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Top Target Treatments

Know more, treat better

Affidea applies ground-breaking AI technology on Brain MRI examinations for people with Multiple Sclerosis

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Affidea has entered into a partnership with ico**metrix**, a data science company that develops Artificial Intelligence (AI) solutions for healthcare, to standardise and improve the care of patients with neurological disorders. The official announcement of the partnership has been made at ECR 2019 on the application of a ground-breaking AI tool on Brain MRI examinations for people with Multiple Sclerosis (MS).

As the leading European provider of advanced diagnostic imaging services, we are well-positioned to transform healthcare and the way we diagnose, monitor and treat people with multiple sclerosis, benefitting from a pan-European network of medical centres, reputed medical professionals and a committed ownership. Our own investor, the Waypoint Capital Group, which manages the funds of the Bertarelli family, has a deep heritage in the healthcare sector and a focus on innovative, forward-looking industries. It also owns the new digital tech fund, Forestay Capital, which recently announced an investment in icometrix to support its ambitions for growth and to transform patient care through imaging AI.

> “OUR AMBITION IS TO LEAD THE IMPLEMENTATION OF AI CAPABILITIES IN HEALTHCARE”

Studies have demonstrated that up to 26% of people with MS have suboptimal response to treatment and due to the complexity of the disease progression assessment it can take up to 4 years to identify the optimal therapy[1]. Delaying any disease modifying treatment, even for a few years, can lead to a decrease in treatment efficacy that cannot be easily regained by opting for more aggressive treatments at a later age[2] . This can result in higher rates of disability for patients with MS and to higher costs for payors, be they private or public.

The new Affidea clinical product, neuro**Insight|MS**, ensures accurate and standardised measurements to monitor Multiple Sclerosis, resulting in an earlier prediction of disability, disease progression and treatment response. Affidea neuro**Insight|MS** has been implemented in clinical routine and is available in four Affidea countries – Italy, Portugal, Switzerland and Serbia.

Affidea neuro**Insight|MS** utilises the FDA cleared and CE approved AI software, “ico**brain** ms”, that is used by radiologists to enhance the reporting of Brain MRI examinations for people with MS. The enhanced report provides unique and quantifiable information about the patient’s evolution of white matter abnormalities and brain volume changes, including population graphs and statistics that can be used to objectively track the disease progression and identify the optimal bespoke treatment for each patient with MS.

Another key component of Affidea’s neuro**Insight|MS** is the "icompanion" application. This application is a patient reported outcome measurement (PROM) tool as well as an educational tool on the use of MRI in MS that patients can access via their smart device or through the web. People with MS are able to track symptoms in real time, and this information is then available to their treating physician between visits.

Neuro**Insight|MS** brings benefits to all stakeholders, and most importantly, to both doctors and people with MS.

Benefits To Doctors

- **Objective Reporting**

  Using the AI software as first reading, can reduce error rate by a factor of 5 to 8
- **Earlier estimation of disease progression, disability and treatment response**[3]

  Monitor subclinical parameters in individual patients
- **Reduced time on costly suboptimal treatment regimens**

  Faster treatment evaluation can reduce time on suboptimal treatments[4]
- **Improved patient care and communication**

  Normative reference values and color-coded segmentations to help the clinician conceptualise patient's condition

Benefits To Patients:

- **Patients can take control of their disease through self-tracking of symptoms**

  They can track and upload their symptoms between consultant visits via icompanion
- **Earlier prediction of disability progression, relapses and treatment response**[5]

  AI technology enables early detection of sub-clinical brain volume changes
- **Improved quality of life through personalised treatment**

  By using the AI software, the time on suboptimal treatments can be reduced by 2.5 years[6]

Giuseppe Recchi, CEO Affidea, stated: *"This partnership signals our first foray into the incredibly exciting new world of AI and we look forward to expand the application of this new software for the benefit of our patients and doctors. Our ambition is to lead the implementation of AI capabilities in healthcare by working collaboratively with our partners across the healthcare industry, from national health services to main hospital hubs and the pharmaceutical industry, helping to develop the very best clinical solutions for patients all over Europe. Our vision, our digital and clinical capabilities, and our experienced teams across 16 countries provide Affidea with a unique opportunity to significantly improve the delivery of care for patients – at a time when they need it most."*

Prof. Rowland Illing, Chief Medical and Digital Strategy Officer of Affidea, added: *"Clinical excellence is of paramount importance for Affidea, and this transformative partnership will greatly benefit our patients. The new AI service will allow us to offer objective and consistent brain imaging measures throughout our network. By using AI algorithms for MS patients, we can automatically measure the volume of a patient's brain that defines the progression of the disease – as well as the lesions, their size, and their location, to compare the scans with other patients and the wider population. By automating the measuring of lesions, we can substantially reduce the time it takes for neurologists to track the progress of the disease and recommend the best personalised treatment for each patient with MS."* ■

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