



Patient Compliance Programs: How to Ensure They Are Not Doomed to Fail

Patient adherence poses a tremendous challenge to pharmaceutical companies; as a result, compliance programs are implemented. But, those are doomed to fail unless organizations also evaluate underlying causes for non-compliance, the bottom line ROI and take these into account when designing and implementing patient compliance programs.

By Dr. Andree K. Bates

Adherence to prescribed medications, particularly for long-term conditions, poses a tremendous challenge to the world's pharmaceutical companies. Seventy percent of patients who begin a pharmaceutical therapy discontinue it within one year. The greatest drop in patient compliance occurs after the first six months of treatment^[1]. This represents a significant loss for pharmaceutical companies who have spent millions to get those initial prescriptions^[3].

To address this, many different patient compliance/adherence programs are implemented. However, these are doomed to fail unless organizations also evaluate underlying causes for non-compliance with their brand, as well as the bottom line return on investment for specific compliance activities, and take these into account when designing and implementing patient compliance programs. Only by doing this can brand managers increase market share and revenues

from patient compliance to their brands, while significantly improving clinical outcomes for patients.

Depression scripts have lowest compliance

In the United States, patient adherence with medications for chronic conditions averages only 50 percent, and one-third of all prescriptions are never filled^[2]. This costs the global pharmaceutical industry an estimated \$30 billion per year and is responsible for around 125,000 deaths per year in the United States alone.

Although all chronic conditions face high rates of non-compliance, it is depression that has the highest rate, with between 60 percent and 68 percent of patients discontinuing therapy within the first three months, despite clinical guidelines calling for continuation of a

¹ Osterberg L, Blaschke T. Adherence to Medication. *New England Journal of Medicine*. 2005;353(5):487-497.

² Frost and Sullivan. Patient nonadherence: Tools for combating persistence and compliance issues 2005.

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treatment for at least six months^[3]. Antihypertensive and lipid-lowering medications also suffer from low patient compliance, with only 30 percent of patients prescribed these treatments still taking them after 6 months^[4]. Oral medications for diabetes have non-adherence rates of between 15 percent and 33 percent.^[5]

Surprisingly, the problem even extends to oral formulation chemotherapy drugs, where one would not expect to encounter patient compliance issues due to the seriousness of the condition. Studies^{[6] [7]} have found that 77 percent of patients on the oral chemotherapy drug Tamoxifen were compliant for the first year, but this dropped to 50 percent within four years. HIV patients have been found to have compliance as low as 33 percent.^[8] Transplant patients on anti-rejection drugs were also found to reduce compliance with drug therapy to 48 percent by one year^[9]. Similar trends can be seen across drug classes, irrespective of the severity of the condition or the consequences

What can marketers do?

Numerous approaches have been utilized to combat patient non-compliance. Among the patient compliance program approaches that have been tried are:

- Patient education
- Cost-related approaches
- Direct-to-consumer advertising
- Packaging
- Delivery options and dosing regimens
- Call-center support
- Short Messaging Services (SMS)

3 Kaiser Permanente Care Management Institute. Depression clinical practice guidelines. http://www.guideline.gov/summary/summary.aspx?doc_id=9632&nbr=5152&ss=6&xl=999. May 2, 2007.

4 Benner JS, Glynn RJ, Mogun H, Neumann PJ, Weinstein MC, Avorn J. Long-term persistence in use of statin therapy in elderly patients. *JAMA*. 2002;288(4):455-461.

5 Cramer JA. A systematic review of adherence with medications for diabetes. *Diabetes Care*. 2004;27(5):1218-1224.

6 Partridge AH, Avorn J, Wang PS, Winer EP. Adherence to therapy with oral antineoplastic agents. *Journal National Cancer Institute*. 2002;94(9):652-661.

7 Partridge AH, Wang PS, Winer EP, Avorn J. Nonadherence to adjuvant tamoxifen therapy in women with primary breast cancer. *Journal Clinical Oncology*. 2003;21(4):602-606.

8 Friedland GH, Williams A. Attaining higher goals in HIV treatment: the central importance of adherence. *Aids*. 1999;13 Suppl 1:S61-72.

9 Chapman JR. Compliance: the patient, the doctor, and the medication? *Transplantation*. 2004;77(5):782-786.

- Pharmacy interventions
- Patient assistance programs
- Drug discount and loyalty card programs
- Patient experience programs
- Changing patient beliefs
- Providing reminder systems
- Involving family members
- Training physicians

Any program implemented must be able to provide improved compliance with the brand, as well as improved bottom-line profit for the brand. While developing patient adherence programs is admirable, they are doomed to fail unless organizations also evaluate underlying causes for non-compliance with their brand, as well as the bottom-line return on investment for specific compliance activities.

Four key reasons for non-adherence

The causes do differ from one therapy area to another and from one individual drug to another and this must be taken into account prior to implementing a compliance program. Reasons for non-adherence can be roughly divided into four main categories:

1. Product attributes. This includes – but is not limited to – the drug's efficacy, side effects, dosage, and ease of administration.
2. Moderating factors. This includes – but is not limited to – the cost of the drug, physician communication about its use and patient ability to fill the prescription.
3. Non-intentional non-adherence. This includes – but is not limited to – occasions when patients just forget to take their medication, or go on a trip and forget to bring it with them.
4. Emotional factors. This includes – but is not limited to – when the patient feels better, stops taking the medication, decides to try non-drug alternatives, or – as is common with conditions like hyperlipidemia or hypertension – is asymptomatic and doesn't understand the need for the medication.

Understanding impact of non-adherence

It is important that pharmaceutical marketers understand the key issues relating to non-adherence with each brand and the financial impact of that non-adherence before designing appropriate interventions for that brand. Only then can the return of such interventions be accurately assessed. The financial impact of the different factors involved also must be understood as, if the compliance program costs more than the potential gain from it, then putting it into practice is counterproductive.

One approach being used successfully by some pharmaceutical brands is Eularis' 94.8 Analytics approach^[10], which uses current market data to assess how much impact non-compliance/non-adherence is having on a brand and then determines the root cause of the problem and predicts what program would have the most impact on compliance for the brand's bottom line. This approach involves several stages:

- Understanding how adherence issues influence physician prescribing patterns for a particular brand and Rx category;
- Quantifying the impact of the adherence on that brand and category;
- Identifying rational and emotional aspects that assist or hinder patient adherence to the brand;
- Identifying adherence programs that will solve these problems and provide the greatest effect on a brand's market share;
- Quantifying the potential prescribing impact of such adherence programs alone or in combination;
- Clarifying the optimal mix (and budget) of adherence activities to maximize growth of adherence for a brand and growth of bottom line return from increased adherence.

By taking the time to analyze the causes of non-compliance for a particular brand and therapy area, as well as the financial impact on the bottom line, significant financial gains can be made from patients already prescribed that brand.

¹⁰ Bates A K. How to Add Muscle to Patient Adherence Program Measurement and Results, Eularis Newsletter, <http://www.eularis.com/pdfs/ComplianceROI.pdf> October 2006



Patient adherence programs often fail because marketers haven't first evaluated the underlying cause for non-compliance with the brand.

In conclusion, adherence to prescribed medications, particularly for long-term therapies, poses a tremendous challenge to the world's pharmaceutical companies. Investigating brand-specific adherence rates, understanding the underlying reasons for lack of adherence, and developing and implementing programs to increase adherence can help brand managers increase market share and revenues for their brands, while significantly improving clinical outcomes for patients. ■

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1. www.HIVpositive.com

2. Stoloff SW et al. Improved refill persistence with fluticasone propionate and salmeterol in a single inhaler compared with other controller therapies. *J Allergy Clin Immunol.* 2004;113:245-251.

* Lowest results achieved with programs conducted among 2 top tierpharmaceutical companies. In another program 80% of patients reported adherence at 12 months.

