

## **Measuring the success of messaging: what do clinicians value most?**

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*To learn new ways to improve the value of publication planning and medical writing, Astrolabe Analytica, Inc. and the University of Alabama School of Medicine at Birmingham, USA performed a study of the reading habits of physicians. This large study confirmed that clinicians continue to rely on the scientific literature to learn about new drugs, advances in therapies, and new uses for old products. The study also showed what clinicians value most as they read an article.*

### **Introduction**

Knowing more about how clinicians interpret medical literature can help improve scientific communication efforts. The study "Physician Appraisal of the Published Literature: Assessment of Clinical Relevance and Identification of Key Messages"<sup>1</sup> was presented at the 64th Annual Conference of the American Medical Writers Association in St. Louis, Missouri, October 2004, and at the Annual Conference for the Alliance of Continuing Medical Education in San Francisco, California January 2005.

Factors influencing interpretation of medical literature by practicing physicians were found to be (in rank order):

- Quality of information presented
- How well key concepts are supported by data
- Quality of the journal
- Format of presentation
- Reputation of sponsor
- Reputation of investigators
- Commercial sponsorship

### **Evaluating knowledge: The Thomson Message Mapping System**

The *Thomson Message Mapping System*<sup>SM</sup> (TMMS) evaluates knowledge in publicly available resources, from the point of view of the prescribing clinician. The system identifies, categories and quantitatively scores key ideas and messages published about a product in journal articles, abstracts, monographs, posters, and more, from the point of view of the practicing clinician. The results can then be used to assess the impact these messages will have on the attitudes and treatment habits of clinicians.

The questions answered by this study included:

### **1. Does the Thomson Message Mapping System reflect a doctor's perception of the credibility of information in the medical literature?**

Yes. Doctors ranked the articles similarly to the *TMMS*; they identified a statistically significant difference between two test articles based on their ranking of :

- how the article would influence their approach to therapy, and
- how the article would influence their clinical practice

### **2. How does the TMMS scoring of messages reflect a doctor's own approach to assessing information in medical articles?**

Among the seven factors rated by the participants, the top four were congruent with the four factors used by the *TMMS* to rate messages:

- Quality of Information Presented (Source score)
- How Well Key Concepts are Supported by Data (Message score)
- Quality of the Journal (*Journal Citation Reports*<sup>®</sup> Impact Factor)
- Format of Presentation (*TMMS* ranking of format)

### **3. How do I know that the TMMS identifies the same messages as a physician?**

The study found that the top messages identified by the readers were 100% consistent with the top three messages identified independently by the Astrolabe analysts using the *TMMS* message identification algorithm.

### **4. Will a strong message change behavior?**

Yes. The article that was rated with the higher Source Score was also the article with the highest scores regarding impact on approach to therapy and influence on clinical practice. Therefore, a message from a strong article will have a greater impact than one from a weak article and supported poorly by the data.

### **5. Do clinicians use published literature to learn about therapies?**

Yes. In this sample of 299 doctors, most allocated up to 4 hours per week to read scientific journals.

### **Additional information**

1. Physician Appraisal of the Published Literature: Assessment of Clinical Relevance and Identification of Key Messages Casebeer L, Liberti L, Zheng S, Conaway S, Shillman R: <http://tinyurl.com/artpr>
2. Poster presentation from the 64th Annual Conference of the American Medical Writers Association: <http://tinyurl.com/9hzqg>
3. Learn more about the *Thomson Message Mapping System*: <http://scientific.thomson.com/tmms>