

## Counterfeit drugs & their supply chain

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**Singapore:** According to an Interpol statement, in 2009, 20 million pills, bottles, and sachets of counterfeit and illegal medicines were seized in a five-month operation coordinated across China and Southeast Asian countries. In March 2013, Philippines arrested five traffickers attempting to traffic slimming pills, pain relief medication, and antibiotics and confiscated 20 pallets of fake medicines.

While watchdogs have been finding it challenging to trace the network of counterfeit trade and make a stop to the business affecting people's health, countries and global agencies like Interpol are working together to curb the floatation of fake drugs.

Logistic companies play a major role in the safe and secured delivery of pharmaceutical products to countries across the globe and an effective collaborated effort between logistics solution providers, drug manufacturers, and regulatory bodies can be instrumental in bringing down the supply of counterfeit drugs in the market.

DHL, a global logistics company, acknowledges that while it is difficult to estimate the loss of revenue for pharmaceutical companies, counterfeit or falsified drugs can damage public trust, resulting in a decrease in investment in the pharmaceutical industry. In an interview with BioSpectrum Asia, Mr Alex Maxwell, VP of Life Sciences and Healthcare APMEA, DHL Supply Chain, talks about the serious threat that counterfeit medicine imposes on pharmaceutical industry and general healthcare and the initiatives DHL is taking to ensure safe delivery of drugs through technology and stakeholders' partnership.

**What role can supply chain management play in controlling the prevalence of counterfeit drugs?**

Counterfeit market is a serious threat to the healthcare industry. Supply chain management is tasked with the responsibility of ensuring safe delivery of healthcare products and DHL has implemented various technologies to track the shipment.

Besides technologies and solutions at the service level, logistics companies can partner with global bodies to manage these threats and chalk out the solution. For instance, in China, DHL is a member of the China medical device association and we are in constant talks with China FDA on formatting regulatory guidelines for transportation of healthcare products. We demonstrate the critical role supply chain systems play in ensuring the shipment of genuine products in the country and their safe delivery. In Australia, we are working closely with the government to advice on regulatory standards for the shipment of pharmaceutical products.

Pharmaceutical and medical device companies need collaborations with us to ensure safer delivery. We have a team of experts for different stages of shipment, be it analysing the infrastructure at delivery stations, compliance with regulatory guidelines, or temperature monitoring of some specific products. We have to pull out all these expertise to provide a seamless solution. We have subject matter experts who provide specific solutions be it security, business continuity plans or regulatory guidelines for security standards.

### **What are the recent innovations by DHL to ensure safe shipment of pharmaceutical products?**

Counterfeit medicine is a nightmare for all the stakeholders in the healthcare industry. Recently, in Singapore, fake contact lenses were being bought from optical chains. It is a problem for consumers, and regulators manufacturers.

Labelling is one technology that can play a major role in tracking the products once they are out of the manufacturing site and till they reach the consumers. In China, it is a mandate from this year that essential drug lists, over 500 products, have to have a serialized identifier placed on the products. All the multinational pharmaceutical companies in China are ensuring the labelling of their product so that it can be traced at any given point of time. In Europe, DHL labelled up to 180 million devices in a year and we are providing a similar solution to the rest of the countries.

DHL recently launched its new service, Thermonet, for the shipment of temperature sensitive clinical products and the shipment complies with regulatory standards and enable biopharmaceutical companies to manage their supplies. DHL Thermonet allows proactive monitoring and intervention by pharmaceutical companies with SmartSensor RFID technology that monitors the temperature of the shipment while in transit.

Besides, logistics play a major role when it comes to the recall of drugs or devices. Recalling a product is a major undertaking, requiring complex logistics. Product recall solution by DHL is an essential tool. If a government decides to recall a certain product, we need to know the locations of availability of those specific products, pick those products and record them for the pharmaceutical and regulatory data. Besides executing regulatory recalls, DHL also conducts trial recall of products twice a year.

### **As a logistics solution provider what are the challenges you face in ensuring safe delivery of the medical supplies?**

We are responsible for the product as soon as it is out of the manufacturing site and gets into the distribution line. In the US, we have installed geo-fencing, which includes tracking of the vehicle through a GPS system. So even if the vehicle is stolen, we know the location. But every technology has its own limitation. Counterfeit medicine traders are using electronic solutions that sabotage the GPS traffic network solution. It is a constant challenge to stay one step ahead of the masterminds involved in such activities. We have to collaborate with customers, manufacturers, and government bodies to control such activities.

Technologies managed by smart phones can play a big role in breaking the chain of counterfeit medicines. Africa has developed a mobile authentication technology which enables consumers to scan the product with their mobile phone and the genuine-ness of the product can be tracked through an unique identification technology. Though it has its own risk of hacking but it is a great solution for the developing market.

### **Asia is considered to be a big market for counterfeit products. How do you see Asia bracing up to combat counterfeit medicines?**

China is ahead of the rest of the Asian countries to implement anti-counterfeit strategies and practise implementing regulations regarding safe shipment of products. CFDA has mandated a serialization policy and by 2015 all pharmaceutical companies will have to label their products. It is a massive task but by 2014, it will already be implemented on the products categorized in the central drug list. We see them doing a similar thing in the medical device industry.

Korea also has plans to implement the serialization policy for its pharma products and Singapore is very strong in policing the environment.