Researchers link high deductibles to low utilization of imaging exams

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Patients who have high-deductible insurance plans had lower rates of medical imaging use, according to new research that was published in the journal *Medical Care*. Insurance plans with an annual deductible of at least \$1,200 for individuals and \$2,400 for families were considered high.

"Similar to what many previous studies had found, a reduction in health care utilization follows when patient cost sharing increases," Sarah Zheng of the Boston University Questrom School of Business, wrote to HCB News in an e-mail. "We found in particular that decisions to have any imaging, made by the physician-patient pair, were sensitive to cost-sharing."

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Zheng and her fellow researchers used an insurance database that includes data on over 21 million adults from 2010. They compared use rates and costs of X-ray, CT, MR and other imaging tests for patients with and without high-deductible insurance plans.

The researchers found that about eight percent of the patients had high-deductible plans. After accounting for age, sex, geographic location and health status, they uncovered that those individuals used 7.5 percent fewer imaging studies than in other plans.

"We were hoping to find that [high-deductible health plan] enrollees had fewer low-value imaging studies, but similar numbers of high-value tests to enrollees in non-HDHP plans," wrote Zheng. "However, the results from our study suggest that [high-deductible health plans] may be a blunt instrument reducing all diagnostic imaging, rather than helping physicians and patients choose high-value imaging."

Since the high-deductible plans have been shown to reduce high-value imaging tests, Zheng

believes that better patient awareness and education and more research on optimal costsharing is needed. Too low cost-sharing may encourage patients to demand or agree to lowvalue imaging studies, but too high cost-sharing may discourage patients from high-value imaging.

She thinks that the insurers should provide full coverage for high-value imaging tests and leave the rest of the imaging tests subject to the deductible. But she cautioned that policies like those can lead to backlash against what is and what isn't high value when it isn't clearly defined.

Similar to this study, previous studies have found that high-deductible insurance plans lead to less use of hospital care, office and emergency department visits and more. This was the first study that investigated the effects on use of diagnostic imaging exams in the U.S.

The researchers were not able to explore in depth the reasons why high-deductible plan enrollees used fewer scans, but they hope to address that in future research. They want to try to determine whether it's due to delaying care or using less altogether.