



Labs and Drugs



440. Paul Timmers
Health Data Innovation Perspectives

445. Renato Cuocolo
Radiomics: Recent Trends and
Assessing Research Quality

456. Ekaterina Kldiashvili
eHealth for Morphology Laboratory
Practice

462. Maria C. Carrillo
Working Towards a World Without
Alzheimer's and All Other Dementia

468. Samna Ghani
Why is the Pharmaceutical Industry Not
Developing New Antibiotics?

472. Henrique Martins
The EU Health Data Centre: A New Total
Virtual Organisation

Peer Review System: Collaborative Learning to Achieve Clinical Excellence in a Multinational Healthcare Provider

◆ Author: Alessandro Roncacci | Senior Vice-President | Chief Medical Officer | Affidea Group

◆ Author: Nasia Papachristodoulou | Director of Clinical Governance and Quality | Affidea Group

An overview of Affidea's Peer Review system that allows radiology teams to learn and grow together and benefit from each other's expertise and experience for better clinical outcomes.



At Affidea, we aim to create a strong culture of quality where every member of the clinical team feels empowered and encouraged to participate in the process of improving patient care. We do this through various systems and processes like Peer Review or Affidea's Learning from Excellence System (ALES) that we put in place in order to ensure that clinical voices are heard and that we learn from each other and never stop looking for improvements.

The Peer Review system that we put in place at Affidea is not used as a parameter for an Ongoing Professional Practice

Evaluation, but to ensure high quality and safety in everyday practice. It provides opportunities for our clinical teams to learn and grow together, to benefit from each other's sub-specialty expertise and experience and, ultimately, to join their forces for a better clinical outcome.

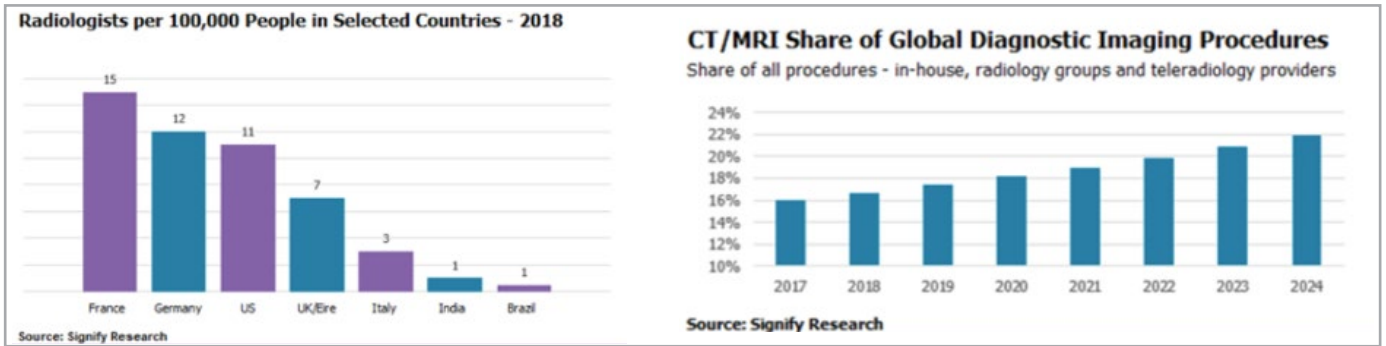
Burnout in Radiology – What do Studies Say?

Medical imaging represents the gateway into the healthcare system and the decision making for patient management. This has resulted in significant increase in the demand for



diagnostic imaging in the last years. Radiologists are requested to cope with this high demand by increasing the number of reports and their working hours. In addition, the shortage of radiologists in Europe results in longer reporting times

3–5% of studies reported. An example from radiology literature (Abujudeh et al. 2010) is a second readings analysis of abdominal and pelvic computer tomography (CT) examinations by experienced abdominal imaging radiologists in which



and higher volumes, while at the same time the demand from patients and referrals for sub-specialty expertise in radiology increases with a focus on more detailed and precise reports.

Discrepancy in diagnostic imaging reporting is considered common. Different studies in radiology show that there is an estimated day-to-day rate of diagnostic discrepancies of

radiologists disagreed with each other more than 30% of the time and disagreed with themselves more than 25% of the time when they were asked to re-interpret their previous reports.

The causes of different discrepancies in diagnostic imaging are multiple, as we can see from **Table 1**:

Referral physician	<ul style="list-style-type: none"> · Incomplete clinical information · Inappropriate expectations of the capabilities of a radiological technique · Limited in-depth knowledge of the patients
Technical factors	<ul style="list-style-type: none"> · Imaging protocol used, inappropriate contrast or patient not respecting the procedure · Staff shortages and/or excess workload, staff inexperience, inadequate equipment, less than optimal reporting equipment
Communication failings	<ul style="list-style-type: none"> · Poorly written/incoherent report · Interpretation report · Voice recognition
Reporting	<ul style="list-style-type: none"> · Interruptions · Visual and/or mental fatigue · Inattentive blindness

Table 1: Short list of causes of discrepancies in diagnostic imaging. Source: Brady 2017

Organised and continuous peer review of reported examinations has been advocated as a quality assurance tool to identify and minimise discrepancies, improve reporting quality and promote clinical excellence. For a safe and effective service, it is essential that discrepancies considered to be clinically significant are reviewed, acted upon and learned from in order to improve clinical services quality.

How is Affidea Always Ensuring High Quality Standards and Diagnostic Accuracy?

As the leading European provider for advanced diagnostic imaging, looking for proven clinical quality improvement tools, Affidea has implemented a peer review system of the reported examinations.



Peer review is defined as the anonymised and blinded process by which a reviewing radiologist assesses a scan and compares his interpretation of the images to a report previously written and authorised by the primary radiologist. All discrepancies identified are discussed during discrepancy meetings and targeted actions are agreed to improve the results. These actions include educational plans, training in focused subspecialties in radiology, training in pattern recognition and repetition, and improvement of reporting conditions.

Peer review allows the assessment, mitigation and prevention of errors that improves and maintains quality and diagnostic accuracy of the radiology report. Moreover, peer review improves patient confidence and trust to the clinical services provided and also ensures accountability of radiologists.

Currently, four Affidea countries are systematically using peer review for CT and MRI report quality improvement and another two countries will launch the same before year-end. In 2022, all Affidea countries performing diagnostic imaging examinations will have an organised peer review process in place, as part of our everyday activities. The results are followed up monthly and demonstrate a significantly lower percentage of discrepancies in the radiology report, in comparison with

different studies. The key factor is to continuously screen and improve the clinical services provided across all diagnostic imaging centres in 15 countries, giving radiologists the possibility to support the medical outcome in a safe and effective way.

Next steps would be to include more modalities in the peer review process, such as mammography and x-rays, but also nuclear medicine reports and cancer therapy processes to enlarge the area of clinical services that are cross-checked. At the same time, at Affidea we are planning to install a Peer Review software, which would select the tests to be performed in a fully automated way. This will make the entire quality control system even easier and more automatic. Possible use of AI solutions (e.g. for the orchestration of the exams selection or image quality assessment) is continuously monitored with the scope to support the extension of the peer-review process and to accelerate the related activities.

At Affidea, patient safety and continuous improvement in the quality of our clinical services are part of our DNA. Peer review is proven effective to ensure that our quality goals are reached, with patient care at the core of everything we do. ■

REFERENCES

Abujudeh HH, Boland GW, Kaewlai R et al. (2010) Abdominal and pelvic computed tomography [CT] interpretation: discrepancy rates among experienced radiologists. *Eur Radiol*, 20(8):1952-1957.

Brady AP (2017) Error and discrepancy in radiology: inevitable or avoidable? *Insights Imaging*, 8:171-182