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Electric channels can ease drug firms' squeeze

The pharmaceutical industry's productivity squeeze grows tighter by the week. Investors demand double-digit growth; regulators and consumers clamor for lower prices. Small wonder that global pharma companies are pinning their productivity hopes on mergers.

Yet a number of leading companies are quietly boosting productivity by rewiring their operations. Researchers now have at their disposal high-throughput technologies for identifying and analyzing new drug compounds. With the right information technology infrastructure - much of it Internet-based - and a strategy designed to take advantage of networked business systems, companies can absorb vast amounts of data and still tighten the linkages in discovery, clinical trials, approval, and marketing.

The new methods are one of Big Pharma's few hopes for closing the gap between the number of new compounds they expect to produce over the next three years (1.8 per year) and the number they will actually need - (3 to 4 per year) - in order to meet investors' expectations. Closing the gap will require shortening the timeline for bringing new drugs to market, by at least 30 percent, as well as more effective marketing to speed the adoption rate among physicians.

Advanced players such as Aventis, Pfizer, and Novartis are shortening cycle times by enabling researchers from universities, biotech partners, and pharma companies to collaborate simultaneously on drug discovery using electronic data networks. "E-Research" can

save pharmaceutical companies 10 to 15 percent of their development costs, according to a recent study by Bain & Co. That's substantial, but pharma companies place even greater value on their ability to manage the flood of knowledge generated internally and externally. Bringing all of that information together into a coherent, accessible system greatly improves the odds of finding the right drug candidates.

Clinical trials constitute the biggest portion of R&D spending by pharmaceutical companies, lasting anywhere from four to six years on average. By using Web technologies, virtual private networks, data warehousing, and other forms of automation, some companies have cut overall trial times by 30 percent. Yet, remarkably, only about 10 percent of trials currently employ electronic data capture.

The leaders in e-clinical trial technology have dramatically cut the time they spend on patient recruiting, training, registration, and tracking. One company with more than 175 trials at 3,200 sites involving 1.5 million patients cut patient recruiting time by up to 90 percent when it shifted those activities online.

Sales and marketing is still a muscle game for most pharmaceutical companies. Their investments focus on large, commission-driven sales forces targeting physicians. From 1994 through 1999, the number of sales reps working for the top 40 US pharma companies increased by 11 percent, but the number of sales calls grew by only 2 percent. E-marketing offers a way out of the

trap, giving pharma companies a tool to compete on agility rather than brute force.

Pharmaceutical firms are beginning to deploy electronic detailing services, which allow doctors to use the Web or a phone to receive specific information on the intricacies of a drug. The cost advantage can be \$100 to \$125, or about 50 percent per session. For patients, online information on diseases and products brings transparency into medical practice and reinforces a pharmaceutical company's brand. Patients are going online more and more to find information and participate in their own care.

This means big pharma firms, which have generally viewed physicians and big insurance payers as their customers, can increasingly benefit from using electronic channels to reach consumers directly as well as to strengthen the loyalty of their traditional customers in the health care industry. The key is reaching patients online with information about the efficacy of their products and adding value for physicians by giving them tools to do independent research.

Big pharma has yet to broadly Web-enable operations. But "e-pharma's" tighter networks already are helping companies streamline the way they do business, offering another way out of the productivity squeeze besides mergers.

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