

20th World Congress on

RADIOLOGY AND ONCOLOGY

September 26-27, 2018 | Chicago, USA



David S Dinhofer

Advanced Medical Imaging and Informatics, USA

Radiology peer review is broken: Big data offers a better way

Radiology peer review in the US is a broken system due to multiple issues including variance of reviews, bias, lack of integration into workflow, lack of acceptance, limited implementation, and abuse (1-3). The goal of peer review is to promote patient safety and identify interpretation weaknesses for improvement(4). Continuing with a broken process may show some improvement but the system is not situated to make the leap of real change in the community. Digital records, large Datasets (Big Data) and analytics can be the new gold standard if properly implemented(5). If the system reduces radiologist time, identifies weaknesses, and presents appropriate corrective educational materials, acceptance of the process is more likely to succeed. Radiologists already function at a high cognitive and educational level. As such, the radiologist only needs minor corrections in their interpretive process to improve their care. The role of a quality improvement system for interpretive skills should focus on individual weaknesses. And, ideally, this should be an ongoing process with easy access to the available newest information. As with most peer review systems, including Radpeer(ACR)(6, 7), are set up to identify diagnostic errors rather than individual weaknesses. In addition, problems with peer review are known to radiologists who see the system as flawed which limits acceptance and creates an environment ripe for abuse. The author recommends that Radiologists completely discard the peer review system and proposes that analysis of clinical data and imaging findings should be the new gold standard. Radiologists should adopt a system that uses large data sets combined with analytics to identify individual radiologists weaknesses. This requires a change in the way radiologists document reports, the creation of a analytic process to identify weaknesses, creation a safe haven for radiologists to review their own personal quality report and offer services to improve on weaknesses. Structured data capture is a key issue in the development of such a system(8). SDC is mandated by the College of American Pathology of the review and analysis for their oncology section accreditation. It is their hope that this will allow standardization of diagnosis and treatment of cancer to assist in improving patient outcomes. Structured reporting is becoming the new standard(9, 10). Radiologists need to go one step further by creating data that is readable to a computer with less ambiguity. This is part of the movement to create structured data capture. With this information in a readable computer form, it will be easy to perform analytics to identify variances and repetition of errors. It will help to identify errors and categorize the errors. With this information, a radiologist can review their own metrics to identify weakness and build their own self-improvement plan. This presentation identifies key issues that need attention for an effective CQI system and discusses the processes that would need to be created for this system to function at a high level.

Biography

David S Dinhofer completed his undergraduate degree at MIT in Biomaterials Science and his medical degree at Tulane Medical School. He went on to be board certified in both Radiology and Medical Informatics. He obtained a masters of science degree in Medical Informatics from SUNY-Downstate. He has published papers on medical ethics, quality improvement, and peer review. He is currently practicing Radiology and consults in Medical Informatics and Radiology workflow. He consults with startup companies on clinical issues of bringing products to market.

david.dinhofer@dinhofer.net

Notes: