

# Transforming Global Clinical Supply Chain Master Planning

The client is one of the largest pharmaceutical companies in the world with operations and distribution across Asia, Europe, South America, North America, and Africa. With a large number of programs in the pipeline and many complex clinical studies underway, the company's global clinical supply chain organization was facing critical challenges, including constant firefighting and significant material waste, leading to frequent supply disruptions, trial timeline delays, and ever-rising R&D costs. The challenges were largely due to accelerated study timelines, fragmented planning processes, and a lack of visibility and data-driven decision support in response to unpredictable demand and supply changes.

Clarkston was engaged to partner with the client to develop a master operational supply plan (MOSP) to be used across all R&D programs as a means for improving trial delivery. The Clarkston team, with exceptional life sciences supply chain expertise and in-depth clinical R&D knowledge, partnered with the client to quickly adopt and adapt commercial supply chain best practices to develop a MOSP toolkit for clinical supply operations.

# Life Sciences Case Study

## PROJECT OVERVIEW

**CLARKSTON**  
CONSULTING

### COMPANY:



Large multinational pharmaceutical manufacturer

### HQ LOCATION:



Boston, MA

### PRODUCTS AND SERVICES



Medicines across therapeutic areas including oncology, gastroenterology, neuroscience, rare diseases and vaccines, etc.

### PRIMARY OBJECTIVES:

Clarkston partnered with the client to:

- Develop a clear, robust, and well-defined set of processes and tools to support a master operational supply plan (MOSP) to be used uniformly across all development projects, and
- Ensure patients receive the right dose of the applicable study drug in a stable condition within the prescribed window of time without the burden of undue costs, all while ensuring the right-sized drug supply for the client.

### RESOLUTION:

The Clarkston team adopted and adapted commercial supply chain best practices to develop and pilot the MOSP toolkit specific to clinical supply chain operations. The toolkit included the following two components:

- *MOSP Playbook* defined the future-state planning processes with data requirements and sources, RACIs for clarity of roles and responsibilities, standard templates, metrics, and a change management strategy to ensure adoption and long-term sustainability;
- *MOSP Workbook*, a proprietary forecasting and supply planning tool, which automatically converts complex study assumptions to time-phased finished goods demand and to drive subsequent material planning based on material requirements planning (MRP) logic. Serving as the single source of truth for all stakeholders, the MOSP Workbook supports multiple-scenario what-if analyses, enables data-driven decision making and risk mitigation, and ensures cross-functional alignment.

### KEY BENEFITS:

After completing the MOSP pilot implementation for one of their most challenging clinical programs, our client was able to achieve the following key benefits:

- Centralized and standardized planning processes for both investigational and comparator drugs for all studies,
- Improved information visibility and accuracy,
- Breakdown of functional silos and empowered joint decision making with real-time scenario planning capabilities,
- Improved forecasting and planning robustness to ensure patient drug availability while reducing supply costs, and
- Promoted a mentality shift from firefighting to proactive thinking throughout the clinical supply chain organization by identifying risks in order to develop and communicate mitigation strategies early.

**“From my perspective, one of the things that made this project so successful was that the Clarkston team brought a backbone of technical subject matter expertise in supply chain, planning and forecasting and supplemented it with operational support, implementation, and training.”**

- HEAD OF CLINICAL  
SUPPLY CHAIN  
PHARMACEUTICAL  
SCIENCES