



HEALTHCARE PACKAGING SOLUTIONS

Serialization and patient adherence breakthroughs.

by LIZ CUNEO, editor-in-chief

The medical and pharmaceutical packaging industries today face challenges and opportunities in light of recent growth, legislation changes and patient usage issues. According to the latest market study released by Technavio (technavio.com), the global medical device packaging market is expected to grow at a CAGR of over 6% from 2016 to 2020. The research report "Global Medical Device Packaging Market 2016-2020" states that the growth is seen in products such as containers, pouches, multiple compartment trays, clamshell packs, blister packs and glass vials used to package large medical devices, contact lenses, diagnostic reagents and syringes. One current challenge in the industry is the fact that medical device packaging is governed by strict regulations as the devices are typically sterilized.

"As a result of reforms and high investments in the healthcare industry, newer and more efficient medical devices and drugs are being introduced in the market. Healthcare companies such as Johnson & Johnson, Medtronic and Siemens continuously undertake efforts to develop advanced, innovative and efficient medical devices and drugs for diagnosis and treatment," says Technavio lead packaging research analyst Sharan Raj. "The growth of the market is attributed to the need for packaging companies to supply convenient packaging solutions to customers across all healthcare facilities," Raj adds.

A convenient package for asthma sufferers is a new metered dose inhaler (MDI) that counts the dose, helping to ensure proper patient usage, another challenge pharmaceutical and medical companies face. Asthma and chronic obstructive pulmonary disease (COPD) patient adherence

◀◀ A convenient package for asthma sufferers is a new metered dose inhaler that counts the dose, helping to ensure proper patient usage.

Platinum Press Inc. offers a variety of serialization-ready printed materials on which to apply final track and trace data onto packaged pharmaceutical products. >>

is a major health and economic challenge. Several studies report very poor adherence to asthma medication regimens, with measured rates of non-adherence ranging from 30 to 70%. Since 2003, the FDA recommends that drug manufacturers integrate a dose-counting system into any new MDI drug products marketed in the U.S.

It's a solution to the problem that is met with open arms from consumers. Patients appreciate dose counters because they are convenient and improve safety by allowing the patients to identify the number of doses of medication left in their inhalers – and to avoid running out unexpectedly.

Aptar Pharma (pharma.aptar.com) unveiled its latest innovation, the reliable and easy-to-use eDose Counter MDIs at the RDD scientific conference last month. Currently, marketed MDI dose indicators and counters are based on mechanical technology that does not always meet the expectations of users, due to poor legibility of the numbers, which can lead to miscounting.

To combat that, Aptar employs electronic components in its new eDose Counter, which display large, clear and legible counter digits required for a wide range of user age segments and medical conditions. In addition, this technology allows for the incorporation of visual MDI priming reminders and feedback on use, as well as end-of-product-life warnings (flashing digits). The unique sensing technology offers direct detection of the spray, which eliminates risks of miscounting.

IMPROVEMENTS IN SERIALIZATION CONTINUE IN THE MARKET

By 2017, pharmaceutical packagers must include data matrix and human-readable track and trace codes at the unit level. The U.S. will require all prescription products to have a serial number.



What's more is that by 2023, full aggregation and supply chain data exchange providing traceability will be required. There is a big push in the industry right now for suppliers to create easy to understand and affordable solutions to the challenges faced by medical and pharmaceutical companies.

In response, **Platinum Press Inc.** (PPI; PlatinumPress.com) offers a variety of serialization-ready printed materials amounting to ideal platforms on which to apply final track and trace data onto packaged pharmaceutical products. The packages help companies to comply with the Drug Supply Chain Security Act (DSCSA)'s current and approaching serialization mandates.

The company is able to produce materials fully prepared for final serialization, and it offers authentication properties for both overt and covert anti-counterfeiting measures for added security.

Challenges in the healthcare industry provide greater opportunity for patient safety and compliance. The industry is constantly changing and adapting to growing pressures from the government, healthcare providers and patients, birthing new packages and products to ultimately meet these new needs and then some. For another example of a breakthrough in the healthcare industry, read our feature on adhesives and tapes on page 26. **PS**