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ASIA EDITION

Addressing Supply Chain Vulnerabilities in the Global Pharmaceutical Industry

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Global Events Highlight the Urgent Need for a Resilient Pharmaceutical Supply Chain, with Bachem Leading the Way in Ensuring Continuous Access to Life-Saving Medications



Industries with international operations face increasing vulnerability to supply chain disruptions. This risk is particularly pronounced in the pharmaceutical sector, where a vast and complex supply chain spans across chemical sourcing, Active Pharmaceutical Ingredients (API) manufacturing, formulation, packaging, and drug delivery to patients. Any disruption at any stage—from personnel shortages to material, service, or equipment delays—can have a profound impact on the availability of life-saving medications.

Impact of Global Events on Pharmaceutical Supply Chains

Recent years have underscored the fragility of the pharmaceutical supply chain, with several geopolitical, economic, and environmental events placing unprecedented strain on the industry. The blockage of the Suez Canal, the ongoing conflict in Ukraine, and the trade tensions between China and the US have all severely impacted the sector. The COVID-19 pandemic, in particular, brought to light the critical need for a robust and flexible supply chain capable of withstanding unpredictable global events.

During the pandemic, pharmaceutical companies faced numerous disruptions at manufacturing sites, driven by factors such as explosions, unplanned revisions, and natural disasters. These challenges were further compounded by political instability and military activities in Southeast Asia, further destabilizing the supply chain and highlighting the necessity of contingency planning.

The Critical Role of API Manufacturers

The pharmaceutical supply chain is extensive, with APIs playing a central role. APIs are the key components that give drugs their therapeutic effect, and any disruption in their production or supply can have severe consequences for the availability of essential medications.

The demand for chemically synthesized peptides has surged recently due to their expanding applications in mainstream diseases, clinical trials favoring chemical synthesis, and the development of more convenient administration methods, such as nasal or oral formulations. This increased demand necessitates a reliable and scalable supply chain, which has become increasingly complex.

Leading API manufacturers, such as Bachem, a specialist in peptide and oligonucleotide APIs, are at the forefront of ensuring a resilient supply chain. The process begins with the international sourcing of upstream chemicals required for API production. These APIs are then distributed to formulation sites, where globally-sourced materials are combined to produce the final medication. The finished product is packaged and distributed, ensuring that it reaches patients in need.

Building Resilience Amidst Uncertainty

To mitigate the risks present in the global pharmaceutical supply chain, companies have adopted various strategies to ensure resilience. Key steps include maintaining strategic stock levels, validating transportation routes, and working with secondary and tertiary suppliers for critical starting materials.

Resilience in the pharmaceutical supply chain is underpinned by four key pillars:

1. **Visibility**: Full visibility of processes, people, and technology, including suppliers and their suppliers, is crucial for operational efficiency. Bachem has implemented comprehensive risk management, business continuity management, and an emergency management system to maintain visibility and control over its supply chain.

2. **Flexibility**: Flexibility enables swift responses to disruptions. This includes not only organizational agility but also the adaptability and problem-solving skills of employees. A lean management philosophy can foster flexibility across the organization.

3. **Collaboration**: Collaboration, both within the company and with external partners, is essential for maintaining a resilient supply chain. Effective leadership fosters a shared understanding of goals, ensuring global alignment and cooperation.

4. **Control**: Maintaining oversight of processes and personnel allows for the prediction and management of potential outcomes. Effective control procedures, supported by global ERP systems, help maintain accurate data and timely visibility, enabling companies to take appropriate measures.

Commitment to Ensuring Drug Supply

In conclusion, the pharmaceutical industry must prioritize supply chain resilience to ensure the continuous availability of medications in today's unpredictable global environment. By understanding their supply chain risks, fostering transparency, and integrating supply chain risk management into governance, pharmaceutical companies can navigate challenges and fulfill their commitment to patients.

Global events may present significant challenges, but with robust strategies and a deep understanding of the pharmaceutical supply chain, companies can secure the production and supply of APIs, ensuring that essential medications remain accessible to those who need them.