Radiation exposure greater for interventional echocardiographers

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During left atrial appendage closure (LAAO) and transcatheter edge-to-

edge mitral valve repair (TEER) procedures, interventional echocardiographers are exposed to higher radiation doses than interventional cardiologists, and sonographers have even lower exposure, according to a study published online July 7 in *JAMA Network Open*.

David A. McNamara, M.D., M.P.H., from Spectrum Health in Grand Rapids, Michigan, and colleagues collected radiation doses from interventional echocardiographers, interventional cardiologists, and sonographers at a quaternary care center during 30 sequential LAAO and 30 sequential TEER procedures from July 1, 2016, to Jan. 31, 2018. The procedures were performed in 60 patients with high cardiovascular risk factor burden.

The researchers found that the median radiation dose per case was higher for interventional echocardiographers than for interventional cardiologists (10.6 versus 2.1 μSv). Interventional echocardiographers received a median radiation dose of 10.5 μSv during TEER compared with 0.9 μSv received by interventional cardiologists. The median radiation dose was 10.6 and 3.5 μSv among interventional echocardiographers and interventional cardiologists, respectively, during LAAO procedures. Sonographers exhibited low median radiation doses during LAAO and TEER compared with interventional echocardiographers (0.2 and 0.0 μSv, respectively).

"These comparatively increased radiation doses reveal a previously underrecognized occupational radiation exposure risk, which has important ramifications for the rapidly expanding field of interventional echocardiography," the authors write.

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More information: David A. McNamara et al, Comparison of Radiation Exposure Among Interventional Echocardiographers, Interventional Cardiologists, and Sonographers During Percutaneous Structural Heart Interventions, *JAMA Network Open* (2022). DOI: 10.1001/jamanetworkopen.2022.20597

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