

MEDICAL SCIENCE LIAISON (MSL) METRICS:

PROVING THE VALUE OF YOUR MEDICAL
AFFAIRS TEAM

ROSS WEAVER, PharmD, MBA

MANAGING DIRECTOR
CLINICAL SCORE

GARY KAPLAN, MS

VICE PRESIDENT OF STATISTICAL DESIGN AND ANALYSIS
CLINICAL SCORE

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Medical Affairs is an increasingly important function within most biopharmaceutical companies. Senior Medical Affairs management teams need better tools to help them demonstrate value upward and optimize performance downward in the organization. They need accurate external metrics to answer to key questions:

- 1) What is the impact of your medical science liaisons (MSLs) on your external experts? and*
- 2) How do your MSLs compare to your key competitors'?*

This paper outlines a three-pronged research approach for obtaining the insights necessary to:

1. Refine scientific communications
2. Improve relationships between MSLs and key opinion leaders (KOLs)
3. Demonstrate value to senior management

1) REFINE SCIENTIFIC COMMUNICATIONS

To optimize performance, Medical Affairs leaders want to verify alignment in scientific perspectives between external KOLs and internal decision-makers. To maintain alignment, Medical Affairs leaders need tools to identify differences in specific scientific perspectives between those two groups. To that end, Medical Affairs senior management needs to understand KOLs' beliefs and behaviors regarding medical questions.

KOL beliefs can be determined by asking questions about the science of the disease. To measure behaviors, which often differ from beliefs, researchers ask KOLs to answer questions related to specific medical case studies. Questions and response options are unbranded with regard to product or company names. Response options must represent the company's view of the disease as well as the view of key competitors. The questions may include:

- General questions regarding newly discovered science of the disease
- Specific questions regarding varying mechanisms of action or routes of administration

The best way to gauge the impact of MSL activity on KOLs' beliefs and behaviors is to conduct a baseline assessment followed by sequential assessments over time. The frequency of follow-up assessments depends on market conditions (e.g. when the company or a competitor releases a new drug).

QUESTION: IN THIS ENVIRONMENT, HOW DOES A COMPANY MANAGE THE RISK-REWARD EQUATION IN ORDER TO MAXIMIZE NET PRESENT VALUE (NPV)?

Disagree ----- Agree

- Patients with moderate-to-severe inflammatory bowel disease (IBD) require biologic therapy
- When dealing with a patient with bladder cancer, chemotherapy should typically be used pre-operatively to shrink the cancer
- Eosinophil reduction is an increasingly important factor to increase an asthma patient's benefits
- Non-steroidal anti-inflammatory drugs (NSAIDs) are preferred first line therapy to treat rheumatoid arthritis
- Patients with Type 1 diabetes should be treated with daily injections of prandial insulin prior to other therapy
- For most patients, the best choice for post-remission therapy of acute myeloid leukemia is allogeneic stem cell transplantation

Figure 1. Agree/disagree questions assess medical beliefs.

A 76 year old male presents with history of hypertension and atrial fibrillation

Presents with chest pain and is found to have an ST elevation MI

Taken immediately to the Cath lab and receives 2 drug eluting stents to his LAD

From the following list of possible anticoagulants and/or antiplatelets, which would you discharge him on?

1. Aspirin and P2Y12 inhibitor
2. Aspirin, P2Y12 inhibitor, Vitamin K antagonist
3. P2Y12 inhibitor and Vitamin K antagonist
4. Aspirin and P2Y12 inhibitor and full dose Factor Xa inhibitor
5. Aspirin and P2Y12 inhibitor and reduced dose Factor Xa inhibitor
6. P2Y12 inhibitor and reduced dose Factor Xa inhibitor

Figure 2. An example of a medical scenario question used to measure behavior.

Medical Scenario Responses	Client (N=175)	Company A (N=81)	Company B (N=90)	Company C (N=84)	
Scenario 1 - % Response					 Slightly better than Average Ratings  Average Ratings  Significantly worse than Average Ratings
Scenario 2 - % Response					
Scenario 3 - % Response					
Scenario 4 - % Response					

Figure 3. This table shows how KOL beliefs and behaviors align with the client and primary competitors.

2) IMPROVE MSL/KOL RELATIONSHIPS

KOLs are busy professionals. They prefer working with MSLs who respect their time, respond quickly to information requests and communicate effectively. Medical Affairs leaders benefit from determining how KOLs view their MSLs in relation to competitors' teams. Armed with this information, the company can take steps toward being seen as the partner of choice.

To obtain accurate insights, a blinded third-party approach is required. These survey batteries ask KOLs which companies' MSLs they have interacted with in the past year. Each KOL is asked about the number and quality of interactions with the client's MSLs and MSLs from another organization selected at random. This includes asking the KOLs to rate the MSLs on a series of key metrics, including many attributes measured in a relevance battery and to rank the MSLs from the various companies to provide a relative measure of their value to the KOLs.

QUESTION: WHICH COMPANIES' MSLS HAVE YOU INTERACTED WITH IN THE PAST YEAR?

QUESTION: HOW OFTEN HAVE YOU SEEN [COMPANY'S] MSL IN THE PAST YEAR?

QUESTION: IS THIS TOO MANY VISITS? NOT ENOUGH VISITS? JUST RIGHT?

The questions in this battery are designed to ascertain how each KOL views interactions with MSLs from the company and its competitors and to obtain an understanding of how the KOLs value interactions with the company's MSL in relation to competitors.

Client and Key Competitor Performances	Client (N=175)	Company A (N=81)	Company B (N=90)	Company C (N=84)
Knowledge of the disease	Grey	Grey	Dark Green	Grey
Responsiveness to KOL medical information needs	Grey	Red	Grey	Grey
Knowledge of the company's products	Dark Green	Grey	Dark Green	Grey
Overall support of KOL involvement in clinical studies	Red	Red	Dark Green	Grey
Clarity of MSL when presenting data	Grey	Red	Dark Green	Grey
Value of slides/presentation materials provided by MSL	Grey	Grey	Grey	Grey
MSL accessibility	Grey	Red	Grey	Dark Green
respectfulness of KOL's time	Grey	Grey	Dark Green	Grey
Assistance of KOL participation in speakers' programs	Dark Green	Red	Dark Green	Grey
Provision of info KOL otherwise unable to access	Grey	Grey	Grey	Grey
MSL understanding of clinical medical practice	Dark Green	Grey	Dark Green	Grey

Slightly better than Average Ratings

Average Ratings

Significantly worse than Average Ratings

Figure 4. Comparative performance of client's MSLs compared to selected competitors.

Understanding what each KOL values when seeing an MSL can be key to moving the needle on belief, behavior or both. Determining the value of MSL interactions helps Medical Affairs' executives understand how corporate policies might help or hamper an MSL's abilities to meet the KOL's needs. For example, allowing MSLs to discuss upcoming clinical trials with potential investigators enhances the MSLs' value to KOLs who are interested in being a primary investigator for trials. Clinical SCORE's research has uncovered several situations in which the MSL's inability to assist a KOL with clinical trials, for example, may have impacted the KOL's thinking on medical approaches and MSL assessments.

QUESTION: ON A 10-POINT SCALE, WITH 10 BEING “EXTREMELY IMPORTANT” AND 1 BEING “NOT IMPORTANT AT ALL,” HOW IMPORTANT ARE EACH OF THE FOLLOWING IN DEALING WITH MSLS?

- **MEDICAL KNOWLEDGE OF [DISEASE]**
- **CLINICAL KNOWLEDGE OF [DISEASE]**
- **CLINICAL TRIAL SUPPORT**
- **ADVISORY BOARD OPPORTUNITIES**
- **SPEAKER PROGRAM OPPORTUNITIES**

The questions in this battery are designed to help determine what the KOL values. The list of attributes can be customized for specific company KOLs.

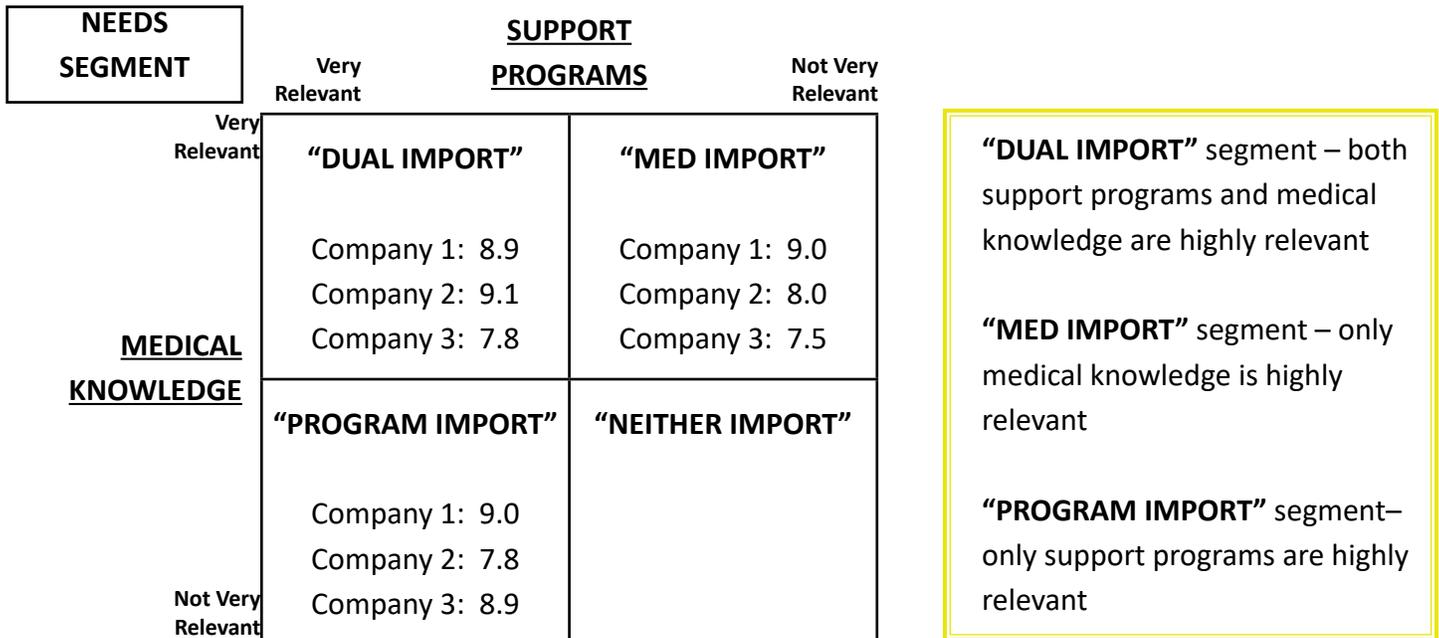


Figure 5. Segmenting KOLs based on relevance of MSL medical knowledge and support programs.

3) DEMONSTRATE VALUE TO SENIOR MANAGEMENT

Finally, as resource requirements for Medical Affairs grow, corporate senior executives demand evidence of value. Are the scientific perspectives aligned? Does the alignment increase over with KOLs who interact more with MSLs? Combining all the survey segments delivers a 360-degree view of a company's MSLs and its KOLs. Overlaying demographics such as medical specialty, client-defined tier and segment delineation, client managerial region and more allows for deeper insights.

Clinical SCORE provides actionable analytics to:

- Assess the aspects of the MSL/KOL interaction that determine KOL alignment with the company's science
- Quantify the factors that drive differences between the KOLs' scientific perspectives relative to the client's product and its competitors, including:
 - Relative number of MSL visits
 - Value of MSL teams to the KOL
 - Relevance of MSL offerings/programmatic support
 - Segmentation variables such as Tier or Specialty
- Quantify how changes in focus, number of visits, etc. impacts KOL scientific perspectives
- Identify how corporate changes would affect KOL scientific perspectives

By documenting MSLs' impact on KOL scientific alignment, Clinical SCORE's research empowers Medical Affairs to demonstrate value. It shows the correlation between higher-quality MSL/KOL interactions and increased scientific alignment within a single project or gains across numerous projects by MSLs with greater interactions.

When you're ready to refine your scientific communications, improve your MSLs/KOL relationships and demonstrate Medical Affairs value, visit <https://clinicalscore.com/medical-affairs/> or contact Ross Weaver at ross.weaver@clinicalscore.com/ (610) 256-5623.