Environmental concerns led to jump in cost of asthma inhalers: study

May 11 2015, by Dennis Thompson, Healthday Reporter

Price of 'rescue' medication nearly doubled, researchers say.

(HealthDay)—Federal action to protect the ozone layer has resulted in a dramatic increase in the cost of asthma inhalers in recent years, according to a new study.

In 2008, the U.S. Food and Drug Administration banned asthma inhalers containing chlorofluorocarbons (CFCs), substances that contribute to the depletion of ozone in the upper atmosphere.

Immediately following the ban, the mean cost of asthma inhalers rose from $13.60 per prescription in 2004 to $25 in 2009, said lead study author Dr. Anupam Jena, an assistant professor of health care policy and medicine at Harvard Medical School in Boston.

"We're talking about—at its peak—a 100 percent increase, a doubling of out-of-pocket costs," Jena said.

The cost of asthma inhalers decreased slightly in the following months, dropping to an average $21 by the end of 2010, Jena said. Their price has hovered around that level ever since.

Prices for the inhalers exploded because manufacturers swapped out established and cheap generic CFC inhalers for more expensive brand-name inhalers containing hydrofluoroalkane (HFA), Jena said.

Both CFC and HFA serve as a propellant to send medication deep into the lungs of people with asthma. The asthma medication contained in both types of inhaler looked at in this study is albuterol, which improves breathing by causing the airways to dilate.

Asthma attacks cause a person's airways to constrict, making it difficult to draw breath and causing wheezing, coughing and chest tightness. Inhalers containing albuterol are often referred to as "rescue" devices because they bring near-instant relief of these symptoms.

The price hike was tied to a slight decline in the use of asthma inhalers, researchers found. The decline amounted to about 5 percent, related to an average $10 in patient out-of-pocket expenses.

"This is a set of medications that patients with asthma really need to use," Jena said. "That's perhaps why we didn't see a large decline in utilization, even though the out-of-pocket cost went up considerably."

The researchers also did not see an increase in hospitalizations due to asthma, likely because most people ate the extra cost and continued to buy and use inhalers, he said. However, the study authors added that it's not clear what effect the increased cost might have had for people

without insurance.

The FDA banned CFC inhalers as a result of the 1987 Montreal protocol, in which 26 nations agreed to a worldwide reduction in the use of substances that deplete the ozone layer, the authors said in background information.

The new study, published online May 11 in *JAMA Internal Medicine*, is the first-ever attempt to assess the impact of the ban on out-of-pocket costs for albuterol inhalers, the authors said.

The study didn't include information on the costs of another type of asthma medication also affected by the FDA regulation—inhaled corticosteroids. People with asthma use these medications to lessen inflammation in the airways and prevent asthma attacks, according to the American Academy of Allergy, Asthma and Immunology. These are often referred to as preventive or controller medications.

For the current study, researchers drew their conclusions from pharmacy and medical claims filed between 2004 and 2010 with 77 private health plans in the United States. The study doesn't include information on people without health insurance.

At the time, many fought the proposed ban on the grounds that asthma inhalers contain small amounts of CFCs and contribute minimally to ozone depletion, said Dr. Rita Redberg, a cardiologist at the University of California, San Francisco, and chief editor of *JAMA Internal Medicine*.

"I don't think anyone is arguing that this is good for the environment, because the CFCs involved are negligible," said Redberg, who wrote an editorial accompanying the new study.

Redberg herself recently experienced the effects of the price hike. She went to fill her daughter's asthma prescription and found that her co-pay had jumped from its usual $10 or $20 up to $40, which is the co-pay her insurance plan carries for brand-name medications.

"I was shocked that a drug that used to be an inexpensive generic was now only available as an expensive branded drug," she wrote in her editorial. "The pharmacist explained to me that they had to fill with a branded inhaler because there were now only branded albuterol inhalers available."

Redberg believes public pressure should be brought to bear upon the FDA, to force the agency to get rid of the brand-name status now held by HFA asthma inhalers.

The FDA allows drug companies to charge more for brand-name medications, to give them a chance to make back research and development costs. But that makes no sense in this case, she said.

"It's not a new drug," Redberg said. "It's a drug that's been available for years. They've just changed the delivery system from CFCs to HFAs."

And, in her editorial, Redberg wrote of the FDA's regulations, "the goal was clean air, not increased pharmaceutical profit."

In the meantime, people with asthma might consider switching health plans if they can, Jena said. Some insurance companies provide medications for chronic conditions either for free or at a drastically reduced co-pay, figuring that it's cheaper to control health problems than to allow them to steamroll and wind up with expensive hospitalizations.

"There's not a lot that individuals can do outside of changing their health plan, which many people aren't likely to do," he said.

More information: For more on asthma, visit the American Academy of Allergy, Asthma and Immunology.