

MRI Lesion Burden in Multiple Sclerosis

52 sites

Brain and spinal cord MRI

T2 lesion volume, enhancing lesions

Challenge

A multiple sclerosis trial's primary endpoint rested on quantitative MRI outcomes—new and enlarging T2 lesions, gadolinium-enhancing lesions, and brain volume change—each highly sensitive to acquisition consistency. Scanner software upgrades mid-trial threatened to introduce systematic measurement shifts, and spinal cord imaging quality varied considerably across the 52-site network. The sponsor required quantitative results comparable across the entire 36-month study duration.

Our Solution

Intrinsic Imaging harmonized acquisition protocols across all sites and enforced them through prospective quality control, rejecting non-conforming examinations before they reached analysis. Scanner software or hardware changes triggered standardized requalification with phantom and volunteer scanning to quantify any measurement shift. Central analysis applied validated lesion segmentation with expert neuroradiologist review of every examination, and brain volume measurements were computed under a controlled, version-locked analysis pipeline.

Results

- Scanner changes qualified without endpoint discontinuity
- Lesion counting reproducibility above 95%
- Quantitative MRI dataset supported the Phase III efficacy claim

Read the full study online: <https://www.intrinsicimaging.com/case-studies/cns-ms-lesions>

About Intrinsic Imaging, LLC

Intrinsic Imaging is a full-service medical imaging core lab providing comprehensive services in support of Phase I-IV clinical trials and Class I, II, III medical device trials. Intrinsic Imaging is also a world leader in conducting Artificial Intelligence studies. With its team of more than 750 board-certified and fellowship-trained physicians, Intrinsic Imaging's team has sub-specialization in all therapeutic areas, including Cardiovascular, Central Nervous System, Gastroenterology, Musculoskeletal, Oncology and Ophthalmology. Certified by the British Standards Institution (BSI), Intrinsic Imaging is the only company in the world to hold five ISO certifications specifically for providing imaging core lab services on clinical trials. For more information, please visit www.IntrinsicImaging.com.

Contact:

Intrinsic Imaging, LLC
580 Main St., Suite 210
Bolton, MA, 01740, USA
+1 978-616-4650
Contact@IntrinsicImaging.com