Many New Cancer Drugs Aren't Worth the Extra Cost, Studies Show

Recently approved cancer medications cost more than twice as much in the United States as they do in Europe.

October 2, 2019 By Benjamin Ryan

A pair of analyses of new cancer drugs approved in the United States and Europe found that their high costs are often unjustified given their limited added benefits compared with older therapies. Researchers presented these findings at the European Society for Medical Oncology Congress (ESMO 2019) in Barcelona.

"Most of the new cancer drugs had low added value, so doctors and patients shouldn't assume that just because a drug is new, it's going to be better," said Marc Rodwin, PhD, a professor of law at Suffolk University in Boston and a coauthor of a study of new cancer drugs in France.

Rodwin and his colleagues studied drugs used to treat solid tumors that were registered by the European Medicines Agency between 2004 and 2017. They drew the ratings for the therapeutic value of each drug from France's High Authority of Health Added Therapeutic Benefit ranking system, or ASMR, in which a score of 1 indicates the highest benefit and a score of 5 is the lowest. They also looked to the ESMO Magnitude of Clinical Benefit Scale, or ESMO-MCBS, in which 5 is the highest score and 2 is the lowest.

The ESMO-MCBS score is calculated based on the extent of improvement in progression-free survival or overall survival and the strength of evidence in randomized studies, adjusted to take into account side effects and patient quality of life.

During the study period, 36 drugs were approved for 68 indications. The median ESMO-MCBS score was 4 (with a range of 1 to 5), and the median ASMR score was 4 (with a range of 2 to 5). According to each scoring system, a respective 48% and 70% of the drugs had a low added value.

The average monthly price for the new drugs was approximately $5,000 per month, while the previously approved comparator drugs cost around $2,500 per month. The prices of the new drugs increased over the course of the study period.

For all the indicated uses of the medications, there were significant but weak associations between

the therapeutic benefit scores and drug prices.

The researchers concluded that most new cancer drugs provided a low added value. Although prices were weakly associated with added value, price increases were not.

The authors of the second study analyzed the association between prices and clinical benefit for medications indicated for adult solid tumors and blood cancers in the United States, England, France, Germany and Switzerland. The drugs were approved by the Food and Drug Administration between 2009 and 2017 and by the EMA as of the end of 2018. For assessments of the clinical benefits of drugs, the researchers looked to the ESMO-MCBS and the American Society of Clinical Oncology's Value Framework (ASCO VF).

This study included 63 drugs, 46 (73%) of which were for solid tumors and 17 (27%) of which were for blood cancers.

Overall, the median cancer drug prices in the four European countries were 52% lower than the U.S. prices.The median monthly cost of drugs with low ESMO-MCBS benefit scores ranged from about $4,360 to $5,270 in the European countries compared with about $12,440 in the United States.

There was no association between monthly treatment cost and ESMO-MCBS or ASCO-VF scores in any nation. Additionally, there was no association between either system's scores and the difference between U.S. prices and the median European drug prices.

The study authors concluded that prices of cancer therapies were not associated with a clinical benefit in the United States or Europe.

"Drug costs were not associated with clinical benefit score in any of the countries we looked at," said study coauthor Kerstin Vokinger, MD, JD, PhD, of the University of Zurich and Harvard Medical School. "It is important that drug pricing is aligned with clinical value and that our limited resources are spent on innovative medicines that offer improved outcomes."

To read a press release about the studies, click here.
