Reference Guide and Toolkit for Improvements in Perioperative Practice in Ontario

2010

Based on the experience of the Perioperative coaching teams between 2005-2010
Contents

Foreword 2
Primer 5
Toolkit 14
  Section 1: Hospital-Led Assessment and Improvement 17
  Section 2: Common Themes 24
  Section 3: Reference Documents Supplement
  Appendix: Hospital Led-Assessment Tools 44
Case Study 59
Acknowledgements 62
In late 2004, I was approached by Dr. Alan Hudson, Lead, Wait Time Strategy for the MOHLTC (Ministry of Health and Long Term Care) regarding participating in and Chairing an expert panel that would examine efficiencies and best practices in the surgical journey. Improving surgery wait times for Ontarians was a priority for the Ontario Government and Dr. Hudson and his wait time strategy team were already making a difference. They were establishing five expert panels to look at improving access to surgery for what they were calling 'The Big Five': Hip and Knee, Cataracts, Cancer, Cardiac, and MRI/CT scans. Dr Hudson explained to me that improving access to surgery couldn't just be about "more"! We had to look at how we could use the surgical resources already available more effectively.

So, Expert Panel six (soon to become the Surgery Process Analysis and Improvement Expert Panel, or SPAI), a team of experts from across the province agreed to look at the current processes in perioperative care and make recommendations. One of the real achievements of these expert panels was that their recommendations were aligned and the synergy of all the ideas was able to be transformed into action. Many thanks to Joann Trypuc for ensuring this became a reality. By July 2005, our report was complete and 21 recommendations were developed for hospitals, LHINS and the MOHLTC. However, two questions remained; how do we make this real, and how do we move from high level recommendations to real change? After all, we were talking about surgery, access for all surgeries and the world behind 'closed' glass doors.

The answer was recommendation 22…

It was the coaching teams that went out into the field to bring good ideas to life, and to assist their colleagues and peers to understand their strengths and opportunities. This guide developed for you, is a summation of the work of the coaches and the hospital teams. It will not change how you manage your perioperative resources: that's up to you, but it can help you improve your perioperative effectiveness while delivering the highest quality of care possible.

Valerie Zellermeyer, Program Director, Perioperative Services
Chair, SPAI Expert Panel, and Perioperative Coach
St. Michaels Hospital
Ensuring that a Perioperative programme runs as smoothly and efficiently as possible is a daunting task. The development of the SPAI document in 2005 served to outline a comprehensive approach to this complex process. However, what was truly unique was the method the MOHLTC used to help support the incorporation of that process into Ontario hospitals. The decision to train people with varied and extensive surgical experience to support each hospital in understanding and applying the guidelines in their own programmes, caught most organizations by surprise. This time the aim was to support (not direct) each hospital in understanding and applying the guidelines in their own programmes. Furthermore, provincial benchmarking data was collated and made available to each surgical programme. The availability of accurate, timely data is essential to allow objective identification of problem areas and to help monitor modifications to the process.

A number of unexpected opportunities evolved, such as coordination of surgical coverage within geographic areas, sharing of policies and networking contacts.

The challenge will be for each surgical service to aggressively pursue continual improvement — and to be supported in this effort by their senior teams — as “new” initiatives, such as ER wait times, demand attention.

Dr. Craig Muir, Surgeon and Perioperative Coach
Niagara Health System
It’s hard to believe that it has been five years since the SPAI Expert Panel published its report which included establishing coaching teams to help hospitals implement its recommendations.

The coaching team program is near and dear to me. I had the opportunity to work with the original steering committee to design the program and also attended the first five site visits. I have had the opportunity to see first hand the amazing work the coaches have done and the positive impact of having external peers come into an organization.

Coaching was a great way to support hospitals to lead their own improvement initiatives. Engaging with coaches helped to validate what many of the hospitals knew needed to be done. Coaching created an opportunity to share practices, tools and templates.

Although my role within the Ministry has evolved, I have continued to hear about the amazing work our coaches have done and the value hospitals have placed on this program.

Now that the coaching teams are wrapped up, I want to personally thank those involved for all of their hard work and dedication. This program has created an even closer community of practice and has been a key driver for what we hope will be continued perioperative improvement across Ontario. With this Reference Guide and toolkit, we are confident that hospitals regardless of their experience with perioperative coaching teams will continue to benefit from.

With deepest thanks from the MOHLTC.

Melissa Farrell, Director (Acting), Implementation Branch
Ministry of Health and Long Term Care
The Primer document is broken down into four sections to provide the reader with the appropriate details around perioperative services in Ontario, key directions, coaching teams, etc... The five sections are as follows:

**Background and Context:**
The purpose of this section is to provide the historical background and context for the perioperative improvement imperative in Ontario.

**SPAI Report**
This section highlights the SPAI report recommendations that drove the perioperative coaching team experience and thus hospital improvements in the delivery of perioperative care.

**Surgical Efficiency Target Program (SETP)**
The purpose of this section is provide a high level introduction for another provincial initiative which collects and benchmarks surgical efficiency data across Ontario hospitals.

**About Perioperative Coaching Teams**
This section provides background on the perioperative coaching team program (i.e. their mandate, structure and key milestones for approximately 5 years).

**Sharing Learnings**
The document concludes with discussion regarding opportunities to share the knowledge gained through the perioperative coaching team initiative with hospitals across Ontario.
A) SPAI Recommendations Defined a Provincial Perioperative Plan

- Underlying Principles
- Accountability Framework
- Mapping - Perioperative Processes
- Benchmark and Best Practice Targets
- Information Technology and Management
- Human Resources
- Education
- Funding
- Regionalization of Surgical Services

B) Coaching teams met with 61 hospitals across Ontario

Using the recommendations of the Surgical Process Analysis and Improvement (SPAI) expert panel report as a basis, the coaches aimed to facilitate hospital improvements in perioperative care through a detailed process of assessments, action planning, and follow-up. Coaches helped hospitals diagnose issues, design solutions, and implement improvements. Coaching Teams were made up of peers from the hospital community with experience in effective management of perioperative resources.

C) Sharing Knowledge from coaches with Hospitals across Ontario

Based on the coaching team experience, the knowledge, practices, experiences, and lessons learned throughout the past four years are being compiled and structured in a way that is practical and useful for other hospitals across the province. Thus the Perioperative Improvement Toolkit will help hospitals self-assess, plan, and lead perioperative improvements undertaking similar processes as the Coaching Teams.

The toolkit is structured in a way that focuses on six key themes identified through the coaching teams (Leadership, Governance, Patient Flow, Supply Chain, Human Resources, and Data & Automation). These themes were observed consistently across many sites and resonate with hospitals of all types.
In October 2004, as part of an attempt to alleviate rising healthcare costs as well as long wait times for surgeries, the Ministry of Health and Long-Term Care (MOHLTC) established the Surgical Process Analysis and Improvement Expert Panel (SPAI) as part of Ontario’s Wait Times Strategy. The goal of the SPAI expert panel was to derive a set of recommendations to drive improvements in the perioperative process across Ontario hospitals. To ensure a focused analytical approach, the panel defined the overall surgical continuum of care and identified the boundaries that the expert panel would provide focused recommendations within (noted as the “Perioperative Stage” in the figure below).

The expert panel conducted an analysis which included: self assessment questionnaires (sent to all Ontario hospitals that provide surgical services), academic literature reviews, a jurisdictional review, as well as a review of available surgical efficiency data (specific to Ontario).

The analysis of the hospital self assessment data confirmed significant variability in perioperative service delivery across Ontario with several opportunities for improvement. In an attempt to support hospitals in moving toward common practices, a plan was developed to minimize bottlenecks, improve efficiencies and enable progress within the system. The plan was broken down into eight components to drive productive improvement strategies with specific recommendations. The components of the plan included:

• An accountability framework;
• Mapping perioperative processes;
• Benchmarking best practice targets;
• IT and management;
• Human Resources;
• Education;
• Funding; and
• Regionalization of surgical services to increase efficiencies.

In the context of these components, 22 recommendations were made. One of these was the introduction of perioperative coaching teams to facilitate the implementation of the other recommendations.
Selected SPAI report recommendations formed the basis of how the coaching teams structured their hospital assessments. Specifically, the coaching teams focused on the following recommendations (noted below as R# to mean Recommendation number) as most applicable to assessing hospital issues and planning for improvements. These recommendations, although five years old, still hold up today and align with the Ministry’s principles to ensure that health investments produce evidence based results and improve patient care.

**An accountability framework**

**R1**- Hospitals that provide surgical services establish an accountability framework for Perioperative resources that include the following elements: i) the Board and Chief Executive Office (CEO) of the hospital are accountable for governing and managing the hospital’s Perioperative resources, including patient safety, quality, efficiency and effectiveness; ii) an inter-disciplinary Perioperative Leadership Team is directly accountable to the CEO and responsible for the ongoing functioning of an effective Perioperative service; and iii) a larger inter-disciplinary group provides support and advice to the Leadership Team.

**Mapping perioperative processes**

**R3**- Hospitals map their Perioperative processes, analyze the results, and systematically identify areas for improvement.

**Benchmarking best practice targets**

**R4**- The Ministry of Health and Long Term Care supports the development and implementation of an Ontario-wide program to develop surgical targets that draws on the expertise of practitioners in the field. These targets should be used by hospitals to make improvements and by the Ministry and Local Health Integration Networks to link funding with performance.

**R5**- Hospitals review Perioperative best practice targets as part of their annual operating plan process, assess their progress in meeting each target and initiate steps for improvement.

**R6**- Hospitals review supply chain best practice targets as part of their annual operating plan process, assess their progress in meeting each target and initiate steps for improvement. In addition, Local Health Integration Networks should bring a network perspective to supply chain targets through such initiatives as bulk purchasing, instrument sharing and joint inventory management, where appropriate.

**R7**- Hospitals allocate their operating room resources based on a number of factors including patient need (e.g., length of the waiting list, the urgency of the patient’s condition), community priorities as determined by Local Health Integration Networks, the strategic priorities of the organization, and the importance of retaining physicians by ensuring that they have sufficient operating time.

**R8**- Hospitals coordinate and schedule their urgent surgical cases as part of their regular planned activity.
IT and management

R9 - Hospitals have an Operating Room Scheduling System to support performance improvements within individual hospitals, by Local Health Integration Network (LHIN) and across the province. These improvements should include tracking and reporting on a minimum data set, supporting standardization of surgical processes, and integrating with other hospital-based information systems. LHINs should take an active role in group purchasing OR Scheduling Systems and encouraging groups of hospitals within the LHIN to share these systems.

R10 - Hospitals have a Perioperative Electronic Patient Record System (PEPR) that links to, or is part of, the hospital’s electronic patient record. Hospitals that do not have a PEPR in place should build the requirements for such a system into their Strategic Information Management Plan and capital plans. Local Health Integration Networks should take an active role in group purchasing PEPRs.

R11 - Hospitals support the development of a Perioperative supply chain management system.

Human Resources

R15 - Hospitals support the development of innovative interdisciplinary Perioperative teams that include the use of other healthcare providers in addition to surgeons, anesthesiologists and nurses.

R17 - Ontario hospitals incorporate the use of teams to provide anesthesia services. Depending on the type of hospital and the surgery, anesthesia teams could include a combination of anesthesiologists, anesthesia assistants, advanced care nurse practitioners, respiratory therapists and others.

Education

R18 - The Nursing Secretariat of the Ministry of Health and Long-Term Care, nursing regulatory bodies and academic institutions develop a standardized operating room nursing education program across Ontario. Innovative methods should be used to support this program such as distance education. In addition, hospitals should have a Perioperative education resource available to help nurses maintain appropriate surgical clinical knowledge and skills.

Regionalization of surgical services to increase efficiencies

R21 - Local Health Integration Networks review the surgical services that exist, and identify opportunities to develop regional surgical systems that promote efficiencies, safety and meet local needs. These systems should consider a range of options including as Centres of Excellence for surgery, more specialized surgeries in a few hospitals, and less complex, higher volume surgeries in a wider range of hospitals.
In response to the SPAI Expert Panel recommendations, the Ministry of Health and Long Term Care began the Surgical Efficiency Targets Program (SETP) in the Fall of 2005.

The Surgical Efficiency Targets Program (SETP) uses data about Operating Room (OR) performance to monitor processes and identify and analyze areas where performance issues exist in the perioperative portion of the continuum of care. This program helps to optimize surgical capacity in Ontario, increase access to surgical services and maintain high-quality patient care.

Using a web-based tool, the program collects data and reports on a number of perioperative indicators that can be used by hospitals to identify priority areas for improvement. The data for SETP is collected through the Operating Room Benchmark Collaborative (ORBC) tool.

SETP tracks 17 Key Performance Indicators (KPIs) related to surgical process efficiency including:

- % First Case On-Time or Early
- % Subsequent Case On-Time or Early
- Average Patient In to Patient Out Minutes
- Average Patient In to Anaesthesia Ready Minutes
- Average Turnover Minutes
- % Scheduling Accuracy
- % Utilized 7am-3pm
- % Same Day Add-on Weekdays
- % Unplanned Closures
- % Same Day Cancelled or Postponed
- % Returns to Surgery within 24 Hours
- % Patients Screened Prior to Surgery
- % Surgical Checklist/Timeout Compliance
- % Priority 1A Cases- Access Within 0-2 Hours
- % Priority 1B Cases- Access Within 2-8 Hours
- % Priority 1C Cases- Access Within 8-48 Hours
- % Priority 1D Cases- Access Within 2-7 Days

SETP has established clinical best practice targets for the following three SETP key performance indicators:

- % Surgical Checklist Compliance
- % First Case On-Time or Early
- % Utilization 7am to 3pm

These targets were developed in conjunction with the Ministry and the Surgical Process Analysis and Improvement Expert Panel (SPAI Panel).

*Initially SETP operations were managed by University Health Network (UHN) but at the request of the Ministry was transitioned to Cancer Care Ontario (CCO) in July 2009.*
About Perioperative Coaching Teams

To enable successful change to occur the panel recommended that the Ministry support the development of Perioperative Improvement Coaching Teams to aid in the improvement of perioperative processes (SPAI Report, 2005). These teams were comprised of individuals who possessed expertise in the management of perioperative resources and they successfully worked with 61 sites across Ontario to facilitate improvements in efficiency and quality of care. The teams were made up of a physician expert (surgeon or anaesthetist), one or two surgical leaders (VP/Director’s), and one or two perioperative leaders/managers. Over thirty expert coaches participated in this process. Their objective was to help hospitals with their diagnostic assessment of issues and help plan for improvements to address key practices highlighted as part of the SPAI report recommendations. In most cases, coaches were matched to a hospital with a similar disposition as where they worked.

The coaching process included four steps:

1. **Pre-assessment:**
   - Hospitals submitted an expression of interest to the ministry to participate in the coaching process.
   - Hospital Self Assessment - this assessment was designed to integrate the SPAI recommendations mentioned above through a pre-visit questionnaire.
   - Pre-visit teleconference calls – two pre-visit calls were made to finalize schedule, confirm the lead coach, review the process and team member roles, and discuss any issues with the hospital assessment.

2. **Site Assessment and Action Planning:**
   - Site visit involved three days of assessment.
     - **Day 1:** Meetings with staff focus groups and key individuals were conducted to identify and expand on issues impacting perioperative effectiveness and efficiencies.
     - **Day 2:** Additional interviews and tour of perioperative space.
     - **Day 3:** Hospital engagement in action plan development. Note that action plans were aligned to specific SPAI recommendations and included people responsible and timelines.
Follow Up:

A final report was delivered to hospitals within 2 weeks of the site visit. The final report included:

- a summary of the site visit and brief review of the SPAI recommendations;
- a summary of the SPAI recommendations and an assessment of the organization’s ability to meet them (strong, in development, an opportunity);
- An action plan specifying opportunities for improvement, barriers and challenges, timelines and staff responsible for monitoring specific action items; and
- Relevant appendices and data elements identified within the SPAI recommendations for the hospital to use for monitoring purposes. An example of a final report is included in Appendix X.

A follow up visit was conducted within six to nine months of the initial visit. Only two members of the original coaching team conducted this visit. Their objective was to check in and reassess the original action plan along with hospital staff to identify any course correction needed and to provide objective insights and feedback on the accomplishments to date. A follow up action plan report was then written and resubmitted to the hospital.
Sharing Learnings

During the perioperative coaching process, many lessons were learned and best practices or standards were shared. As a final step to the perioperative coaching initiative, a reference guide has been developed to further enhance collaboration by collating the shared lessons and practices that demonstrated improvement in participating hospitals’ perioperative processes. Through sharing information through this Reference Guide and Toolkit, quality and safety in perioperative care can continue to improve.

In order for the tools and lessons being shared to have an impact on a hospital and to be integrated into the existing systems, there must be adequate preparation by all perioperative stakeholders, including the Board, executive leadership and medical staff. Perioperative service delivery is collaborative and as such, all individuals that work in the perioperative space understand the importance of communication and teamwork. Unfortunately, each individual has their own priorities and constraints inherent within their role that may act as a barrier to open communication and collaboration. Through the collaboration that is offered by initiatives such as the coaching process as well as taking advantage of opportunities to openly leverage knowledge sharing, many of these barriers can be overcome. In attempting to analyze a hospital’s perioperative issues and to integrate the tools and reference materials into hospital practice, there are some framework models (included in the reference guide) that have been developed to aid in this process. It is recommended that hospitals not look at this as a one-time initiative but as a process that needs to be continually reviewed. It is critical that leadership at all levels develop a hospital culture that embraces and formally endorses the importance of collaborative learning as well as ensuring engagement from all members of the perioperative team, as well as other key stakeholders.

Current research regarding the coaching process and its outcomes combined with interviews with the perioperative coaches have yielded a series of common issues that appear to be consistent across most hospitals (regardless of size or type). These issues have been grouped into six key themes – Leadership, Governance, Patient Flow, Supply Chain, Human Resources and Data/Automation. These six themes have been used to organize the key learnings from the coaching experience (and shared through this reference guide).

The perioperative coaching was a valuable initiative for hospitals as well as the coaches who participated. In closing out this initiative, the learnings that were shared have become valuable tools for all hospitals to improve their perioperative processes. Through collaboration of best practices, perioperative process efficiencies can be maximized while maintaining best patient care. The implementable aspects of this investigation will be laid out in the toolkit.
A toolkit to support perioperative improvements in Ontario Hospitals
Introduction

Context and Background

The Surgical Performance Assessment and Improvement (SPAI) expert panel released a set of recommendations as part of an overall assessment of perioperative services in Ontario. The report defined a perioperative improvement plan with an ultimate goal to maximize and sustain the efficient and effective use of perioperative resources in Ontario hospitals. The perioperative plan highlighted the following:

- An accountability framework
- Mapping perioperative processes
- Benchmarking best practice targets
- IT and management
- Human Resources
- Education
- Funding
- Regionalization

One of the recommendations from the SPAI report was the introduction of perioperative coaching teams to help hospitals assess their issues and create action plans aligned with the recommendations found within the report. The perioperative coaching teams have reached their target and have conducted 61 hospital visits. Over thirty expert coaches were part of this process. The coaching teams included a physician expert (surgeon or anaesthetist), one or two surgical leaders (VP’s/Director’s), and one or two perioperative leaders/managers. Their objective was to help hospitals with their diagnostic assessment of issues and help plan for improvements to address key practices highlighted as part of the SPAI report recommendations.

Purpose

The purpose of this toolkit is to enable hospitals across Ontario to leverage the learnings from the Perioperative Coaching Team program to drive further improvement in quality, effectiveness and access to perioperative services.

This toolkit attempts to harness the learnings and practices identified as part of the 1:1 (hospital:coach) experience and bring it up a level to be able to share learnings and practices with hospitals across the province.

With this tool, hospitals will have a reference guide to help them develop their own quality improvement plans incorporating policies and practices that suit their needs.

The information contained within this toolkit is meant to be used as illustrative. The information does not necessarily represent an inclusive list of industry accepted best practices, but rather attempts to support hospitals in the same way the coaching teams did – by providing expert insight and fostering sharing of practices.
Navigating this toolkit

Sections at a Glance

Section 1 - Hospital-Led Assessment and Improvement
The purpose of this section is to support hospitals with the tools they require to support their self assessment activities to diagnose issues associated with their perioperative services.

Section 2 - Common Themes
This section introduces six key themes which are observed to be consistent across the province at the vast majority of hospitals regardless of size, location, or type. These themes include:

- Leadership
- Governance
- Patient Flow
- Supply Chain
- Human Resources
- Data & Automation

This section will help the reader understand the common issues, the significance of examining these themes and an inventory of what tools, guides, policies, etc. are being shared in section 3.

Section 3 – Reference Documents
The purpose of this section is to provide a detailed inventory of any relevant documents and tools to support hospitals related by theme.

NOTE: Each document found in the supplement is tagged with a symbol that identifies the stakeholder group(s) that the documents are aimed at in order to streamline the reader’s experience with the document.
# Section 1
## Hospital - Led Assessment and Improvement

**Contents**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>18</td>
</tr>
<tr>
<td>Assessment</td>
<td>20</td>
</tr>
<tr>
<td>Action Planning</td>
<td>21</td>
</tr>
<tr>
<td>Implementing Improvements</td>
<td>22</td>
</tr>
<tr>
<td>Evaluating Successes</td>
<td>23</td>
</tr>
</tbody>
</table>
Section 1

Hospital –Led Assessment and Improvement

This section is designed to help hospitals conduct a self assessment (diagnostic approach) related to perioperative services. It will provide some tips related to the types of questions hospitals should attempt to answer, as well as concrete tools that hospitals can leverage based on the experience of the Perioperative Coaching Teams.

Introduction

The Perioperative Coaching process followed a structured approach which included a pre-assessment, 3 day site visit assessment, action plan, and follow up visit. To support hospitals in using the sample documents and tools found here, a similar approach is referenced to help hospitals in diagnosing issues, planning for improvement, implementing changes and evaluating success.

As a starting point, hospitals need to conduct a detailed assessment to identify the most relevant opportunities and areas of risk exposure in order to prioritize perioperative improvements.

Note: Some education may be required for the perioperative team to effectively undertake this process.
Guiding Principles to Support Hospital-Led Assessment and Improvement Activities

1. Time spent on diagnosing issues is critical to ensure that appropriate improvement activities are undertaken.

2. The broader perioperative team should be involved in the assessment activities.

3. A forum should be established to allow for an open and honest discussion of the issues within the perioperative space.

4. Leadership should encourage an open, collaborative and transparent process to guide the identification of relevant issues and problem solving. All staff should be kept abreast of progress and successes must be celebrated.

5. Leadership should constantly emphasise the importance of ongoing quality improvement and risk reduction in perioperative care.

6. Clinicians should be engaged in the initial issue identification and plan development.

7. Action planning should be done as a team.

8. Improvement activities should be a priority for the entire team and progress as well as best practices should be reviewed regularly.

9. Surgical improvements should be patient and family-centred, and respect at all times the privacy of the patient.

10. Action plans should take into consideration that perioperative services are part of a larger continuum of care.

11. Definitive timelines and responsibilities should be established as part of the action plans.

12. Perioperative leaders (including physician and clinical leaders) should be held accountable for the actions required to meet plan objectives.
**Assessment**

As you begin to see the initial results of your diagnostic assessment, it is important that you make sure to fully consider the root cause of your problems. There are many formal tools that could be leveraged for this. The most simple strategy is to ask questions to understand why certain things are the way they are.

Four fundamental questions should be asked when defining the problem or issues:

1. How do we know a problem or opportunity exists?
2. What are we trying to accomplish?
3. What changes can we make that will result in an improvement?
4. How do we know if we are successful in our improvement initiative?

As you examine issues related to flow, consider the process. See page 58 (Appendix) for specific examples.

The Surgical Process Analysis and Improvement (SPAI) Expert Panel Report included a helpful series of assessment questions (or characteristics) that can be self-administered by hospitals. They can be broken up into the following categories:

A. General Screening  
B. Perioperative Screening  
C. Day Surgery/Same Day Admission  
D. Intra-Operative Processes  
E. Post-Anaesthesia Care Unit and Second Stage Recovery  
F. Instrument Processing and Case Cart Preparation  
G. Scheduling Process  
H. Supply Chain Best Practice Targets  
I. Support Services

A number of characteristics outlined in the categories above reflect perioperative best practice targets. A self-assessment questionnaire is included starting on page 45 (Appendix).

Perioperative practices are guided by national standards that include, but are not limited to, standards for operating room nursing, infection control, processing and anaesthesiology. Hospitals should always incorporate these standards into their assessments.
Action Planning

Overview

Once you’ve completed a diagnostic assessment of perioperative services, you should be well positioned to identify the areas that you want to focus improvement efforts on. Good action plans consider the following guiding principles:

1. **Ensure action plans are informed and collaborative**
   Action plans should be informed by actual assessment data. It is critical that the various perioperative stakeholders are involved in identifying areas of priority.

2. **Ensure action plans are focused**
   You cannot make everything an equal priority for action all at the same time. Make sure that there are clear priorities for action.

3. **Consider the sequencing of the various action plan initiatives**
   Sometimes, the order in which you do something will effect the overall outcomes of many related initiatives. For example, some hospitals may decide to select a “quick-win” option in order to build confidence and trust from the key stakeholders involved.

4. **Consider what resources are available to support the roll out of action plans**
   Most hospitals struggle with trying to implement too much at one time. It is important to be practical about how much time some initiatives require, and whether or not you have the appropriate amount of skilled resources available to do the work, given competing demands.

5. **Ensure action plans are structured with key points of accountability**
   It is important to identify a key person who is responsible for doing the work identified as well as who is accountable for the results (this may or may not be the same person).

6. **Ensure that action plans are goal oriented**
   Ask yourself “How will we measure success?” Is that information available?
Implementing Improvements

Overview

If you’ve followed a detailed self-assessment phase and developed a clear action plan, you will likely be faced with new “project-type” work. Not all hospitals have the same infrastructure to support new project work. However, the following should still be considered:

- Project Oversight
- Project Management
- Change Management

Project Oversight

• Most projects require strong leadership support to drive progress. Developing project steering committees and executive sponsorship for each initiative will create one important link to successful project implementation. This will help ensure the initiative remains a priority and has senior visibility and support.

Project Management

• It will be important to have a primary person responsible for coordinating and driving progress forward for any initiative. There may be people inside your organization with the skills required to lead projects. To learn more about the key components of project management, see www.pmi.org (Project Management Institute).

Change Management (including Communication & Stakeholder Engagement)

• Implementing change can be difficult and it is critical that managing change is planned and deliberate. Success requires strong, regular communication and meaningful stakeholder engagement. It is important to first identify key stakeholders for perioperative services and second ensure they are engaged early in any new project. It may be helpful to select a diverse team to support engagement at the front line of care. Don’t be afraid to include those that are likely to be resistant to change. . . . sometimes involving likely “resistors” can mitigate the negative affect of fear of changing long standing practices.
Evaluating Successes

Overview

It’s important that in the planning phases of any initiative that you take a moment to ask yourself, “How will we know if this is a success?” The answer need not be complicated or require you to undertake a length or costly evaluation process. There are some simple evaluation principles that will ensure you continue to learn what is working and not working to be able to either adjust any current work or plans for future projects.

You should be able to answer the following questions about any initiative:

**How will we know if an initiative is successful?**
- Select key metrics early in the planning phase that will indicate success (for example, on first case starts on-time more than 90% of the time) [see page 10 for background details on the Surgical Efficiency Target Program (SETP)]

**How will we know if the initiative is complete?**
- It is important that projects have boundaries. Projects typically have a start and end. How do you communicate that the roll out of an initiative is complete?
- It is important to recognize that once a project is complete, it does not signal an opportunity to go back to the way things were prior to the project.
- Once a project ends, have changes in operations been transitioned from the project to management?

**What are the key lessons learned?**
- What worked? What didn’t work?
- Do any components of the project need to be refined? Is there a need to reinforce any changes?
- How can we use the experience of this initiative to inform broader roll outs of other initiatives?

**What should be communicated? To whom?**
- It’s important to share the information with all key stakeholders to close the loop. This will also help ensure that there is a next time where stakeholders are willing to support project initiatives.
Section 2

Common Themes

Contents

Overview ...page 25
Leadership ...page 26
Governance ...page 29
Patient Flow ...page 32
Supply Chain ...page 35
Human Resources ...page 38
Data & Automation ...page 41
Section 2

Common Themes - Overview

Section 2 is a short document that focuses on the following six themes commonly found in perioperative programs in Ontario.

- **Leadership**: Addresses the need to develop strong leadership qualities and principles and recognize the importance of effective leadership in driving improvement and change across a hospital.

- **Governance**: Identifies the impact of a robust governance structure that clearly articulates accountabilities and decision-making processes and structures.

- **Patient Flow**: Highlights numerous opportunities and strategies to optimize patient flow.

- **Supply Chain**: Addresses the challenges around the processes and functions of supplying the surgical suites (OR) and the sterile core.

- **Human Resources**: Focuses on strategies to deal with common perioperative HR issues including recruitment and retention as well as education and strategies around staff planning including optimal staff skill mix.

- **Data & Automation**: Focuses on optimizing the use of data to use as evidence to support and drive improvements and monitor progress within perioperative service delivery.

This section is structured to provide the audience with:

- A concise *definition* of the theme
- The *significance* of the theme to a hospital's core business
- *Lessons learned* from coaches and hospitals relative to the theme
- A breakdown of *relevance* of the theme by audience (stakeholder group)
- Considerations that a hospital would have around the theme and an *inventory* of what types of documents are available that could be helpful (provided with detailed reference in Section (3))
The leadership theme highlights the importance of clearly articulating roles and position descriptions for senior leaders as well as outlining minimum job competencies to support leadership improvements to enable high performance in perioperative services. This theme reinforces the need for strong leadership within perioperative services as well as at senior roles across the organization (specifically the VP or Chief Executive roles).

Exhibit 2 outlines the relevance and key take away messages for different stakeholder groups related to the content of this section. The symbols to the left will be used throughout the document to flag particular areas of interest for each audience member.

### Exhibit 2– Target Audience Summary

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>RELEVANCE</th>
<th>TAKE AWAY MESSAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Service Administrators (Managers &amp; Educators)</td>
<td>★★★★☆☆☆☆☆</td>
<td>Sample references relevant for future leadership opportunities</td>
</tr>
<tr>
<td>Perioperative Leadership (Directors &amp; Chiefs)</td>
<td>★★★★☆☆☆☆☆</td>
<td>Sample references of leadership job descriptions (including roles &amp; responsibilities and competencies)</td>
</tr>
<tr>
<td>Hospital Executive Leadership</td>
<td>★★★★☆☆☆☆☆</td>
<td>Focus on understanding and articulating the role of senior leaders relative to perioperative services.</td>
</tr>
<tr>
<td>Quality Improvement Experts</td>
<td>★★★★☆☆☆☆☆</td>
<td>Tools to assess leadership as a dependency for improvement outcomes</td>
</tr>
</tbody>
</table>

### Significance

Leadership issues were highlighted across many of the coaching team visits. Addressing issues or gaps related to leadership was seen as a fundamental need. Specifically, strong leadership is an enabler for success. It should be addressed as a priority and be considered as an immediate high impact improvement opportunity (if needed) to ensure that other areas of focus can be successful. In addition, the need to develop an accountability framework was identified by many of the teams.

*Focusing on improvement areas such as flow, HR, data, supply chain, etc... will be very difficult to implement without effective leadership.*
Leadership

Lessons Learned

- Capacity for change is due to organizational culture and senior leadership prioritizing importance of change
- When accountabilities are clearly delineated at all levels of the organization (Board, executive team, perioperative leadership team and perioperative program council), effective change is more likely to be sustained
- Leaders must be clear on strategic priorities for the hospital at large and perioperative services specifically
- Active engagement of the CEO and other senior leaders enhanced the likelihood of successful change initiatives and improved efficiencies in perioperative services
- Leaders must have the capacity, structure and support to hold staff and physicians accountable
- Identifying an action plan with practical solutions cannot be successful without strong leadership support (i.e. a need for champions at the perioperative leadership and hospital leadership levels)
- It is critical that hospital leadership promotes a culture of open communication
- Perioperative care is managed as a team. As such, building cohesion within the leadership team is important to drive overall success in any perioperative program. Off-site workshops or brainstorming sessions are often a valuable way of building that team.
- It is the hospital leadership’s responsibility to create awareness of how the perioperative services function and tie into overall patient flows and impact on other clinical programs

Coaches Insights:

“A strong committed Perioperative Leadership Team is fundamental to the success of the program. This team with the support of senior management provides clear direction and vision. It is their responsibility to ensure that all practices and policies are clearly articulated and enforced in a transparent and fair manner. This will allow the program to strategically meet the ever-changing needs of all stakeholders in an efficient, safe and effective manner.”

*Patricia Houston, VP – Education, Anesthetist-in-Chief and Perioperative Coach
St. Michaels Hospital*
The objective of the following table is to summarize the common areas of focus in Leadership for Perioperative services, and to provide tools or information that are believed to be of highest value to facilitate improvements.

<table>
<thead>
<tr>
<th>Common Areas of Focus</th>
<th>Common Strategies Developed Across Pilot Sites</th>
<th>What is shared in the Reference Document?</th>
</tr>
</thead>
</table>
| Decision-making processes              | • Establish a decision making framework: set expectations, timelines for decisions, who makes the decisions, how they are made  
• Develop a rapid action decision making structure that has recognized responsibility and authority for daily decision making in the surgical program (define a rapid action executive committee within the surgical program)  
• Provide administrative (preferably Nursing) leadership, supported by medical director with the authority to manage daily operations in the OR  
• Review and revise the current policies for day to day issues management and escalation using best practices and evidence-based standards and peer comparators  
• Establish an issues log in each surgical area with a process for follow up and communication  
• Improve liaison with regional medical peer leaders, clarify roles of Chief of Staff and Chief of Surgery  
• Create an open and transparent process to allow senior management to support the perioperative management team  
• Establish and communicate guiding principles for decision making | • Accountability Framework  
• Research Articles/Links  
• Code of Conduct  
• Code of Respect  
• Mission, Vision, & Values  
• Research Articles/Links |
| Policy Adherence                       | • Review, enforce and communicate OR policies. Where gaps and/or confusion exist ensure the development of appropriate policies/documentation to guide perioperative practice  
• Ensure that support mechanisms are in place for team members making the difficult decisions and enforcing Corporate policies |                                                                                                            |
| Communication within OR department     | • Establish 5-10 minute morning meetings to enhance open communication across the department  
• Create action-oriented leadership meetings with minutes that are clear, easily understood and communicated to all staff  
• Develop strategies that support timely and effective communication, e.g., open forums on the operational level (how, what, when)  
• Develop recognition program for shining stars  
• Increase communication of plan and achievements – establish monthly newsletter, ensure accessibility, ensure staff feedback |                                                                                                            |
| Leader development                     | • Provide corporate leadership program to aspiring perioperative leaders  
• Plan Surgical Program retreat for perioperative entry level leadership positions  
• Provide support for unit administrators to attend external leadership programs |                                                                                                            |
Governance

The governance theme highlights the importance of developing a robust governance structure that clearly articulates accountabilities and decision-making processes and structures. The need for an effective perioperative leadership team comprised of medical leadership from surgery and anesthesia and the administrative program director was highlighted throughout the perioperative coaching process. This small group is accountable to senior leadership of the hospital and reports regularly to a broader surgical program planning group.

Exhibit 3 outlines the relevance and key take away messages for different stakeholder groups related to the content of this section. The symbols to the left will be used throughout the document to flag particular areas of interest for each audience member.

Exhibit 3 – Target Audience Summary

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>RELEVANCE</th>
<th>TAKE AWAY MESSAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Service Administrators</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Clarification with respect to decision-making processes enhances departmental efficiency and improves patient flow/outcomes</td>
</tr>
<tr>
<td>(Managers &amp; Educators)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perioperative Leadership</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Sample references of perioperative leadership teams structure and accountabilities (including relationship with hospital senior executive, surgical program committee and MAC)</td>
</tr>
<tr>
<td>(Directors &amp; Chiefs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Executive Leadership</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Focus on understanding and articulating the role of senior leaders relative to perioperative services.</td>
</tr>
<tr>
<td>Quality Improvement Experts</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Tools/metrics to assess OR efficacy and efficiency</td>
</tr>
</tbody>
</table>

Significance

Governance issues were highlighted across the majority of the coaching team visits. Addressing issues or gaps related to improving decision making processes – both immediate and longer term - was seen as a fundamental need. Specifically, when effective leadership at the medical and administrative levels were combined with a clear decision making process (i.e. clear and transparent), the degree of conflict and confusion was significantly reduced.

Focusing on clarifying governance structures and processes led to improved staff and physician morale, greater collegiality and improved patient flow and care.
Lessons Learned

- Challenges related to a lack of clear accountabilities and mandate for senior perioperative leadership team.
- Ideally, the senior perioperative leadership team should work in a collaborative and open manner, in which issues are addressed with rigour and objectivity with the ultimate goal being the provision of high quality patient care utilizing hospital resources effectively and efficiently.
- The ability to balance the need to be able to make immediate decisions (such as case scheduling, staffing and utilization of OR resources etc.) with longer term planning decisions around perioperative processes (i.e. operations) was highlighted as a consistent challenge for hospitals.
- The need to understand the key interrelationship with the core senior perioperative leadership team with groups such as the hospital’s senior executive, MAC and the broader surgical program.
- The critical need to involve physicians in a meaningful fashion in perioperative leadership teams accountable for perioperative resources. The degree of physician involvement in the coaching processes was variable. In organizations where a high number of physicians were engaged in the process, the results were longer lasting.
- The need to provide the senior perioperative leaders with the appropriate structure and organizational support to make difficult decisions regarding the appropriate utilization of hospital resources.
- In organizations where accountabilities became clearer, physicians and other staff, while not always agreeing with decisions, respected the outcomes and appreciated that a fair and equitable process had been instituted and applied.

Coaches Insights:

“An effective and accountable governance structure in the Perioperative environment is the foundation for the efficient management of perioperative resources. Through multiple coaching visits, regardless of the size of the organization, the existence of an inter-disciplinary Perioperative Leadership Team that provides support and guidance to hospital senior leadership was a critical factor in managing patient safety, quality, efficiency and effectiveness in the surgery program”.

Kelly Campbell, AVP Clinical Planning, And Perioperative Coach Hamilton Health Sciences
The objective of the following table is to formally link the common considerations about Governance with tools or information that are believed to be of highest value to facilitate improvements in perioperative services.

<table>
<thead>
<tr>
<th>Common Areas of Focus</th>
<th>Common Strategies Developed Across Pilot Sites</th>
<th>What is shared in the Reference Document?</th>
</tr>
</thead>
</table>
| Role, reporting structure and accountabilities of governance structures | • Create an interdisciplinary leadership team to provide governance for the perioperative program, supported by senior management  
• Review, revise and clarify the terms of reference, roles, membership and reporting structure of the existing OR Committees  
• Develop and establish perioperative organization structure and accountability framework, reduce overlap in accountabilities and roles across governance committees  
• Establish electronic / intranet means of communication for OR policy and procedure, terms of reference  
• Increase interdisciplinary membership on governance committees  
• Establish unit-based councils that have shared governance working with organizational development and professional practice  
• Hold a semi-annual perioperative program planning and development day with key leadership participation | • Accountability Checklist  
• Accountability Framework  
• Periop Committee Terms of Reference  
• Exec Committee Terms of Reference  
• Surgical Steering Committee Terms of Reference  
• Surgical Services Committee Terms of Reference  
• OR Management Committee Terms of Reference  
• OR Committee Terms of Reference |
| Interdisciplinary collaboration | • Develop a model of collaborative interprofessional and intraprofessional practice with institutional commitment to a new model of patient focused care  
• Gather input from nursing, anaesthesia, surgeons and other perioperative clinical staff on strategic planning and process redesign to achieve cohesiveness and consensus  
• Engage physician champions to sustain process improvements and acknowledge their commitment to the change processes  
• Develop an interdisciplinary leadership team (Chief of Surgery, Anaesthesia and Nursing Director) responsible to the hospital’s executive leadership team  
• Develop interdisciplinary focus groups to operationalize issues for the perioperative program | |
| Defining program priorities | • Define and communicate the priority programs, develop strategic plans for surgical services, and ensure consistency with broader organizational plans and objectives (in addition, where possible, plans should align to broader system level priorities) | |
| Formation of policies and procedures | • Identify and prioritize policy and procedure decisions at the executive perioperative committee with input from unit based councils | |
Understanding the causes of the access issues which impact perioperative care are complex. There are several barriers to efficient patient flow related to perioperative services. The patient flow theme highlights the many opportunities to optimize the utilization of perioperative resources thus improving patient flow. There is a strong need for hospitals to understand their perioperative processes and to map them accordingly. This theme reinforces the value of process improvement methodologies such as Lean to support analysis of perioperative services to help drive improvements.

Exhibit 4 outlines the relevance and key take away messages for different stakeholder groups related to the content of this section. The symbols to the left will be used throughout the document to flag particular areas of interest for each audience member.

### Exhibit 4 – Target Audience Summary

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>RELEVANCE</th>
<th>TAKE AWAY MESSAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Service Administrators (Managers &amp; Educators)</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Sample guidelines and flow improvement strategies can be leveraged as a starting point to enable practical improvements in patient flow</td>
</tr>
<tr>
<td>Perioperative Leadership (Directors &amp; Chiefs)</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Sharing of proven strategies to alleviate specific pressure points or bottle necks in patient flow</td>
</tr>
</tbody>
</table>
| Hospital Executive Leadership                     | 🌟🌟🌟🌟🌟 | • Through collaboration with other hospitals, patient flow guidelines and improvement strategies should be shared to prevent bottlenecks and achieve increased efficiencies in perioperative care.  
• Need for standardization in preparation of surgical patients and communication of this information to other members of the team. |
| Quality Improvement Experts                       | 🌟🌟🌟🌟🌟 | To ensure the delivery of quality patient care, a priority for leadership should be on ensuring adequate hospital specific guidelines and processes regarding patient flow through the perioperative space. |

### Significance

Patient flow issues were highlighted across the majority of coaching team visits, and affect areas/departments beyond those directly affiliated with perioperative services. Key issues included: poor management of daily operations; a reliance on historical operating room blocks; ad hoc scheduling of urgent and emergency cases and a lack of effective monitoring of key metrics.

Examining patient flow and mapping processes is an essential way to improve outcomes, increase patient satisfaction (through avoidable surgery cancellations), and increase efficiency (and sometimes reduce costs).
Lessons Learned

- Flow issues are not just a concern from management or administration - The whole team gets frustrated by issues related to inefficient scheduling of surgical cases
- Difficulties associated with changing historical operating room blocks were reported by many teams. The lack of reliable data to support making adjustments in OR blocks was another barrier to implementing necessary changes. Coaches were able to assist organizations to develop processes to regularly collect data regarding indicators such as start times, delays, cancellations and case TAT
- Many hospitals reported issues with respect to access to recovery and ward beds.
- Process mapping is an essential diagnostic step to ensure that the whole team understands not only their part of the process, but how each component is related to the rest of the process. Many hospitals in Ontario have achieved success through their investments in building capabilities and knowledge in Lean (process improvement methodology). Lean is more than mapping processes. It is a fundamental transformation that some hospitals have chosen that drives engagement and shifts problem solving to the front line of care.
- Given that the perioperative processes and other issues that impact patient flow can be complex, it can be very useful to adopt a simple quality framework to enable a more structured way to work through problems and issues (e.g. PDSA).
- The perioperative service requires robust policies/guidelines related to scheduling, allocation and bed utilization policies in order to enable adequate patient flow (e.g., PACU screening, preoperative screening, PACU and ICU bypass, discharge criteria, admission required to ICU including direct admit from OR, Emerg and elective scheduling policy).
- There is one basic underlying principle that drives OR utilization - The OR belongs to the hospital, not the physicians (or any other stakeholder group). If this is not clear, then the hospitals will not be empowered to make improvement in flow.
- It is critical to understand and use hospital and OR data to drive flow improvements. Clinicians understand data. Before you change practice, use the data with the team to gain an objective perspective on actual patient flow (vs. anecdotes).

Coaches Insights:

“I have had the privilege of holding front line leadership positions in each perioperative unit (PAU, SDCU, OR, PACU) over the last 22 years. As a result of those experiences I am acutely aware of the interdependencies of the perioperative units on each other. Operating rooms have always been the focus of attention, due to their resource intensity. However, many perioperative leaders do not appreciate that one inefficient perioperative unit will negatively impact the others because of interdependencies. For example if the PACU does not have clinically based discharge criteria, patients will block PACU beds, bringing the ORs to a standstill. Likewise an operating room schedule that does not evenly distribute resource requirements across the week, will cause chaos in the surgical day care unit, the ORs and PACU.”

Pam Bush, Clinical Director Stakeholder Engagement, Information Services and Perioperative Coach
The Ottawa Hospital
The objective of the following table is to summarize the common areas of focus in Patient Flow for Perioperative services, and to provide tools or information that are believed to be of highest value to facilitate improvements.

<table>
<thead>
<tr>
<th>Common Areas of Focus</th>
<th>Common Strategies Developed Across Pilot Sites</th>
<th>What is shared in the Reference Document?</th>
</tr>
</thead>
</table>
| **How to effectively manage OR blocks and bookings** | • Review the OR block allocations and move toward reallocating blocks based on patient need, resources, community, utilization and hospital strategic priorities  
• Benchmark hospital utilization against peer comparators specific to the provincial access targets for urgent case types  
• Implement a centralized scheduling office to facilitate surgical bookings and accurately manage/utilize the resources available in the perioperative program  
• Establish rules-based utilization and booking policies, on-line booking practices | • Booking Resource Manual  
• OR booking procedure  
• Block time management tool  
• Web links to other toolkits that provide Lean education;  
• OR benchmarking  
• First case on time charting  
• Surgical Safety Checklist  
• Urgent Emergent Procedure Booking  
• Cancellation of Elective Surgery due to insufficient beds  
• Reasons for delay monitoring  
• PACU Discharge Criteria |
| **How to standardize and optimize Pre-Operation Flow** | • Establish a multidisciplinary working group to assess pre-op processes  
• Design pre-op program inclusive of key perioperative professionals, and include the elements of standard process for screening, teaching and discharge planning  
• Plan for alternative roles to support the pre-op assessment unit (e.g., ACNP, RNFA, RT, Pharmacist)  
• Align the anaesthesia consult within a comprehensive pre-op screening process  
• Pursue the implementation of a standardized scheduled approach to pre-admission clinics and anaesthesia assessments | |
| **How to balance case prioritization of Urgent, Emergent and Elective Surgeries** | • Review of booking processes from like institutions  
• Develop a clear and common understanding of urgent / emergent through agreed upon definitions, and a policy to direct the scheduling of urgent cases  
• Define roles and responsibilities for daily decision making and establish who is the ‘go to’ person to escalate issues that arise in the perioperative services | |
| **How to optimize organizational bed management and capacity constraints** | • Utilization review of surgical and Medical admissions, conservable days and LOS  
• Advance medical or multi-disciplinary-led discharge orders  
• Explore the concept of a Closed Surgical Unit: review occupancy and benchmarks  
• Implement standardized, early discharge times for patients and review physician rounds/discharge process  
• Obtain scheduled and emergent case volume data to support bookable bed allocations for elective slates by service | |
| **How to apply Lean techniques to improve overall flow through the Perioperative Process** | • Use mapping methodology to improve patient flow through process. Examine process of care, starting with the first point of contact in the preadmission phase. Involve front line staff, ancillary departments and ensure to respect the patient perspective.  
• Develop criteria based fast – tracking guidelines through a collaborative Anaesthesia – Nursing taskforce | |
| **How to improve discharge planning to smooth patient flow** | • Create a patient flow task group responsible for reviewing clinical pathways (elective and urgent), mapping processes, establishing expected date of discharge  
• Enhance Discharge planning in pre admit process  
• Provide access to care maps via internet for patients and families  
• Facilitate a process to develop, communicate and educate physicians and staff regarding clinical pathways | |
The Supply Chain theme addresses the challenges around the processes and functions of supplying the surgical suites (OR) and the sterile core. Hospitals are reporting: non-standardized and manual process for surgical supply management; lack of reliable data to support measurement and monitoring of supply chain activities; clinical time being allocated to materials management; insufficient and ineffective communication between OR, SPD and Materials Management; excessive, duplicate and obsolete inventories; and outdated pick lists and procedure cards.

Exhibit 5 outlines the relevance and key take away messages for different stakeholder groups related to the content of this section. The symbols to the left will be used throughout the document to flag particular areas of interest for each audience member.

### Exhibit 5 – Target Audience Summary

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>RELEVANCE</th>
<th>TAKE AWAY MESSAGES</th>
</tr>
</thead>
</table>
| Perioperative Service Administrators (Managers & Educators) | ★★★★★ | • There are other toolkits and best practices to support improvements  
• There is a requirement to adhere to certain standards (referenced within) |
| Perioperative Leadership (Directors & Chiefs) | ★★★★★ | • Ensure there is a practice in place to review standards  
• Ensure that there are effective procurement practices in place |
| Hospital Executive Leadership | ★★★★★   | Supply chain issues are complex and can effect overall quality of care and present risk issues to the hospital if not managed well. |
| Quality Improvement Experts | ★★★★★ | Look for opportunities to standardize (vendors, instrumentation and supplies, packaging, etc...) |

### Significance

Supply chain refers to organized and effective processes that manage how products are selected and purchased. Given that equipment and supplies constitute a larger proportion of the operating budget of perioperative services than many other hospital programs, it is critical to ensure an effective process for managing inventory. Supply Chain issues were initially highlighted in the Surgical Process Analysis and Improvement (SPAD) Expert Panel Report (including a number of related recommendations). In addition, the coaching teams consistently found issues related to supply chain in most hospitals.

Supply Chain issues are viewed as an area with many improvement opportunities as well as one with significant exposure to hospital risk.
Lessons Learned

- Many hospitals reported concerns regarding instrumentation and inventory management. Despite current best practice, a surprising number of hospitals had not implemented standard instrument trays. They were also struggling with instrument deficiencies which did not support higher case volumes.

- Few hospitals were bundling equipment purchases.

- The organization and management of SPD processes was variable, despite industry wide standards of practice.

- The lack of LHIN wide initiatives with respect to perioperative supply chain management was noted.

- Few hospitals had developed plans to assess supply needs on a longer term basis, and plan accordingly given ongoing fiscal restraints.

- Many of the changes related to supply chain can be made within restricted budgets and will improve costs in the long term.

- It is critical that the hospital establishes a formal mechanism to review and educate staff related to the adoption of and compliance with standards. Standards bodies such as CSO, PIDAC, CSA, ORNAC or Accreditation Canada are helpful in driving focus on important areas related to supply chain.

Coaches Insights:

“Effective management of the hospital supply chain requires a thorough knowledge of current best practice standards, budgetary supervision and excellent communication skills. A proactive approach to providing the surgical team with the right equipment, processed to meet standards, at the right time in the right location every time, takes commitment and dedication to service excellence by all involved.”

Cindy McLennan
Clinical Manager & Perioperative Coach
The Ottawa Hospital
### Using the toolkit

The objective of the following table is to formally link the common considerations about Supply Chain with tools or information that are believed to be of highest value to facilitate improvements in perioperative services.

<table>
<thead>
<tr>
<th>Common Areas of Focus</th>
<th>Common Strategies Developed Across Pilot Sites</th>
<th>What is shared in the Reference Document?</th>
</tr>
</thead>
</table>
| Procurement Management| • Develop interdisciplinary resource acquisition committee with an established peer review process to approve requests for new inventory/technology/capital equipment  
• Designate annual capital dollars for surgical equipment  
• Develop 5 year equipment plan, including replacement/update requirements  
• Explore options for regional purchasing  
• Implement rigorous and effective impact analytical processes for all new physicians and procedures  
• Focus on increasing the degree of standardization where possible  
• Implement a hospital-wide Product Evaluation Committee to review innovative surgical technologies and provide ongoing assessment and evaluation of new technology  
• Develop a product evaluation policy and procedure | • Capital Equipment Allocation Process  
• Capital Equipment Purchase Process  
*see below |
| Inventory Management  | • Incorporate a data management system to track instruments  
• Develop plan and system for inventory management and usage reporting  
• Track vendors and rebate opportunities to ensure return of these cost recoveries to the OR functional center |  |
| Integration between processing department and OR | • Create a better understanding of materials management role and link with surgery; establish and develop a collaborative partnership among admin particularly CFO, CSD and surgery  
• Participate in the CSD Best Practice Guideline from PIDAC  
• Align the processing department and OR teams to support a shared vision as well as examining corporate alignment and internal reporting structures  
• Develop shared accountability model in processing department/OR with clear expectations including standard operating procedures, job descriptions, joint committee structure  
• Review and implement shared targets and benchmarks to communicate progress with processing department/surgical service  
• Develop a common nomenclature dictionary for communication between processing department and OR |  |
| Central processing department flow | • Develop mapped processes related to instrument management, standardization, and sterilization and case carts services  
• Redesign space in processing department to improve flow  
• Review staffing for processing department  
• Develop strategies to reduce excess instrumentation through an OR/processing department working group  
• Collaborate with LHIN partners to address supply chain issues and explore opportunities for LHIN-wide initiatives  
• Implement an integrated IT solution for processing department and OR (preference and case cart lists)  
• Develop robust quality assurance project for instrumentation, including audits and development of “stretch” expectations for benchmarks for turnaround |  |

*Perioperative Supply Chain Guidebook to be released by the OHA - Winter 2011*
The human resources theme highlights the need for formal short and long term HR planning for perioperative services. This includes analysis of perioperative HR skill mix (e.g. RN and/or other health professionals to perform certain roles), Education programs, and credentialing. Many hospital face challenges with recruitment and retention. This theme stresses the importance of establishing recruitment and retention strategies as well as adequate educational resources to support ongoing professional development.

Exhibit 6 outlines the relevance and key take away messages for different stakeholder groups related to the content of this section. The symbols to the left will be used throughout the document to flag particular areas of interest for each audience member.

### Exhibit 6 – Target Audience Summary

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>RELEVANCE</th>
<th>TAKE AWAY MESSAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Service Administrators</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Awareness of key lessons. Critical need to recruit and retain competent front line staff. Understanding of the need for appropriate educational tools to enhance clinical excellence. Ensuring that scope of practice issues for varied health professionals is fully understood is also important.</td>
</tr>
<tr>
<td>Perioperative Leadership</td>
<td>⭐⭐⭐⭐</td>
<td>Human resource management in perioperative services is an important activity. The need for formal human resource plans for both physicians and other staff is critical.</td>
</tr>
<tr>
<td>Hospital Executive Leadership</td>
<td>⭐⭐⭐⭐</td>
<td>Given some surgical specialties and procedures have become so specialized, hospitals need to have the appropriate credentialing and education programming to ensure there is no exposure of unnecessary risk. Human resource issues are complex and can effect overall quality of care and present risk issues to the hospital if not managed well.</td>
</tr>
<tr>
<td>Quality Improvement Experts</td>
<td>⭐⭐⭐⭐</td>
<td>There may be opportunities to reduce costs through examination and changes in staffing mix.</td>
</tr>
</tbody>
</table>

### Significance

Similar human resource management issues were highlighted in every coaching team visit. Human resources functions as the backbone of an efficient perioperative space and allows resources to be utilized to their maximum capacity. Where HR gaps exists, there are opportunities to reduce costs, risk and improve quality of care.

*People are the “backbone” of any clinical program. Significant attention should be devoted to key human resource issues, particularly stable OR staffing, the need for ongoing professional development and comprehensive HR plans.*
Lessons Learned

- The majority of hospitals identified a lack of stable operating room staffing
- The lack of educational programs to support professional development was noted by many who participated in the coaching initiative. In many cases, OR Educator positions had been eliminated due to broader financial constraints
- Some hospitals reported struggling to deal with ongoing issues with respect to conduct. The lack of guidelines regarding appropriate conduct in the OR was surprising
- Opportunities clearly exist to institute new roles within the perioperative setting. In particular, Anaesthesia Assistants and RNFAs show some promise
- The lack of effective Human Resource planning was common. Perioperative leadership frequently placed the issue lower on the priority list due to competing demands and pressures
- Changes in technology and surgical practice require ongoing monitoring and efforts to ensure that physicians and staff are supported in the adoption of new techniques and approaches
- The need for appropriate and rigorous credentialing and impact analyses when recruiting new physicians is critical
- It is critical to allocate staff appropriately to match utilization with available resources.
- There is value in establishing relationships with surgeon office practices to maximize information sharing, align with the Wait Time Information System (WTIS) processes and aid in potential staffing issues
- Failure in clarification of roles results in confusion and conflict. Need for all staff to understand their own roles as well as the roles of other members of the perioperative team.

Coaches Insights:

“During our coaching visits many consistent issues were identified related to the human resource aspects of perioperative programs. We were asked questions regarding: the industry standard for staff per OR; optimal skill mix, role definitions, recruitment, retention, training and other general HR management issues. Often even small changes in only one of these areas had an unexpected ripple effect with more wide spread benefits than originally anticipated. Focusing on human resources is more than just managing hiring, scheduling and general job oversight, it also includes education, succession planning, maximizing professional standards and creating a healthy workplace.”

Ann Bartlett,
Director Patient Services and Perioperative Coach
Cambridge Memorial Hospital
The objective of the following table is to formally link the common considerations about Human Resources with tools or information that are believed to be of highest value to facilitate improvements in perioperative services.

<table>
<thead>
<tr>
<th>Common Areas of Focus</th>
<th>Common Strategies Developed Across Pilot Sites</th>
<th>What is shared in the Reference Document?</th>
</tr>
</thead>
</table>
| Recreation and retention practices for MD, Nurses and Anesthesiologists | • Develop a physician and perioperative nurse recruitment and retention task force  
• Increase planning at recruitment and succession planning stages with all stakeholders (education, utilization, equipment etc.)  
• Review and develop a strategy on an annual basis at the Executive Committee level to include long term planning, annual evaluations and retirement plans  
• Hire a recruitment coordinator | • Links  
• OR/PACU Evening Des Aide Role Description  
• OR Des Role Description  
• OR/PACU Evening Des Porter Role Description  
• PACU Des Porter Role Description  
• Cost Effective Role Descriptions |
| Professional development (education and training programs) for perioperative staff | • Recruit perioperative-trained educator  
• Define model of professional practice support that addresses day to day educational needs, as well as novice to expert competency assurance  
  – Review peer professional practice models  
  – Conduct formal educational needs assessment  
  – Develop model for education within the OR schedule  
  – Develop a communication plan for available education opportunities  
• Obtain information from Finance for budgeted vs. actual education hours  
• Enhance use of intranet and teleconference technology  
• Develop mentorship program for PACU nurses with anaesthesia or surgery | |
| Human resource utilization | • Review the skill mix in the OR to increase flexibility and effective use of all available resources  
• Implement Team Leader to enhance consistency and communication  
• Analyze nursing duties and redistribute non-nursing duties  
• Consider cross site full time nursing and support staff positions  
• Implement the full scope of practice for Nurse Practitioners on the inpatient surgical units and explore opportunities for utilization during pre-operative assessment  
• Examine introducing RFNA role and other new models for perioperative care providers  
• Review standardization of support staff and supplies | |
| Role clarity for perioperative staff | • Review and define job descriptions, revise competencies checklist  
• Evaluate the scope of practice of the clinical leaders  
• Consider introduction of expanded nursing roles  
• Develop a cohesive interdisciplinary health care team | |
| Professional Code of Conduct | • Work with Organizational Development / Human Resource department to create environment of respect between all team members, and address code of conduct issues  
• Increase enforcement of standards of practice of professional colleges  
• Establish a charter for surgical team interaction to set fundamental relationship building blocks for the surgical program  
• Provide conflict resolution training for all disciplines  
• Map code of conduct to guiding principles | |
| Staffing and scheduling practices | • Review staffing model relative to case volume, complexity and acuity  
• Review criteria for on-call teams  
• Investigate the potential for program staff to work across sites (if applicable)  
• Review attendance management program | |
The Data and Automation theme highlights the importance of the collection and utilization of data and information to drive and inform effective decision making. Although some hospitals demonstrate robust information use, most have disparate information systems and little capabilities for using the right information to drive and monitor improvements in perioperative care.

Exhibit 7 outlines the relevance and key take away messages for different stakeholder groups related to the content of this section. The symbols to the left will be used throughout the document to flag particular areas of interest for each audience member.

### Exhibit 7 – Target Audience Summary

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>RELEVANCE</th>
<th>TAKE AWAY MESSAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Service Administrators</td>
<td>★★★★★</td>
<td>What information is required to monitor day-to-day performance? Where does it come from?</td>
</tr>
<tr>
<td>(Managers &amp; Educators)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perioperative Leadership</td>
<td>★★★★★</td>
<td>Strategic perioperative program decision making should be based on certain data. This may or may not be available based on the hospital’s information systems. There is support to improve the information analysis capabilities for perioperative services.</td>
</tr>
<tr>
<td>(Directors &amp; Chiefs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Executive Leadership</td>
<td>★★★★★</td>
<td>Knowing what information to ask for to sponsor perioperative decision making across the organization.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Improvement Experts</td>
<td>★★★★★</td>
<td>Knowledge of existing or recommended metrics to support quality improvement</td>
</tr>
</tbody>
</table>

### Significance

Making improvements in perioperative care is difficult as there are many interest groups who may be effected by change. It is critical to use strong evidence to support improvement recommendations. Hospitals should be aware of what data standards exist and how they can narrow their own information gaps. In addition, often even when hospitals have information, the analytical support is lacking to help drive decision making and improvements.

*If key information is not gathered or is ignored, hospitals may lack the information they need to ensure effective decision making or change.*
Lessons Learned

- Data is critical for the effective management of perioperative services. Successful perioperative programs invest a significant amount of time, effort and other resources to ensuring that data is regularly collected, analyzed, reported and integrated into all operational and strategic decisions.

- First consider what information you need to drive decision making or change (what are the questions you are trying to answer?). Next consider the best way to collect the data, conduct analysis and present relevant information (this may include more technically sophisticated solutions — i.e., Automation; or it may include manual data collection).

- Where possible, integrate disparate information systems. Information silos create communication gaps and potential gaps in information which may cause inefficiencies.

- Data is not the same as usable information. Typically, there is some sort of analysis required to turn data or specific metrics into information. It is all about how hospitals use data and a lot less about collecting the most amount of data. For hospitals without a sophisticated analytical department, there is support through the Surgical Efficiency Target Program (SETP) to train hospital staff to use and interpret the SETP data in addition to a service to do the analysis on behalf of hospitals.

- Use of data is critical in making perioperative changes. For example, when you look at patient flow, consider how the information supports (or does not support) the entire patient flow.

- Develop a business case for new initiatives or for change in general. For example, if you are looking to reallocate OR blocks, use utilization data to inform decision making.

- Once you are focused and have a sense of the information you need to support and drive improvements, ensure that you are using this data to measure and track improvement.

Coaches Insights:

“You can't improve what you don't measure.” Your information system is more than a scheduling system. Hidden in your system is all the information you need to understand your perioperative processes. If you measure the activities and outcomes that are most important to achieving your goals your result is most likely to be effective decision making.

Valerie Zellermeyer, Program Director, Perioperative Services
Chair, SPAI Expert Panel, and Perioperative Coach
St. Michaels Hospital
# Data & Automation

## Using the toolkit

The objective of the following table is to formally link the common considerations about Data and Automation with tools or information that are believed to be of highest value to facilitate improvements in perioperative services.

<table>
<thead>
<tr>
<th>Common Areas of Focus</th>
<th>Common Strategies Developed Across Pilot Sites</th>
<th>What is shared in the Reference Document?</th>
</tr>
</thead>
</table>
| Availability of reliable and accurate data on utilization and efficiency measures | • Develop specific common vocabulary and definitions around key utilization metrics  
• Create agreement on how data will be entered and used to establish validity, work with Decision Support services to ensure accuracy and automation  
• Hire an informatics (with clinical) expertise personnel to work directly within the perioperative program  
• Educate stakeholders on data collection so that use of data can be outlined for each division | • Cancellation Metrics  
• Breast Oncology Wait Times Scorecard Example  
• Ortho Wait Times Scorecard Example  
• OR Benchmarking Review  
• Reasons for Delays  
• Data/Automation Pre-assessment Questions  
• SETP overview with links  
• Wait Times Scorecard Examples  
• First Case on time charting |
| Electronic surgical information management systems | • Acquire a Surgical Information Management System that may include the following capabilities: OR scheduling, utilization, perioperative documentation, inventory management, instrument tracking, anaesthesia clinical documentation and patient tracking system  
• Review current IT systems and structure (e.g., current installed applications and requirements for inter-connectivity with existing systems)  
• Develop criteria for the information management system (e.g., compatibility with Meditech)  
• Review flow in surgical department prior to implementation of computerized system (e.g., review forms and documents to reduce paper chart / manual processes)  
• Obtain and review the current IT strategic plan to ensure consistency  
• Consider a regionally coordinated purchase / implementation plan (review current LHIN information management strategy)  
• Develop plan for system purchase, review with OR committee  
• Support move to electronic patient record (partner with other hospitals, explore internal opportunities for database generation)  
• Where possible, initiate bookings electronically in surgeons office/clinics with systems aligned to opening and closing cases in the Wait Time Information System (WTIS) | |
| Surgical program efficiency and quality indicators | • Identify representatives from nursing, surgery, anaesthesia to determine the essential indicators for utilization and quality  
• Optimize the Accreditation Team to review the standards, identify gaps, investigate alternatives and engage the Surgical Leadership team on problem solving / resolution  
• Adopt the use of MOHLTC efficiency indicators  
• Ensure regular reporting mechanisms and follow/up processes, particularly when targets are not being met, in order to understand the factors that are contributing to such | |
| Capacity for data-driven decision-making | • Develop goals and dashboards that can be applied to proactive decision-making  
• Develop service specific reports to allow divisional accountability targets to be developed  
• Support decision making through the creation of a data / quality position (e.g., perioperative project manager) with goals to provide impartial, objective process  
• Explore the opportunity to replace current vacancies with a role in the surgical program that supports data quality review | |
Appendix

Hospital-Led Assessment Tools

Contents

Hospital Perioperative Self-Assessment Survey ...page 45
Rapid Assessment Tool ...page 57
Common Barriers to flow in perioperative care ...page 58
Hospital Perioperative Self-Assessment Survey

This survey is provided as a tool to aid hospitals as a first step in the initial assessment of perioperative care. It is similar to one that was used by participating hospitals and coaches as a pre-site assessment for information gathering. This survey should be completed with input from all members of the perioperative team. This is a general survey that covers many important considerations around perioperative flow. It is not meant to be all inclusive but as a starting point to help you identify issues and initiate analysis to help prioritize improvement opportunities.

Some questions included in the survey are intended to be answered for information gathering purposes, to ensure awareness of potential issues or bottlenecks in the processes as well as an aid for process mapping. It is important as the organisation goes through these questions to ask whether the information you have gathered are current best practices and should be shared with other organisations. Alternatively, it is critical to ask whether there is a potential that another organisation has better metrics and processes and whether collaboration could help you improve.

A. General Screening

<table>
<thead>
<tr>
<th>Question</th>
<th>Question answered by:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What have been the largest changes in your unit in the past five years? What drove these changes? Have the changes been implemented fully? How do you know these changes are successful?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are barriers for successful improvement processes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the barriers to getting surgery completed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What regular reports do you receive to assist you in managing your budget? Is there sufficient information to manage? What would you change?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any resources/processes/technologies that you feel would make your unit more efficient?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any resources/processes/technologies that would allow you to perform more cases?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question answered by:</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Are there any resources/processes/technologies that you feel would make your unit more efficient?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What performance indicators do you currently measure?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a benchmark for performance? If yes, what are you using?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What do you do with the data/information that you measure? Is this shared with your team? How?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the quality initiatives that you are currently involved in or are considering?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a quality model or process that your organization uses?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are your barriers around quality and safety?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
B. Perioperative Screening

Perioperative screening helps prepare the patient for surgery. It includes pre-operative testing based on the needs of the patient and may include detailed assessments by consultants such as anaesthesiology.

<table>
<thead>
<tr>
<th>Questions answered by:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What % of patients are prescreened?</td>
<td></td>
</tr>
<tr>
<td>What % are prescreened at hospital?</td>
<td></td>
</tr>
<tr>
<td>Are you using other strategies for prescreening? If so, what are they?</td>
<td></td>
</tr>
<tr>
<td>What % of patients are admitted on the same day of their surgery?</td>
<td></td>
</tr>
<tr>
<td>What are the barriers to same day admissions</td>
<td></td>
</tr>
</tbody>
</table>

Indicate all characteristics that the hospital materially confirms to with a check mark [✔]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All electively scheduled patients are screened either by telephone or in person to ensure patients are ready for surgery.</td>
</tr>
<tr>
<td>2</td>
<td>Patients who have similar clinical conditions and are scheduled for similar procedures are screened and tested in a like manner regardless of surgeon, anaesthesiologist or surgical procedure.</td>
</tr>
<tr>
<td>3</td>
<td>Programs include assessment, patient education and discharge planning.</td>
</tr>
<tr>
<td>4</td>
<td>Patients are medically optimized before surgical admission.</td>
</tr>
<tr>
<td>5</td>
<td>The pre-operative chart is completed and available at least one day prior to surgery.</td>
</tr>
</tbody>
</table>
C. Day Surgery/Same Day Admission

An effective Day Surgery Unit makes pre-operative preparations for all out-patient procedures and same day admit surgery procedures, and makes preparations for second stage recovery and discharge for all out-patient procedures.

Indicate All characteristics that the hospital materially confirms to with a check mark [✓]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Day surgery units are in the same physical location rather than in different locations.</td>
</tr>
<tr>
<td>2</td>
<td>Fully prepared charts are received in advance of surgery.</td>
</tr>
<tr>
<td>3</td>
<td>Staff are cross-trained to function effectively in the same day admit, PACU and second stage recovery.</td>
</tr>
<tr>
<td>4</td>
<td>The unit is strategically located adjacent to the Operating Suites.</td>
</tr>
</tbody>
</table>

D. Intra-Operative Process

An effective surgery program will reflect an effective intra-operative process.

<table>
<thead>
<tr>
<th></th>
<th>Question answered by:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What role do each of the nursing staff have in your ORs? Manager, RN, ORT, Other Resource/charge RNs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who in the OR other than nursing staff provide direct/hands on care to patients? What percentage of their time is spent in direct patient care activities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where are surgical preps and pre-operative medications administered?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Are any of the staff cross-trained with other areas? If so, which areas?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have a surgical information system in your unit? If so, which system are you using?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have an on call system? How does it work? Does call back cause you to have staffing problems the next day?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual hours for overtime?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sick time? (average/FTE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have any problems covering for staff?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To what extent do you have vacancies in your unit? Is this causing you to have to cancel cases?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What have been the major challenges in your staffing situation in the past three years?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What type of orientation / on going education do you provide?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have an educator dedicated to your unit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How is first assistance for surgery provided?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have sufficient coverage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you had to close or delay surgery because of first assistant issues?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Indicate all characteristics that the hospital materially confirms to with a check mark [✓]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Data is collected and performance is monitored on start, finish and turnover times, utilisation including hours available and hours used, and patient safety (Note: start time is patient in the operating room).</td>
</tr>
<tr>
<td>2</td>
<td>Performance is benchmarked against peer group standards.</td>
</tr>
<tr>
<td>3</td>
<td>The staffing model is matched to patient need and complexity of the service.</td>
</tr>
<tr>
<td>4</td>
<td>There is adequate and dedicated support staff for ancillary functions (i.e., transportation, housekeeping etc.).</td>
</tr>
<tr>
<td>5</td>
<td>There are sufficient levels of instrumentation, supplies and equipment to meet the OR schedule providing for the “right instruments at the right time” and “just in time” delivery.</td>
</tr>
<tr>
<td>6</td>
<td>Instrument trays are standardized for similar cases.</td>
</tr>
<tr>
<td>7</td>
<td>OR schedule confirmed at least 24 hours in advance (elective cases earlier).</td>
</tr>
<tr>
<td>8</td>
<td>Urgent volumes are incorporated into the regular daily OR schedule.</td>
</tr>
<tr>
<td>9</td>
<td>Activities are performed in parallel rather than serial fashion, whenever possible (i.e., room set up and patient induction occurs concurrently).</td>
</tr>
<tr>
<td>10</td>
<td>Theatres are staffed for cases with a target room utilisation of 80%.</td>
</tr>
<tr>
<td>11</td>
<td>Unplanned OR day extensions and overtime are regularly evaluated for opportunities to determine a need for extended hours or revised staffing patterns.</td>
</tr>
<tr>
<td>12</td>
<td>Off hours and weekend utilisation are monitored and reviewed to ensure that utilisation meets the criteria for emergency care.</td>
</tr>
<tr>
<td>13</td>
<td>Alternate settings are considered based on case type and acuity (e.g., cataracts and endoscopy may be done outside of a traditional OR setting).</td>
</tr>
<tr>
<td>14</td>
<td>A supply chain model is used that includes product evaluation, standardized purchasing processes and specific policies that manage access of vendor representatives to the OR.</td>
</tr>
<tr>
<td>15</td>
<td>Supply acquisition is managed by contract and/or on consignment.</td>
</tr>
<tr>
<td>16</td>
<td>A Perioperative information system is used that allows for automated data capture with a goal of case costing.</td>
</tr>
</tbody>
</table>
E. Post Anaesthesia Care Unit and Second Stage Recovery

An effective surgery program needs an effective Post-Anaesthesia Care Unit (PACU) and Second Stage recovery program.

Indicate All characteristics that the hospital materially confirms to with a check mark [✔]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient discharge policies and procedures are based on the clinical condition of the patient. Time-based standards or minimum lengths of stay are not recommended. Discharge policies may direct who, in addition to physicians, may discharge a patient from the PACU.</td>
</tr>
<tr>
<td>2</td>
<td>Policies should be developed to bypass the PACU and enable patients who have received a general anaesthetic to be included in the bypass group. As a general rule, most patients receiving a local anaesthetic should bypass the PACU.</td>
</tr>
<tr>
<td>3</td>
<td>A staffing model should be in place that includes professional staff and ancillary staff based on the case mix. Staffing should reflect the perioperative schedule, predicted patient need and complexity of the service.</td>
</tr>
</tbody>
</table>

F. Instrument Processing and Case Cart Preparation

An effective surgery program needs adequate instrument processing and case cart preparation.

<table>
<thead>
<tr>
<th>Question answered by:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What OR supply system is used? (case cart, exchange cart etc.)</td>
<td></td>
</tr>
<tr>
<td>Where are the supplies picked (OR/SPD)?</td>
<td></td>
</tr>
<tr>
<td>Who transports OR supplies? Who do these people report to?</td>
<td></td>
</tr>
</tbody>
</table>
Accurate procedure-specific pick lists are used.

Instrument trays are standardized by procedure and service with minimum instrumentation for a typical case.

Robust quality assurance processes address the accuracy of instrument trays and case carts, where used.

Instrument tracking and management programs are in place and are monitored. Larger organizations should consider automated systems for instrument tracking and management.

### G. Scheduling Process

Effective surgical scheduling and booking programs support an efficient and effective program.

<table>
<thead>
<tr>
<th>Question</th>
<th>Question answered by:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are OR cases scheduled or booked?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How is case length determined when scheduled?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How is unbooked time released and filled?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What time does the schedule close to elective cases?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What time does the schedule close to all cases?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How are emergency cases accommodated into the schedule?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Indicate all characteristics that the hospital materially confirms to with a check mark [✓]

<table>
<thead>
<tr>
<th>Question Answered by</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are urgent cases accommodated into the schedule?</td>
<td></td>
</tr>
<tr>
<td>Who is responsible for the day to day management of the OR schedule?</td>
<td></td>
</tr>
<tr>
<td>Describe the process for monitoring and managing utilization of OR time? Who receives the information? Are issues identified and acted on?</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clear policies and guidelines are in place based on the organisation’s goals that are communicated, implemented and consistently upheld.</td>
</tr>
<tr>
<td>2</td>
<td>The surgeon’s office or requesting clinic provides all the information that is required to develop and prepare a slate.</td>
</tr>
<tr>
<td>3</td>
<td>The duration of cases are scheduled based on real (average) time performance.</td>
</tr>
<tr>
<td>4</td>
<td>Each resourced OR block is fully booked based on duration estimates and established block time allocations.</td>
</tr>
<tr>
<td>5</td>
<td>Cases are sequenced based on clinical need, effective use of resources, access to resources and clearly defined criteria.</td>
</tr>
<tr>
<td>6</td>
<td>Block lengths may vary based on established practice patterns, patient or case needs, and available staff and physician resources.</td>
</tr>
<tr>
<td>7</td>
<td>Block release times are clearly established and determined based on patient needs and service demands (i.e., highly elective or predominantly urgent).</td>
</tr>
<tr>
<td>8</td>
<td>Booking offices have predetermined processes for managing waiting cases and unutilized or released scheduled time.</td>
</tr>
<tr>
<td>9</td>
<td>Block allocations are allocated to service and/or surgeon based on clear criteria that include patient access to care.</td>
</tr>
<tr>
<td>10</td>
<td>Block utilisation and allocations are reviewed on a regular basis and reallocated based on clear criteria.</td>
</tr>
<tr>
<td>11</td>
<td>The schedule is closed 24 hours before the surgical day. Any additional changes are directed through the operating room process and are based on defined clinical priorities (e.g., it may be appropriate to add urgent cases 12-24 hours before the surgical day).</td>
</tr>
</tbody>
</table>
H. Supply Chain Best Practice Targets

An effective surgery program be aware of best practices and be able to assess performance against established best practices.

Indicate All characteristics that the hospital materially confirms to with a check mark [✔]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perioperative services will ensure that there is sufficient instrumentation and supplies to support the operating room schedule. Appropriate investments will be made to support surgical activity and throughput.</td>
</tr>
<tr>
<td>2</td>
<td>Surgical suites will have separate dedicated physical supports for clean and soiled instrumentation and supplies between perioperative and central processing services.</td>
</tr>
<tr>
<td>3</td>
<td>Systems will be used to help manage instrumentation, and cleaning and sterilisation processes.</td>
</tr>
<tr>
<td>4</td>
<td>Hospitals will link supply consumption to surgical activity by actively managing the inventory supply replenishment process using automated systems and material management support.</td>
</tr>
<tr>
<td>5</td>
<td>To the extent appropriate to the clinical activity of the hospital, perioperative services will use a limited but sufficient range of instrumentation to enable good choice and minimize inefficiencies and confusion.</td>
</tr>
<tr>
<td>6</td>
<td>To the extent appropriate to the clinical activity of the hospital, perioperative services will use a limited but sufficient number of vendors to enable good choice and minimize inefficiencies and confusion.</td>
</tr>
<tr>
<td>7</td>
<td>Hospitals will develop access management policies for their vendors.</td>
</tr>
<tr>
<td>8</td>
<td>To the extent appropriate for the facility, custom packs, case carts and pick lists will be standardized by procedure or program, rather than by individual physician.</td>
</tr>
<tr>
<td>9</td>
<td>Hospitals will use clearly defined processes to analyse the value of new perioperative technologies.</td>
</tr>
</tbody>
</table>
## I. Support Services

Adequate support services enable an efficient process flow

<table>
<thead>
<tr>
<th>Question</th>
<th>Questions answered by:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are patients delivered to and from the OR? Day Surgery? Who transports them? Who do these staff report to?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have any issues with laboratory support? (specimens; lab results; point of care testing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How is pharmacy organized to deliver services to your area? What services does pharmacy provide? Are there any issues that contribute to delays in the OR or recovery phase?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you ever lose or cancel cases because of a lack of anesthesia coverage? About how often a week would this occur?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What support services are available to the anesthesiologists? Are these adequate? Who assists with inductions? What are their hours of coverage and to whom do they report?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions answered by:</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Does the unit have clerical support? If yes what are the hours of coverage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How are housekeeping services provided? Do nursing staff provide and housekeeping duties? What are the hours of coverage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does equipment breakdown ever cause you to lose or cancel a case. How many times a week or month would this happen?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What kind of support do you receive form biomedical engineering? (Equipment trial, repair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What kind of equipment is causing the greatest problem?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What level of support do you receive for non-clinical equipment and unit maintenance?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who is responsible for administrative duties such as staff scheduling, sick call replacement, payroll duties?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximately what proportion of their time is used in these activities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there non-direct patient care activities that are done by nursing staff?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Rapid Assessment Tool**

**THIS IS A SUPPLEMENTARY TOOL TO VALIDATE OR INFORM MORE DETAILED ASSESSMENTS.**

A proper detailed assessment is required to really understand the issues for your hospital, however, either to inform or validate your detailed assessment, it may be helpful for the perioperative team to assess themselves across the six themes using the perioperative stage as an anchor to quickly assess which areas are effective vs. problem areas requiring improvement.

<table>
<thead>
<tr>
<th>Points</th>
<th>Themes</th>
<th>Leadership</th>
<th>Governance</th>
<th>Patient Flow</th>
<th>Supply Chain</th>
<th>Human Resources</th>
<th>Data and Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Stage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Operative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 1 Recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 2 Recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LEGEND:**

- **H** = HIGHLY EFFECTIVE
- **M** = MEDIUM EFFECTIVENESS (may be secondary priorities)
- **P** = PROBLEM AREA (priority for improvement)
- **U** = UNCERTAIN (Needs focussed assessment)
Common Barriers to flow in Perioperative Care

The SPAI Expert Panel report outlines the perioperative stage. As you undertake a hospital specific diagnostic, consider some of the common barriers to patient flow and ensure you are asking the right questions to arrive at the root causes of these problems.

Exhibit 8 – High Level Perioperative Process

- Patient does not show up
- Patient not screened appropriately to ensure readiness for surgery
- Patient and family not educated to understand procedure and participate in care
- Incomplete diagnostic tests
- Paperwork incomplete
- Chart incomplete/not reviewed
- Discharge process not begun for in-patients
- Home care not arranged for out-patients

- Surgeon not available
- Anaesthesia not available
- Other members of surgical team not available
- OR not prepared (supplies, instruments, case carts)
- Insufficient time scheduled for the surgeries
- Inaccurate scheduling or booking
- Cases not sequenced into blocks
- Number of cases capped
- Equipment failure
- Insufficient capacity (staff, supplies, instruments, blood)
- Instrument tray inaccurate
- No flex for emergency cases
- Poor communications

- Post-anesthetic care unit or critical care bed unavailable
- Insufficient nursing and post-op staff
- Patient not discharged in a timely fashion
- Transport delays
- Inappropriate utilization of post-op resources

- No ward bed
- Non-surgical patients in surgical beds
- No home care
- No rehab bed/service
- No long-term care bed

Section 3

Reference Documents (Supplement)

Contents
Leadership ... page S 3
Governance ... page S 9
Patient Flow ... page S 24
Supply Chain ... page S 187
Human Resources ... page S 194
Data and Automation ... page S 211

**See separate document titled:
Reference Guide and Toolkit for Improvements in Perioperative Practice in Ontario
Reference Documents (Supplement)**
Case Study:  
Perioperative Improvement at Joseph Brant Memorial Hospital

Joseph Brant Memorial Hospital performs over 10,000 surgical procedures annually and offers an extensive range of secondary and some tertiary services. Surgical specialties include general, vascular, thoracic, ophthalmology, otolaryngology, gynaecology, plastics, orthopaedics, oral surgery and urology.

With the release of the July 2005 report of the Surgical Process Analysis and Improvement Expert Panel the hospital’s Surgical Services program discovered that some of the efficiency issues they were experiencing were common to many organizations.

Coaching Visit:

In January 2006, Joseph Brant Memorial Hospital became the second hospital in the province to receive a visit from a Perioperative Coaching Team.

Despite reassurance that this was to be a coaching and mentoring experience, the organization experienced some anxiety related to having their work analyzed by a third party. Those anxieties were alleviated quickly once they had the opportunity to interact with the coaches.

By holding focus groups with front line staff and management from various departments that included: Distribution and Environmental Services, Rehabilitation program, Admitting, Radiology and Laboratory Services as well as from within the surgical program, the coaching team provided all stakeholders with an opportunity to contribute to the planning processes. This approach guaranteed the buy in and enthusiasm that was required when it came time to implement the action plan.

Action Plan:

The action plan identified the following opportunities: to develop a core surgical management team, streamline and further standardize OR equipment and supplies, reduce length of stay, enhance flow of patients within the existing space and improve the data availability and analysis.

The plan was implemented successfully, and continues to serve as the cornerstone of the surgical program’s strategic plans.

Outcomes

The core management team — Chief of Surgery, Director of Surgery and two Clinical Managers — has been meeting bi-weekly since the coaches’ visits. This has provided a forum for problem solving, collaborating on projects and policies, developing plans to move the program forward and analyzing the monthly reports that the program now receives from Decision Support.

Work related to standardization and supplies has resulted in a 100K savings this past year due to a conversion to disposable linen. Streamlining the gloves available in the OR has netted an additional 13K in savings. An exchange cart system has ensured that supplies are consistently available in the OR. Staffing hours no longer required for daily ordering and stocking of supplies have been used to enhance portering and attendant hours within the OR.
With the encouragement of the coaches and the opportunity to apply for funding through the Wait Time Nursing Innovation and Education Fund, front line surgical nurses worked with front line rehab nurses to develop and implement an educational program that successfully upgraded the acute care skills of Rehab Unit nursing staff.

This project, along with several revised care maps, contributed to an overall reduction in length of stay from 4.7 to 4.1 days for the top 10 case mix groups.

Surgical cancellations due to lack of beds have decreased significantly. As well, the coaching team strongly encouraged the organization to carefully map processes around cataract surgery. By completing this exercise and taking advantage of some space that became available proximal to the OR, the hospital has been able to increase the number of cataract procedures completed each day from 15 cases in 2005/06 to 17 cases at present.

Most telling, is the significant reduction in wait times for hips, knees, cataract and cancer surgery. The attached graph clearly illustrates this outcome.

The coaching team innovation clearly demonstrates how the Ministry is engaged in partnering with hospitals to bring best practices to life in the workplace. This strategic use of the knowledge capital present within the hospital sector is a reflection of the high regard the Ministry has for the professionals who provide excellent quality, efficient, effective care for Ontarians and the recognition that, to meet the needs of the population, health care must be delivered by a team that collaborates effectively.
Case Study:
Perioperative Improvement at Headwaters Health Care

Headwaters Health Care Centre has two operating suites and a special procedure room. Four General Surgeons provide coverage for 24-hour emergency care.

Surgical Subspecialties at Headwaters Health Care Centre include:
- General Surgery
- Vascular Surgery
- Ophthalmology Surgery
- Ear, Nose and Throat Surgery
- Dental and Oral Surgery
- Urological Surgery
- Obstetrics and Gynaecology Surgery

In August 2006, Headwaters Health Centre received a visit from the Perioperative Coaching Team.

Action Plan:

The action plan identified the following opportunities: to clarify accountability for day to day operational issues, improving start times and turnover, managing add on and call back cases, address patient flow and bottleneck issues, identification of key program indicators, human resource planning, and supply change improvements.

Outcomes:

The hospital developed a Surgical Steering Committee in Oct 2007 that continues to meets twice monthly. Terms of reference were developed and this committee serves as a forum to discuss operational issues, such as utilization & scheduling, as well as team discussion about any immediate problems. 7am – 3pm utilization for Sept/10 was at 92%, with block utilization at 83%. The team also organized 4 Surgical Forums over the past 2 years. All Perioperative staff & physicians bring issues forward which are discussed as a group in dinner meetings. Everybody gets to hear how these issues affect the people working in other areas of the perioperative suite.

As well, positive physician support allowed the OR Charge Nurse to better manage elective cases and the add on/ emergency cases. The Surgical Steering Committee identified quality indicators that the program will track. They revised the OR booking policy, to include a definite date that the elective cases need to be booked, block reassignment & cancellations, definition and guidelines for add on/ emergency cases. As well, cataract patients were causing a bottle neck in the PACU. As a result of effective discussion, these patients now return to the Day Surgery area immediately after surgery. There is a standardized IV sedation protocol for cataract patients. There is also a standardized discharge policy for day surgery patients, as well as a policy for PACU patients leaving the Phase 1 recovery to return to the day surgery area or the inpatient units. On the off shifts, the OR nurses were recovering the surgical pts, which led to delays in add on surgeries. The PACU staff are now on call 4 hrs in the evenings, Mon-Fri and they were initially on call on weekends, but this has been removed, from lack of effective use.
The hospital utilized a front line team approach in design and implementation of the Surgical Pause, now expanded to the Surgical Safety Checklist. They also used a front line nursing team in 2009 to create a workable electronic operating room documentation (ORM) that would work within the needs of Day Surgery and PACU requirements.

Headwaters’ Surgical Safety checklist was 100% in Aug/10

The hospital moved to electronic documentation on the inpatient units, 8 years ago. The OR documentation goes into the patient’s electronic chart as a separate report. The information charted in day surgery & PACU follows together and is also visible to the inpatient nurses.

• This provides accurate data collection to be submitted to the benchmarking system
• Accuracy in elective case bookings, is now at 75%.
• Stock supplies are ordered with a hand-held device, again moving to less paper. At the moment, the non-stock items are still ordered manually.

Headwaters still have some paper charts. There were issues with the surgical chart not being complete when the patient arrived in the OR holding area.

• The surgeons’ offices have agreed to send all their information as soon as they receive it
• All computers in the perioperative are have access to the CML lab reports
• ECG's performed at the hospital during a preop clinic visit, a copy goes immediately on the patient's chart and the original is sent to the internist for reading
• All SDA pts are seen in the preop clinic

Headwaters also became part of an electronic data collection program for OR benchmarking
• This provides hard evidence of practice issues
• The hospital is able to benchmark to other hospitals of similar size
• The program is very visual, so staff and physicians are able to see improvements as well as downward blips

Start Times

• Developed a common definition for start times, delays, time recording
• Defined the target for an OR starting on time
• Identified the reasons for delays, delays and the physicians affected are presented at Surgical Program meeting and then posted in the OR lounge for all team members to see.
• Surgical pts are registered at the Amb/Care registration desk. The team recognized that there were many patients to register at 7am. This caused surgical patients to be delayed to the Day Surgery area and then the OR. The decision was made that the 8am surgical patients would be registered at 7am first before the Amb/Care pts are registered.
• First case start time in Oct 2007 were at 50%. In June 2009, the hospital was at an all time high of 90.6%, but since has maintained a start time in the high 70% to low 80%.
Acknowledgements

The leadership for this initiative came from the Ministry of Health and Long Term Care and North York General Hospital. The authors of this toolkit wish to thank the many coaches and hospitals who shared their knowledge, experiences and documentation to contribute to the development of this reference guide and toolkit.

Perioperative Coaches

Anne Bartlett, Director of Patient Services, Cambridge Memorial Hospital
Pam Bush, Clinical Director – Perioperative Services, The Ottawa Hospital
Kelly Campbell, AVP Clinical Planning, Hamilton Health Sciences
Dr. Murray Girotti, Senior Medical Advisor and Medical Director – Trauma Program, London Health Sciences Centre
Sonia June Hill, Surgical Services Manager, Lake of The Woods District Hospital
Tracy Kent-Hills, Director – Surgery, Kingston General Hospital
Alexandra Leeksmia, Manager – Surgical Services, Sunnybrook Health Sciences Centre
Dr. Craig Muir, Surgeon, Niagara Health System
Fran Riley, Clinical Manager, OR/PACU, Hamilton Health Sciences
Terri Stuart-McEwan, Clinical Director – Surgical Program, Womens College Hospital
Helen Vandoremalen, Patient Care Manager, Holland Orthopedic and Arthritic Centre, Sunnybrook Health Sciences Centre
Valerie Zellermeyer, Program Director, Perioperative Services, St. Michaels Hospital

Hospitals

Hamilton Health Sciences
Headwaters Health Care
Joseph Brant Memorial Hospital
London Health Sciences Centre
St. Michaels Hospital
Southlake Regional Health Centre
Sunnybrook Health Sciences Centre
The Ottawa Hospital
Women’s College Hospital

Other Special Thanks to the Extended Project Team and Leadership

Dean Martin, VP & CFO, North York General Hospital (Executive Sponsor)
James Ibott, North York General Hospital
Julie Zendehnizadeh, North York General Hospital
Kavita Persaud, North York General Hospital
Kevin Viilanzoff, Plexxus
Emily O’Sullivan, Ministry of Health and Long Term Care
Alan Norwich, Ministry of Health and Long Term Care
Barbara Johne, Ministry of Health and Long Term Care

Authors

Aaron Berk, HIO Group
Dr. Gregory Hall, HIO Group
Anne LeGresley, HIO Group