Multiple Sclerosis

Experience that Ensures Results

Therapeutic targets and interventions in MS continually evolve, and competition for patients is intensifying.

Worldwide Clinical Trials tackles the clinical development of novel MS therapies and its inherent unpredictability with extensive operational experience and unrivaled therapeutic insight.

We understand the field. Our clinical neuroscientists combine 20+ years of involvement in Neuroscience drug development with extensive operational experience to offer unique clinical-trial solutions when evaluating the ancillary signs and symptoms associated with MS –

- Cognition
- Mood
- Sleep
- Quality of Life
- Productivity

We know the issues. We've met the challenges.

Support with Imaging and Biomarkers

A variety of specialized procedures are used to diagnose MS. MRI is the best test to view MS-related changes and for detection of myelin lesions, which also are an accepted biomarker. Study design for detecting re-myelination requires careful consideration.

Our team is experienced in coordinating data acquisition and transfer from conventional MRI and CT used for lesion detection/propagation for biometric analyses. Advanced functional MRI provides access to data that may be used for exploratory purposes. Worldwide Clinical Trials assures the operational implementation of study procedures requiring T1-, T2-, and diffusion-weighted MRI; T1 pre and post contrast; FLAIR; and dual echo MRI in relapsing-remitting MS. However, no equivalent measure has been identified in progressive MS.

Our experts are current on all possible modalities to inform your development program.

Global Sophistication

Sponsors are competing for a limited subject pool and finite resources. The huge number of trials, especially where reimbursement for disease modification therapy (DMT) is difficult to obtain, and the lack of DMT-naïve subjects in North America and Western Europe mean that recruitment must occur in many countries across different continents. Our experience in MS trials extends to Central and Eastern Europe, Northern Asia, Oceania, Latin America, and South Africa.

We understand that in-depth knowledge of local standards of care and regional variations in practice can materially impact a site's ability to actively enroll in a proposed program. Our extensive experience with local cultural, medical, and regulatory environments across continents translates into reliable intelligence about territories to access as well as those to avoid. **Worldwide Clinical Trials offers savvy solutions** to the

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MSQOL=MS Quality of Life Questionnaire, FAMS=Functional Assessment of MS Questionnaire, MSIS-29=MS Impact Scale

SKILLS WITH VALIDATED ASSESSMENT MEASURES

- Expanded Disability Status Scale
- Functional Independence Measure
- Modified Fatigue Impact Scale
- MS Functional Composite
- MS Impairment Scale
- Paper-based and computerized cognitive assessments
- Patient-reported outcome instruments (eg, MSQOL, FAMS, MSIS-29)
- Scripps Neurological Rating Scale

INTEGRATED TECHNOLOGY

- Clinical Trial Management System
- Electronic Data Capture
- Interactive Voice Response System (IVRS)
- Interactive Web Response System (IWRS)

WCT's Supply Management and Randomization Technology (SMaRT) offers a cost-effective solution for centralized randomization, drug inventory management, and controlled code-break capabilities. We also develop bespoke solutions for sponsors. With the capability to integrate complex needs into sponsor data systems, we can reduce costs while enhancing both quality and efficiency.

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challenges presented by varying cultures and patient populations.

Practical, Effective Approaches

Our established global relationships with key investigators, regulatory bodies, and academic research organizations assure delivery of impeccable and relevant data. We are particularly remarkable when facing operative challenges such as blinding of clinical efficacy assessment, site eligibility evaluation for imaging modalities, and potentially high patient withdrawal rates. These barriers to study success afford us opportunities to excel.

In MS, recruitment can be challenging. New, effective treatments are not readily available in developing nations, which are typically the primary source of rich patient populations. Helpful ideas include:

- Creating or partnering with Key Opinion Leaders and MS societies
- Designing a realistic, feasible protocol consistent with current medical practice
- Using inclusion/exclusion criteria that facilitate study execution
- Educating patients about opportunity for specialist care during the study
- Easing burden of travel for patients and caregivers
- Reassessing screen failures as initial reasons for exclusion change

Our specialists can assist from the start of your program by consulting on regulatory matters, offering well-considered scientific advice for selection of outcome measures, and guiding the submission of core documentation.

The EMA and FDA now require pediatric investigation plans for approval of new biologics. The International Pediatric MS Study Group endorses the inclusion of pediatric MS patients in trials evaluating appropriate therapies. Work with us to benefit from our understanding of research in pediatric populations.

A Proficient, Dedicated Partner

Clinical Assessment Technologies™ ensures consistent, solid data.

Although MS is unpredictable and variable, can look very different among patients, and is difficult to diagnose, screening and assessment challenges are well addressed by our Clinical Assessment Technologies (CAT) team. Heterogeneity of patient presentation must not impact the reliability of findings. CAT guarantees standardization of evaluation methods. CAT clinical experts provide practical benchmarks for rater credentials and certification, perform rigorous rater training to ensure consistent calibration of assessments, and conduct meticulous in-study data surveillance. CAT also custom-designs plans for your study, contributes to site selection, helps corroborate eligibility before randomization, monitors database build, manages scales and translations, and oversees the integrity and clinical meaningfulness of your program's assessments.

Because multiple primary and secondary as well as surrogate endpoints often are needed to reflect MS diversity, complex protocols are typical for this spectrum disorder. Further, late-stage MS and progressive forms require more advanced outcome measures. Worldwide Clinical Trials' commitment to your study objectives and our ability to proactively identify and overcome operational challenges mitigate your risk.

[a] WCT partners with a range of specialized service providers, including centralized clinical and imaging laboratories, drug procurement and management specialists, and logistics support for transfer of temperature-controlled pharmacokinetic samples, etc. The WCT Bioanalytical Sciences Lab also has the capability of handling samples and transferring in methods for bioanalysis.

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KEY SERVICES

- Biostatistical analysis
- Clinical monitoring
- Clinical Assessment Technologies
  - — Rater training and certification
  - — Patient screening and assessment
  - — Scale management
  - — Real-time data surveillance
- Coordinating image data acquisition and transfer for biometric analyses
- Data management
- Data and safety monitoring board charters and management
- Drug depot services
- Endpoint adjudication
- Global project management
- Investigator meetings
- IVRS/IWRS for supply management and randomization
- Medical writing
- Pharmacovigilance
- Protocol feasibility assessment
- Protocol design
- Regulatory affairs (includes regulatory consultancy)
- Repositioning compound for new indication
- Safety monitoring
- Scientific consultancy
- Site selection
- Third-party collaboration[a] for specialized assessments (eg, molecular imaging)

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