

## DHL Singapore MD: Handling logistic challenges is critical for global life science

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Changing healthcare landscape, heightened regulatory requirements, price pressures and persistent economic uncertainties are some of the challenges faced by the global life sciences and healthcare (LSH) industry. Despite the challenging climate, the LSH industry continues to evolve and show resilience. The global pharmaceutical industry is expected to be worth more than \$1 trillion in 2014, translating to a compound annual growth rate of five percent.

Closer home, the active pharmaceutical ingredients market in the Asia Pacific region earned revenues of \$1.12 billion in 2011 and is estimated to reach \$1.79 billion in 2018. Just like other Asian markets that have taken the economic center stage, the LSH industry in Asia is developing into a global powerhouse. Asia has been witnessing an exponential increase in healthcare expenditure due to higher income, expansion of aging population, and improved access to medicine through government policies and initiatives.

This sentiment is also reflected in a survey by PricewaterhouseCoopers (PwC), which found that 55 percent of multinational companies and 62 percent of domestic companies believe that Asia, rather than North America and Europe, will be the focus market for LSH. In particular, China, India, and Singapore will be key countries.

### **Maintaining standards**

While this increased activity in Asia bodes well for the LSH industry and its suppliers, it is also a complex sector with specific needs. Guidelines, from production right up to delivery, have to be put into place. To start with, many companies follow a good manufacturing practice (GMP) in drug production to safeguard the integrity and quality of medicinal products. This practice is not just restricted to production but also encompasses other procedures such as proper warehousing, packaging and transportation. Above all, standards need to be set in logistics as it takes on the role of an enabler in the growing life sciences industry. In this respect, warehousing is an important component in logistics and fulfilment decisions are driven by two factors: security and flexibility. A key consideration is the ability to store the product well, as well as to keep it segregated in the warehouse, until approval by the relevant government authorities is granted.

Due to the diversity and sensitivity of life sciences products, from off-the-counter or prescribed drugs, animal healthcare

products to medical equipment, a key consideration is the option of tertiary packaging. Certain pharmaceuticals have to be maintained at a precise temperature to retain their efficacy and logistics providers need to be able to handle shipments with various temperature conditions; and monitoring capabilities during transit. Experienced and reputable logistics providers should provide temperature-controlled packaging for shipments categorized in three most commonly required temperature zones, namely ambient (15-25 degrees Celsius), chilled (two-to-eight degrees Celsius) and frozen (-20 degrees Celsius). The boxes should also be International Air Transport Association (IATA) compliant, and come in a range of different sizes within each temperature range to ensure temperature accuracy and stability.

Dedicated packaging and shipment preparation areas should also be set up within the same controlled warehouse environment. From the minute the shipment leaves the warehouse until it arrives at a customer's door, cold chain packaging materials must be used to make sure the product temperature stays in the stipulated range. To maintain compliance with retailer requirements, radio-frequency identification (RFID) labels are also applied to some pharmaceuticals.

Transport management is also a crucial component in the logistics cycle. Climate control is important when moving medical products, whether by pallet or parcel. Certain drugs require cold chain transport or international temperature-assured freight to ensure product integrity. Continuous tracking and IT-based visibility tools will provide the ability to track-and-trace, giving customers the peace of mind of knowing their orders have arrived on time. In addition, it allows logistics providers to prioritize time and temperature sensitive shipments and the opportunity to intervene if medical supplies are required in an emergency.

### **Handling challenges**

Besides ensuring that goods are well-prepared for storage or transport, the unique nature of the LSH supply chain means that handling challenges may be more critical. An issue for most pharmaceutical companies and logistics providers would be adherence to changes and strict regulatory requirements across countries. The constantly evolving regulatory framework within countries like India and China, as well as the timely approvals from the US FDA to regulate the import of biopharmaceutical goods will impact the time to market.

Dependent on a keen understanding of local regulations, the importance of staff who can handle the unique, stringent and diverse import and export regulatory requirements of biopharmaceutical goods cannot be overlooked. These specialists should be trained in customs clearance, be equipped with specific knowledge of the LSH industry as well as maintain a good relationship with the customs bodies. In addition, poor transport infrastructure and limited road networks in some countries will also affect the time and temperature for critical products to reach the final destination.

### **The opportunity for logistics providers**

While the LSH industry is on an upswing in the current economic environment, cost pressure exists within the industry. As companies in the industry become leaner, they will look for new ways to re-engineer their supply chains in terms of cost-efficiencies, and will turn to their logistics providers for a solution. This is an area where technology trends in logistics such as track and trace, fleet management, and tools in warehouse management, will help bridge the gap in cost and productivity.

With Asia becoming a fast emerging global powerhouse in the LSH market, pharmaceutical companies need to work with a trusted logistics partner to ensure that time sensitive products arrive on time and safely at their destinations, while ensuring the integrity of the products. A good logistics service provider must possess the specialized handling know-hows, have in-depth knowledge of multiple regulatory environments and offer secure methods of transport. This will give pharmaceutical companies peace of mind and reduce the time-to-market to customers.