

## Rising to the supply chain challenge

**Times are changing in the pharmaceutical and life sciences sectors and their supply chains are having to adapt to a new set of challenges, says Kenneth Porter of specialist consultancy Total Logistics.**

Pharmaceutical and life sciences companies are facing some of the most challenging and turbulent times they have ever seen. While the winds of change blow across the US health system, inevitably having an impact (as yet unknown) in Europe, insatiable cost pressures are prompting an unprecedented spate of significant mergers and acquisitions.

While Pfizer bought Wyeth in January 2009 for the considerable sum of \$68bn, Irish healthcare business Warner Chilcott has more recently bought P&G's medicines division for \$3bn. Schering Plough meanwhile has now gained approval to merge with Merck & Co to become the world's second largest pharmaceutical group. Clearly, big is beautiful in the world of life sciences, but inevitably this flurry of mergers and takeovers will create potential supply chain challenges once the ink is dry on the due diligence papers. Clearly, with continued rumours of further mergers in the market, change is the only constant.

Further down the market ranks, the big players are also buying smaller manufacturers, causing a further shift in the balance of power.

Another key development in the sector is the increasing incidence of drugs coming off patent, giving manufacturers of generic drugs the opportunity to market medicines at lower prices under new brand names.

What does all this change mean for the supply chain? Looking at the merger and acquisition trend, when you buy another company, there comes with it the existing infrastructure for delivering drugs and other products. One way to save money is to introduce a unified supply chain, as opposed to operating a mixture of inherited systems which can hide inefficiencies. By introducing a more streamlined, integrated supply chain, life sciences companies can begin to schedule larger deliveries (reducing the number of trips); manage distribution from fewer warehouses (creating better visibility

and control) and also use their sales forces to cross sell, thus becoming more efficient. If handled properly, re-engineering of the supply chain can create economies of scale and reduce fixed costs significantly.

Some drug companies are used to selling small quantities of products, so have not fully appreciated the relative cost of handling and distribution. This historically low awareness of the cost of the supply chain is understandable, given the fact that distribution costs as percentage of sales have typically been under 1 per cent in the pharmaceutical sector. Compare this with 5-6 per cent in retail, which takes its logistics costs far more seriously. However the situation is changing as the volumes and costs of drugs and related items increase as public pressure grows for cheaper medicines.

As the pharmaceutical and life sciences market continues to mature, and the population grows older, the cost of care becomes a hot topic. This high level, political issue is already making its presence felt among the larger players in the market and this is a trend that is sure to cascade further down the industry. Already we are seeing the likes of GlaxoSmithkline moving to a multi-market warehousing model, whereby they replace their 'one country/one warehouse' distribution system that uses single distribution centres to service several countries.

Clearly, as the financial pressure to cut costs continues to mount as increasing numbers of big ticket drugs come off patent, pharmaceutical businesses are going to have to search out more efficient ways of manufacturing and distributing products.

Indeed, we are likely to see supply chains increase in complexity as vaccines and 'super drugs' that have to be stored at specific temperatures, become more popular. Clearly, what's known as 'cool chain integrity' is a key and growing issue that raises new logistics challenges, especially when manufacturers are operating globally. While supply chain integrity is not such a challenge in the UK, with its temperate climate and reasonably reliable road network, guaranteeing delivery times and temperatures in some regions – say Africa, South America or China – poses many more challenges. While this cool chain model is now well established in the food and drinks sector, it is still an emerging trend among pharmaceutical companies.

Another major issue facing life sciences businesses is the route to market for products. While the status quo of getting drugs and medical products to customers has remained stable for decades, this is now changing. In a bid to gain more control of the distribution process and get closer to the end-

customer, some manufacturers, such as Pfizer, have switched to using wholesalers as third party distributors on their behalf, no longer buying products, but passing products to the end-consumer. Adopting this more direct model provides life sciences companies with far more control over the distribution of their products, but inevitably means that a lot of investment in new supply chain systems has been needed.

The desire for more 'Direct to Patient' delivery is also being driven by a need to stop 'grey market' sales. One large manufacturer has recently seen a tripling of urgent service calls from pharmacies reporting unavailability of stock in their wholesaler. On investigation, it was shown that the wholesaler had sold the allocated stock on the 'grey market' at a better price. This reflects poorly on the brand as service levels are reduced and the manufacturer incurs additional costs to process emergency despatches.

Other new developments in the area of routes to market include initiatives led by retailers such as Boots, which is launching an e-prescription service. Certainly, the concept of streamlining the drugs order and collection mechanism, especially for repeat prescriptions, has a great deal of merit. However issues such as supply chain integrity, safety and protection from counterfeit goods all require serious consideration from a logistics perspective.

Similarly, Lloyds Chemists are understood to be setting up mini GP operations to do simpler tests such as blood pressure and minor ailment checks, which will demand that a ready supply of creams, swabs, drugs and certain injectables will need to be provided and securely stocked.

While the issue of counterfeit drugs has gained a lot of column inches in the popular media, its relevance as a serious supply chain issue to most pharmaceutical businesses is less significant in reality. The recent publicity campaign led by Pfizer was prompted largely by its desire to prevent men buying bogus erectile dysfunction drugs (330,000 at the last count), rather than its safe Viagra brand. However, most licensed drugs are far better controlled within hospitals, not available via the internet and not likely to be counterfeited. Granted, other drugs such as painkillers are more open to abuse and there are plans among some manufacturers to combat this potential problem via the use of sophisticated packaging technology.

Lastly, all of these changes in the life sciences market will inevitably have a big impact on production facilities and plant reconfigurations. We recently worked with a pharmaceutical company that operated a plant designed to manufacture pills, but needed to move into the emerging market for vaccines. This complex re-design of the plant layout involved automated materials handling equipment and a temperature controlled environment. Looking ahead, we're likely to see more of this type of challenge, as the quickening pace of change and the life cycles of drugs demands more flexible production facilities. This issue of more nimble manufacturing also has an implication for packaging materials on site. Should pharmaceutical manufacturers outsource the process due to increasing volumes or are there logistical and integrity issues that demand complex packaging is held close to production?

With downward pressure on costs, the ongoing trend towards consolidation in the market and the changes to the way drugs and peripheral products are distributed, it is obvious that major changes are taking place in the life sciences sector. While the supply chain has historically been considered a low value operation compared to new product development and marketing, its value is quickly gaining more appreciation among more enlightened pharmaceutical and life sciences companies.