The challenge of transporting medicines

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It's always been a challenge to transport medicines from one part of the world to another. They are sometimes heavy and/or fragile and in most cases, time is of the essence. The challenge becomes even greater when the product needs to be stored within a specified temperature range.

The responsibility is huge – a single loose link in the supply of temperature-controlled products could mean that costly and essential pharmaceuticals are left in an unusable or even potentially dangerous state. Cortisone cream, for example, can separate and become ineffective once it is exposed to temperatures above 30°C. Other drugs such as insulin might lose its effectiveness once it is exposed to freezing temperatures.

In March this year, the EU Good Distribution Practices were published. The guidelines have been updated to reflect the more complex logistic supply chains of current times, and to ensure that control over the quality and integrity of the distribution chain is maintained all the way from manufacturer to patient.

The new GDP guidelines enforce a much larger responsibility on the distributor for the quality of the product that reaches the patient. The most significant of these is a requirement for all 'ambient' products (those that require storage from 15°C – 25°C) to be packaged in temperature-controlled boxes.

I am left wondering at the impact of such a move. Although distributors such as ourselves will always meet regulations and guidelines set by the authorities, how will this work in the common workplace? Will our customers be prepared to pay for expensive temperature-regulated packaging?

It's not unusual for Durbin to source a product in England (where temperatures are variable depending on the season) and transport it to the Middle East where temperatures regularly soar above 40°C.

The transportation and distribution of pharmaceuticals requires special consideration in warm climates such as the Middle East. It is of paramount importance that the perfect temperature of the shipment is maintained and managed throughout transit.

I have seen the reliance on technology in the pharmaceutical supply chain gradually rise in the last decade. In the last few years, sensor-based systems have become increasingly commonplace to alert at the slightest change of temperature, or even lighting fluctuations. Temperature data monitors – electronic devices which can be set to take readings at regular intervals throughout transit – can also be placed in the box.

In the past, these devices were primarily used for fridge line products and not for those requiring storage from 15°C – 25°C. However, with the new EU GDP guidelines in place, customers will now have to specify whether they want thermally regulated packaging or temperature monitors in with their 'ambient' pharmaceuticals.

Regulations surrounding the transportation of medicines in the Middle East have become tighter in the last few years and they are only likely to become more rigorous in the future. The updated guidance from the US Pharmacopeia and the Parenteral Drug Association have urged pharmaceutical companies to demand more quality assurance measures from their logistics providers. I am certain that the new EU GDP guidelines will also have a similar influence.

Some countries in the region have already taken steps to boost their cold chain security. Saudi Arabia, for example, has introduced an entry requirement making it mandatory for individual shipments of pharmaceuticals requiring temperature controlled storage to be documented on arrival.

Training of staff in high risk areas also needs to be intensified. Ground handling at airports and customs/authorities inspections – anyone that comes into contact with the shipment needs to be trained on how to handle the product and to ensure that it does not fall out of the remit of its storage conditions.

The increasing formalisation of qualifications, contracts and processes that the new EU GDP guidelines outline is compelling. They demand a much higher level of quality in terms of service and supply, and set a basic benchmark that will encourage all providers to maintain high levels of service and further help to ensure our pharmaceuticals are as safe and effective as possible. MEH

Durbin PLC is a British company based in South Harrow, London. Established in 1963, the company specialises in supplying quality assured pharmaceuticals, medical equipment and consumable supplies to healthcare professionals and aid agencies in over 180 countries. As well as reacting rapidly to emergency situations, Durbin PLC responds to healthcare supply needs from local project level to national scale programmes.
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