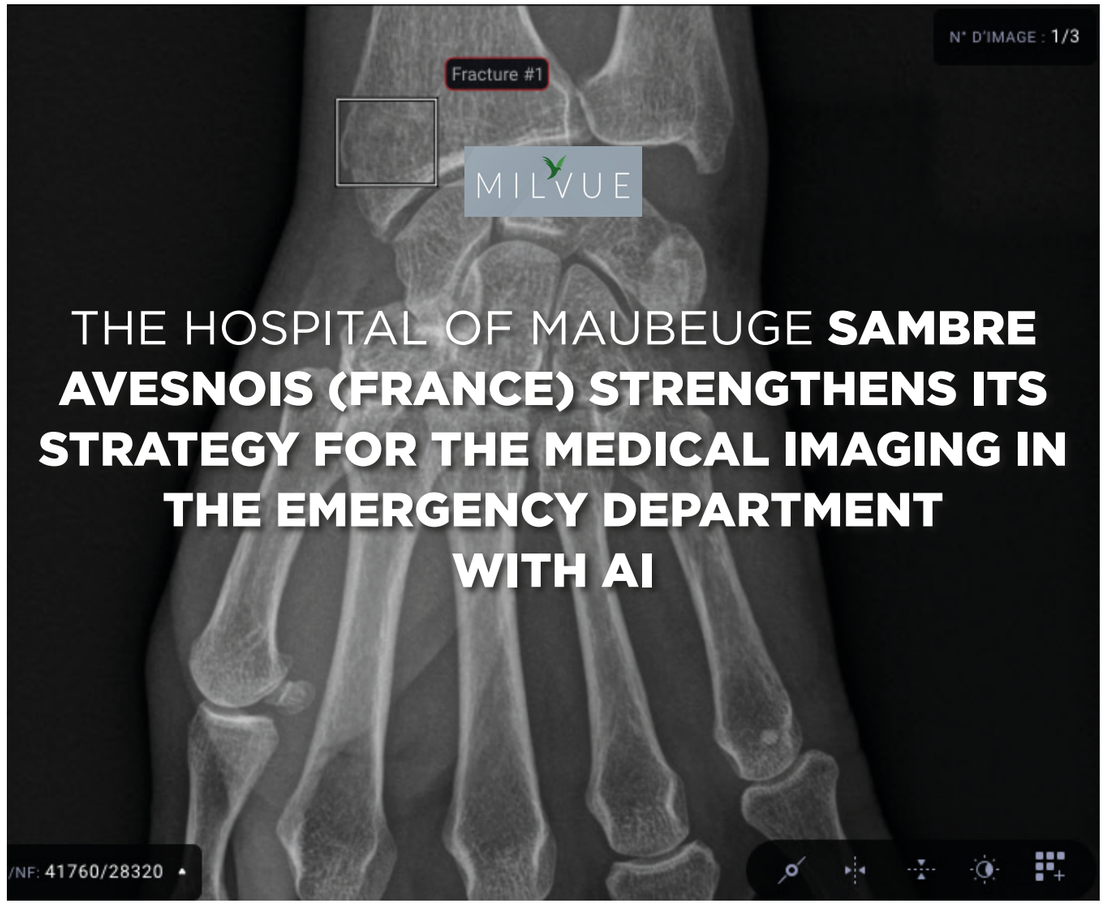

THE HOSPITAL OF MAUBEUGE **SAMBRE AVESNOIS (FRANCE) STRENGTHENS ITS STRATEGY FOR THE MEDICAL IMAGING IN THE EMERGENCY DEPARTMENT WITH AI**

Each year, in France, 8 million medical images are taken in the emergency room. 4 exams out of 5 will be interpreted directly on site by an emergency physician. According to the international literature, when there is no proofreading by a radiologist, the error rate accounts for 1 to 5%. In a constrained context such as that of emergencies, artificial intelligence can provide valuable assistance.

REDUCING THE RISK OF ERROR IN EMERGENCIES IMAGING BY 75%

"*In the Maubeuge hospital emergency room, we have relatively few radiologists, regrets Romain Dewilde, deputy head of department. The emergency physician above all needs to be confirmed in his diagnosis to precisely define its imaging strategy*". Therefore, the department has just acquired a new solution: Chest / MSK AI (powered by SmartUrgences) developed by Milvue and deployed by Arterys. This tool assists emergency physicians in trauma and on thoracic pathologies. The images produced are pseudonymized then encrypted before being sent to the Arterys Cloud.

Accessible from all workstations in the service, the solution can recognize the nature of trauma and its incidence. If the tool provides diagnostic assistance, the result is yet not immediately given. "*It's only once that the emergency physician has read that our result is given*", insists Christian Rapin, European sales manager for Arterys. "*This allows us to challenge ourselves with artificial intelligence artificial, adds Romain Dewilde. And to stay forever alert, despite the pressure and tireness. It's very stimulating*".

Obtained in one minute, the interpretation is then transmitted in the emergency workflow. "*We will then prioritize the exams, on three levels*", explains Aïssa Khelifa, director General de Milvue, who developed this screening algorithm. "*Depending on the risk, the review appears in the workflow of emergencies according to a color code (red / orange / green)*". And the results are reliable. Examinations interpreted as negative ones are reliable at 99% (NPV 99%) and positive at 97%. "*And that is what emergency physicians need*", specifies Christian Rapin. "*They want before all to avoid missing a pathology*". "*It is particularly especially appreciable on complex joints, such as the pelvis or the wrist*" adds Romain Dewilde.

And the use of AI will be greatly facilitated. Integration into Emergency workflow is decisive for the adoption of this new technology. The interface with the patient file has been validated and will soon be operational. "*There will be no more obstacle for AI to become a reflex in the daily life of our physicians*" notes Romain Dewilde.

A PLATFORM OF 25 AVAILABLE ALGORITHMS

The solution deployed in Maubeuge is part of a much larger portfolio of algorithms. "*We have developed" a "MarketPlace" which brings together 25 algorithms (commercial and research)*", explains Stéphane Boyer, Europe director of Arterys. "*Lung CT, Cardiac MRI, strokes, tumors... The panel that we cover is large and constantly expanding*" thanks to a scientific committee which selects new algorithms.

Aissa khelifa
CEO Milvue
Crédit photo : DR

Romain Dewilde
Deputy Head of ER
Crédit photo : DR

Stéphane Boyer
GM Europe, Arterys
Crédit photo : DR

Christian Rapin
VP sales Europe, Arterys
Crédit photo : DR

"*The examinations are increasingly complex and the patients more demanding, notes Romain Dewilde. The processing time of each file lengthens considerably. The use of artificial intelligence is therefore inevitable*". And to facilitate adherence to the tool, Arterys focused on the ergonomics and look and feel of the interface. In Maubeuge in any case, we say we are satisfied. Fewer patient complaints and less risk of error, the service provided to the patient is improved in one in five cases, as confirmed by the first results of the ongoing study.

Marion BOIS