Pharmaceutical Cold Chain Logistics

An increasing number of innovative prescription medicines require special handling and transportation — from the moment they leave a manufacturer’s facility, to storage in a state-of-the-art distribution center and ultimately, when they reach a healthcare provider at the point of dispensation or administration for patients.

Distributors’ Cold Chain Infrastructure

Pharmaceutical distributors leverage their expertise with cold chain storage and transportation when handling temperature-sensitive products such as vaccines and other specialty medicines.

Distributors consider several factors when determining the shipping environment for cold chain products:

- **Shipping and handling requirements for each drug**
- **Type of transportation carrier to be used**
- **Expected transit duration**
- **Current and projected weather conditions while in transit**

Cold chain innovation has enabled distributors to continually improve temperature compliance. Distributors use a variety of tools:

- **Refrigerated transportation**
- **Ice and gel packs**
- **Temperature-monitoring devices**
- **Dry ice**
- **FDA-approved insulated boxes**

COLD CHAIN

Most cold chain products require storage and transportation at 2 to 8 degrees Celsius, while frozen products need to be kept below minus 10 degrees Celsius.

ULTRA-COLD CHAIN

Some of the leading COVID-19 vaccine candidates are classified as “ultra-cold chain” and need to be held at temperatures below minus 80 degrees Celsius.

Distributors’ logistics expertise with cold chain products and other specialty treatments will play a critical role in the distribution of COVID-19 vaccines. With investments in cutting-edge, temperature-controlled supply chain protocols, distributors stand ready to ensure the integrity of these products.

For additional resources, visit: www.hda.org/covid19