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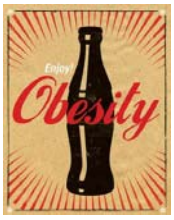
Diet drugs vs. Healthier lifestyle

By Judy Stone | August 3, 2012

As expected, the FDA recently announced approval of a second drug for obesity within a month, Vivus' Qnexa, now renamed Qsymia. This approval is less of a surprise, as the data appeared somewhat stronger than that for Arena's lorcaserin (Belviq). What was rather curious is that USA Today broke news of the drug's approval before the FDA had announced their decision.

The FDA is responding to the growing crisis of obesity. As noted in my post, "*A Glut of Obesity Drugs?*" the Centers for Disease Control and Prevention has established that **more than one-third of adults in the United States are obese**, defined as having a Body-Mass Index of ≥ 30. In the U.S. alone, **78 million U.S. adults are obese**; another 34% of adults are overweight ≥ 25-29. So **70% of US adults have a problem with weight**. This **results in an estimated 300,000 deaths per year**. And the burden of obesity is increasing, expected to rise to 42% by 2030, with an additional 11% prevalence of severe obesity (BMI >40, or ~80+ lbs overweight). Obesity is the **second cause of preventable deaths**, after smoking. The costs of obesity are also staggering, and may be as high as **$147 billion per year, or roughly 9% of U.S. annual medical expenditures.**



The health crisis from obesity is drawing increasing attention, as outlined in the documentary, "The Weight of the Nation," a project of HBO, the Institute of Medicine

(IOM), the Centers for Disease Control and Prevention (CDC) the National Institutes of Health (NIH), the Michael & Susan Dell Foundation, and Kaiser Permanente.

In my previous post, we looked at how obesity drugs work and how there are many different targets that are under study. Lorcaserin (Belviq) works by targeting the activation of the serotonin 5HT2C receptor in the brain.

In contrast, Qnexa (Qsymia), which is composed of a fixed-dose combination of two previously approved drugs, phentermine hydrochloride and an old anti-seizure medication, topiramate, has a different mechanism of action. The phentermine component stimulates the release of norepinephrine and acts as an appetite suppressant and the topiramate controls receptors for hunger signals.

Qsymia has the advantage over its competitor, Belviq, in that patients taking it had approximately a 10% weight loss (vs. 3.3% for Belviq)

Both lorcaserin and Qnexa were rejected by the FDA in 2010 because of safety concerns. While the FDA has now approved both drugs, reservations remain with both. The phenteramine component of Qsymia was part of the infamous Fen-Phen diet combo, popular in the 1980s, and subsequently removed from the market after finding heart valve abnormalities in a number of the recipients. Other known side effects include elevated blood pressure, rapid heart beat and "excitability." The topiramate component, long used for treating seizures, is associated with birth defects and confusion, memory loss, and depression.

As with Belviq, the FDA is asking the manufacturer of Qsymia to conduct post-marketing safety studies. The problem with this approach is that the companies often don't bother to follow up with conducting these other studies, once their drug has the approval for marketing. And the FDA has not been good about enforcing post-marketing study requirements.

It seems that both drugs, rejected in 2010, *were not approved now because of reassuring safety data, but rather because of the increased desperation of the public for diet aids and, presumably, from pressure on the FDA from lobbyists.*

Perhaps I'm feeling more cynical than usual. But, given the history of failed diet drugs, I **would not be surprised to find that, once they have been used by a large segment of**

the population, these drugs will be found to have substantial and serious cardiovascular side effects and will ultimately be withdrawn.

As neurobiologist Stephan Guyenet cautions, "These drugs are not intended to replace a healthy diet and lifestyle– they are intended to supplement it. They are primarily for people who are at risk of health complications from obesity, have difficulty losing fat by diet and lifestyle changes alone, and need a bit of extra help…In a subset of people with obesity, the risk of negative side effects from these drugs may be outweighed by their ability to prevent or delay obesity-associated health problems such as diabetes."

It's too bad there is no similar societal and public health commitment in our society to marketing healthy food and lifestyle choices as there is to developing drugs for weight loss. While **several countries have special taxes on junk food or allow special labeling of healthy foods,** intense lobbying by the processed foods industry in the US has derailed similar efforts here: for example, the attempt to put a tax on soda pop. It seems we are more likely to lapse into dreaming of developing blockbuster drugs that will increase our desire for healthy food or for exercise, rather than to engage in changing our behaviors. **Avoiding soda taxes or limits on junk food in the name of individual liberties seems akin to the profound argument of Supreme Court Justice Scalia, that attempts to improve public health are the equivalent of "mak[ing] people buy broccoli."**

Until there is more of a political and societal will to put health above corporate profits and individual "liberty," perhaps these two newly approved diet drugs will help enough people lower their risk of diabetes or other serious chronic disease to offset the cost of the additional heart problems we may well see from their use.