The Missing Link: Physicians and Patient Adherence
How Market Research Can Offer a More Comprehensive Approach to Understanding and Solving Patient Drug Abandonment and Compliance Issues

By Steve Corby and Dave Johnson

Poor compliance and persistency has a negative impact on effective patient treatment and is a problem the pharmaceutical industry has long worked to address. Historically, the industry’s efforts have primarily targeted patients, using programs focused on such areas as education, pharmacy reminders, or coupons. However, physicians and their staff can also play an important role in patient compliance and persistency. The first challenge comes in identifying which physicians are doing a good job supporting better patient compliance and persistency and which physicians could improve. The second challenge comes in understanding what can be done to help the latter group of physicians improve the compliance and persistency of their patients.

This paper will demonstrate how combining longitudinal patient data with quantitative and qualitative market research can overcome these challenges. By identifying physicians with an above average percentage of non-compliant patients and uncovering the reasons for noncompliance, pharma companies will be able to develop physician-focused messaging and tactics designed to help those healthcare providers improve the compliance rates of their patients.

The Standard Approach
Patient compliance and persistency studies are typically limited to longitudinal patient data analysis. When companies employ primary research, a frequent approach is to conduct qualitative interviews with patients to determine how they use their prescription products in order to uncover possible reasons for non-compliance. If physician research is conducted, it is most often with high prescribers and focuses on capturing what they believe to be the causes of sub-optimal patient compliance and persistency.
Potential problems are inherent in these primary research approaches. For example, both physicians and patients will often report the prescription behavior they “should do” vs. what they actually do. Physicians will resist identifying anything within their control that contributes to the non-compliance of their patients, saying it is either the patients’ fault or due to factors they cannot control, such as price (co-pays). In addition, because patients are not linked to physicians, interactions between the patient and physician that may contribute to reported behaviors cannot be assessed.

A Novel, Integrated Approach
A better approach to assessing and solving patient adherence and persistency problems starts with the understanding that both patients and their physicians can play a role in improving compliance and persistency. By linking patients with good compliance and persistency and those with poor compliance and persistency back to their prescribing physicians, we can identify physicians who tend to have more or less of these types of patients than average. Then, by conducting market research with physicians from both groups, we can gain insights on the causes of poor compliance and persistency that are within the physicians’ control that pharmaceutical manufacturers may be able to help address.

In fact, by comparing the two groups, quantitative market research can demonstrate the financial impact that specific physician attitudes, beliefs, and behaviors can have on compliance and persistency. Demographic information in the patient longitudinal database also allows us to control for other factors such as age, gender, co-pay, average family income, number of concomitant medications, and physician specialty, so that we can match samples and better isolate other causes of non-compliance.

The patients’ role in persistency can be assessed by fielding quantitative market research to robust numbers of pre-identified compliant vs. non-compliant patients via pharmacy partners who invite patients with known prescription refill behaviors to participate in market research. This approach of integrating data analysis with market research offers the advantage of strong analytic opportunities on a high volume of patients.

Because patients can be linked back to their prescribing physician, it becomes possible to begin to understand the different physician behaviors, attitudes, beliefs, activities, and resources that separate physicians with good compliance rates among their patient pool vs. physicians whose patients are the most non-compliant. It can also potentially identify “markers” of physicians likely to have a higher or lower percentage of compliant and persistent patients.
Many pharmaceutical companies already employ patient-focused prescription refill reminder and education programs that have proven to be effective. This additional insight makes it possible to effectively address the physician component of poor compliance and develop specific tactics designed to target those specific physicians in an effort to improve the adherence of their patients. (This same integrated approach using patient longitudinal data and market research can also be used to understand and address the reasons behind other physician prescribing habits. For instance, why do some physicians start with a particular brand, but others use that same brand as second-line therapy?)

**How It Is Done**

The process begins by determining 1) to whom selected products are currently being prescribed and 2) what segments of patients exist with similar prescription filling and utilization behaviors. These patient segments then need to be connected to their physicians to identify groups of uniquely prescribing physicians. From there it is possible to field market research to these physicians in order to uncover the beliefs, attitudes, and environmental factors that drive their behavior.
## Integrated Market Research Solutions—Encuity + Adheris

### Some Factors That Contribute to Patient Compliance and Persistency

|----------------------------------|-----------------------------------|---------------------------|----------------------------------|------------|
| **Patient Longitudinal Database (Adheris):**  
  - Identify patients filling Rx’s for specific products  
  - Identify unique groups of patients based upon Rx filling observations  
  - Use demographic data to further filter patients  | **Map Patients to Their Physician**  
  - Identify groups of similarly prescribing physicians based upon their longitudinal patient Rx history  | **Uncover Attitudes and Beliefs Driving Observed Behaviors**  
  - Recruit physicians from each identified group for qualitative interviews  
  - Report directional findings for each group  | **Quantify Key Drivers of Prescribing Activity Observed**  
  - Recruit physicians from each identified group for quantitative MR  
  - Compare and contrast quantitative findings from each group  | **Leverage Results in Marketing and Forecasting**  
  - Messaging by physician segment  
  - Targeting  
  - Patient aids  
  - Forecasting |

Market research can also be fielded through pharmacy partners to specific patients identified in Step #1.

### 1: Preliminary Patient Analytics

A patient prescription longitudinal database such as the one maintained by the patient adherence company Adheris can be used to identify patients based upon specific prescription filling behaviors. The output for a compliance and persistency study from this preliminary round of patient analytics will be two groups of unique patients: one with better and one with worse than average compliance and persistency.

### 2: Preliminary Physician Analytics

Next, it is necessary to map patients to their prescribing physicians in order to identify groups of similarly prescribing physicians based on their longitudinal patient prescription history.

### 3: Qualitative Interviews

After reviewing the data, experienced moderators can develop a discussion guide and conduct qualitative interviews to uncover the physician attitudes, beliefs, and possible other factors that may be driving the observed patient behaviors. Physicians are recruited from both the high compliance and low compliance groups for these qualitative interviews, so responses can be compared and directional findings can be reported for each group. If patient research is also
desired, an interesting qualitative technique that is often used is to have physicians and patients participate in the same research activity, first independently and then together. This can provide new insights into communication breakdowns between physicians and patients that contribute to observed prescription behaviors.

4: Quantitative Physician Survey
The qualitative findings will help in the design of an appropriate quantitative survey. This can be fielded to a larger sampling of physicians from both compliance-level groups and be sized to allow other analyses such as differences that may exist between specialties. We then compare and contrast survey responses between the high vs. low compliance groups to quantify the impact of certain factors on patient compliance. We can express the results in terms of additional prescriptions filled by patients of physicians responding in a particular manner on surveyed metrics.

5: Quantitative Patient Survey
Similarly, we can conduct a large-scale patient quantitative study in order to understand and measure the key drivers of patients’ already known prescription-filling activity. Again, we recruit patients from each identified group for quantitative market research, and quantitative findings from each group can be compared and contrasted.

6: Results
Brand teams can leverage the results from this effort in marketing and forecasting efforts, including messaging by physician segment or specialty, targeting, and the development of tactical programs, including but not limited to electronic reminders and patient aids. Because compliance rates differ dramatically by therapeutic area, every analysis will be unique depending on the condition the given brand is designed to treat.

Once patient- and physician-directed programs are implemented to address compliance issues, it is also possible to use quantitative market research to test the impact of specific programs. For example, if a diabetes patient receives coaching from a certified diabetes educator, the result of that engagement can be quantified in terms of average additional weeks or months of drug persistence.

When to Begin
Some companies are also beginning to change when they initiate patient adherence programs. Traditionally, most marketing teams did not begin patient adherence programs until a brand had been on the market for two to three years. Recently, however, brand managers have begun changing their approach to their patient retention strategies, with some companies conducting analog product analyses and market research pre-launch to prepare integrated patient- and physician-focused compliance and persistence programs for newly launched drugs.
Conclusion

Ultimately, the integrated approach to addressing patient compliance and persistence described in this paper can be used to answer a series of important questions about a given brand:

- Is there a compliance and persistence problem?
- What types of patients have the problem?
- Who are their physicians?
- Why do some physicians have a larger compliance and persistence problem among their patients than others?
- Based on the behaviors, attitudes, beliefs, and patient demographics of physicians with a high number of poorly compliant patients, what could be done with physicians to improve compliance and persistence rates?

With low compliance rates among patients resulting in increased hospitalizations and total costs of care\(^1\), it is a critical issue for the industry to address. Educating patients on the important benefits of compliance and reminding them to fill prescriptions is only half the battle, however. By harnessing the power of patient longitudinal data to field targeted quantitative and qualitative market research with physicians, companies will gain much needed insight into the physician-based drivers of patient non-compliance. As a result, they will be able to more effectively generate physician-directed tactics designed to improve compliance and persistence among patients.

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Patients are linked to their physicians, and those physicians with a tendency to have patients with high or low persistency are identified for follow-up comparative market research.

Market research uncovers contributing causes of different persistency rates.

Analysis shown utilizes Kaplan-Meier “time-to-discontinuation” methodology.
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