

# Sustainable Perioperative Care Scorecard

## A Brief Introduction

This project was undertaken with the financial support of the Government of Canada.

Ce projet a été réalisé avec l'appui financier du gouvernement du Canada.





# The SPC Scorecard

A pan-Canadian assessment tool to support efforts toward perioperative sustainability in operating rooms across Canada

Rates activity on a variety of important sustainability metrics in the perioperative setting

ORGANIZATION:

DATE:



## CASCADES SUSTAINABLE PERIOPERATIVE CARE SCORECARD

The CASCADES Sustainable Perioperative Care Scorecard helps perioperative teams:

- Identify sustainability opportunities and access related implementation resources
- Establish a baseline and track progress on sustainability goals
- Share these metrics with the broader community to track collective progress

See additional resources to support the implementation of the Scorecard:

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This version of the tool has been adapted from an earlier scorecard in collaboration with the Best Practice in Surgery, University of Toronto (see below for further details).



Background information and implementation resources related to most of the sustainability opportunities presented below can be found in the CASCADES Sustainable Perioperative Care Playbook (linked throughout).

To access the full playbook, go to: <https://cascadescanada.ca/>

Status Options:

- NOT WORKING ON
- WORKING ON (NOT YET PARTIALLY ACHIEVED/Achieved)
- PARTIALLY ACHIEVED
- ACHIEVED

OPPORTUNITIES	STATUS	GOALS
<b>SUSTAINABILITY LEADERSHIP</b> → See <a href="#">The Strategy for Change</a> in the CASCADES SPC Playbook		
Implement leadership structure to support perioperative environmental sustainability	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Formalized Environmental Sustainability Perioperative Committee in place with broad representation that reports at perioperative meetings and has an executive sponsor, <b>AND</b></li> <li>• Committee structure allows for protected time for clinical staff to participate in regular meetings and implementations</li> <li>• A green team of volunteers who engage in activities to improve sustainability of the OR has been established</li> </ul>
<b>LOW-VALUE CARE</b> → See <a href="#">Avoiding Unnecessary Care</a> in the CASCADES SPC Playbook		
Reduce low-value pre- and post-op visits and testing <a href="#">Playbook: Tests &amp; Visits</a>	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Low-value pre- and post-op testing is eliminated, <b>AND</b></li> <li>• Lower-carbon test options are considered when testing is necessary, <b>AND</b></li> <li>• Virtual visits are offered when appropriate</li> <li>• Decision-tool to aid in consensus around necessity of specific tests in place</li> </ul>
Reduce unnecessary blood product wastage <a href="#">Playbook: Wise Blood Use</a>	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Transfusions only done when clinically indicated, <b>AND</b></li> <li>• Blood products are ordered in accordance with use (avoid excessive overordering; monitor expiration dates)</li> <li>• Delivered education around wise blood use, <b>AND</b></li> <li>• Stock of blood products audited to determine proper ordering frequency/volume</li> </ul>
<b>ANESTHETIC GASES</b> → See <a href="#">Minimize Direct Emissions</a> in the CASCADES SPC Playbook		
Eliminate desflurane for surgical procedures requiring general anesthesia <a href="#">Playbook: Desflurane</a>	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Desflurane removed from formulary, <b>OR</b></li> <li>• Desflurane eliminated from use</li> <li>• Provided education on environmentally friendly gases, <b>AND</b></li> <li>• Implementation of one of the following strategies to reduce desflurane use:               <ul style="list-style-type: none"> <li>◦ Carbon intensity warning stickers placed on desflurane vaporizers, or</li> <li>◦ Sevoflurane is the default gas on the vaporizer, or</li> <li>◦ Desflurane vaporizers removed from anesthetic machine, or</li> <li>◦ Desflurane not available in ORs, but can still be accessed from automated medication dispensing system (i.e., Omnicell, Pyxis MedStation)</li> </ul> </li> </ul>



# The SPC Scorecard

The first version was developed by the Sustainable Health System Community of Practice to establish the current state of sustainable practices in operating rooms across the Toronto Academic Health Science Network (TAHSN)

The current Scorecard has been modified to reflect action areas and resources in the Sustainable Perioperative Care playbook

Organization:  UNIVERSITY OF TORONTO SUSTAINABLE HEALTH SYSTEM COMMUNITY OF PRACTICE TAHSN

**Fillable 2023 Sustainable Operating Room Scorecard**

Sustainability Strategies	Score	Criteria
<b>Sustainability Leadership</b> → See <a href="#">The Strategy for Change</a> in the CASCADES Sustainable Perioperative Care Playbook		
1. Implement leadership structure to support perioperative environmental sustainability <i>Playbook Section: Green Teams</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>Green score:</b></p> <ul style="list-style-type: none"> <li>Formalized Environmental Sustainability Perioperative Committee with broad representation that reports at perioperative meetings and has an executive sponsor, AND</li> <li>Committee structure allows for protected time for clinical staff to participate in regular meetings and implementations</li> </ul> <p><b>Amber score:</b></p> <ul style="list-style-type: none"> <li>Green team of volunteers who engage in activities to improve sustainability of the OR</li> </ul>
<b>Anesthetic gases</b> → See <a href="#">Minimize Direct Emissions</a> in the CASCADES Sustainable Perioperative Care Playbook		
2. Eliminate desflurane for surgical procedures requiring general anesthesia <i>Playbook Section: Desflurane</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>Green score:</b></p> <ul style="list-style-type: none"> <li>Desflurane removed from formulary, OR</li> <li>Desflurane completely removed from operating rooms</li> </ul> <p><b>Amber score:</b></p> <ul style="list-style-type: none"> <li>Implement formal program to discourage use of desflurane, e.g:               <ul style="list-style-type: none"> <li>Remove desflurane vaporizers from anesthetic machines</li> <li>Make sevoflurane the default gas on the vaporizer</li> <li>Desflurane not available in operating rooms but can still be accessed from automated medication dispensing system (i.e., Omnicell, Pyxis MedStation)</li> <li>Implement continuous education on environmentally friendly gases</li> <li>Add warning stickers about carbon intensity placed on desflurane vaporizers</li> </ul> </li> </ul>
3. Use ≤0.5L/min fresh gas flow <i>Playbook Section: Use Low Flow</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>Green score:</b></p> <ul style="list-style-type: none"> <li>Routine use of automated control of end-tidal inhalation anesthetic concentration programs with minimal fresh gas flows of ≤0.5L/min (EXControl TM on GE or Target Controlled Anesthesia on Draeger)</li> </ul> <p><b>Amber score:</b></p> <ul style="list-style-type: none"> <li>Implement education and encourage minimal fresh gas flows ≤ 0.5L/min</li> </ul>
<b>Reusables</b> → See <a href="#">Substitute Durable Alternatives</a> in the CASCADES Sustainable Perioperative Care Playbook		
4. Establish reusable anesthesia equipment in place of single use products <i>Playbook Section: Reusable LMA's</i> <i>Playbook Section: Breathing Circuits</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>Green score:</b></p> <ul style="list-style-type: none"> <li>Implement reusables in place of single use/disposable products for 2-3 of the following anesthesia equipment:               <ol style="list-style-type: none"> <li>LMA's</li> <li>Circuit face masks</li> <li>Breathing circuits (or extended use circuits in lieu of reusables, for ≥ 24 hrs)</li> </ol> </li> </ul> <p><b>Amber score:</b></p> <ul style="list-style-type: none"> <li>Implement reusables in place of single use/disposable products for 1 of the above anesthesia equipment</li> </ul>
5. Use reusable sterile surgical gowns <i>Playbook Section: Reusable Gowns</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>Green score:</b></p> <ul style="list-style-type: none"> <li>Routine use of reusable sterile surgical gowns</li> </ul> <p><b>Amber score:</b></p> <ul style="list-style-type: none"> <li>In the process of transitioning to sterile surgical reusable gowns, including the following steps:               <ul style="list-style-type: none"> <li>Removing from custom packs</li> <li>Removing from sterile core</li> <li>Developing support from operating room management/leadership</li> <li>Implementing trials of reusable gowns</li> </ul> </li> </ul>

Legend:  Achieved the sustainability strategy  Partially achieved the sustainability strategy  Did not achieve the sustainability strategy

Fig 1. August 2023



Organization:  DATE:  CASCADES

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OPPORTUNITIES	STATUS	GOALS
<b>SUSTAINABILITY LEADERSHIP</b> Implement leadership structure to support perioperative environmental sustainability <i>Playbook: Green Teams</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>→ See <a href="#">The Strategy for Change</a> in the CASCADES SPC Playbook</p> <ul style="list-style-type: none"> <li>Formalized Environmental Sustainability Perioperative Committee in place with broad representation that reports at perioperative meetings and has an executive sponsor, AND</li> <li>Committee structure allows for protected time for clinical staff to participate in regular meetings and implementations</li> <li>A green team of volunteers who engage in activities to improve sustainability of the OR has been established</li> </ul>
<b>LOW-VALUE CARE</b> Reduce low-value pre- and post-op visits and testing <i>Playbook: Tests &amp; Visits</i> Reduce unnecessary blood product wastage <i>Playbook: Wise Blood Use</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>→ See <a href="#">Avoiding Unnecessary Care</a> in the CASCADES SPC Playbook</p> <ul style="list-style-type: none"> <li>Low-value pre- and post-op testing is eliminated, AND</li> <li>Lower-carbon test options are considered when testing is necessary, AND</li> <li>Virtual visits are offered when appropriate</li> <li>Decision-tool to aid in consensus around necessity of specific tests in place</li> <li>Transfusions only done when clinically indicated, AND</li> <li>Blood products are ordered in accordance with use (avoid excessive overordering; monitor expiration dates)</li> <li>Delivered education around wise blood use, AND</li> <li>Stock of blood products audited to determine proper ordering frequency/volume</li> </ul>
<b>ANESTHETIC GASES</b> Eliminate desflurane for surgical procedures requiring general anesthesia <i>Playbook: Desflurane</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>→ See <a href="#">Minimize Direct Emissions</a> in the CASCADES SPC Playbook</p> <ul style="list-style-type: none"> <li>Desflurane removed from formulary, OR</li> <li>Desflurane eliminated from use</li> <li>Provided education on environmentally friendly gases, AND</li> <li>Implementation of one of the following strategies to reduce desflurane use:               <ul style="list-style-type: none"> <li>Carbon intensity warning stickers placed on desflurane vaporizers, or</li> <li>Sevoflurane is the default gas on the vaporizer, or</li> <li>Desflurane vaporizers removed from anesthetic machine, or</li> <li>Desflurane not available in ORs, but can still be accessed from automated medication dispensing system (i.e., Omnicell, Pyxis MedStation)</li> </ul> </li> </ul>

# Goals of the SPC Scorecard

1. To define key areas for sustainability action in the operating room



ORGANIZATION: \_\_\_\_\_ DATE: \_\_\_\_\_

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Reduce unnecessary blood product wastage <a href="#">Playbook: Wise Blood Use</a>	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Transfusions only done when clinically indicated, <b>AND</b></li> <li>• Blood products are ordered in accordance with use (avoid excessive overordering; monitor expiration dates)</li> <li>• Delivered education around wise blood use, <b>AND</b></li> <li>• Stock of blood products audited to determine proper ordering frequency/volume</li> </ul>
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Eliminate desflurane for surgical procedures requiring general anesthesia <a href="#">Playbook: Desflurane</a>	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Desflurane removed from formulary, <b>OR</b></li> <li>• Desflurane eliminated from use</li> <li>• Provided education on environmentally friendly gases, <b>AND</b></li> <li>• Implementation of one of the following strategies to reduce desflurane use:                             <ul style="list-style-type: none"> <li>◦ Carbon intensity warning stickers placed on desflurane vaporizers, or</li> <li>◦ Sevoflurane is the default gas on the vaporizer, or</li> <li>◦ Desflurane vaporizers removed from anesthetic machine, or</li> <li>◦ Desflurane not available in ORs, but can still be accessed from automated medication dispensing system (i.e., Omnicell, Pyxis MedStation)</li> </ul> </li> </ul>

# Goals of the SPC Scorecard

1. To define key areas for sustainability action in the operating room
2. Assess the current state environmental sustainability in ORs and provide targets for improvement

ORGANIZATION: \_\_\_\_\_ DATE: \_\_\_\_\_

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1. To define key areas for sustainability action in the operating room
2. Assess the current state environmental sustainability in ORs and provide targets for improvement
3. Engage CEO and leadership teams

ORGANIZATION: \_\_\_\_\_ DATE: \_\_\_\_\_

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**POTENTIAL QUICK WIN**

# Goals of the SPC Scorecard

1. To define key areas for sustainability action in the operating room
2. Assess the current state environmental sustainability in ORs and provide targets for improvement
3. Engage CEO and leadership teams
4. Provide guidance to perioperative teams on high impact sustainability implementations

ORGANIZATION: \_\_\_\_\_ DATE: \_\_\_\_\_

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**Status Options:** ■ NOT WORKING ON ■ WORKING ON (NOT YET PARTIALLY ACHIEVED/ACHIEVED) ■ PARTIALLY ACHIEVED ■ ACHIEVED

OPPORTUNITIES	STATUS	GOALS
<b>SUSTAINABILITY LEADERSHIP</b>		
→ See <a href="#">The Strategy for Change</a> in the CASCADES SPC Playbook		
Implement leadership structure to support perioperative environmental sustainability	<span style="color: red;">■</span> <span style="color: orange;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span>	<ul style="list-style-type: none"> <li>• Formalized Environmental Sustainability Perioperative Committee in place with broad representation that reports at perioperative meetings and has an executive sponsor, <b>AND</b></li> <li>• Committee structure allows for protected time for clinical staff to participate in regular meetings and implementations</li> <li>• A green team of volunteers who engage in activities to improve sustainability of the OR has been established</li> </ul>
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# Why Use the Scorecard?

- Hospitals' performances on perioperative sustainability metrics vary widely

ORGANIZATION:

DATE:



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- It's easy to complete!

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Why? The Case for Change  
What? The Tools for Change  
How? The Strategy for Change

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# Who is using the Scorecard?



**Le tableau de bord des soins périopératoires durables**  
**Sustainable Perioperative Care Scorecard Dashboard**



# How are sites using the Scorecard?

## How are sites using the scorecard?

## Comment les sites utilisent-ils le tableau de bord ?

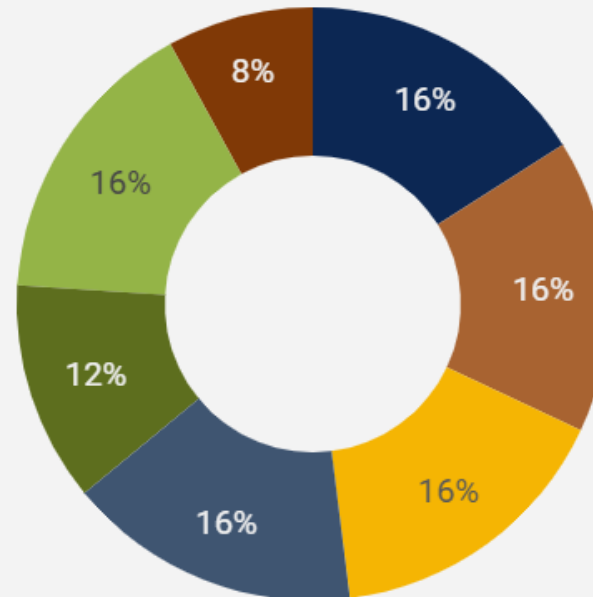
Participating sites indicated what they planned on using the scorecard for.

Sites could choose more than one reason, and the proportion of each use is shown.

**Les sites participants ont indiqué à quelles fins ils prévoient d'utiliser le tableau de bord.**

Les sites pouvaient choisir plus d'une raison, et la proportion de chaque utilisation est indiquée.

- Suivre les progrès réalisés en matière de développement durable
- Pour savoir comment votre site se situe par rapport aux autres en ce qui concerne les efforts de durabilité
- Identifier les opportunités en matière de développement durable
- Déterminer l'état actuel des efforts en matière de durabilité
- Engager les membres de l'équipe périopératoire dans des efforts de durabilité
- Impliquer les dirigeants dans les efforts de développement durable
- Accéder aux ressources de mise en œuvre
- À des fins d'information interne



- To track progress on sustainability efforts
- To see how your site compares with others when it comes to sustainability efforts
- To identify sustainability opportunities
- To establish the current status of sustainability efforts
- To engage perioperative team members in sustainability efforts
- To engage leadership in sustainability efforts
- To access implementation resources
- For internal reporting purposes

# Questions or Comments?

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