The Hospital Drug Formulary System: Just a Leftover?

Opinions of a Tired but Still Committed Formulary System Manager

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I recently came across some minutes of the Pharmacy and Therapeutics Committee at our hospital in which the topic of formulary systems was being hotly debated. One member was quoted as saying that "a hospital formulary is too confining and would limit doctors on their choice of drugs"; another stated that "it has value as an educational aid and reference", and yet another suggested that "it would eliminate some useless drugs and probably decrease drug costs". The date on those minutes was January 16, 1959, and this documentation marked the birth of the formulary system at Vancouver General Hospital. Amazingly, over 40 years later, the controversy about hospital formulary systems continues.

A few decades later, and after more than 10 years of personal experience working on drug management at this institution, I believe that a well-controlled drug formulary system is still and will continue to be a critical element of responsible acute care hospital pharmacy practice. As the godfather of pharmaceutical care has said, "I personally would much rather practice, and receive care, in a hospital with a well-managed formulary system than in one without".[1] However, like the drugs it covers, a formulary cannot be expected to yield its intended benefit unless it is properly applied, tailored to the specific situation, and appropriately monitored.

Drug formularies have been in existence in North America for almost 200 years, and we need them now more than ever, as the shear volume of drugs, complexity of drug therapy, and sophistication of marketing techniques continue to increase. As everyone knows all too well, the greatest health-care challenge we face in Canada over the next few years is making the best use of insufficient resources to attain the highest quality of care for our patients. Without a drug formulary system and its associated infrastructure, we just don't stand a chance of meeting this goal. Did you know that there are more than 21 000 drug products (drug–dose–dosage form combinations) available in Canada?[2] About 10 000 of these require a prescription. In British Columbia, PharmaCare (the provincial drug benefit plan) considers about 6500 of these to be benefit drugs, and at Vancouver Hospital and Health Sciences Centre, one of the largest hospitals in the country, only 2000 of these products actually have formulary status. That's less than 10% of all available drug products, and I suspect that most acute care hospitals stock a similar selection. Surely no one really believes that a hospital pharmacy could stock every drug available in Canada. Yet the stocking of anything less than the full complement constitutes the beginnings of a formulary system.

LIFE WITHOUT A FORMULARY SYSTEM

One way to illustrate the need for a formulary system is to predict what would happen if we were foolish enough to eliminate the system from our hospitals. Yes, imagine your world without a formulary system. As a formulary manager, you would have a lot less work to do, but you might need a budget as great as $15 million per year. Even though maintaining a formulary system requires time, effort, and resources on the part of our discipline, and even though better management requires money, expenses could be greater without a formulary in place. Consider these implications.

Without a formulary system, we would theoretically have to be prepared to carry all brands of all drugs available in Canada. Instead of carrying approximately 2000 line items, we could expect to carry several-fold more products on our shelves. The storage space and the inventory would carry significant capital costs.

Without a formulary system, we would also need to be even more prepared for the onslaught of new and often forgettable drugs that enter the marketplace every year. The Patented Medicine Price Review Board reports that about 100 drug products come to market in Canada every year.[3] However, only about 5 of these are considered substantial improvements over existing agents. In the absence of a formulary system, we had better be prepared to handle the other 95 "me-too" drugs that can be expected to appear every 12 months.

Without a formulary system, physicians would have to learn to prescribe a broader range of drugs. If you think our esteemed colleagues have problems keeping up now, consider the consequences of removing the formulary. For example, how many urologists know the differences among all of the available angiotensin-converting enzyme inhibitors? It is far better to be knowledgeable about a limited selection of drugs than ignorant about a wide range.

Without a formulary system, there would be no policies and procedures (including care plans, preprinted orders, critical paths, and disease management protocols) governing the safe use of drugs, and hence no institution-specific dosing and drug administration guidelines, no restrictions, nothing. Just imagine the impact of removing the formulary system on anti-infective drug use alone. Imagine what resistance patterns might look like if we did not promote responsible prescribing and restrict the use of some of our most important agents (such as imipenem and vancomycin) through formulary-based interventions. I suspect that resistance patterns would more closely resemble those of our neighbours to the south.

Without a formulary system, we probably wouldn't need drug-use evaluation programs to assess drug-use patterns and the impact of interventions aimed at improving drug use. By definition, such activities would not occur in the absence of a formulary system. So much for this type of drug research.

Without a formulary system, we would stand to lose one of our main focuses for interdisciplinary education about appropriate application of new and existing drug therapies.

Without a formulary system, we would be under even greater marketing pressure from industry, which would no doubt use whatever means necessary to influence the public into believing that optimal care necessarily involves the newest, strongest, and most expensive drug product on the market. Does marketing work? Of course it works. We are on the verge of an explosion of brand recognition and direct-to-consumer marketing, fuelled partly by the Internet. An example of this was first reported in August 1997 by the editors of *PC World*.[4] A technique known as "stealth marketing" was slickly demonstrated by a large pharmaceutical company when it launched a Web site called www.cafeherpe.com. The sole purpose of the site was to promote the use of a new antiviral drug to the public. This product is only a modest improvement over existing entities, but the current popularity of the drug suggests that the direct-to-consumer marketing has had its intended effects. Mediocrity plus media seems to equal success.

Without a formulary system, our ability to effectively counter-detail the efforts of industry would be much more difficult. We would have to make available any drug that a physician felt compelled to prescribe according to anecdote-based (as opposed to evidence-based) pharmacotherapy. There are an abundance of data to support the contention that physicians are influenced by industry, and many prescribe on the basis of what has been promoted to them. The formulary system acts as a firewall to prevent this influence from unduly affecting the quality of patient care in the hospital.

Finally, removing the formulary would also eliminate competition among our suppliers. Contract pricing incentives would be lost if companies did not have to compete for entry into the hospital market.

CONCLUSION

In summary, the real issue isn't whether or not we should have a formulary system, but what we need to do to make our formulary system work better. We should also be less concerned about how many drugs we carry and more concerned as to whether the conditions of their use, including impact on health outcomes, are optimal. To paraphrase a 1996 quote from Rapp and Pomeroy, "before we throw out the glass of beer because it's half empty, let's consider the benefit of the liquid that remains".[5]

References

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