

Vendor quality ratings in contract awards

Ron Maxymyshyn

ABSTRACT

The Pharmacy Advisory Committee of B.C. Health Services has developed a Pharmacy Vendor Quality Management Program. This program employs a rating scale to measure quality of delivery service, quality of invoicing service and quality of customer service. Ten elements, each rated on a four-point scale, are included in the rating system. Hospitals in each of six regions of B.C. collect data using the system. The ratings are averaged, weighted and used to make decisions regarding vendor contracts, if all other factors are equal. Vendor bids are increased by up to 10%, inversely reflecting their vendor quality rating. We have found this system to be an unbiased objective means to quantify the performance of vendors and integrate service quality into the contracting process.

Key words: management practices, quality management, purchasing, vendor quality.

Le Conseil consultatif de pharmacie des Services de santé de la Colombie-Britannique a élaboré un programme de gestion de la qualité des fournisseurs pharmaceutiques. Ce programme utilise une échelle de notation pour mesurer la qualité des services de livraison, de facturation et auprès de la clientèle, de ces fournisseurs. Le programme permet d'évaluer dix éléments sur une échelle de quatre. Les hôpitaux de chacune des six régions brianno-colombiennes recueillent les données issues du programme. On calcule ensuite une moyenne des cotes obtenues et on les pondère. Les cotes résultantes servent à choisir un fournisseur parmi plusieurs, lorsque les autres facteurs de sélection son égaux. Les soumissions des fournisseurs ont augmenté jusqu'à 10 %, reflétant de façon inversement proportionnelle la cote qualitative de ces fournisseurs. Ce système s'est avéré un moyen objectif de quantifier le rendement des fournisseurs et

d'intégrer la qualité du service dans l'attribution des contrats.

Mots clés: procédures de gestion, gestion de la qualité, achats, qualité des fournisseurs.

Can J Hosp Pharm 1998;51: 150-155

INTRODUCTION

Any hospital or purchasing group that enters into a contract to purchase drugs from a vendor considers the quality of the service in the decision making process. Hospitals know what elements of a vendor's service they value most, and they generally want to work with vendors who are able to provide the service elements that are most important to them. Vendors that understand and also meet the needs of their customers are more likely to be awarded contracts. In this paper, a rating system that quantifies vendor quality is described.

There are close to 33 major hospital pharmacy purchasing groups in Canada. Total hospital drug expenses are estimated at \$791 million.¹ Most purchasing groups purchase about 75% of the dollar value of their expenditures on contract. Therefore, roughly \$600 million dollars of drugs are purchased through contracts in hospitals. Given the value of the contracts awarded each year in Canada, the award process must be fair, consistent and ideally all participants in the buying group should provide input.

Ron Maxymyshyn, BSP, is Manager, Royal Jubilee Hospital Pharmacy, Capital Health Region, Victoria, BC and is Vice-Chair of the Pharmacy Advisory Committee for BC Health Services.

Address correspondence to Ron Maxymyshyn, BSP, Manager, Royal Jubilee Hospital Pharmacy, 1900 Fort Street, Victoria BC V8R 1J6, e-mail: <ronmax@caphealth.org>.

Purchasing groups normally contract to purchase drugs from a vendor from 1 to 2 years and at times, up to 5 years. Factors usually considered in awarding contracts are:

- delivery, invoicing and customer support
- labelling and packaging
- cost, and
- the use of a prime vendor.

At the time of receiving quotations, most groups would know the cost, would have a sample of the label and package for each quotation and would know if the vendor uses the prime vendor concept. However, other information regarding the delivery, invoicing and customer support level is usually available. This can often be assessed from file notes and problem reports gathered since the last contract was issued. Since the delivery, invoicing and customer support levels are valued highly by the groups, an objective method of rating the vendors and integrating this into the contract price was considered important.

British Columbia has developed a provincial buying program operated through the BC Health Services Ltd. The Pharmacy Advisory Committee, made up of elected pharmacist representatives from each of 6 regions (with additional representatives for specialty areas), oversees the Pharmacy Program. This program enables all sizes of facilities to purchase drugs at the same prices, regardless of size, acuity or location. The BC Pharmacy Advisory Committee is committed to maintaining the program on a provincial basis, in order to maintain its integrity and to satisfy the vendors who feel there are benefits to dealing with one provincial buying group representing all facilities.

The Pharmacy contracts amount to approximately \$80 million in pharmaceutical tenders. These agreements are completed on a committed participation basis, where facilities agree to follow contracts as awarded, except for valid clinical reasons.

The members of the major pharmaceutical tendering group in BC (BC Health Services) believed that service levels from the vendors could improve substantially. As well, the members wanted to do business with vendors providing high service levels. The quality of service would need to be measured and the vendors' ratings would be used to assist in awarding contracts.

Because there were no published reports of other pharmacy purchasing groups rating the quality of a vendor's service and using these ratings to award contracts, the Pharmacy Advisory Committee established a system of rating vendor quality. The committee developed the elements based on their experience, using a vendor quality program developed at BC Tel as a guide.²

VENDOR RATINGS

Each of BC's 6 regions selects, on a voluntary basis, a minimum of 4 hospitals to collect data. In the North Region, only 2 hospitals collect data. The 4 hospitals in each region then rate all of the vendors so each vendor is rated in every region of BC. The vendor list is divided into 4 groups so each hospital in the region rates at least 1/4 of the vendors. However, hospitals are not restricted to collecting data on vendors in their assigned group, and many choose to collect data on vendors in other groups as well. Data are collected by as many as 20 staff members in large facilities and as few as 1 member in smaller facilities. Each facility submits its data, and the combined provincial data are compiled to produce a single final rating.

The Pharmacy Advisory Committee representatives trained the hospital staff in the first year of this program. In the second and third years, the staff of BC Health Services acted as the trainers. A complete package containing data collection forms and examples is mailed to the hospitals in March and the data are collected over a 10-week period from March to June. A year-long collection period would be ideal; however, few, if any, hospitals would be willing to devote the time and resources to this level of data collection. The time frame was chosen arbitrarily and may in the future be changed to the late fall, to avoid the fiscal year-end.

The staff that provide the ratings must fully understand what is meant by the questions asked in each element. They must also know what is acceptable and not acceptable performance in each area. When the same rules are followed, there is standardization in the evaluation process. The definitions and criteria used to rate each element are included in Table I. The understanding and interpretation of the elements are critical aspects of an evaluation. The areas of a

Table 1 — Element definitions and criteria for vendor quality ratings

Element and no.	Criteria for rating	Performance rating based on	Rating
1 Delivers on time	<ul style="list-style-type: none"> ■ Delivers drugs as requested on purchase orders ■ Narcotics delivered by the end of 2 business days, assuming electronic ordering ■ Nonnarcotics delivered by end of next business day if order placed by noon ■ Late order includes either whole order or port of order 	% of line items delivered on time	
		100–95%	4
		94–90%	3
		89–85%	2
		less than 85%	1
2 Meets due date or vendor follows up	<ul style="list-style-type: none"> ■ Refers to customer follow-up on purchase orders ■ Vendor contact pharmacy buyer if item will be late 	% of orders requiring follow-up	
		100–99.5%	4
		99.4–95%	3
		94–90%	2
		less than 90%	1
3 Delivers proper drugs	<ul style="list-style-type: none"> ■ Refers to vendor's ability to deliver correct drugs ■ Vendors must ensure there is no misunderstanding with buyer's order 	% of correct line items received	
		100–99.5%	4
		99.4–98%	3
		97.9–95%	2
		less than 95%	1
4 Delivers proper quantities	<ul style="list-style-type: none"> ■ Rating is based on number of correct line items received 	% of correct quantities received	
		100–99.5%	4
		99.4–98%	3
		97.9–95%	2
		less than 95%	1
5 Accurate documentation and shipping label	<ul style="list-style-type: none"> ■ Refers to packing slip and container identification on drug shipments ■ Vendor must mark all packages with: <ul style="list-style-type: none"> ■ pharmacy identification ■ hospital address ■ shipper's address ■ number of pieces on label ■ Box containing packing slip is labelled ■ Purchase order no. on outside of box ■ Labels and packing slips are legible 	% of shipments with correct documentation	
		100–95%	4
		94.9–90%	3
		89.9–85%	2
		less than 85%	1

vendor's service were put into 3 categories with a total of 10 elements that are evaluated. These elements are:

- Quality of delivery service
 - Delivers on time
 - Meets due date without constant follow-up
 - Delivers proper items
 - Delivers proper quantities
 - Accurate documentation
 - Response on emergency delivery requirements

- Quality of invoicing service
 - Pricing accuracy
 - Invoicing efficiency
 - Issuing credit notes

- Quality of customer service
 - Vendor customer support

Eight of the 10 elements are objective, while 2 — response on emergency delivery requirements and vendor customer support — are more subjective. Each

Table I — Element definitions and criteria for vendor quality ratings (continued)

Element and no.	Criteria for rating	Performance rating based on	Rating
6 Ability to meet emergency requirements	■ This subjective element rates vendor's willingness and ability to help the hospital in an emergency	Response provided to emergency	
		Immediate: excellent effort	4
		Meets most requests: good effort	3
		Meets some requests: fair effort	2
		Poor response: no effort	1
7 Price accuracy	■ Refers to accuracy of comparison between contract and invoice prices	% of line items received with correct price	
		100–98%	4
		97.9–95%	3
		94.9–91%	2
		less than 91%	1
8 Invoice accuracy	■ Errors include incorrect number of copies, incorrect address, duplicate billing, incorrect taxes, incorrect order no., incorrect customer no.	% of correct invoices received	
		100%–98%	4
		97.9–95%	3
		94.9–91%	2
		less than 91%	1
9 Issing credit notes	■ Refers to length of time for the vendor to respond to requests for credit, based on date credit requested	Average days to receive credit	
		0–14	4
		15–30	3
		31–60	2
		>60	1
10 Vendor's customer service	■ Examines service levels in ■ vendor rep service ■ vendor sales support ■ drug information support ■ value-added services	Level of satisfaction	
		high	4
			3
		low	2
			1

element is rated on a 4-point scale according to defined criteria (Table I).

Vendors who use a wholesaler or distributor will get the wholesaler's or distributor's rating on the first 9 elements. The 10th element is the vendor's own rating. The 3 categories of service are weighted to determine the final rating. Delivery service counts for 40%, invoicing service is 35% and vendor's customer service is 25%.

APPLYING THE RATINGS

The vendor's numerical average weighted rating is converted to a percentage rating and this percentage is used to adjust the bid price. For example, a vendor with a 3.5 rating would have a percentage rating of 87.5%. The original intention with this

program was to use the percentage rating (e.g. 87.5%) subtracted from the ideal rating (100%) to obtain the vendor's "non-conformance" rating. This percentage (e.g. 12.5%) would be added to the vendor's bids. However, the vendors in general rated much lower than anticipated, so a scale of 0–10 was developed. Table II shows how a vendor's quality rating is calculated and how the incremental percentages added to a vendor's bid are determined. Ten percent is the maximum added to any vendor's bid and zero is the least. If this scale was not used, some vendors would have as much as 40% added to their bids, and this percentage seemed to be an unrealistic penalty. In the future, when vendor's service levels are consistent with the customer's expectations, it is intended that this 10% capped scale will be abandoned. Until then, the 10-point scale meets our needs and differentiates

between the vendor's levels of service. Each year of this program, the Pharmacy Advisory Committee has awarded a contract to a higher priced bid that became a lower comparative bid when the vendor-quality rating was calculated into the bids. Beginning with the 1998 contract awards, the vendors will be notified if their low priced bid was unsuccessful primarily due to their low vendor-quality rating.

In the example shown in Table II, if all other factors are considered equal (i.e. package, label, use of prime vendor), then the vendor comparative bids are considered. In this case, Vendor A would likely be awarded the contract.

EXPERIENCE WITH THE PROGRAM

Each year, the member hospitals rate vendors' service levels and the vendors are made aware of their ratings on each element and how they compare to the average scores of all vendors. Vendor ratings are not shared with other vendors or with the hospital

members themselves. This confidentiality avoids labelling poor vendors. Vendors that do not perform well are given every opportunity to improve their ratings for the subsequent contract years. The names of top-rated vendors are not kept confidential, because vendors that consistently rate high prefer their names to be known publicly. Vendors that perform below the industry average are invited to a meeting with BC Health Service staff and the Chair of the Pharmacy Advisory Committee. Vendors have considered this to be a valuable forum for learning what performance elements require improvement. Lack of time does not permit a meeting with each of the 50 vendors.

Vendor quality information has been collected since 1995. Due to a number of changes in vendors through amalgamations and mergers, 1995 data are not directly comparable to data collected in 1996 and 1997. Figure 1 shows the distribution of vendor quality ratings in 1996 and 1997. While there have been some marked individual changes, overall there has been no change in the ratings (Chi-square; $p=0.2107$).

Table II — Example of how vendor ratings affect vendors' bids. VQ=vendor quality

Element	Vendor A	Vendor B
1 Delivers on time	1.8	1.0
2 Meets due date or vendor will follow up	4.0	3.2
3 Delivers proper drugs	4.0	3.0
4 Accurate documentation and shipping label	4.0	3.0
5 Ability to meet emergency requirements	4.0	n/a*
6 Price accuracy	3.6	3.7
7 Invoice accuracy	4.0	2.3
8 Issuing credit notes	3.6	n/a*
9 Vendor's customer service	2.8	2.2
10 Overall weighted average† (VQ rating)	3.4	2.7
Vendor's actual bid price	65,000	63,000
Percentage added‡	3.0	7.0
Comparative bid price	66,950	67,410

* Insufficient data to obtain a valid rating

† The overall weighted average score assigns 40% to elements 1–6, 35% to elements 7–9 and 25% to element 10. The formula is: VQ Rating = $[0.4 \times (S(\text{score elements } 1-6))/6] + [0.35 \times (S(\text{score elements } 7-9))/3] + [0.25 \times (\text{score element } 10)]$

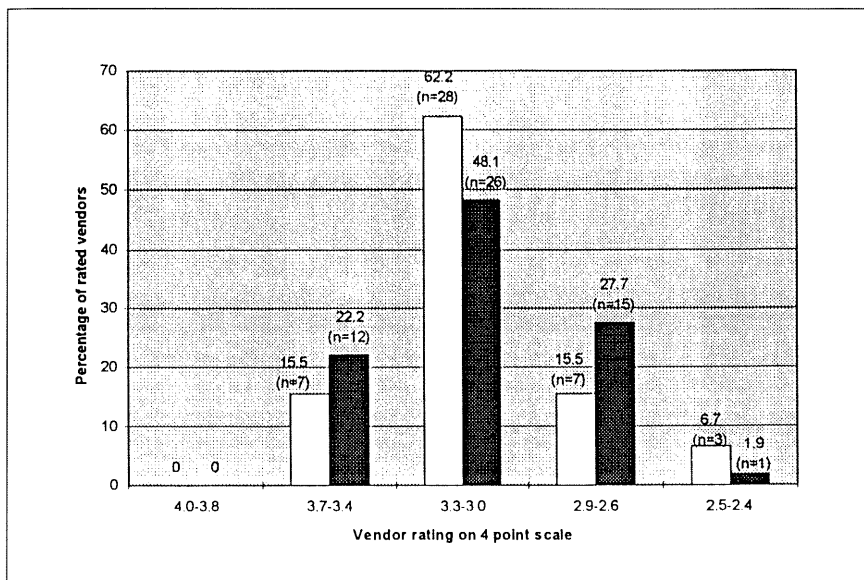
‡ The percentage added to bids is based on the VQ rating and the scale below:

Rating	4.0	3.9–3.8	3.7–3.6	3.5–3.4	3.3–3.2	3.1–3.0
% added	0	0	1	2	3	4
Rating	3.1–3.0	2.9–2.8	2.7–2.6	2.5–2.4	2.3–2.0	1.9–1.0
% added	5	6	7	8	9	10

DISCUSSION

While price is usually a deciding factor in the awarding of many contracts, service is a factor that must be considered.³ The Vendor Quality Management Program has provided the buying group with a valuable tool for assisting in contract awards. Although overall vendor performance has not changed, the buying group has determined which vendors provide a quality service and have awarded contracts based on quality performance. The time commitment required of hospitals to collect the data continues to be a challenge, but the benefits of dealing with quality vendors outweigh the time required to obtain the data. The majority of vendors view this program as a

Figure 1 — Distribution of vendor quality rating scores in 1996 (open bars) and 1997 (solid bars). The distribution is not significantly different between these two years (Chi-square; $p=0.2107$). Light bars represent ratings from 1996; dark bars represent ratings from 1997.



reward system for providing the hospitals with the elements of service they value the most. Consequently, the vendors continue to be positive supporters of this program.

Plans call for the prime vendor (e.g. Medis Health and Pharmaceutical Services) to evaluate the participating companies distributing their products through the prime vendor in the areas of delivery service and pricing service. This would give each vendor a more accurate rating. At present, the rating provided by the prime vendor is an average rating for all the vendors that deal with the prime vendor. A poor vendor may be getting a better rating in the averaging system than it is entitled to, and conversely a good vendor could receive poorer ratings in this averaging process.

Public acknowledgement of vendors performing excellently will be a priority in the next year. The Committee believes that this acknowledgement would encourage other vendors to improve their performance and would give excellent vendors the recognition they deserve for providing service levels the members expect.

It may be that this program has stimulated vendors to improve performance. We are aware of a vendor that

rated in the bottom 10 in the first year. It made many changes throughout its company based on this program and rated in the top 10 in the second year. This company and others have told our members that they never really understood what service areas were important to the hospitals.

The BC Health Services group represents approximately 10% of the drug contracts in Canada. As more buying groups introduce a Vendor Quality Management program, it is anticipated that the vendors will improve their performance to meet their customers' needs.

ACKNOWLEDGEMENTS

I would like to thank Christopher Murphy, who teaches Vendor Quality Management at the BC Institute of Technology in Vancouver, for introducing us to the idea of vendor quality. I would also like to thank Yvonne Krause for providing the data, Ingrid Kandal, Joe Murphy and Anita Molzahn for reviewing the article and the members of the BCHS Pharmacy Advisory Committee for their continued support of this program.

REFERENCES

1. Health Canada Web Site; Drug Costs in Canada; <http://www.hc-sc.gc.ca/main/hc/web/datapcb/datahesa/drugs/Edrugs.htm>, April 5, 1998.
2. Murphy, Christopher L., Vendor Quality Management, Vancouver, 1990.
3. ASHP Guidelines for selecting pharmacy manufacturers and suppliers. AJHP 1991; 48: 523-4. ■

ERRATA

In the August 1998 issue of the *Canadian Journal of Hospital Pharmacy* (Vol. 51, no. 4), on page 154, information was omitted from Table II of the the article "Vendor quality ratings in contract awards". The complete table is printed opposite.

Table II — Example of how vendor ratings affect vendors' bids. VQ=vendor quality

Element	Vendor A	Vendor B
1 Delivers on time	1.8	1.0
2 Meets due date or vendor will follow up	4.0	3.2
3 Delivers proper drugs	4.0	3.0
4 Delivers proper quantities	3.2	3.2
5 Accurate documentation and shipping label	4.0	3.0
6 Ability to meet emergency requirements	4.0	n/a*
7 Price accuracy	3.6	3.7
8 Invoice accuracy	4.0	2.3
9 Issuing credit notes	3.6	n/a*
10 Vendor's customer service	2.8	2.2
Overall weighted average† (VQ rating)	3.4	2.7
Vendor's actual bid price	65,000	63,000
Percentage added‡	3.0	7.0
Comparative bid price	66,950	67,410

* Insufficient data to obtain a valid rating
† The overall weighted average score assigns 40% to elements 1–6, 35% to elements 7–9 and 25% to element 10. The formula is: VQ Rating = $[0.4 \times (S(\text{score elements 1–6}))/6] + [0.35 \times (S(\text{score elements 7–9}))/3] + [0.25 \times (\text{score element 10})]$
‡ The percentage added to bids is based on the VQ rating and the scale below:

Rating	4.0	3.9–3.8	3.7–3.6	3.5–3.4	3.3–3.2	3.1–3.0
% added	0	1	2	3	4	5
Rating	2.9–2.8	2.7–2.6	2.5–2.4	2.3–2.0	1.9–1.0	
% added	6	7	8	9	10	