PEDIATRIC RARE DISEASE CASE STUDY

How a top 10 pharma partnered with Fortrea to meet enrollment goals in a global pediatric rare disease oncology trial

Childhood malignancies are already relatively rare, and this is especially the case for molecular subtypes. Despite low to middle income countries having the highest burden of childhood cancer[1] only 5.4% of pediatric cancer trials were intercontinental between 2010 and 2020[2]. Even in the United States, only one in five pediatric cancer patients are estimated to enroll in a clinical trial. For pediatric patients with solid tumors, that number drops to between 3.7 and 5.5%.[3]

When the clinical trial at issue involves pediatric patients with a rare genetic mutation, who also have a confirmed solid tumor, enrollment becomes especially challenging and the requirement for a global collaboration between the investigators, sponsor and CRO is critical. With the help of Fortrea, a leading pharmaceutical company overcame the odds, enrolling two cohorts of this difficult-to-recruit population.

Study objectives

A top 10 global pharmaceutical company tapped Fortrea to oversee a Phase I study to determine safety and tolerability of its cancer treatment in children. Fortrea's responsibilities included:

- Site selection
- Feasibility
- Patient recruitment
- Medical monitoring and site support by an expert pediatric oncologist
- Communication and training
- Vendor management
- Dose escalation services
- Safety
- Data management and analysis
- Statistical computing and programming
- Medical writing
- Regulatory

Fortrea

Challenges: prolonged engagement and global turmoil

Launched in early 2020—right before the COVID-19 pandemic—the study needed to enroll a total of 32 pediatric patients with a specific gene mutation. The mutation is present in only 1 to 6% of pediatric tumors. The study also needed to enroll in age descending cohorts, starting with adolescents up to age 17 and finishing with babies as young as 6 months old.

Fortrea and the sponsor identified North America, Europe, Middle East, Africa (EMEA) and the Asia Pacific region (APAC) as target locations for sites. Despite the broad geographical reach, factors inside and outside the trial put on-time study launch and execution at risk.

Clinical and operational challenges

- Maintaining investigator engagement during long recruitment and enrollment periods
- Managing multiple age-descending dose-finding cohorts
- Transitioning from tablet to sprinkle-capsule formulations in younger patients
- Maintaining adequate drug supply across sites over a period of years
- Lack of routinely-available genetic testing data

Global disruption

- Site closures during COVID-19 which slowed down enrollment
- Sites in Russia and Ukraine were no longer viable once conflict escalated in February 2022

Solutions: close communication, intensive training, teamwork

Fortrea leveraged its 30-plus years of drug development experience, its pediatric oncology and rare disease expertise and side-by-side support to nimbly meet the sponsor's objectives.

The company's long-standing relationships with sites and site networks enabled Fortrea to activate 29 sites across three regions. Flexibility and proactive planning helped Fortrea replace sites impacted by the conflict in Ukraine and COVID-19 lockdowns.

Rare oncological pediatric recruitment: on target

To achieve recruitment and enrollment goals, throughout the study Fortrea had the full support of our pediatric oncology specialist in the Rare Disease, Advanced Therapies and Pediatrics Team (RAPT) collaborating closely with the Fortrea pediatric oncologist and operational team. With RAPT leading the way, additional independent clinical investigators (ICIs) were recruited to expand the study's reach.

To keep site staff and investigators engaged, Fortrea launched a long-term outreach program. That program included the following key elements:

- Regular motivational calls and visits
- Regular check-in calls with investigators and site staff
- Medical monitor and safety calls conducted by a Fortrea Pediatric Oncologist
- A quarterly investigator newsletter
- Age-appropriate study brochure for patients and caregivers

Compliance and continuity: maintained

To ensure compliance for each dose escalation cohort and drug formulation, Fortrea conducted extensive drug dose and administration training for sites and patients. Combined with ongoing site support, site staff had the education and resources to transition formulations in younger patients. Ancillary supply requirements were discussed in advance to streamline the transition.

Continuity of investigational medicinal product (IMP) was maintained by initiating a site-to-site transfer process. The Fortrea team documented the transfer in the SOP.

Results: cohorts enrolled

To date, the first two cohorts are fully enrolled. And the third is pending upon the Independent Data Monitoring Committee (IDMC) recommendation. Source Data Verification (SDV) was closely managed and as of this writing there has been a very low SDV backlog. Enrollment/retention goals were met through close collaboration on development and execution of age-appropriate patient facing materials, investigator meetings and continuous review of active patients during monthly safety calls.

Given the narrow inclusion criteria and inherent difficulties in pediatric oncology trial enrollment, the ongoing study has defied the odds. Fortrea characteristics that contributed to that success include:

- **We anticipate and exceed expectations.** Fortrea maintained flexibility and agility in the face of expected and unexpected challenges; a strong site network and quick thinking helped the team activate new sites quickly to maintain continuity
- **We tackle challenges with our partners side by side.** Fortrea made communication a priority in virtually all aspects of clinical trial operations. Frequent meetings between project managers, investigators, sponsors and sites helped keep everyone engaged over a four-year period (and counting). With a team of over 18,000 people worldwide, Fortrea had the resources to schedule 1:1 in-person meetings with key stakeholders

Experience matters when choosing a CRO partner

In the last 5 years (2018-2022): We've been honored to serve as the CRO partner of choice for our biotech and pharmaceutical customers, helping advance their pediatric rare disease and oncology drug development:

1,250+ Oncology studies	**31,000+** Sites	**250,000+** Patients
380 Pediatric projects in total	**233** Rare disease projects involving pediatric populations	**38** Advanced therapy projects (including cell and gene therapy) involving pediatric populations
877 All rare disease studies	**624** Rare disease studies outside of oncology	

Fortrea has been an industry leader in these kinds of trials for over 30 years. A collaborative thought partner for oncology design, we bring deep experience and a commitment to reducing risk and improving ROI to every project. Our global expertise includes about 60 oncologists and 34 pediatricians, including pediatric oncologists/neuro-oncologists, assuring clinical trial excellence.

Fortrea
Together, exceptional is possible

References

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