

Second Opinion on Medical Imaging

In current era, patient evaluation and management without medical imaging is out of question. Due to continuous and robust technological development, there has been a humongous improved quality of imaging albeit medical errors can still occur. Each year, tens of thousands of patients die due to medical mistakes primarily due to inadequate reporting of medical imagings. Second-opinion consultation for imaging studies is considered an effective method to improve the accuracy of diagnosis and patient care too.

Several studies have examined the value of a second opinion for radiology studies. Findings favor an increase in accurate diagnoses when the scans are reviewed by a second reader. It is found that second review helps to detect minor or major errors which were missed or over-reported during first review. Most radiologic errors occur due to under-reading of the radiology exam and inability or failure of reporting physicians to adequately examine the anatomy in field of view.

Second opinions also help in minimizing the risk of misdiagnosis and thus reduces odds of unnecessary medical procedures and other potential errors. Various published studies have shown sizeable percentage of patients in whom second opinion has changed the diagnosis. A study published in 2018, has shown second opinions can change the diagnosis for 43% of breast cancer patients and suggesting that it's worthwhile for women to pursue the additional input.¹ Another study shows that oncologic imaging represents 44% of radiology malpractice cases with diagnostic allegations.²

So a second opinion not only helps to prevent medical mistakes but also allows treating physician to find the best possible treatment for his or her patient. Second reviewer whether confirms the initial diagnosis or provides additional pertinent information, treating doctors receive an outside robust perspective which help them to chalk out a quality treatment plan.

Thanks to web-based PACS and radiology information system (RIS), having a second opinion from a qualified healthcare professional has become not only faster but also more convenient than in the past and has increased access of second opinions for all types of clinical situations.

Providing second opinions on radiological exams performed elsewhere can be time-consuming, but many radiologists aren't adequately reimbursed for these reads.³ Another issue related to second opinion is that significant number of these reports are not read by healthcare professionals. In a study published by Sabine et al, 11.4% of second opinions were not read by a clinician, with the highest modality being ultrasound (62.5%), and the highest subspecialty being interventional radiology (52.2%). However, the authors did not discuss or explore the reason(s) for this issue.⁴

So, second opinion consultations can be requested by doctors, patients, or insurance providers and it reduces the risk of medical errors or misdiagnosis. Although it is an extra step but it ensures that patients receive the best care with proper diagnosis and reduces unnecessary investigations. However, reimbursement on part of reporting second opinion consultant and sizeable unread reports are important issues which need to be addressed.

Conflict of Interest: None

REFERENCE:

1. Garcia D, Spruill LS, Irshad A, Wood J, Kepecs D, Klauber-DeMore N. The Value of a Second Opinion for Breast Cancer Patients Referred to a National Cancer Institute (NCI)-Designated Cancer Center with a Multidisciplinary Breast Tumor Board. *Ann Surg Oncol* 2018; **25**: 2953-57.
2. Andrew B. Rosenkrantz, Dana Siegal, Jillian A. Skillings, Ada Muellner, Sharyl J. Nass, Hedvig Hricak. Oncologic Errors in Diagnostic Radiology: A 10-Year Analysis Based on Medical Malpractice Claims. *J Am Coll Rad* 2021; **18 (9)**: 1310-16.
3. Catherine MT, Meghan CB, Karen R. Value of Second-Opinion Interpretation of Outside-Facility Breast Imaging Studies to a Radiology Department and Cancer Center. <https://doi.org/10.1016/j.jacr.2021.12.005> (in press - available on line).
4. Sabine A. Heinz, Thomas C. Kwee, Derya Yakar. Unread Second-Opinion Radiology Reports: A Potential Waste of Health Care Resources. *Am J Roentgenol*. 2020; **215**: 934-39.

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