

BIOBUSINESS BRIEFS

REGULATORY WATCH

Impact of PDUFA on regulatory decision-making



STOCKBYTE

The 2007 Food and Drug Administration Amendments Act (FDAAA), which reauthorized the Prescription Drug User Fee Act (PDUFA) legislation, increased responsibilities and created new authorities at the US FDA that have affected many aspects of the drug review and approval process. This article quantitatively analyses some of the effects on the basis of FDA decisions since the FDAAA was implemented.

One significant new requirement has been for the FDA to approve a risk evaluation and mitigation strategy (REMS) programme for many drugs before approval if the FDA determines it is necessary to ensure that the benefits of the drug outweigh the risks. To assess the impact that this requirement has had on FDA actions and approval times, we examined 38 drugs with approved REMS programmes that underwent reviews during the period since the REMS requirement was adopted on 25 March 2008. Of the 38 drugs, 18 (47%) were approved on a first-cycle review. Officials at the FDA have stated that the first-cycle approval rate tends to be around 30%, so this seems to be well above the historical average. However, for 10 out of the 18 first-cycle approvals, the PDUFA goal for review time — either 6 months for priority applications or 10 months for standard applications — was not met.

Another trend observed since the FDAAA was implemented was a large increase in the number of regulatory applications for which the goal for review time — or in other words, FDA action by a particular date — was missed, particularly in the period from the second half of 2008 through to the first half of 2009. The percentage of action dates missed in 2008 and 2009 was 11.3% and 8.9%, respectively. In addition, when excluding supplementary new drug applications and supplementary biologic license applications, the proportion of action dates missed rises to 17.3% in 2008 and 14.0% in 2009. This is a significant increase from the historical norm (for example, the FDA

acted on 97% of original applications within the specified timeframes in the financial year for 2006, before FDAAA), and well outside the FDA's goals to act on 90% of all submissions within the specified timeframes.

Finally, the requirement for new drugs to come before an advisory panel before approval (unless the FDA concludes that one is not needed) has led to an increased focus from the investment and corporate community on the impact these panels have on drug approvals. We examined the outcomes of 66 FDA panels reviewing new drugs or new indications that took place from 1 January 2008 to 28 March 2010. We assessed whether the panel outcome was a positive, a negative or a mixed recommendation, whether the drugs are approved today, and the timing between the panel recommendation and approval if this occurred. Unsurprisingly, the data show that drugs that receive a negative vote do not get approved. Additionally, a significant proportion of drugs still go through a lengthy review timeline and multiple approval cycles, or have not yet been approved after a positive vote. Of 49 positive votes in the sample, 11 (22.4%) have not yet been approved and the average number of days to approval from the time of the positive vote was 162 days (range 15–677 days).

These findings are of interest for several highly anticipated FDA approval decisions in 2010 for which an FDA advisory committee will issue a recommendation. Among the drugs involved are lorcaserin (developed by Arena Pharmaceuticals) for the treatment of obesity, sodium oxybate (developed by Jazz Pharmaceuticals) for the treatment of fibromyalgia and long-acting naltrexone injection (developed by Alkermes) for the treatment of drug addiction.

Michael Hay is a BioMedTracker Senior Analyst at Sagient Research Systems, 3655 Nobel Drive, San Diego, California 92122, USA. e-mail: mhay@sagientresearch.com

The author declares no competing financial interests.