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Francois Lemoyne, CIO and CFO, Hôpital du Sacré-Coeur de Montréal

## AT A GLANCE

### Company

- Name: Hôpital du Sacré-Coeur de Montréal
- Location: Montreal
- Products/services: Healthcare
- Employees: 3,800

### SAP® Solutions and Services

- SAP® Patient Management application
- SAP NetWeaver® Portal component
- mySAP™ ERP application
- SAP Consulting

### Challenges and Opportunities

- Provide accurate, timely, and complete information about case costing
- Optimize hospital resource use
- Decrease cost of ordering supplies while increasing overall speed and accuracy
- Reduce waiting time for appointments
- Improve patient service

### Objectives

- Implement enterprise resource planning (ERP) platform with healthcare specifics
- Integrate data from SAP and non-SAP sources to provide a complete patient situation
- Consolidate financial and patient data to obtain true case costing
- Automate process for ordering supplies
- Introduce portal for improved collaboration and access to patient information

### Why SAP

- Strong integrated patient management functionality
- Ability to seamlessly incorporate data from SAP and non-SAP sources and provide an overall picture via a convenient portal
- Strength of applications and overall organization
- Leadership in global healthcare markets

### Implementation Highlight

On-budget implementation

### Benefits

- Saved C\$2 million annually through efficiency improvements
- Reduced time needed to make complex appointments from 10-15 minutes to less than 3 minutes
- Saved C\$1.8 million in nursing hours and C\$1.2 million in other costs over 5 years via automated supply ordering
- Boosted production by 6.5% while holding expense increases to 3%
- Reduced time to obtain period-end financial results from 3 weeks to 5 days
- Attained true case costing and improved ability to negotiate funding and manage resources
- Improved collaboration via multiple-source data integration

### Existing Environment

Legacy systems

### Third-Party Integration

- Database: IBM DB2
- Hardware: Sun
- Operating system: Sun Solaris

## HÔPITAL DU SACRÉ-COEUR DE MONTRÉAL

### Hospital Improves Patient Services and Employee Data Access While Saving Costs with SAP® Patient Management and SAP NetWeaver® Portal

The foremost concern of Hôpital du Sacré-Coeur de Montréal (HSCM) – one of Quebec’s largest hospitals – is to provide quality service to its patients. But the hospital knows that unless it also operates an efficient business, it will not be around long to provide that service. By implementing and skillfully using SAP® solutions, the hospital has greatly improved its ability to meet both objectives.

HSCM, with its 400 doctors and 3,800 employees, is a recognized leader in traumatology, orthopedics, cardiology, emergency, pharmacy, and other services. The hospital cares for more than 20,000 inpatients and 200,000 outpatients annually. HSCM has two main sites, several satellite facilities, and affiliated clinics dispersed throughout the Montreal area, each using a variety of specialized software tools.

### True Case Costing: Essential for Running the Hospital as a Business

The initial impetus for implementing SAP applications was to help hospital officials decipher the true cost of performing specific procedures vital to HSCM’s ongoing funding. Much of this funding comes from the Quebec provincial government, which ties its allocations to the delivery of particular types of patient care, such as hip replacement or eye surgery. HSCM makes periodic requests for funding that ask for specific amounts to cover each type of care. To stay solvent, the hospital has to make sure these funding requests include all the complex costs

associated with providing these medical procedures. At the same time, HSCM needs to be able to defend its requests by showing the costs of providing similar care in the past.

However, the disparate array of legacy tools the hospital previously used to manage its finances and patient records made it very difficult to merge cost data and patient data to create the complete picture (called case costing) required for these purposes. It was also difficult to analyze the resources utilized in providing care to find ways of improving cost-effectiveness. Because determining true case costing was so difficult, the hospital faced financial pressures and problems, issues with information quality, and unacceptably slow decision-making processes.

In addition, the lack of centralized data access inhibited collaboration among the many people involved in patient care, resulting in patient service processes that took far too long. For example, because so much telephone communication was required, scheduling a series of appointments for a patient undergoing a complex treatment often took as long as 15 minutes – a figure the hospital and patients alike considered unacceptable.

HSCM faced many additional efficiency challenges as well, hindering its ability to compete effectively and provide top-quality service to patients. For example, nurses spent too much time paying attention to supplies, leaving them too little time for patients.

### **Strong, Integrated Patient Management: A Key SAP Distinction**

HSCM knew that to successfully address all these challenges it needed to replace the legacy systems with a single comprehensive business suite that covered not just the backbone needs of any business but also healthcare industry specifics. “When we examined the range of possible partners, SAP stood head and shoulders above the rest,” says Francois Lemoyne, the hospital’s CIO

and CFO. “SAP provides strong financials functionality, tightly integrated with equally strong functionality specific to the healthcare industry. We didn’t see that from any of the other vendors.”

HSCM followed its SAP software selection by choosing Montreal-based CGI as its primary system integrator and remote hosting service provider and augmented CGI’s services with expertise from SAP Consulting.

### **Integrated Applications Produce Integrated Results**

HSCM and its partners began the implementation by adding the financials and materials management functionality of the mySAP™ ERP application as well as the core functionality of the

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SAP Patient Management application. HSCM proceeded to integrate costing data in mySAP ERP with information that SAP Patient Management provides including patient management data, index and admission data, visit records, and scheduling information.

“With indispensable help from our SAP applications, we solved our case-costing problem,” reports Lemoyne. “Now we have the unified view we were seeking of all our patient information including the costs of providing care. This has greatly improved the speed of our decisions and the amount of confidence we have in them. One reason we make decisions faster is that we finally trust the numbers we get and don’t waste time questioning and double-checking them.”



With case costing in hand, HSCM is now much better equipped to make and defend funding requests. In addition, it is better prepared to perform resource analyses that improve cost-effectiveness. For example, the hospital recently experienced a severe increase in its drug expenses. To learn the reasons for the rapid rise, HSCM turned to its SAP software, which rapidly provided data on every single case of drug use over the relevant period of time and provided a framework for HSCM's analysis of the situation. HSCM quickly pinpointed four specific drugs whose price increases were causing the problem. This allowed HSCM to take steps to manage its use of those drugs and ameliorate the financial effects on the organization.

### **Improving Patient Service Through Better Collaboration Capability**

HSCM then addressed the collaboration difficulty caused by the widely dispersed specialty applications that created the lengthy appointment scheduling process. "It was unthinkable to replace all the specialized applications in our clinics, so we had to find a smarter way to integrate the data they contain into a single location for our users to see," says Lemoyne. "We chose the SAP NetWeaver Portal component to provide our caregivers with a central data repository to access all important information about patients and their care."

The hospital implemented the SAP NetWeaver® Portal component, built links to the various software systems that held the necessary data, created a Web site that presented this information in a user-centric form, and instituted role-based access for users. At the same time, the team implemented the scheduling functionality of SAP Patient Management. Together, the software provided the needed functionality to solve the appointments problem. Patients seeking appointments for complex procedures no longer have to wait up to 15 minutes for calls to be made to various laboratories, clinics, and hospital departments. Instead, there is a single screen that contains all the information necessary for the staff to book the appointments in an average time of less than three minutes. HSCM plans to extend those capabilities to its partners and affiliated clinics.

"SAP NetWeaver Portal and SAP Patient Management have enabled us to offer a complete view of patient activities by providing a single point of access for personnel in our network to use for viewing patient histories, schedules, and resources,"

says Lemoyne. "All the people involved in providing care to patients now have a forum for collaborating to provide the best service we're capable of. Our patients are much more satisfied already, and we're not even done integrating all the clinics."

**"By helping us alleviate our financial pressures and improve patient satisfaction at the same time, our move to SAP applications has delivered us a substantial competitive advantage."**

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CGI and SAP Consulting are continuing the process of integrating the clinics' software into the portal and expect to finish soon. "CGI is delivering a terrific effort, and SAP is providing in-depth product knowledge and advice to go with it," says Lemoyne. "We needed someone to coach us on the right areas to focus on, and SAP has proven to be the partner we needed."

### **More Savings Through Supply Chain Reengineering**

By reengineering the supply chain process, Lemoyne and his team also found a way to free up nurses' time and simultaneously save substantial costs, improve the accuracy of materials ordered, and speed their delivery. In the past, nurses were responsible for replenishing supplies and placing orders for replacements. Now an automated procedure enables a team of warehouse keepers to perform these tasks, freeing up healthcare professionals to increase the time spent on patient care. The warehouse keepers monitor supply levels using a double-bin concept. They are planning the use of a radio frequency identification (RFID) system to communicate with the SAP materials management software and detect the replenishment needs of certain supplies. RFID will trigger the ordering process, much of which is conducted online.

"During the first five years with our reengineered supply chain, we'll save C\$1.475 million in direct costs and C\$1.442 million in productivity reinvested in patient care," says Lemoyne. "In addition, the implementation of e-commerce helps us speed up the ordering and receiving processes, while avoiding many opportunities for error. We receive exactly what we order."

## **Patient Satisfaction + Efficiency = Competitive Advantage**

The efficiency improvements that SAP software introduced are apparent throughout the organization. "Before the implementation, it took about three weeks to obtain period-end financial results. Now it takes five days," Lemoyne says. "During the time we've had SAP software, our admissions and ambulatory visits, which are our measures of production, have risen by 6.5% while our expenses have risen only 3%. That's a testament to the enhanced productivity we've achieved by standardizing and automating our processes with our SAP applications.

"In fact, our performance is improving faster than our competitors. Since the implementation, all things considered, our more efficient processes are saving us about C\$2 million a year.

It has also helped our expenses rise more slowly than those of our competitors," he says. "By helping us alleviate our financial pressures and improve patient satisfaction at the same time, our move to SAP applications has delivered us a substantial competitive advantage."