

Data logging: future perfect

Temperature-managed shipping is the way forward for the pharmaceutical industry, but an integrated packaging system is required if the risk of erroneous evaluation of data is to be avoided.

Logistics was one of the first services provided to the pharmaceutical industry. During 'old economy' times, the idea of selling services as products would have been viewed as revolutionary. However, attitudes have changed. In many sectors of the economy, service is crucial in giving companies an advantage over their competitors. For instance, biotech's entry into the pharmaceutical field, previously dominated by the chemical industry, presented a completely new challenge to the logistics sector. System solutions were required – specifically, a tailor-made full service that would meet the highly individual requirements of each project.

No longer as simple as ABC

Until recently, logistics providers offered a straightforward range of services, enabling a given sensitive load to be shipped safely from A to B. A competent logistics partner would take the trouble to provide the appropriate packaging and cooling agent – or at least to name a source from which they could be obtained. Providing the goods arrived at the consignee in good condition and at the right temperature, it could be assumed that the shipping services gave no grounds for complaint.

Nowadays, many more questions need to be asked when seeking the right option. Is a container cooled with dry ice? Is a ventilator the best choice for keeping your product at the right temperature or would an insulated pallet fitted with cool packs be the better option? All that has been requested is a 'simple' cooled shipment, but how can you prevent frost damage? How much dry ice do you need for the given shipment?

Temperature logging: why the resistance?

It is obvious that a wider range of services needs to be developed for the specific needs of the pharmaceutical industry. Internet tracking and transponder technology are already with us; localisation via satellite is being considered. Yet, temperature logging still seems to be out of the question. Why is this?

Delays in journey time are probably the most common problem experienced by logistics providers. However, the potential consequences arising from the erroneous evaluation of temperature monitoring data are far more serious. For example:

- Is the temperature record generated by a data logger meaningful?
- What happens if the data logger is positioned in the wrong location?
- What happens if the gel/cool packs were stored at the wrong temperature?
- Could such a report, with its supposed infallibility, cause expensive medicine to be considered unsuitable for use when, in fact, it is in perfectly good condition?

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The use of data loggers throws up further questions. How can you comply exactly with a temperature requirement of between 2 and 8°C? What tolerance levels are allowed? In addition, a comprehensive temperature data record places high demands on packaging – and not just on the physical packaging, but also on the expertise applied in the process. It points out every weak link in the chain and, therefore, brings with it particular responsibilities. Validated packaging processes, the use of appropriate cooling agents, regularly calibrated data loggers and sound expertise should all be fused into one perfectly integrated system to provide verifiable safety and peace of mind.

A bright future

The future of temperature-managed shipping looks bright. It assures the client of optimum quality – quality that not only feeds into the product, but also becomes a constituent part of the product itself. ■

AUTHOR

Jens Mangelsen is concept manager at Globex Couriers GmbH. His interest in logistics dates back to the early 1990s, when he worked on the development of database systems for the logistics industry. For the past ten years, he has been using an innovative approach to system solutions to solve the highly specific shipping problems of the pharmaceutical industry.