Rare Disease

About Worldwide Clinical Trials

A full-service CRO, Worldwide Clinical Trials (Worldwide) delivers fully integrated clinical development and bioanalytical services for studies small to large, multi-site clinical trial programs, and first-in-human through phase IV clinical research programs, for customers of all sizes. Combining operational acumen, savvy decision-making, deft management, and commercial intelligence, Worldwide distinguishes itself as a medically and scientifically driven CRO, advocating methodological rigor in trial design and execution. Worldwide helps sponsors move from medical discovery into clinical development and commercialisation, helping to bring innovative solutions to market that deliver enhanced value and improve patient lives.

Specialized Skills for Unique Challenges

Creating a drug development program for the treatment of a rare disease is a huge task with a number of unique challenges. These can range from poor understanding of the condition's natural history due to few investigators studying the disease, to the vast geographic dispersion of a small patient population and regulatory uncertainties. With approximately 7,000 rare diseases, each exhibiting diverse symptomatology, the key is expertise in rare disease clinical research, rather than disease-specific experience. You need a CRO with proficiency in these core functions:

- Accessing small populations as well as pediatric populations
- Confirming and facilitating site GCP adherence
- Ensuring site competency due to potential lack of GCP research conducted in specific indication
- Exploiting innovative, efficient study designs
- Implementing 'participatory' research models
- Managing supportive-care endpoints, especially neuropsychiatric and patient-reported outcomes
- Minimizing subject and caregiver burden
- Submitting INDs for novel or repurposed products
- Utilization of patient advocacy group outreach

Worldwide delivers this expertise through our team of scientific, medical, operational, and regulatory staff, who all contribute unique skills to help our partners meet the special demands of rare disease clinical research.

Recruitment & Retention

Rare diseases exert a substantial physical, emotional, and financial impact on patients and their loved ones. Obtaining a definitive diagnosis can be difficult and treatment often involves coordination with multiple specialties, such as neurology, gastroenterology, psychiatry, endocrinology, and physical therapy, because comorbidities are common. For these reasons, as well as others, patient recruitment and retention for rare disease studies is challenging and should influence every decision in the design of a clinical trial. Worldwide considers all of a study's unique challenges when creating the study plan, including obtaining input from key opinion leaders on diagnostics, outcome measures, and care processes.

RARE DISEASE PORTFOLIO

- Acromegaly
- Amyotrophic lateral sclerosis
- Cystic fibrosis
- Duchenne muscular dystrophy
- Down syndrome
- Fabry disease
- Frontotemporal dementia
- Gaucher's disease
- Growth hormone insensitivity syndrome
- Hemophagocytic lymphohistiocytosis
- Idiopathic pulmonary fibrosis
- Idiopathic thrombocytopenic purpura
- Juvenile idiopathic arthritis
- Lambert-Eaton myasthenic syndrome
- Mucopolysaccharidosis I (Hurler syndrome)
- Mucopolysaccharidosis II (Hunter syndrome)
- Mucopolysaccharidosis VI (Maroteaux-Lamy syndrome)
- Niemann–Pick disease type C
- Sickle cell disease
- Thrombotic microangiopathy
- Von Willebrand disease
- Velocardiofacial syndrome, psychosis

CLINICAL ASSESSMENT TECHNOLOGIES™

Accurately predicting site performance and GCP compliance is especially difficult in rare-disease indications. CAT oversees the integrity and clinical meaningfulness of your program's assessments. Features include:

- Corroboration of patient eligibility
- Custom-designed CAT plan to ensure consistent calibration of assessments
- Practical standards for rater credentials and certification
- Rigorous rater training
- Meticulous in-study data surveillance
- Database build monitoring
- Scale and translation management

WORLDWIDE CLINICAL TRIALS

GCP=Good Clinical Practice, IND=Investigational New Drug Application

Supporting Pediatric Research

Approximately 50% of patients with rare diseases are children, and many rare diseases are fatal in infancy or childhood. However, due to the rarity of conditions, a pediatric rare disease study might only enroll one to three patients per year, per site. This makes the development of creative, proactive plans mandatory, with a careful balance between minimizing risk and discomfort, and obtaining meaningful data.

The pediatric patient's continual growth, developing attitudes and beliefs, as well as family dynamics, all must factor into recruitment and retention. Patient assent to participation should be obtained via age-appropriate communications, and informed safety monitoring must be scheduled to minimize disruptions to family and school activities. Additionally, rescue medications and open-label extensions can facilitate parental, ethics committee or investigational research board (IRB) and regulatory approvals.

Country and Site Feasibility

Finding and activating qualified sites is one of the most difficult tasks in rare disease trials. This can involve identifying countries with a sufficient number of potential study participants, determining whether these patients are accessible, and finding centers of excellence with the therapeutic and operational capabilities to execute the trial. Inaddition, it's critical to consider the medical, cultural, and regulatory context, as well as the standard of care and treatment pathways within each country of interest.

At Worldwide, once sites are selected, our team conducts site-by-site recruitment and retention analysis and planning and undertakes specialized outreach. When studying a rare disease, every single patient's participation is vitally important and as such, we engage sites, investigators, and patients to confirm acceptance of the study design from the very beginning.

Important Connections

Our experience working with research networks, pediatric hospitals, specialized treatment centers, and academic institutions benefits your rare disease program. We connect with patient organizations and enlist key opinion leaders around the world to assist in site identification and patient recruitment.

For example, patient advocacy groups can support the recruitment of patients, yet they also can play an important advisory role during protocol drafting, specifically regarding feasibility of requested procedures in relation to possible patient and caregiver challenges to increase retention. Additionally, connections to other global groups can be invaluable in identifying and locating the appropriate patients, including general registries (eg, Global Rare Disease Patient Registry and Data Repository); entities such as the National Organization for Rare Disorders and the European Organisation for Rare Diseases; and resources such as Orphanet.

Worldwide's commitment to "participatory" research, which proactively engages and connects all stakeholders—including patients, caregivers, scientists, clinicians, and communities—fosters a collaborative approach that supports the successful execution of your clinical research program.

Your Regulatory Ambassador

Securing regulatory approval for the complex clinical trial designs that often are required in rare-disease trials can be challenging. Worldwide's medical, scientific and regulatory professionals have proven experience interacting with regulatory authorities to advance programs in rare indications, successfully presenting on behalf of sponsors to regulatory authorities. This has included presentations to mitigate limitations in non-clinical data or use of non-validated biomarkers; insufficient natural history (common in many orphan indications); limited safety data; or recommending innovative trial designs for proof of concept, among others.

Additionally, with clinical operations and medical and scientific personnel across more than 60 countries, we understand the local cultures, local standards of practice and regulatory requirements that will enable predictable study initiation and execution for our clients.

Rare Disease

KEY SERVICES

- Biostatistical analysis
- Clinical monitoring
- Data management
- Data and Safety Monitoring Board charters and management
- Drug depot services
- Electronic data capture
- Endpoint adjudication
- Global project management
- Investigator meetings
- Medical monitoring
- Medical writing
- Pharmacovigilance
- Protocol design and feasibility assessment
- Quality assurance
- Rater training
- Regulatory affairs (includes consultancy)
- Safety monitoring
- Scientific consultancy
- Site identification, recruitment, and management
- Supply management and randomization
- Third-party collaboration for specialized assessments[c]
- Trial master file

INTEGRATED TECHNOLOGY

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

Worldwide 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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