Case Study: Expedited Import of Zika Virus Test Kits Enable Vital Research

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ThermoFisher SCIENTIFIC

Introduction

In February of 2016 the World Health Organization (WHO) declared a Public Health Emergency of International Concern (PHEIC) when an epidemic of Zika fever, caused by Zika virus in Brazil, spread throughout South and North America. The virus had long survived undetected in Africa, Asia and the Pacific, but once in Brazil, was found to cause devastating birth defects. Successful detection of the virus in order to develop a vaccination became an immediate priority.

Getting recently developed test kits into research labs was a critical priority.

The Challenge

Given the rapid and widespread outbreak of this virus, researchers were urgently working towards a solution. In a significant breakthrough, a European-based manufacturer had successfully developed a test kit that enabled serological detection of the Zika virus. Getting these kits into the labs of the United States researchers became a critical priority.

An announcement was made that the Zika test kits, intended for research only, would be immediately available. Prior to becoming available, however, the product had to be imported from Europe to the manufacturer's United States location before being transferred to a Midwest research facility.

The shipments were sensitive, requiring special handling to ensure compliance within a strict 2°C to 8°C temperature range. In spite of this added complexity, compounded by potential delays through United States Customs, the kits had to be delivered within the week.

The Solution

Multiple teams across the Thermo Fisher Scientific organization were involved in support of this initiative.

On a late Friday afternoon, the internal corporate transportation team received notice that the kits were available for shipment. The critical delivery timeframe had been drastically reduced from a mid-to-late week delivery date to an early Tuesday morning requirement.

The Patheon specialty logistics offering includes high-touch courier services. Given the short timeline and the complexities involved with both temperature managed shipments and the import process, Thermo Fisher Scientific corporate transportation engaged the support of their specialty logistics team.

Their global logistics specialists prioritized this critical project, working throughout the weekend to define specific needs and to schedule the required transportation and customs clearance work.

Unforeseen complications then threatened the on-time delivery. Although the European-based manufacturer had been contacted over the weekend to confirm they had a dock available for the truck, the specialty logistics team had not yet received a reply.

Because time was of the essence, the team used available satellite imagery to examine a photo of the building on the internet and assessed that no dock was available. The team quickly adapted to the challenge by finding a refrigerated truck with a lift gate so as to handle the pick up. The shipment was successfully routed between the manufacturer's site in Europe and across the United States with final delivery to the Midwest research facility prior to the start of business on Tuesday morning.

Conclusion

Several factors must be considered where time- and temperature-sensitive shipments of critically needed products are involved:

- **The logistics/transportation provider must conduct a detailed analysis with risk assessment of required routing and timetables**
- **Appropriate packaging solutions and temperature monitoring systems must be defined and provided**
- **Sufficient lead time and contingency plans need to be incorporated as part of the solution**
- **Constant communication between all parties involved is vital**
- **Proactive, creative thinking and dedicated teamwork contribute to project success**

At the end of the day, prompt action by all parties ensured that the test kits were immediately deployed into active research—ultimately saving countless birth defects in the future.

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