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Quantity over quality: FDA approved more cancer drugs than EMA, but they may not have always benefited patients

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By Ed Silverman June 13, 2022

Amid rising pressure to endorse new medicines, U.S. regulators greatly outpaced their European counterpart in reviewing and approving new cancer treatments over a recent 10-year period, although they more frequently did so before pivotal studies were published.

Of 89 new cancer medicines approved by both agencies between 2010 and 2019, the U.S. Food and Drug Administration sanctioned 85 of the treatments before the European Medicines Agency. On average, the FDA took 200 days to approve a medicine, compared with 426 days by the EMA. For a given drug, it took an average of 241 days longer to be authorized in Europe than in the U.S.

Meanwhile, 35 oncology treatments were approved by the FDA before the drug company published a pivotal trial, which is conducted to demonstrate safety and effectiveness. By contrast, only eight cancer medicines were approved by the EMA prior to publication, according to the study published in JAMA Network Open. And three drugs were withdrawn by the FDA, but only one by the EMA.

The differing review times may result in better outcomes for some patients, but also underscore questions about the extent to which faster reviews offer meaningful improvements in survival and quality of life. At the same time, the researchers noted that a slower review process, like that seen in Europe, may rob patients of needed treatments.

“I think this is a mixed picture. There is a clear delay of 241 days in European market authorization for new oncology therapies, which is relatively unchanged from a decade ago,” said Mark Lythgoe, a study co-author, pharmacist, and academic clinical fellow in medical oncology at Imperial College London.

“Considering the high unmet needs for many of these cancers, this is highly significant for European patients as such lengthy delays could exceed the life expectancy of many patients with

advanced cancer. However, more new oncology drugs were withdrawn by the FDA than the EMA suggesting that faster review times are not always translating into better outcomes for patients."

The findings arrive as debate intensifies over the FDA's approach to approvals. As novel treatments continue to emerge, especially for cancer and rare diseases, the agency has faced increasing pressure to work faster. But this has also generated criticism that some approaches for speeding approvals may be detrimental.

For instance, a 2019 study found only 20% of 93 cancer drugs endorsed using the accelerated approval pathway showed an improvement in overall survival. And when certain cancer drugs are later found to be ineffective, it can take years before they are pulled from the market. Consequently, the FDA has started looking at ways to bolster clinical trial evidence used for accelerated approvals.

In general, though, accelerated approval has come under attack after the FDA last year endorsed the Aduhelm treatment for Alzheimer's. This occurred despite misgivings by its own expert panel over questions about effectiveness and side effects, as well as a behind-the-scenes effort by Biogen — the manufacturer of the drug — to win FDA support.

Earlier this month, the U.S. House of Representatives passed a bill to give the FDA the authority to remove drugs that obtained accelerated approval from the market if they fail to show a clinical benefit. The measure was included in legislation to reauthorize payment of so-called industry user fees that fund FDA reviews of drugs and devices.

One reason for differences between regulators may be that 72% of companies first submitted regulatory documents to the FDA. An accompanying editorial noted this may be a tactic to "launch drugs in countries willing to pay higher prices, which in turn increases prices globally. By submitting to the U.S. first, other countries must then negotiate" over prices "designed for the unfettered U.S. market."

Lythgoe also noted that Europe requires two steps before a drug gets to market. First, there is approval by the EMA Committee for Medicinal Products for Human Use. Then, there is centralized adoption by the European Commission. The study found this procedure added 62 days to the time from when a marketing application is submitted to approval.

The latest analysis, however, further underscores the concerns with moving too fast.

The editorial pointed out that faster FDA reviews can "lower global standards for testing and creates a culture of widespread drug access that impose challenges on other countries to obtain the evidence they need for appropriate drug coverage decisions." And many poor countries rely on FDA decisions, creating uncertainty when their regulators later encounter contradictory uncertain clinical evidence.

Compounding matters, Lythgoe explained that there has been a huge increase over this past decade in the number of new applications submitted to regulators. He believes this likely played

a significant role in approval times at both the FDA and EMA. For this reason, the latest study begs an argument about quality versus quantity.

As an example, a study published in 2017 found that other countries approve fewer medicines than the U.S., but the drugs tend to offer more benefit to patients. For instance, 62% of drugs recommended by the pan-Canadian Oncology Drug Review — the national Canadian health technology assessment body — showed substantial clinical benefit, compared with 44% of FDA approvals within the same period.

“Faster approval times and approvals should only be celebrated if these deliver better meaningful outcomes,” Lythgoe maintained, “making patients live better and for longer.”