New research examines how drug promotion rules impact physician prescribing practices

November 15 2019, by Timothy Dean

Findings from a new study led by researchers at Dartmouth's Geisel School of Medicine and Harvard Medical School and published in the journal *Circulation: Cardiovascular Quality and Outcomes*, show that the way in which pharmaceutical companies are permitted to share information about their drugs can influence physician prescribing practices.

In an effort to ensure safety and efficacy of new medications, the Food and Drug Administration (FDA) has, historically, only allowed manufacturers to promote their drugs for approved uses. But a few recent court rulings at the federal level have created some exceptions to that rule.

In one case, the pharmaceutical company Amarin won a decision which allowed it to promote its prescription fish oil Vascepa to physicians as an effective add-on therapy to a statin for certain heart patients, even though no clinical benefit had been demonstrated at that time (in reducing patients' cardiovascular risk).

"Using the Vascepa case as a model, we conducted a national randomized survey with cardiologists, internists, and endocrinologists to assess how providing different forms of information about a drug would affect their beliefs about its efficacy," explains lead author Steven Woloshin, MD, MS, a general internist and a professor of medicine, community and family medicine, and of The Dartmouth Institute for Health Policy and Clinical Practice.

In the study, the researchers sent the physicians one of three information scenarios about a hypothetical prescription fish oil product (based on Vascepa?), asking them if they felt it would lower patients' cardiovascular risk and if they would prescribe it.

The first scenario described the drug as FDA-approved to reduce very high triglyceride levels. The second scenario included an off-label (non-FDA approved) claim about reducing heart attack risk for patients with high triglyceride levels, despite taking a statin, along with disclaimers stating that the drug was not approved by the FDA for this purpose and that relevant evidence was "supportive but not conclusive."

The third scenario included the off-label claim and disclaimers, but also included more extensive context, explaining that three clinical trials testing the effect of adding other drugs to statins to reduce high triglyceride levels did not show additional cardiovascular benefit.

The investigators found that standard disclaimers hardly changed perceptions about the hypothetical fish oil product, but that presenting more extensive context improved physician knowledge about the drug while reducing their enthusiasm for prescribing it. The proportion of physicians who endorsed the unproven, off-label claim that the drug reduced cardiovascular risk was similar for those randomized to the first two scenarios (35 percent versus 37 percent), but significantly lower among those randomized to the third scenario (21 percent).

The researchers also found that physicians who had received company-sponsored information about the off-label use of Vascepa were more likely to report prescribing it as an off-label medication than those who did not (38 percent versus 7 percent).

Despite major concerns from physicians and the FDA, more off-label drug promotion may continue to expand due to actions by courts or

legislatures.

"If it does, our study highlights the need for FDA to develop guidelines for creating evidence context, and the importance of allowing it to exert authority over the language and format used to ensure that the statements are explicit, clear, and prominently displayed," says Woloshin. "Otherwise, the victory of commercial speech will come at the expense of public health."

More information: Lisa M. Schwartz et al, Randomized Study of Providing Evidence Context to Mitigate Physician Misinterpretation Arising From Off-Label Drug Promotion, *Circulation: Cardiovascular Quality and Outcomes* (2019). DOI: 10.1161/CIRCOUTCOMES.119.006073