



Disease Management and Drug Adherence

Strategies to support patients and enhance treatment persistence

The failure of patients to adequately manage disease through adherence to prescribed medical treatments is a leading cause of accidental injury and death in the developed world. Adherence is an increasingly pressing healthcare delivery issue due to several developments in the industry, including generic erosion of key pharmaceutical products and a shift towards consumer-driven care.

An integrated network of factors impact adherence. Comprehensive and coordinated solutions are needed; however it does not necessarily follow that these solutions must be especially complex. Surprisingly, some of the most effective adherence programs may be the simplest.

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'concordance', 'persistence' and 'compliance' are often used interchangeably, to do so is incorrect as each term has a subtly different connotation (Figure 1).

Figure 1: The language used to describe adherence is critical to creating a clear understanding of the issues surrounding treatment

Term	Shared Definition	Implied Meaning	Preferred Use
Adherence	The extent to which a patient follows a prescribed treatment regimen	Implies that the patient <i>closely follows</i> a course of treatment	Adherence = Concordance + Persistence
Concordance		Implies that the patient and physician have <i>come to an agreement</i> as to the course of treatment	
Persistence		Implies that the patient <i>consistently continues</i> treatment over time	
Compliance		Implies that the patient <i>passively obeys</i> the orders of the physician	Use sparingly as it promotes a flawed understanding of adherence

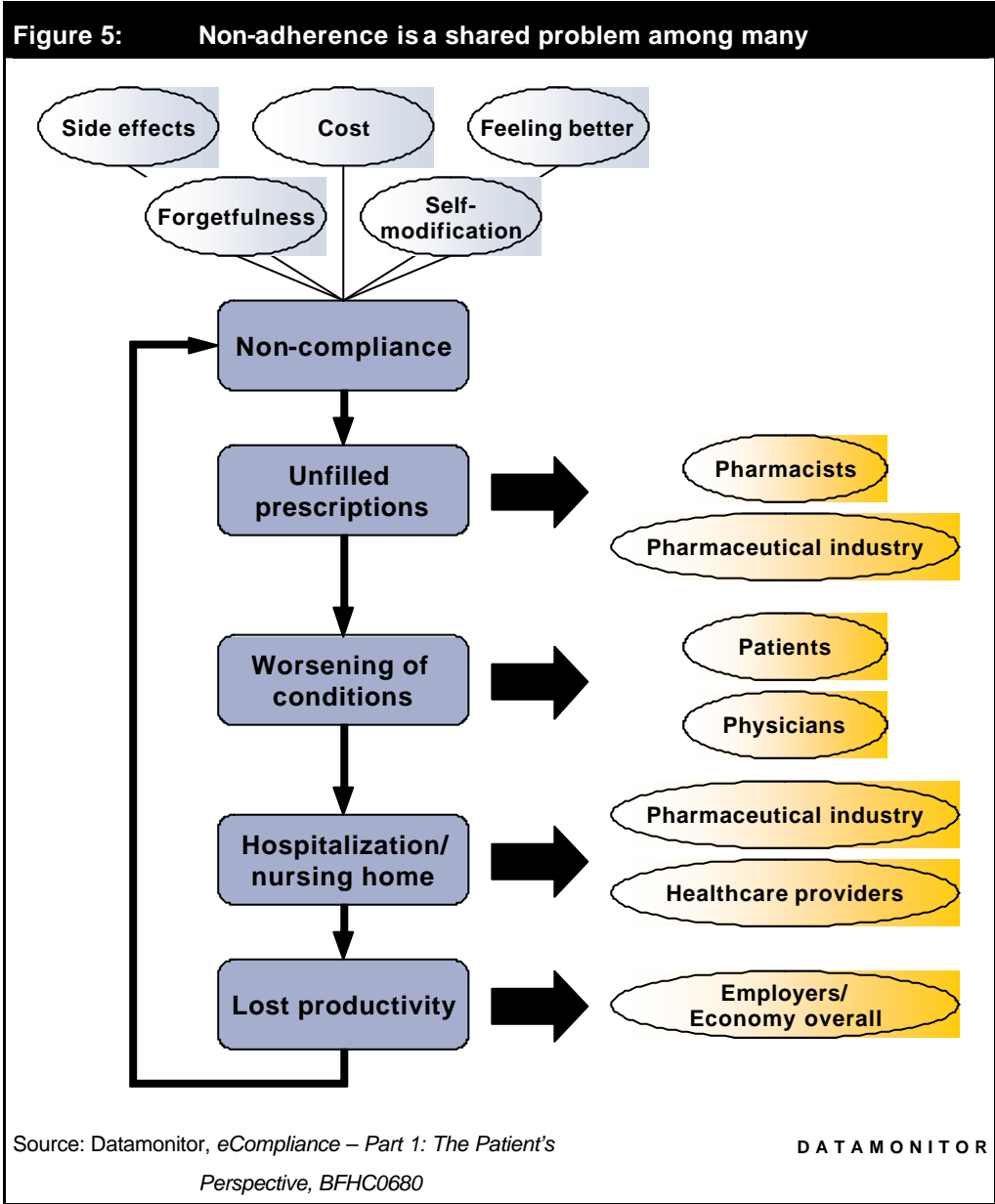
Source: Datamonitor DATAMONITOR

Compliance

Patients' attitudes towards treatment can be an important factor in whether they begin and continue with treatment. A key component of how patients perceive their treatment is the degree of control they feel they have over their treatment decisions. As such, programs targeted to improve rates of adherence have to be careful not to assume patients will unquestioningly comply with the orders given by a physician. At the most basic level this includes how those in the healthcare industry describe patients', as well as their own, attitudes and behaviors towards medicines.

In the public domain, compliance is the most commonly used word to describe patients' medicine-taking behavior. A quick online search using Google reveals that the term 'patient compliance' receives 998,000 hits while 'patient adherence' receives

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For example, half of the people who are diagnosed with hypertension stop taking their medications in the first year because they are not convinced that it is helping them. This can result in more serious complications, such as kidney damage or a stroke, which may require hospitalization and can lead to some people being admitted to nursing homes. More alarmingly, non-compliance is believed to be a leading cause of accidental deaths, resulting in approximately 125,000 deaths per year in the US

treatment options, such as herbal remedies, or may choose to forgo western medical advice in favor of alternative methods of therapy.

Age

As is reported by the World Health Organization, “age is a factor reported as affecting adherence” and “should be evaluated separately for each condition” (WHO, 2003). Obviously very young children rely entirely on a parent or caregiver to administer medication appropriately. As such, rates of adherence in this age group are often similar to that seen in the general population. There is some evidence to suggest that during adolescence teenagers may have lower levels of compliance as they work to assert their independence and also tend to experience a certain degree of shame or denial related to some conditions. In these cases parental involvement and goal-setting has proven to be an essential aspect of successful adherence. The growing elderly population also presents several unique challenges related to adherence. Older individuals are more likely to suffer from co-morbidities, and therefore have a more complicated treatment regimen. Other barriers to adherence include lack of transportation to the pharmacy, high costs of medications, difficulty opening packaging and general cognitive impairments, such as increased forgetfulness.

Disease and therapy

Adherence factors related to disease and therapies have often been considered separately. However, as standard treatment protocols now exist for most chronic diseases it becomes increasingly meaningless to make the distinction between issues related to the condition and issues related to treatment of the condition. Along the same lines, when brand teams are thinking about how best to develop adherence programs for their products, illness-related demands, such as severity of symptoms, should be considered in parallel with therapy-related factors, such as the complexity of the regimen.

In the case of therapies for chronic disorders, which have a complex treatment regimen, patients frequently understand the benefits of treatment (particularly children, adolescents and older adults, where symptoms can be more severe) but lack understanding of the appropriate use of the various medications prescribed. This can lead to low compliance, particularly in elderly patients where the number of concomitant therapies increases confusion and reduces the convenience of treatment, and in adolescents where reluctance to administer inhaled medication in the presence of their peers can contribute to non-compliance.

Improved dosing regimens should be the key focus of companies looking to improve