

What's New in the Patient Safety World

October 2023

Workload and Radiology Diagnostic Errors

Common sense says that there is a relationship between workload and errors, particularly that errors are more common when workload is excessive. That applies to virtually everything we do.

Radiology is no different. A recent study looked at work overload and diagnostic errors in radiology ([Kasalak 2023](#)). The researchers identified all CT scan reports that had an addendum describing a perceptual error (i.e. failure to detect an important abnormality) in the original report that was issued on office days between 7:30 AM and 18:00 PM at a tertiary care center over 3 years. They then looked at workload of the radiologists on those days.

They found that workload on the days the diagnostic errors were made was on average 121% of their average workload on a normal day. Diagnostic errors occurred throughout the entire day, without any increase towards the end of the day.

The authors suggest that radiologists should exercise caution when, for reasons like imaging backlogs, clinical pressure, and understaffing, their caseload exceeds their normal daily production.

The authors acknowledge that there are other causes of diagnostic errors in radiology. They note that multiple studies have identified fatigue as a cause of errors, even though their own data did not suggest fatigue played a role.

Our May 2023 What's New in the Patient Safety World column "[Factors Associated with Radiology Diagnostic Errors](#)" noted a study ([Ivanovic 2023](#)) that showed statistically significant associations of diagnostic error for neuroimaging examinations with longer interpretation times, higher shift volumes, and weekend interpretation. These three variables were found to be risk factors for diagnostic error at both the individual neuroradiologist and neuroradiology division levels, respectively. There was no association with emergency or inpatient settings or with trainee participation in interpretation.

Some of our prior columns on radiology diagnostic errors:

- July 1, 2014 “[Interruptions and Radiologists](#)”
- November 2014 “[More Radiologist Interruptions](#)”
- March 22, 2016 “[Radiology Communication Errors May Surprise You](#)”
- April 2018 “[Radiologists Get Fatigued, Too](#)”
- May 2018 “[Cost of Interrupting a Radiologist](#)”
- November 12, 2019 “[Patient Photographs Again Help Radiologists](#)”
- August 25, 2020 “[The Off-Hours Effect in Radiology](#)”
- May 25, 2021 “[Yes, Radiologists Have Handoffs, Too](#)”
- July 12, 2022 “[Radiologists Racked by Interruptions](#)”
- May 2023 “[Factors Associated with Radiology Diagnostic Errors](#)”

References:

Kasalak O, Alnahwi H, Toxopeus R, et al. Work overload and diagnostic errors in radiology. European Journal of Radiology 2023; 167: 111032 Aug. 10, 2023
<https://www.sciencedirect.com/science/article/pii/S0720048X23003467>

Ivanovic V. Broadhead K, Beck R, et al. Factors Associated With Neuroradiology Diagnostic Errors at a Large Tertiary-Care Academic Medical Center: A Case-Control Study. American Journal of Roentgenology 2023; March 29, 2023
<https://www.ajronline.org/doi/abs/10.2214/AJR.22.28925>


 The
 Truax
 Group
 Healthcare Consulting
www.patientsafetysolutions.com

<http://www.patientsafetysolutions.com/>

[Home](#)

[Tip of the Week Archive](#)

[What's New in the Patient Safety World Archive](#)