

Re-audit of identification and reporting of incidental vertebral fractures on CT chest abdomen and pelvis scans.

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Introduction:

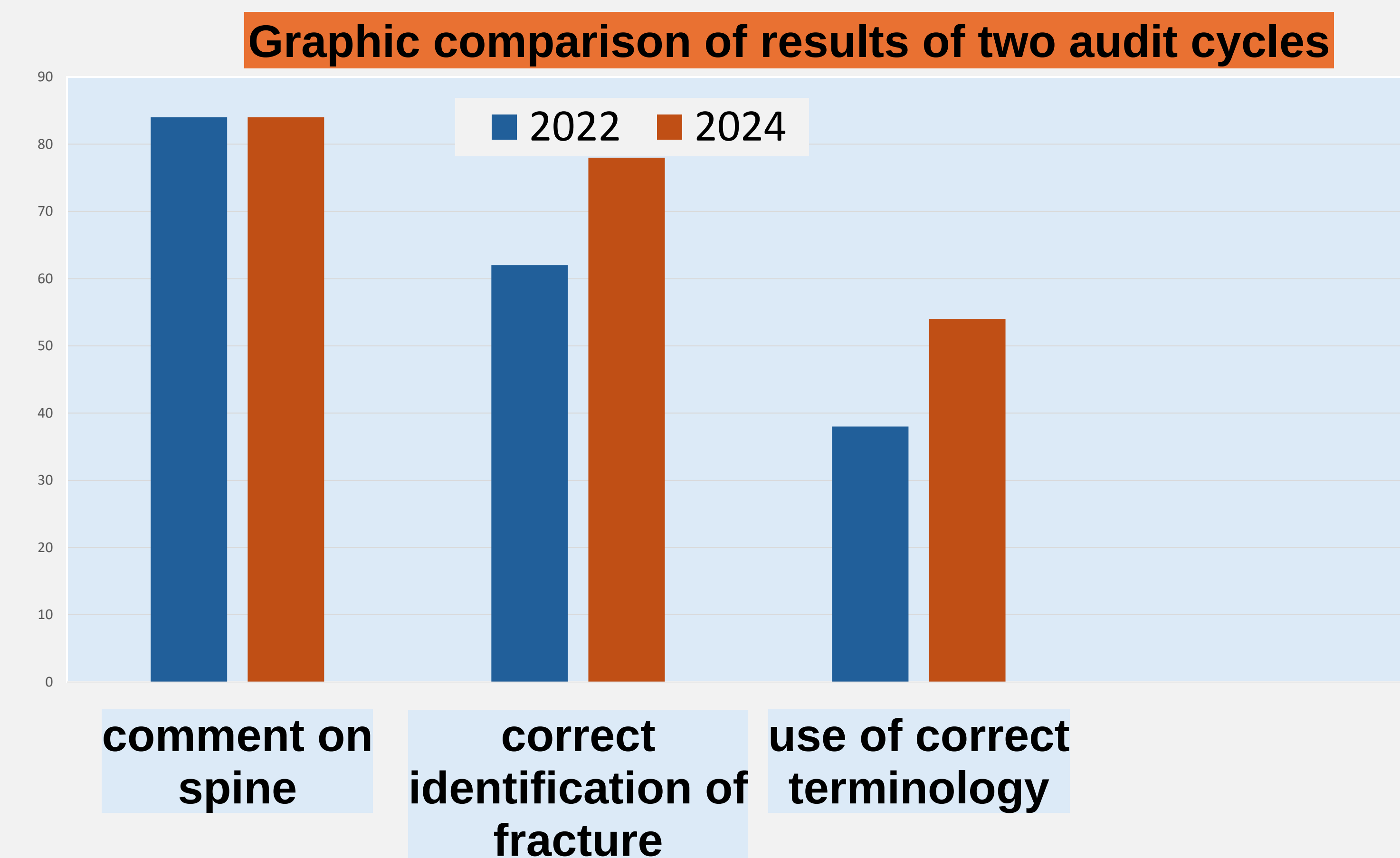
Vertebral fragility fractures are associated with an increase in patient morbidity , age-adjusted mortality, twice the risk of hip fracture and 5x the risk of further vertebral fractures. They are frequently present on imaging but are rarely reported. Aim of this study was to identify the incidental identification rate with a view to increasing reporting rate as a result, in line with Royal College of Radiologists guidelines and thus enabling requesting clinicians to make appropriate onward referrals leading to improved levels of safety.

Methods:

Consecutive 550 CT TAP exams were reviewed. 50 studies were identified with moderate & severe fractures within this sample using the Genant semi-quantitative approach. These studies were then assessed against audit standards produced by Royal Osteoporotic society.(i.e; every report should contain a comment on spine, vertebral fracture should be correctly identified in >90% of scans and , use of correct terminology while reporting.) Results were then compared to last audit cycle conducted before intervention (findings of initial audit communicated to registrars and consultants to adopt a consistent approach in reporting VFFs).

Results:

- **62%** of scans correctly identified a vertebral fracture which improved to **78%** on re-auditing.
- **38%** scans contained the correct terminology when describing the identified fractures which improved to **54%**.
- **84%** of scans contained a comment on the spine initially which remained the same on re-auditing.



Conclusion:

This audit was designed to facilitate radiological recognition and actionable reporting of VFFs. Incidental reporting rates demonstrated an overall improvement following initial audit, although still fell short of overall target (100%) . Automatic sagittal spinal reformatting, template reporting, standardized use of terminology , routine audit processes and setting up of a proper fracture liaison service at UHCW can be a means to achieve better compliance to standards in future.

References:

- The Royal College of Radiologists (2021) Radiological guidance for the recognition and reporting of osteoporotic vertebral fragility fractures (VFFs). https://www.rcr.ac.uk/media/afhpampu/rcr-publications_radiological-guidance-for-the-recognition-and-reporting-of-osteoporotic-vertebral-fragility-fractures-vffs- may-2021.pdf
- Royal Osteoporosis Society (2021). State of the Nation report: Vertebral fracture identification in 2021. <https://strwebprdmedia.blob.core.windows.net/media/fcodhs1m/state-of-the-nation-report-vertebral-fracture-identification-in-2021.pdf>
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