cIAI Case Study

LEVERAGING DEEP EXPERIENCE TO SUPPORT A COMBINATION ANTIBIOTIC CLINICAL TRIAL

A large pharmaceutical company was developing a treatment for complicated intra-abdominal infection (cIAI). cIAI represents the second most common source of sepsis, which is associated with a significant mortality rate despite current treatment strategies.

Recognizing the combined risks associated with cIAI, sepsis and the emergence of multidrug-resistant bacteria, the sponsor wanted to study a new antimicrobial and test the safety, tolerability and efficacy of their treatment in combination with an existing treatment regimen. Covance was selected to support their Phase IIb trial based on extensive experience with facilitating and executing these complex antibiotic studies.

The Challenges: Performing site feasibility and ensuring rapid enrollment and sample processing

The study drug needed to be administered as an intravenous (IV) treatment. The sponsor requested that Covance perform thorough site feasibility tasks, which included ensuring that the sites had compatible IV tubing. Getting accurate, timely information about a site's equipment was a labor-intensive process that began to threaten the study startup timeline.

Key Takeaways

- Optimized the study start up timeline with strategic site selection and feasibility efforts
- Examined aggregate data and identified data trends, deviations at a site and global level
- Achieved on-time completion and delivered high-quality data to proceed to Phase III

Enrollment of patients also presented its own set of challenges. The sites needed to quickly identify potential patients, which required rigorous screening within 24 hours to ensure no prior antibiotic therapies had been administered. Additionally, informed consent needed to be obtained while most of these patients were unconscious, and the regulations surrounding the enrollment of unconscious study participants varied from one country to another.

For processing of samples, many of the selected sites that were forecasted to efficiently support recruitment efforts did not have in-house facilities to test the isolates collected from patients. Covance needed to set up a streamlined system for processing these samples and generating accurate results.

The Action: Gathering real-time evidence and creating site-specific plans

The sponsor's initial protocol prescribed that all potential facilities needed to be inspected to ensure that their IV tubing was compatible with the study drug. This was a tedious and time-consuming process, and the Covance team quickly recognized that site selection could be severely delayed as a result. It was soon

COVANCE
CHILTERN

observed, however, that 99% of the initial sites inspected did in fact possess the required tubing. The Covance team communicated their preliminary findings to the sponsor, who then agreed to remove this time-intensive mandate, which allowed the team to speed up site selection and keep study start-up on schedule.

Next, Covance worked with each site to better understand each facility's infrastructure and communication pathways to remove barriers and ensure each site could reach enrollment potential. Covance also created online surveys for sites, which resulted in country-specific enrollment plans. The team then evaluated each site's ability to process samples collected from patients which was critical for study results. In several cases, Covance had to engage qualified regional microbiology labs to ensure reliable data for the trial. In other areas, Covance contracted regional labs to handle the logistics and process the samples from sites with insufficient lab facilities to culture samples taken from patients and to send isolates to the study's Central Lab for study data.

Throughout the study, Covance implemented tailored mitigation strategies for each site by sending out newsletters, connecting with study coordinators and performing motivational visits to understand how to best support each site and their needs for this challenging study.

The Results: On-time delivery of enrollment goals and well-organized, high-quality data

As data was generated, Covance ran a medical monitoring plan to review the results, checking on data sets, performing lab reconciliations, periodically cleaning data and tracking screen failure rates and deviations. This proactive strategy allowed the team to take remedial actions in near real-time with specific sites to ensure ongoing, timely enrollment.

As a result of these cross-organizational efforts throughout the trial, enrollment completed on schedule for 351 patients across 14 countries. The sponsor received high-quality data within their original timelines and was ready to proceed to Phase III as planned.

The Lessons Learned: Flexibility, experience and proactive strategies deliver complex studies on time

In challenging antibiotic studies, the Covance team's experience helped them target the right countries and select the right sites, ensuring on-time enrollment. The thorough feasibility process, review of lab data, and consultations with medical monitors also helped ensure that study startup remained on track. Finally, the selection of qualified regional labs and regular data cleaning and review allowed the team to generate accurate results that supported the analyses of safety, tolerability and efficacy for this novel treatment.

Learn more about our drug development solutions at **www.covance.com**

The Americas +1.888.COVANCE (+1.888.268.2623) +1.609.452.4440
Europe / Africa +00.800.2682.2682 +44.1423.500888
Asia Pacific +800.6568.3000 +65.6.5686588

COVANCE®
CHILTERN®