

The transaction history information being required is a statement in paper or electronic form including the transaction information for each prior transaction going back to the manufacturer of the product. Right now the wholesale distributors provide to their pharmacy customers only their own transactions. This will be a change for all wholesale distributors.<sup>22</sup>

The complexity of adding lot numbers and the National Drug Code to the transaction information may or may not be very significant for the wholesale distributors, depending upon their systems and current practices. What may be complex is adding the transaction history between the manufacturer and the wholesale distributor and encrypting it for proprietary reasons. The complexity of adding the transaction statement is still to be determined. It will be dependent on the standards developed by the FDA.

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## THE BIG THREE AND TECHNOLOGY

Throughout my career, I have had the pleasure of visiting multiple big three distribution centers (DCs). The size and complexity of one of these distribution centers is amazing. The average big three distribution center ships approximately \$10 million per day in pharmaceutical drug sales to its customer pharmacies. When accounting for multiple states serviced by these DCs and multiple sizes of drug shipments, the number of stock-keeping units in one of these DCs can extend well beyond 100,000 in potential pharmaceutical drugs to ship to pharmacies.<sup>23</sup>

The DC receives the drugs in case/pallet quantities, places these cases/pallets into storage, and then pulls case quantities to its “order pick lanes.” Random access storage is used to maximize the available storage in the DC. The order picker receives the orders from the customer pharmacies, picks the orders in the quantities needed, places the drugs in a tote, and closes out the order at the end of the pick lane. A manifest (that sometimes doubles as the invoice) is printed and attached to the outside of the tote. Totes are everywhere, or so it seems to a visitor.

In many of these DCs, the process is very automated. Wearable computer devices, such as those produced by Motorola Solutions, are used by warehouse personnel to scan and input all movement information within the warehouse. The information is transferred through a wireless local area network (LAN) to the network. This enables the tracking of inventory in real time from receiving, in-warehouse transfers, order picking,