Medical Device & AI Regulations

One Ring to rule them all in AI
A Case Study On Affidea Portugal

Artificial Intelligence in radiology is growing at a rapid pace. Alessandro Roncacci, SVP and CMO of Affidea, and Stéphane Maquaire, GM for Europe at Incepto Medical, reveal the dynamic partnership in Portugal, bringing to the national level the benefits and added value of AI solutions.

Live session at the European Congress of Radiology 2023 with (from left to right) Stéphane Maquaire, Alessandro Roncacci and Oana Dumitroiu.

What is the current landscape of artificial intelligence in radiology, and what is Incepto's vision?

Stéphane: Despite several early signs of consolidation, there is a growing number of AI providers. We are aware that the pressures for medical imaging on doctors are increasing daily, and medical imaging will continue to play a key role in the patient pathway. Since Incepto's foundation in 2018, our vision was to connect those two worlds, where we provide the best AI tools for radiologists in order to improve the accuracy and scale of medical diagnosis. Our mission is to create and develop AI solutions and deploy them in healthcare institutions. It is very important that clinicians receive added value by using AI tools, whether through standardisation, efficiency or quality.

What is Affidea's objective in using AI to tackle the challenges in diagnostic imaging? And how many AI solutions is Affidea piloting across the different countries?

Alessandro: Affidea's objective in using AI is to increase quality, safety and efficiency in the services we provide. We aim to use AI to manage the amount of data we have to tailor the treatment and the diagnosis, personalise them, and increase operational efficiency, decreasing the workload of our professionals while maintaining the right workflow. We want to ensure that 7500 of our clinical professionals and 4000 radiologists are familiar with the use of AI to support their daily activity to improve our patients' clinical outcomes.

We are proud of our journey that began a few years ago, currently adopting 12 AI solutions across 10 countries working on this project.

Can you discuss the Incepto platform that Affidea is implementing in Portugal? How does the platform support Affidea's radiologists? How is it integrated into the workflow and how does it impact the infrastructure?

Stéphane: The objective for Affidea Portugal was to scale up to the national level and to ensure we can bring the benefit and the added value of the AI solution to this level.

well as our corporate team: from legal and GDPR team to IT, clinical, operations, commercial, marketing, they all work together with the vendors. We then use clear KPIs to deploy the solution and extend them across the organisation where applicable.

The reputation of the vendor is, of course, a differentiating factor in the selection of the AI solutions, while their certifications are an essential requisite in our preliminary assessment. We also look at the market

> ## In a couple of applications, we have saved 25%- 30% of the reporting time. However, the real impact is that you still have the same standard from the first to the last report and fewer chances of human errors.

Firstly, we are working very closely with the Affidea team in Portugal and a co-operator to ensure we connect all the sites to the Incepto platform, ensuring that any site can access any application automatically.

Secondly, we are working very closely with the medical doctors in the Portuguese team to understand which applications are the most meaningful to use and deploy in their network, and, thus, for which applications users are required to undergo training.

Radiologists and patients in Affidea Portugal can greatly benefit from the solution, for example, through detection, enhanced diagnostics confidence and during the follow-up.

What are the main benefits that the solution promises to bring to radiologists?

Stéphane: It often depends on the type of application. In this case, it can support radiologists in detecting and measuring lesions, while decreasing the reading time. It can, therefore, substantially benefit the doctors as well as the patient.

What is Affidea's methodology for evaluating and commercialising AI solutions in diagnostic imaging? How does the company prioritise the selection criteria for AI solutions and the countries and centres?

Alessandro: We have a robust clinical governance structure and a clear AI framework with different stages that allow us to select and test a new solution, from a clinical, operational and commercial point of view. We work closely with our champions at country level as

demand, the patients, referrals and doctors' needs, our clinical and operational capabilities, and the environment. We work in 15 countries and have different organizations, so we adopt AI solutions to different needs, from prevention, screening, emergency, and elective in neuro and MSK to oncology and in real-life environment.

How many AI solutions is Affidea Portugal currently working with using Incepto platform?

Alessandro: At the moment, we have seven different solutions and 50 radiologists involved in this project. Our team is very much KPI-driven, allowing us to evaluate the outcomes obtained and continuously improve the processes.

What have you learned about the implementation of Incepto platform in Affidea Portugal network? Can you tell us about the success factors and how can we can scale this out?

Stéphane: I think the first success factor is the team. We have learnt that the real value and the power lies in having a strong team working closely together from both sides. As well, it is a success to be working with the

> 'A study from the American College of Radiology highlighted that clinical adoption of AI has increased dramatically over the last five years, with 30% of radiologists indicating that they are currently using AI in their everyday practice.'

medical referral doctors for each application, alongside the IT and deployment experts.

Additionally, understanding the clinical and operational needs and the local context has been key.

Secondly, I believe the need to rapidly train, explain

co-create different solutions in partnership with a reliable AI vendor because there are some clinical needs that are not yet addressed properly by any AI solution, so why not consider this journey ourselves in a co-development model?

> Artificial intelligence will support even more human intelligence without replacing it, but will continue to improve our efficiency and efficacy in the reporting activity.

and remove any small barriers is absolutely critical. We are still in the adoption phase, and here any small issue can really deter you from adopting.

We have been spending a lot of time on-site and remotely with the doctors to train them and to ensure there is a real understanding of the benefits.

But above all, I would say that one very important thing that we have established with Affidea is that we are sharing the same high standards in terms of data privacy, security and GDPR. This reflects that we can deploy geographically, face any issue, and tackle them much more quickly together.

What are the main challenges that you confronted with when implementing the Incepto platform and when trying to integrate multiple AI solutions under one single umbrella? What are the main benefits that you believe this brings to your radiologists?

Alessandro: IT integration, ensuring we are GDPR compliant, and protecting the safety of the data are always the most challenging steps, but we managed to overcome them successfully. Moreover, this is a plug-and-play model – we train our clinical teams, we pilot, and we test the solution from a clinical, operational and commercial point of view. If it brings the expected outcomes, we can then roll it out.

However, we are considering to co-develop or

How many hours can AI save from a radiologist per day?

Alessandro: In a couple of applications, we have saved 25%- 30% of the reporting time, which provides us with the support we need to face the increasing demand for examinations. Previously, we recorded around 30 examinations per day, but today we have the possibility to report 40 in the same given time. However, the real impact is that you still have the same standard from the first to the last report and fewer chances of human errors.

Can you describe in one word what the future of AI in radiology will be? How do you see AI developing in the next five years?

Alessandro: Omnipresent. Artificial intelligence will support even more human intelligence without replacing it but will continue to improve our efficiency and efficacy in the reporting activity.

Stéphane: The key for us is to ensure we are absolutely aligned. We can see how AI supports radiologists – we have seen the best and most accurate AI solutions support approximately 90% of their clinical questions.

So, I think this would benefit our radiology community's future. ■

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