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SHARING EXPERTISE

CURRENT TRENDS IN MEDICAL KIT PACKAGING

In days of yore, when house calls were common, physicians used black leather bags to tote instruments from appointment to appointment. Those medical bags are long gone, but the logic behind them – a portable, organized, easily accessible repository for medical supplies – remains.

Today's version is the medical procedure kit, comprising stackable, efficient, sterile and easily identifiable trays or pouches stocked with essential equipment for specific surgeries, tests and examinations. Their advantages include today's top healthcare must-haves: improvements in safety and reductions in risk, time and cost.

THE INDUSTRY TODAY

Medical Device Manufacturers (MDMs) in the kit-packing industry are currently being affected by trends related to overarching changes in the delivery of healthcare as well as technological changes that are enabling enhancements in production. They include:

- Evolving points of care
- Packaging and labeling
- Customization
- Environmental concerns
- Cost containment
- Regulatory oversight
- Competition

Successful MDMs track these developments carefully, using related data and analytics to anticipate how they will evolve, and plan accordingly. This foresight provides a valuable competitive edge.

Evolving Points Of Care

For decades, the principal users for medical procedure kits were the nationwide networks of traditional hospitals. That model of providing care changed in 1970, when two Phoenix physicians opened the first ambulatory surgical center (ASC). Their goal was to offer a high-quality, cost-effective alternative to in-patient surgical care.

There are now more than 9,000 ASCs in the U.S. (more than 1,000 in California alone), performing procedures such as cataract surgeries and colonoscopies.

Usage is up across other treatment centers, including urgent care clinics, worksite clinics, retail clinics, micro-hospitals, telehealth services, hospice arrangements and even hospital-in-home care.

The driver for these alternatives to traditional hospitals is overwhelmingly cost containment. In the case of ASCs alone, Medicaid data show about a 50 percent reduction in costs. Ancillary benefits of the ASC model include patient convenience, shorter recovery periods and overall satisfaction.

Two compelling demographic trends, both on the upswing, will continue to underscore the attraction to the ASC model:

1. Budget-conscious Baby Boomers, who require higher levels of care as they continue to age
2. Value-driven Millennials, whose purchasing loyalty rests with companies who combine excellent service at an attractive price

In response, successful medical procedure kit MDMs are diligently reigning in their own costs, in an effort to reflect the prudence sought by nonhospital providers and their budget-conscious patients. Recent trends in cost containment are discussed below.

Packaging And Labeling

How a medical procedure kit is contained, stored and identified are important factors for medical professionals and the patients they treat.

Any disconnect in accessing a required kit – a pack that is out of stock or one picked in error – means a return trip for a healthcare professional. That delay can, at best, have a detrimental effect on overall patient satisfaction and, at worst, be much more serious.

In response, MDMs are designing kits to be easily stackable, in an effort to ensure that supplies are available in larger quantities that reduce the need for restocking. They are also making extensive use of color to make kits easily distinguishable in a hurry.

Forward-thinking MDMs are also leveraging technology, using cutting-edge equipment such as pliable screens on packaging. These take the place of traditional print labels and, owing to their increased readability, can lessen the probability of a mistaken pull that would compromise the sterility of the kit and necessitate its disposal.

Digital labeling is another way that medical procedure kit MDMs are integrating tech into their manufacturing, particularly in Europe. Further, MDMs are publishing product information and instructions online, where it is more easily and efficiently updated and can include graphics and videos to communicate more effectively.

Nonprint labeling has other benefits as well. As MDMs migrate toward pouches and blister packs rather than plastic trays, room for detailed printed material is at a premium. Screen-based information becomes a worthy and reliable response. Its use can save precious shelf space (which can be at a premium in nonhospital settings), without impinging on life-saving directions or instructions.

MDMs can expect that convenience and ease of use will continue to affect packaging and labeling design for their kits.

Customization

Although MDMs look to standardize medical procedure kits, they also know that customization is often expected from hospital to hospital and even practitioner to practitioner. Kits are generally packed with their supplies and instruments in a specific order for a specific procedure.

The kit production process has had to increasingly accommodate customization, and this development shows no sign of slowing. Individualized kits can increase successful outcomes, save time and even have a positive environmental impact.

For example, if a kit contains a particular drape or syringe that a physician believes is unnecessary, it will go unused. Infectious control standards call for the disposal of unused instruments from the procedural field. If a practitioner routinely eschews one piece of a standard kit, it is cost effective for the MDM to simply not include it in the first place.

Additionally, the thought process involved in purposefully avoiding an unwanted item costs time, and in an emergency, even the loss of seconds can be too many.

Further, customization prevents waste.

Environmental Concerns

Waste and its proper handling have been a hospital priority since the days of cotton swabs and glass syringes.

They remain a compelling consideration for today's medical procedure kit MDM, even as care continues to migrate beyond hospital walls. With hundreds of procedures done per day and multiple pieces of equipment per procedure, the responsible disposal of kits is a priority.

In response, MDMs are working to make the footprint of their medical procedure kits – the trays, packs and pouches that hold all supplies – as small as possible.

The aforementioned trends in digital labeling and online instructions are also helping MDMs in their goal to be environmentally friendly in their packaging practices.

Attention paid to environmental concerns can also be a market differentiator. As future purchasers of medical supplies, Millennials' ongoing concern for the environment will guide purchasing decisions both on and off the job. Therefore, tomorrow's medical supply purchasers are likely to look for kit providers who share this view of the world and how to steward its resources responsibly.

COST CONTAINMENT

In much the same way traditional healthcare and its consumers are looking to rein in their cost of care and the equipment associated with it, so too are MDMs on a daily watch over the economics of medical procedure kits. This diligence pervades the ways they design, manufacture, pack and ship kits, including:

- Customization
- Technology
- Supply chain efficiency
- Quality control
- Ergonomics

Customization

Budget-friendly tactics include striking a balance between kit-packing convenience and customizations and the financial upsides of standardization. Economies of scale are inherent in packing a kit with predictable items laid out in a predictable order for predictable uses.

The business of healthcare services, however, demands a certain level of flexibility. Providers want their individual preferences accommodated and are more likely to support purchasing decisions from MDMs who can customize to a degree. Likewise, providers know there is value in treating individual patients as individuals and will strive to do so to maintain positive outcomes for the people they see.

Savvy MDMs, then, standardize as much as possible while leaving opportunities for custom work in the kit-packing process.

Technology

Technology is providing the ability to use screen-based information and digital labeling, discussed in the trends for packaging and labeling. This efficiency precipitates savings in print, ink, paper, shipping, design and revisions.

Technological advancements will affect the MDM business model in the next decade and beyond. Efficiencies will continue to yield benefits such as smaller footprints for kits, greater strides in waste management, clarity and flexibility of labeling, and the ability to tailor products to specific users.

Supply Chain Efficiency

MDMs work to solidify relationships with their healthcare provider supply chains. The goal of this higher-level collaboration is to ensure that kits are available where and when they're needed and in proper quantities to ensure a dependable supply without a wasteful, expensive overabundance.

An interesting development in the MDM/hospital supply chain is that feedback increasingly flows bidirectionally. Whereas MDMs once communicated about kit contents in a one-way stream toward the customer, they are now receiving more and more input about uses, preferences and customizations. Supply chain relationships are now much more partnerships, enabling both MDMs and healthcare providers the opportunity to find a proper economic balance between kit contents and how they are used day to day.

This type of feedback is leading MDMs to continually examine their supply chains to optimize the output and better serve customers. In auditing procedures, MDMs are adopting a front-to-back perspective, looking to increase efficiencies in materials, the production line, its setup and the equipment. At each juncture, they are seeking opportunities to bring less complexity and more flexibility to a process that blends automation and hands-on packing of kits.

Quality Control

Packing kits is, despite the influx of technology, still a task done primarily by hand. The instruments involve a vast number of raw materials and require a dexterous but gentle touch, ensuring that they fit snugly where they belong without breaking.

Training is integral to maintaining quality control. MDMs will spend anywhere from six to eight weeks teaching the skill, and the instruction begins with a two-week exploration of what each component is, what it does, where it goes and why.

Best-practice MDMs also strive to keep their training pipeline relatively full, so that if an experienced packer leaves the line for another position, the vacancy can be filled quickly with no deterioration in the quality of the product nor the speed at which it is produced – both of which ultimately fall to the bottom line.

Ergonomics

The reality that kit packing relies heavily on manual labor makes ergonomics an important part of the business, one that MDMs attend to with seriousness and commitment.

A single kit-packing liner can theoretically outfit thousands of kits per day, but safety and quality priorities dictate this rate to be impractical. Workers are rotated through various tasks on the line to prevent both injuries and errors.

REGULATORY OVERSIGHT

The U.S. Food and Drug Administration (FDA) regulates all medical devices sold in the U.S., from tongue depressors to hospital gowns to kits. Internationally, kits can come under the jurisdiction of organizations such as the EU's Medical Devices Directive (MDD). Prudent MDMs, both domestic and global, will have extensive compliance procedures in place and audit practices continually. Ongoing diligence is both a mandate and an industry best practice, protecting the general public from harm, avoiding expensive mishaps and boosting trust in individual MDM brands.

COMPETITION

The medical supply industry is highly competitive, and its fierceness is not expected to diminish any time soon. The proliferation of nontraditional healthcare providers will continue to create demand. But likewise, the number of suppliers to those purchasers will rise accordingly, as new competitors enter the MDM market and seek to gain market share among established manufacturers.

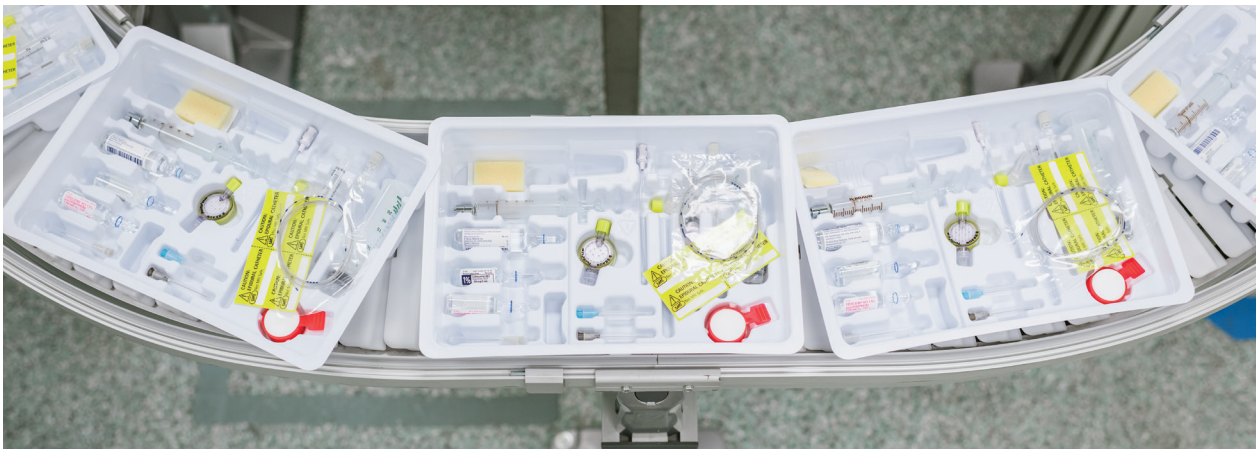
Successful MDMs will carve themselves a niche in this competitive field and maintain an edge by creating long-term relationships with healthcare service providers. The hallmarks of tomorrow's effective MDM will include such customer-centric staples as:

- Cost
- Reputation
- Innovation
- Differentiation
- Relevance
- Experience and trustworthiness
- Quality of product/service
- Use of emerging technology
- Convenience
- Efficiency
- Responsiveness
- Customization
- Referrals

CONCLUSION

The packaging of all the necessary medical equipment for a procedure together in one kit ensures completeness, preparedness, sterility, efficiency and better patient outcomes overall. Once considered a rather innovative means of organizing medical supplies, it is now an accepted practice across traditional hospitals, as well as ambulatory surgical centers, clinics and even in patient homes.

This line of business has seen a virtual sea change alongside shifts across the entire healthcare industry worldwide. As it continues to advance, successful providers will survey the landscape and change accordingly. To remain relevant, manufacturers will ensure that their healthcare provider customers can have, at their fingertips, the tools, instruments and pharmaceuticals they need, even in time-critical situations.



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