Study: Bad medical news causes patients to choose brand name drugs over generics, costing billions

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Researchers from Johns Hopkins University published a new *Journal of Marketing* article that examines how receiving negative medical results

might affect how people choose between generic and brand name drugs.

The study is titled "Does Bad Medical News Reduce Preferences for Generic Drugs?" and is authored by Manuel Hermosilla and Andrew T. Ching.

At the height of the COVID-19 pandemic, Manuel Hermosilla received a call from a family friend in Chile who had been recently diagnosed with cancer. The friend needed help tracking down Hydroxychloroquine to treat her rheumatoid arthritis—a drug in short supply given its supposed therapeutic powers to combat COVID-19.

Hermosilla found two alternatives for Hydroxychloroquine: a generic version for about $15 a month and the branded version for a hefty $330. The family friend didn't want the generic version, Hermosilla says. "Given her cancer diagnosis, she felt the generic wasn't 'safe' enough—which got me to thinking: could medical-related insecurities impact patients' brand/generic choices?"

Getting bad medical news can be alarming. It might influence us to embark on a healthier lifestyle, perhaps by exercising more or eating healthier food. Given that brand name drugs are perceived to be more effective and perhaps even safer than generics (despite many experts viewing generics as molecular replicas of brand name drugs), bad news might also affect how we choose between drugs.

This new research points to estimates suggesting substantial savings for the U.S. healthcare system— about 10% of drug expenditures, or $36 billion a year—if patients always chose a generic option when available. The researchers suggest that a broader use of generics could significantly lower expenditures without sacrificing the quality of patient care.

Emotions and risk-taking

Much existing research has focused on the idea that consumers lack information reassuring them of the therapeutic equivalency between generic and brand name drugs. "We, however," says Hermosilla, "focus on how negative information shocks might impact patient decision-making. Our work builds on literature showing that negative emotions reduce risk-taking."

Getting bad news is a common and often unavoidable part of interacting with the health care system. In this study, the authors first focus on the medical news that comes with blood testing results for low-density lipoprotein (LDL) cholesterol, looking at the "frontier" between 129 mg/dL and 130 mg/dL LDL results—the borderline between the "near optimal" and "borderline high" ranges. This is a common test with a clear cutoff defined in clinical guidelines. It is also a useful test because LDL levels are measured with significant error (e.g., depending on fasting), implying that the two types of individuals (129 vs. 130 mg/dL) have the same health condition.

The researchers examined 2,282 individuals who tested in the 129/130 mg/dL frontier, and the analysis includes all prescription drug choices by these patients (across six drug classes). They find that a "borderline high" LDL test result did in fact influence drug choice. Relative to control patients (129 mg/dL), those receiving the bad news (130 mg/dL) become 1.3% less likely to choose the generic option. Factoring in the average generic price discount relative to brand name drugs, this effect implies a roughly 3% increase in total drug expenditures for the average patient.

The bad news effect is concentrated in the immediate aftermath of the test (90 days) and is particularly influential for patients purchasing a drug for the first time. There are also stronger effects among healthier patients who might be "more surprised" by the bad news.

Aiming to extend these findings, they turn to a different medical test: Hemoglobin A1c, a blood sugar test used for diagnosing and managing diabetes. They focused on the 6.9% to 7% threshold that patients with diabetes use to manage their condition. Here too, the results are generally consistent with the idea that bad medical news makes patients less willing to accept the higher perceived risk of generic drugs.

Bad news as a factor in drug recommendations

While research on bad news in health care settings has traditionally focused on severe outcomes such as death or cancer diagnoses, examining routine tests could lead to a better understanding of healthcare spending decisions.

These findings have implications for several key stakeholders in the healthcare industry. Health policy makers, generic drug manufacturers, and insurers all share the common goal of encouraging patients to choose generics over brand name drugs. To achieve this goal, insurers currently rely on two primary toolkits. The first corresponds to a set of demographic and socioeconomic predictors of generic-averse attitudes. The second corresponds to possible intervention tools, which boils down to price-based promotions (e.g., discounts, coupons, free samples).

"Our findings suggest that relying solely on demographic and socioeconomic predictors may neglect an important observable, the arrival of bad medical news. Accordingly, enriching the framework with variables for the recency bad medical news could improve the campaigns' efficiency," says Ching. One simple approach might be to remind patients of the equivalency of generic drugs via a text message just after they receive their test results.

More information: Manuel Hermosilla et al, EXPRESS: Does Bad Medical News Reduce Preferences for Generic Drugs?, *Journal of*

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