



## Radiological AI accelerates care delivery, helping save stroke victim

From his reading room in Walnut Creek, California, neuroradiologist Joshua Morais opened the next case on his vRad worklist one afternoon in 2019. The non-contrast head CT of an Iowa woman revealed acute intracranial hemorrhage. Dr. Morais urgently reported his diagnosis to the ordering physician just 2.9 minutes after the CT images had been uploaded.

What Dr. Morais didn't know at the time was that a proprietary vRad Radiology AI algorithm had identified the criticality of the patient's case and elevated it to the top of his worklist. This enabled him to quickly deliver his findings — getting the patient to surgery an estimated 10 minutes faster with AI than the typical time.

Had AI not escalated the woman's case, the delay in treatment could have resulted in her greater debility, or even death, due to stroke.



*"For this patient, I have no doubt AI was a critical element for her survival. AI is helping us deliver on the full scope of our health care mission."* 

– Joshua Morais, MD, vRad

## **Case Overview**

Facility Patient history Imaging protocol Diagnosis

- Greater Regional Medical Center in rural Iowa Female presenting with confusion and memory loss
- Axial CT head without contrast
  - Subdural hematoma with midline shift, subfalcine and uncal herniation, and an associated left frontal lobe stroke due to vascular compression



**Turnaround** Findings verbally communicated via telephone 2.9 minutes after receipt of images

- **Treatment** Emergent surgery for the patient's subdural hematoma resulted in resolution of shift and herniations and relieved the vascular compression. A left frontal stroke could not be completely prevented but was kept from progressing.
- Outcome Patient shows significant improvement after 35 days.

Summary Al recognized presence of ICH, elevating case on worklist. Diagnosis delivered in under 3 minutes from when images were uploaded, versus typical turnaround times of ~12 minutes for stroke cases. Accelerated diagnosis enabled faster delivery of appropriate emergency care, likely resulting in significant reduction of stroke severity for patient.



## Leverage AI to your advantage today

Our AI models are at work today prioritizing critical cases, improving reporting accuracy, and assisting billing compliance. But we're just getting started. AI will permeate the practice and business of medical imaging to empower radiologists, conquer mountains of administrative burden and strengthen healthcare delivery.

Whether you're a radiologist wanting the power of AI at your back, or a healthcare administrator seeking new advantages for your organization and patient population, let's discuss how you can leverage our AI today.

Visit vrad.com to contact us.