The World Health Organization recently passed along some pretty alarming news: it cited statistics claiming that global sales of counterfeit pharmaceutical products could top $75 billion this year. That's a 90% increase over the last five years! More than likely, your pharmaceutical company is in the process of addressing this growing problem. It's critical that you adopt effective measures that prevent counterfeiting (and below you'll find a guide to some of the best tools available). The counterfeiters plaguing the pharmaceutical world are resourceful and relentless. Chances are, a counterfeit version of one of your products will eventually make its way into the marketplace. That's when the ability to react swiftly becomes paramount—to beat the bad guys, you must have the right tools in place to instantly authenticate suspicious packages in the field, where and when it matters most.

You've heard the cliché, “Timing is everything”. That certainly holds true in the pharmaceutical world. When the authentication of your product takes too long, it can be extremely damaging to the patients who depend on your products for their health, to your revenue stream, and to your brand reputation. So, what's the best route to being able to instantly authenticate your products in the field? By choosing the right authentication technology for your company. You have many options—here's a look at the different tool sets that can assist you in authenticating suspicious packages reported in the field:

**Authentication technologies that work**

**Overt security features** are visible to the naked eye, allowing health professionals and patients to easily identify the authenticity of the package. For overt features to be effective in identifying a counterfeit product, health professionals and patients must know what they are looking for when they inspect a package. Consequently, public education and awareness are...
very important elements of any overt security plan. Technologies commonly employed for overt security include:

- Optically-variable inks
- Pearlescent inks
- Gold and silver inks
- Anti-tampering technologies (tamper-evident closures and labels)
- Optical security technologies (holographic seals and labels)

**Covert security features** utilize an image invisible to the naked eye, often printed with security inks on primary and/or secondary packaging. These security inks can only be detected using a device. Examples of security components and inks include:

- Heat-activated inks
- Color-revealing inks
- Light-activated inks
- Fugitive inks
- UV-activated inks

**Forensic markers**, being covert organic compounds, are not readily recognizable and require special tools for detection and validation. Whereas machine-readable taggants can be detected in the field, forensic markers must often be taken to a laboratory with specialized equipment. The use of forensic markers allows companies like yours to pursue legal actions against counterfeiters, conduct private investigations, and cooperate with law enforcement agencies.

**Serialization Track and Trace and Anti-Diversion solutions** use two-dimensional data matrix codes and radio-frequency identity tagging. Each product is assigned a unique identifying code during the manufacturing process that allows it to be tracked, verified, and recalled if necessary. Serialization “track and trace” methodology provides a basic security coverage, but it is likely to fall short of the overall goal of keeping the pharmaceutical supply chain free and clear of counterfeit drugs. Counterfeiters have access to the best printers and can easily copy unique codes and apply them to their counterfeit products. To combat them and create greater security in your supply chain, you must strengthen your anti-counterfeiting efforts by combining multiple technologies.
**Online monitoring:** The Internet is one of the primary avenues counterfeiters use to pass off their counterfeit products to consumers. Keeping ahead of the counterfeiters is becoming more challenging in this space. Implementing a comprehensive online monitoring platform can help you quickly identify sites that are taking advantage of your brand, remove the counterfeit links, provide appropriate enforcement measures, and help reduce online abuse.

It's important to look for an online monitoring system that has internal and external capabilities to monitor dark web and gray web activities related specifically to online pharmacies. A constant review of the data is imperative to understand where breaches are taking place.

**Choose an end-to-end authentication platform with “super powers”**

Any of the technologies mentioned above will help authenticate a suspicious package reported in the field—but to stay ahead of the bad guys, you're going to need more. You're going to need an authentication platform with some serious power.

When you adopt this kind of customized authentication platform, you're taking a proactive approach that combines the best available technologies—providing you with the “authentication super powers” needed to protect patients and your brand reputation. You'll have access to an integrated set of software applications designed to enable successful deployment and operation of an authentication program. You'll be able to act based upon brand insights that are aggregated, analyzed and reported directly to the smartphones, tablets and computers of your team. Best of all, you'll be able to perform instant, in-field authentication allowing you to take immediate action.

Implementing a multi-layered approach takes you one step closer to successfully combating counterfeit products. This type of approach combines proven authentication tools with accurate data collection and analytics, providing you with authentication empowerment to save the day.

Remember, timing is everything. Having the right customized authentication solution will provide you with a proactive process that will save you time and, quite possibly, lives. When you can identify, and remove counterfeit products quickly, you're bound to become your company's authentication hero.
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