

Capital Equipment Procurement and Planning in Ontario's Hospitals: A Collaborative Approach¹

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ABSTRACT

In May 2007, Ontario's 25 academic hospitals, represented by the Council of Academic Hospitals of Ontario (CAHO), conducted a study to determine if establishing a process for group purchasing of hospital capital equipment would be a feasible and worthwhile venture. The study, supported by KPMG, concluded that the business case was strong both operationally and financially. A proposal to the Ministry of Finance's OntarioBuys program for implementation funding was successful, and the CAHO capital equipment group purchasing initiative was launched in 2008. Two procurements, patient handling equipment and intravenous therapy system devices, were under way at the time of this writing and were anticipated to be completed in late summer 2008. Key performance indicators being tracked to measure the success of the initiative include financial savings, administrative efficiency and hospital and supplier satisfaction, along with other detailed metrics to evaluate the operational process.

BACKGROUND

Ontario hospitals have made steady progress toward the creation of integrated, leading-practice supply chains for medical and surgical supplies and other consumables. Many hospitals have been collaborating and investigating integrated supply chain management models, and several regional shared service providers are in various stages of development.

Capital equipment remains an area of opportunity. Although some group purchasing organizations or collaboratives exist, and there have been several ongoing and one-

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time collaboration initiatives for capital purchasing in Ontario, the planning and purchasing of capital equipment is largely fragmented across hospitals. The value of capital equipment purchased by all Ontario hospitals varies each year and is in the order of \$200–\$500 million per year.

In 2007, Ontario's 25 academic hospitals (Table 1), represented by the Council of Academic Hospitals of Ontario (CAHO), conducted a study to determine if an opportunity existed for establishing group purchasing of hospital capital equipment. (CAHO provides a focal point for strategic initiatives on behalf of Ontario's 25 academic hospitals. The 25 hospitals have teaching or research affiliations with one of the six university medical or health sciences schools.) CAHO wanted to test the hypothesis that a formal coordinated effort could yield significant purchasing and process-based efficiencies, which would ultimately translate into savings redirected toward addressing other priorities within participating hospitals. CAHO engaged KPMG to (1) provide a fair and objective test of the costs and benefits of establishing a group purchasing initiative (GPI) for capital equipment and (2) to recommend the optimal governance and operational structure for the group purchasing model if the assessment were positive. A Steering Committee of senior executives from several CAHO organizations was struck to provide project direction and oversight.

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Table 1. Ontario's 25 academic hospitals

Baycrest Centre for Geriatric Care
Bloorview Kids Rehab
Centre for Addiction and Mental Health
Children's Hospital of Eastern Ontario
Hamilton Health Sciences
Hôpital régional de Sudbury Regional Hospital
Hospital for Sick Children
Hotel Dieu Hospital Kingston
Kingston General Hospital
London Health Sciences Centre
Montfort Hospital
Mount Sinai Hospital
New Women's College Hospital
North York General Hospital
Ottawa Hospital
Providence Care
Royal Ottawa Health Care Group
St. Joseph's Healthcare Hamilton
St. Joseph's Healthcare, London
St. Michael's Hospital

Bruyère Continuing Care
Sunnybrook Health Sciences Centre
Thunder Bay Regional Health Sciences Centre
Toronto Rehabilitation Institute
University Health Network

APPROACH AND FINDINGS

Data were collected for the study through the following means:

- A hospital survey to collect information on the capital equipment procurement process and to determine current and near-future purchase plans for capital equipment
- Interviews with hospital staff, group purchasing organizations and shared service providers in Ontario, and capital equipment vendors
- An environmental scan of organizations outside Ontario to identify leading practices and key success factors

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KPMG's analysis revealed that although capital equipment planning and procurement processes are largely the same among CAHO members, there are some key variations in the timing of the planning cycle and the review-and-approval process.

All the organizations interviewed in the environmental scan saw value in the group purchasing of capital equipment but had mixed responses to previous group purchasing efforts, particularly regarding diagnostic imaging equipment. To achieve savings, certain key factors for success needed to be achieved:

- Strong senior management and sponsor leadership and commitment
- Clinician engagement and subject matter expertise
- Commitment and collaboration by members of the group buy
- Open and transparent procurement processes
- Communication between procurement staff, clinicians, vendors and end users

The forecasted capital equipment plans of the 25 participating hospitals showed several product categories with a large amount of estimated spending, representing an excellent opportunity for collaboration.

The Steering Committee concluded that there was a strong case for group purchasing of hospital capital equipment. Expected benefits of group purchasing are listed below:

- Obtaining value for money with capital equipment
- Reducing in the administrative duplication of individual organizations conducting their own procurements
- The sharing and building of expertise and knowledge among CAHO members
- The dissemination of leading practices
- A more coordinated approach to long-term planning of capital equipment

RECOMMENDATIONS

Based on KPMG's analysis, the Steering Committee made the following key recommendations, which were endorsed by all CAHO hospitals:

1. Conduct a two-year GPI for capital equipment for CAHO members using CAHO's existing governance structure. The initiative would provide an opportunity to evaluate and validate benefits of group purchasing, "test the waters" and build experience, build commitment and trust with members and keep the momentum going.
2. Use the procurement services and expertise of existing group purchasing organizations and shared service providers associated with CAHO members to lead the procurement process. This includes Healthcare Material Management Services, Plexxus and St. Joseph's Health System Group Purchasing Organization. This offers a combination of expertise, tools, technology and resources from the three organizations.
3. Establish a CAHO Project Management Office to oversee the implementation of the initiative and centrally coordinate communication and evaluation of the initiative.
4. Submit an implementation funding proposal to OntarioBuys to fund the initiative. (OntarioBuys is a program of the Ontario Ministry of Finance that provides funding and advice to the province's broader public sector partners to help them modernize their supply chains and other back-office processes.)

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Table 2. Rules of engagement

For CAHO Secretariat	For CAHO Hospitals
<p>The CAHO secretariat will act as an "agent" for the hospitals during the pilot. The pilot initiative will be revenue neutral for the CAHO secretariat.</p> <p>The CAHO secretariat will not provide purchasing services directly but will provide a project management office, manage the relationship with procurement agents on behalf of its members and evaluate the initiative.</p> <p>Any volume rebates earned by the GPI will be distributed back to participating hospitals based on the proportional volume purchased by each hospital.</p>	<p>Hospitals will share information in a timely manner. An expected turnaround time will be established.</p> <p>All participants in a procurement process must declare any conflicts of interest and sign confidentiality agreements.</p> <p>Hospitals cannot use information obtained by the pilot initiative to arrange backroom deals with vendors.</p> <p>During procurement, all contact with vendors must be done through proper procurement channels.</p> <p>Any hospital that is approached by a vendor outside proper channels is obligated to reveal the contact and the content of the discussion to the CAHO secretariat.</p> <p>Hospitals and their vendors will continue to have the same obligations to one another as they do currently.</p>

CAHO = Council of Academic Hospitals of Ontario; GPI = group purchasing initiative.

ELEMENTS OF THE TWO-YEAR GPI

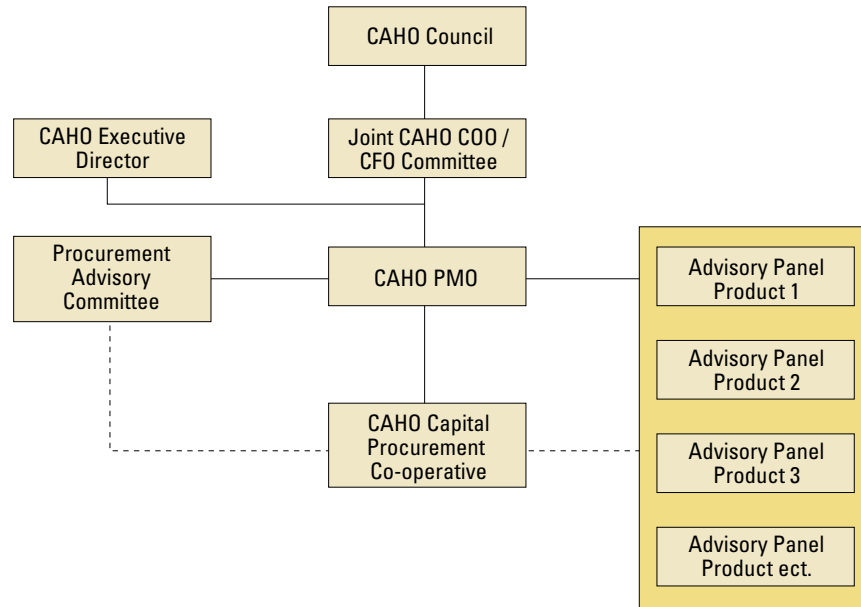
The following governance principles were established for the initiative:

1. CAHO members are committed to collaboration and the avoidance of duplication.
2. Customer choice is paramount for the success of group purchasing.
3. For a pilot period of two years, CAHO hospitals will participate in joint capital purchasing opportunities to further explore and define a longer-term solution.
4. All CAHO hospitals will actively participate and provide input into the process.

5. In product groups where it makes sense, the initiative will move toward fewer vendors to enhance value for CAHO members.
6. The long-term approach to group purchasing will be based on evidence accumulated during the two-year initiative.

Rules of engagement were also developed for CAHO and its members; these are presented in Table 2. Figure 1 and Table 3 outline the organizational model for the initiative.

Figure 1. Organizational model for the group purchasing initiative



CAHO = Council of Academic Hospitals of Ontario; CFO = chief financial officer; COO = chief operating officer; PMO = Project Management Office.

Table 3. Organizational model for the group purchasing initiative

Group	Membership	Role
Joint CAHO COO/CFO Committee	COOs and CFOs from CAHO hospitals and CAHO executive director (this is an existing CAHO committee)	Project sponsor – oversees the GPI project
CAHO Project Management Office	Project manager and analyst/ administrative support	Oversees the implementation of the GPI
Procurement Advisory Committee	Procurement/material management leaders from CAHO members	Procurement advisor for the GPI
Advisory panels	Hospital administrators, clinicians, materials management staff and end users from hospitals that are participating in the product opportunity	Advisor for each product opportunity
CAHO capital procurement co-operative	Consortium representing HMMS, Plexus and SJHS-GPO	Lead for conducting the capital equipment procurements

CAHO = Council of Academic Hospitals of Ontario; CFO = chief financial officer; COO = chief operating officer; GPI = group purchasing initiative; HMMS = Healthcare Material Management Services; PMO = Project Management Office; SJHS-GPO = St. Joseph's Health System Group Purchasing Organization.

Key activities in the capital equipment procurement process include the following:

- Hospitals submit their up-to-date or most recent capital equipment plans to CAHO.
- The Procurement Advisory Committee identifies and prioritizes opportunities and develops a schedule of procurements.
- Hospitals confirm their participation and volumes prior to the initiation of each product opportunity.
- Hospitals customize the evaluation the process to include vendor presentations, clinical site visits, a centralized vendor fair etc., as appropriate and feasible.
- Centralized negotiations are led by the CAHO capital procurement co-operative.
- Hospitals manage their contract with vendors and evaluate vendor performance.
- CAHO evaluates the outcome and process after each product procurement.

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The capital equipment products listed in Table 4 were identified for the initiative based on an assessment of their ease of implementation and the potential savings opportunity. An implementation funding proposal was submitted to OntarioBuys and successfully accepted.

Table 4. Capital equipment products for the initiative

Anesthetic machines
Angiography system
Beds and stretchers
Cardiac catheterization laboratories
Computed tomography scanners
Dialysis machines
Digital imaging infrastructure
Fluoroscopy units
Intravenous pumps
Monitors
Magnetic resonance imaging machines
Nuclear medicine units
Operating room tables
Radiation therapy equipment
Surgical microscopes
Ultrasonography machines
Ventilators

IMPLEMENTING THE INITIATIVE

In January 2008, CAHO hospitals launched the capital equipment GPI. The major focus of the initiative in the early phase has been the development of a standardized request for proposal (RFP) template, common terms and conditions, and other tools and templates to streamline the procurement and contracting of equipment.

In May 2008, CAHO held an official launch event for the GPI. The event was attended by over 200 individuals from hospitals and industry and marked a significant shift in

the way hospitals partner with each other and the Ontario government. A question-and-answer session held as part of this event provided the opportunity to explore the value and implications for industry. Questions and answers and other follow-up materials from the launch event are available at CAHO's website (http://www.caho-hospitals.com/capital_equipment_gpi.aspx).

Two procurements were currently under way at the time of this writing. The first RFP released as part of this initiative was for patient-handling equipment, including beds, stretchers and surfaces. The second RFP covered intravenous therapy system devices, including infusion pumps (large-volume general purpose, patient-controlled analgesia, syringe and epidural), intravenous supplies, accessories and dose-error reduction software. Both procurements were anticipated to be completed in late summer 2008.

A preliminary assessment by hospital and industry participants has been positive. Two key benefits have already been realized: process efficiency resulting from the centralized procurement process, and collaboration with peer organizations as a key component of decision-making.

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Key performance indicators being tracked to measure the success of the initiative include financial savings, administrative efficiency and hospital and supplier satisfaction, along with other detailed metrics to evaluate the operational process. A mid-term evaluation of the initiative will be conducted at the one-year mark.

To date, the GPI has been successful. Factors that have led to this early success include (1) a strong commitment and support from senior management from all CAHO hospitals, (2) engagement of procurement staff through the Procurement Advisory Committee and of end-users through the advisory panels, (3) commitment to customer choice, not standardization and (4) the sharing of information between CAHO hospitals and the CAHO Project Management Office for the GPI.

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