GHP PROCUREMENT AND DISTRIBUTION INTEREST GROUP

How the pharmaceutical supply chain can be improved

The pharmaceutical supply chain was the focus of the Guild of Healthcare Pharmacists Procurement and Distribution Interest Group symposium held on 14 November at the Manor Hotel in Meriden. Christine Clark reports

An independent review of the hospital pharmaceutical supply chain has concluded that manufacturers, wholesalers and trusts need to work closely together with the NHS Purchasing and Supplies Authority (PASA) to improve day-to-day operations. Tactical options could include night-time deliveries, negotiation of realistic contracts and more extensive use of electronic aids, such as barcoding and robotic dispensing.

Trevor Kitching, consultant, Kurt Salmon Associates, presented the findings of the report that had been commissioned by the PASA. The stimulus for the project had been the rising number of complaints about supplier performance. In spite of the complaints it had not been possible to pinpoint the problems and an independent review was commissioned. The brief for the project had been to analyse the logistics arrangements currently in place in the supply chain, including performance measurement, and to identify options for improvement.

Several features of the present system give rise to problems. Pharmacy stores help to reduce the number of orders placed by amalgamating orders from wards and departments, but this introduces "lumpiness" in the ordering process, said Mr Kitching. Ward box assembly by wholesalers would smooth demand and reduce the value of stocks held in pharmacy stores, he suggested. The use of barcodes to identify products during the receiving and issue steps was not universal — many hospitals still laboriously enter data manually. However, 15 per cent of pharmaceutical products still do not carry a barcode, he noted. Hospital pharmacies wanted one order to generate one delivery document but often goods were picked from several warehouse zones, each of which produced a separate delivery document. Furthermore, an incomplete order could result in several delivery notes. This would not matter if electronic systems were in use.

Orders to wholesalers represent about one third in value but two thirds of the lines ordered by trusts. In fact, one trust reported doing 89.6 per cent of its business (by value) with 30 suppliers (72 per cent of order volume). The remaining 10 per cent (or 28 per cent of orders) is done with 127 suppliers. Consolidating the bottom 100 through a single channel could be of far greater benefit than consolidating the top 30, said Mr Kitching.

Government accounting rules hampered the smooth-running of the system — for example, if four out of five lines were delivered, the invoice remained unpaid because the financial rule requires a complete match before payment.

Other critical aspects of the internal supply chain were difficulties with exchange

Pharmacia Award 2001

Steve Athey, director of pharmacy services, York Healthcare, winner of the 2001 GHP/Pharmacia award, presented his project entitled "Monitoring pharmaceutical supplier performance in NHS hospitals". This work has shown that supplier performance can be monitored using a combination of electronic and manual means and that the data could be used to help improve efficiency in the supply chain. In addition Mr Athey recommends that monitoring should include customer failures.

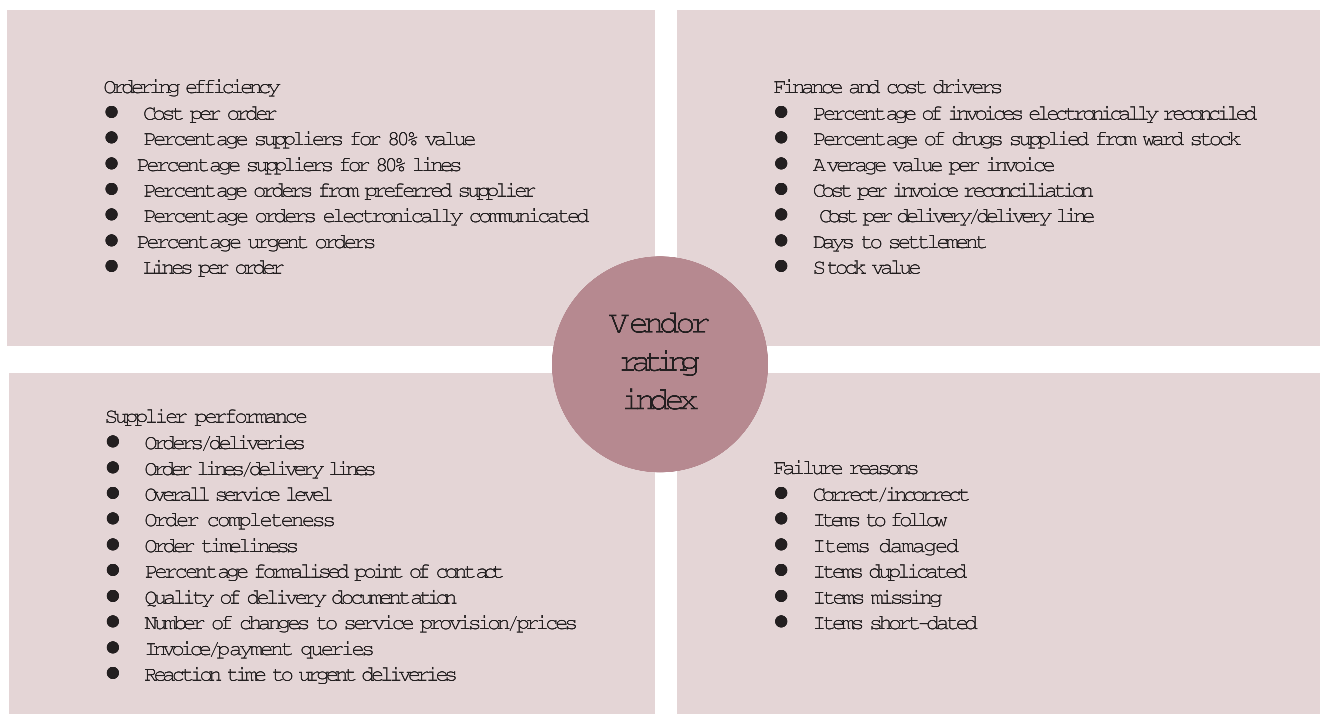

Figure 1: Core key performance indicators

of financial information between pharmacy and finance departments, and the amount of manual handling of goods, in particular, transfer around buildings where the layout was far from optimal.

Wholesalers are geared to the needs of community pharmacy, typically making 80 per cent of sales there and only 20 per cent to hospitals. In addition, the margin on sales to hospitals appears to be small and the number of wholesalers and depots has declined considerably since 1978.

In most trusts people do not measure the performance of their suppliers well, Mr Kitching added. Various monitoring schemes had been devised but unless they were built into the system they could be labour intensive. Wholesalers themselves had both efficiency and quality key performance indicators (KPIs), however, there was often a trade off between the two, eg, reducing the number of call centre staff might increase efficiency but reduce the quality of service. Another example was reduction in stockholding, thereby increasing turnover at the expense of service quality.

The report suggested that supply chain KPIs could be grouped into four main areas: ordering efficiency, supplier performance, finance and analysis of failure (see Figure 1). A spreadsheet designed to accommodate these data permitted the calculation of an overall Vendor Rating Index. In future it might be possible to put this on a website for central analyses and comparisons, suggested Mr Kitching.

The review identified four critical weaknesses of the present system. First, there is dependence on a limited (and decreasing) number of full-line wholesalers. Second, limited use of information technology generates costs through additional activities required for manual administration of the supply chain and limits the visibility across the supply chain. Third, sporadic and inconsistent collection of information prevents comparison between wholesalers and knowledge transfer between high-performing trusts and their colleagues. Last, the strong focus on price as the indicator for cost of supply prevents analysis of underlying issues, he said.

Three strategic options had been identified that pointed the way to a long-term approach. One would be to foster wholesalers as partners. Close collaboration with wholesalers and putting more business via the wholesaler, including encouraging manufacturers to channel products through them, would be the cornerstones of this option. Another option would be increased participation in e-marketplaces — although in most industries these had fallen by the wayside, noted Mr Kitching. They were good for consolidating orders but weak when it came to order fulfilment.

The final option was a do-it-yourself approach in which short-line stores in the NHS would become medium-line stores and take on tasks such as ward order assembly. An additional advantage of this approach would be that it forestalls the emergence of a monopolistic supplier.

Regardless of the strategic approach adopted, there were a number of options that could improve day-to-day operations in the short term. "Incentivised" contracts that built in rewards for good performance and penalties for poor performance would be a way of encouraging wholesalers to improve their service. The use of a common vendor rating tool would improve quality overall. Electronic ordering and invoicing could reduce mistakes and costs. There would be opportunities to learn from the best here, said Mr Kitching. The use of barcodes for receipt and reordering of ward stocks would enable integration with other e-commerce activities.

A prerequisite would be for the PASA to negotiate with the 15 per cent that currently do not barcode their products. Better contracts, for accurately estimated quantities rather than simply pricing agreements, would enable suppliers to streamline production. A new position of "supply chain co-ordinator" should be considered. Such an individual would take responsibility for anticipating supply problems and developing methods to tackle them. Robotic dispensing would enable direct transfer of electronic prescriptions and automatic dispensing. It might be possible for suppliers, rather than the NHS, to own and fill such robots, suggested Mr Kitching.

Delayed deliveries as a result of traffic congestion might be avoided if deliveries were routinely made at night, as happens in Austria. Finally, it would be fairer and would improve cash flow for wholesalers if they could be paid for items received, regardless of any invoice query.

DISCUSSION

In the discussion V'Iain Fenton-May, of St Mary's pharmaceutical unit, Penarth, asked if a completely new system for deliveries should be considered. Mr Kitching replied that, rather than twice-daily deliveries, hospitals needed immediate deliveries and deliveries scheduled weekly. A two-tier, fast-track and regular structure might be best. The current two or three deliveries daily gave the wholesalers a competitive advantage but were not designed to meet the needs of hospitals.

Kevin Wind, medicine and procurement specialist, London and Eastern, said that re-engineering of ward stocks and one-stop dispensing would have a big impact and it would be necessary to rebalance ward stocks and pharmacy store stocks.