a roundtable with Medical Affairs professionals in May 2025. In the session, we discussed how publication planning can evolve in the face of these challenges, and how smarter integration of key signals, and AI, might support more strategic journal selection and targeted publication impact. The discussion

revealed not only the depth of the challenges but also a shared ambition to modernize and improve how Medical Affairs and publication planning teams approach scientific publishing.

The Top 7 Topics:

1. Navigating an Evolving Journal Landscape

One of the central challenges identified was the increasingly complex journal ecosystem. Participants noted the difficulties of aligning internal and external stakeholders on what constitutes "impact". Especially in a landscape where article-level digital metrics are expanding but still lack consistent measurement of tangible impact (for example change in clinical practice). The rise of new journals with limited historical data compounds this challenge, creating uncertainty around reputational value and future readership.

2. Beyond the Impact Factor: Redefining Success

A recurring theme throughout the discussion was the importance of redefining impact beyond traditional metrics like the Journal Impact Factor. Participants advocated for a multi-dimensional view of success that includes not only citations, but also inclusion in clinical guidelines, downloads, social media visibility, and most importantly, influence on clinical practice and patient outcomes.

However, the group acknowledged a frequent disconnect between industry and external healthcare professionals with authorship contributions on what metrics truly matter. They emphasized the importance of articulating the "why" behind a publication, aligning it with broader medical and communication objectives.

3. The Expanding Scope of Evidence

As real-world evidence (RWE), mixed-methods and qualitative studies become more prevalent, publication planning professionals face new barriers. Challenges in securing journal acceptance and measuring downstream impact on patients were highlighted. The group called for more robust frameworks to support the dissemination and recognition of these emerging study types, particularly in rare disease research, where delays in publication can have significant consequences for patients and stakeholders.

4. Balancing Strategy, Timelines, and Regulatory Needs

Participants also grappled with the tension between strategic journal selection and regulatory timelines. Compromises are often necessary when aiming for high-impact journals, especially under tight publication schedules. Making a strong, data-backed case for targeting less prominent but more appropriate journals, as part of the journal selection discussion, was seen as a critical skill for publication planners.

5. The Hidden Cost of Delays

Beyond the visible metrics, the group stressed the tangible and intangible costs of publication delays, from increased team workload and resubmission fees to missed opportunities in scientific discourse and patient care. As an example, participants discussed that year-long delays in pivotal study publications highlight the real-world impact of lag time on medicine and society. The importance of early alignment among co-authors and stakeholders was emphasized as a way to minimize these risks.

6. Making Metrics Work for Us

While acknowledging that standard benchmarks (e.g., citation counts) already exist, participants urged caution against over-reliance on them without a clear understanding of their methodologies and intended purposes. For instance, citation counts can vary between Phase 1 and Phase 2 studies, pivotal Phase 3 studies, and post hoc analysis, so the expectations should be aligned accordingly. Participants emphasized the continued need for contextual, fit-for-purpose metrics that capture both short-term interest and long-term influence.

In particular, participants expressed interest in developing more standardized approaches to external impact assessment, while still meeting the medical objectives of their organizations. The ultimate goal is getting actionable insights that inform planning and demonstrate value across stakeholder groups.

7. The Promise and Caveats of AI

One of the most forward-looking components of the discussion focused on the potential of AI in publication planning. AI tools are already being used for landscaping and gap analysis, for writing drafts or lay summaries, with hopes of increasing efficiency and effectiveness. Participants discussed the possibility of AI predicting journal acceptance likelihood, analyzing journal scope and history, predicting dissemination strength and ultimate impact, and synthesizing disparate data sources to support smarter targeting decisions.

Yet, questions remain around the reliability and transparency of AI models, and the need for integration with human expertise was clear. AI should enhance, not replace, strategic judgment and collaborative decision-making.

Conclusion: Toward Smarter, Strategic, Data-Driven and Holistic Planning

At Digital Science's roundtable it was made clear that effective publication planning, including target journal selection, today requires a balance of data-driven insights, collaborative alignment, and strategic foresight. Medical affairs professionals must move beyond a one-size-fits-all mindset, integrating a broader range of information, metrics and tools, including AI, to optimize journal selection and publication impact.

By embracing new methodologies, advocating for meaningful metrics, and continuing focusing on the ultimate goal of improving patient care through better knowledge dissemination, we can collectively raise the standard of scientific publishing and real world impact of Medical Affairs.

Digital Science would like to thank all roundtable participants for their contributions:
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- Saha Jasarevic - Global Medical Science Leader, Roche
- Marc GABET - Chief of Staff, Medical & Patient Direction, Laboratoires Pierre Fabre
- Shehla Sheikh - Head of Medical Communication & Publications, GMAE, Kyowa Kirin
- Catie Rousset - Director, Global Medical Communications, PTC Therapeutics
- Joana Nunes - Senior Manager Medical Affairs, Daiichi Sankyo Europe GmbH
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