

The CASCADES Sustainable Hospital Pharmacy Scorecard helps teams:

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

Opportunities and goals may not be applicable to all hospital settings. Teams are encouraged to use judgement to identify which items can be implemented at their site. Scores are not weighted, but instead help track change and identify what pharmacy teams are working on. For more information on how this scorecard is used, see [Frequently Asked Questions](#).

CASCADES welcomes opportunities for networking and mentorship from sites utilizing the Scorecard. Contact us at [CASCADES@utoronto.ca](mailto:CASCADES@utoronto.ca) to connect or provide feedback.



Background information and implementation resources related to most of the sustainability opportunities can be found in the [CASCADES Integrating Environmental Sustainability into Hospital Pharmacy](#).

**Status Options:**



TO BE INITIATED/NOT APPLICABLE (ZERO POINTS)



PARTIALLY ACHIEVED (1 POINT)



ACHIEVED (2 POINTS)

OPPORTUNITIES	STATUS			GOALS
<b>LEADERSHIP &amp; TASKFORCE</b>	%			
Implement leadership structure to support environmental sustainability  Notes:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• A formalized environmental sustainability committee is in place with broad representation that reports at pharmacy meetings and has an executive sponsor.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• A taskforce that engages in activities to improve the sustainability of the pharmacy department has been established.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Clinical and dispensing staff are given protected time to participate in regular meetings and implement committee initiatives.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Current medication processes from procurement to disposal are mapped out to find opportunities to reduce medication waste (Example of pathways include refrigerated products, ward stock, daily fills, emergency and operating room trays, compounding processes, multidose products, non-formulary products, and patient transfers).</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Leadership for disaster planning is established.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Standard operating procedures and education for disaster management are developed.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Practice simulations specific to types of possible local emergencies with realistic timelines are planned and implemented.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Continuing annual education is provided on environmental sustainability topics, including the environmental harms of medications, the benefits of sustainability activities, and medication optimization for clinical staff.</li> </ul>
	Total score (Maximum 16)			
<b>WASTE MANAGEMENT</b>	%			
Reduce incinerate waste  Notes:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Waste audits are performed regularly to identify areas for improvement.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Non-cytotoxic pharmaceutical waste is segregated for incineration, while packaging, compounding, and administration waste is not incinerated.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Policy and procedure for pharmaceutical waste is in place.</li> </ul>
Total score (Maximum 6)				

**Status Options:**



TO BE INITIATED/NOT APPLICABLE  
(ZERO POINTS)



PARTIALLY ACHIEVED  
(1 POINT)



ACHIEVED  
(2 POINTS)

OPPORTUNITIES	STATUS	GOALS																											
<h2>FORMULARY</h2>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto; text-align: center;">%</div>																												
<p>Incorporate environmental sustainability in drug formulary decision making</p> <div style="border: 1px solid black; height: 150px; margin-top: 10px;">Notes:</div>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Environmental consideration is a section of the formulary addition form, and is considered in all formulary assessments.</li> <li>Formulary reviews to reduce low value products, streamline the number of compounded products, and remove unused products is performed annually.</li> <li>Auto-substitution policies do not switch dry-powder inhalers to metered-dose inhalers.</li> <li>Strategy to reduce high volume / high carbon inhalers (e.g. ensure inhalers are transferred with patients, dedicated place for inhalers on units).</li> <li>Low-volume and metered-dose inhaler alternatives are on formulary.</li> <li>Desflurane is removed from formulary.</li> </ul>									
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<p>Total score (Maximum 12)</p>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																									
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<h2>PROCUREMENT</h2>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto; text-align: center;">%</div>																												
<p>Consider sustainability in purchasing practices</p> <div style="border: 1px solid black; height: 80px; margin-top: 10px;">Notes:</div>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Environmental sustainability criteria in assessing purchases is routinely applied.</li> <li>Sustainability initiatives offered by group purchasing organization (GPO) have been implemented.</li> <li>For non-GPO purchases, a procurement policy has been created with environmental sustainability criteria to prioritize reusable, local and indigenous organizations, use of recyclable, reusable or minimal packaging materials, and companies with environmental disclosures.</li> </ul>																		
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<p>Total score (Maximum 6)</p>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																									
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<h2>INVENTORY</h2>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto; text-align: center;">%</div>																												
<p>Maximize inventory to reduce pharmaceutical waste</p> <div style="border: 1px solid black; height: 250px; margin-top: 10px;">Notes:</div>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Process implemented for review of formulary and inventory to adjust ordering quantities to reduce waste.</li> <li>Process implemented to identify earliest expiring products and to dispense first.</li> <li>Process implemented to identify ward stock medication near expiration for rotation to high-use units.</li> <li>Process implemented to tamper seal multidose products to permit for redispensing if unopened (e.g. topicals, inhalers, insulin pens).</li> <li>Criteria developed for medication recirculation (e.g. stability, infection prevention).</li> <li>Process implemented to check unused unit-doses and sealed medications for suitability for return to inventory and redispensing, based on established criteria.</li> <li>Process implemented to ensure that refrigerated and intravenous products are redispensed, if appropriate safety standards are met.</li> <li>Procedure developed for maintaining cold chain of refrigerated products in the event of a power disruption or evacuation.</li> </ul>
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PARTIALLY ACHIEVED  
(1 POINT)



ACHIEVED  
(2 POINTS)

OPPORTUNITIES	STATUS	GOALS																					
<b>COMPOUNDING</b> <small>Notes:</small>	%																						
Minimize unnecessary compounding  <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 10px;"> <small>Notes:</small> </div>	<table border="1"> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Point-of-care preparation for non-hazardous, fast expiring products with a low risk of harm has been explored with nursing colleagues.</li> <li>Fixed dose, dose rounding, or dose banding for weight based medications has been examined with physician colleagues or specialists.</li> <li>Patients on the same intermittent medication are clustered on the same day if appropriate.</li> <li>Oral as needed individual compounded doses with short beyond use dating are prepared in limited quantities or on demand.</li> </ul>						
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Total score (Maximum 8)																							
<b>DISTRIBUTION</b> <small>Notes:</small>	%																						
Optimize distribution process to avoid accumulation and disposal of unused medications  <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 10px;"> <small>Notes:</small> </div>	<table border="1"> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Multidose products are placed in designated locations in patient care areas which are clearly marked and easily identified by all staff.</li> <li>All medications follow the patient on transfer, including multidose and refrigerated items. A checklist with all the locations medications are stored is used by porters.</li> <li>A policy is established to allow safe use of patient's own multidose and non-formulary products in hospital.</li> <li>A policy is established to allow for safe take home of multidose products.</li> <li>Medications are delivered in reusable carriers.</li> </ul>						
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<b>CLINICAL ACTIVITIES</b> <small>Notes:</small>	%																						
Optimize medications to avoid unnecessary use  <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 10px;"> <small>Notes:</small> </div>	<table border="1"> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Formalized antimicrobial stewardship program in place with dedicated physician, pharmacist and administrative support (e.g. with dedicated resources, KPIs/outcome goals).</li> <li>Mandatory indication and duration of therapy are included with all antimicrobial orders.</li> <li>Process to identify patients for spirometry testing and inhaler re-assessment to reduce unnecessary use of ICS inhalers, in units where appropriate.</li> <li>Guidelines/policies/directives to minimize unnecessary antibiotic initiation (e.g. asymptomatic bacteriuria, see <a href="#">Choosing Wisely Canada</a>, Recommendations by Speciality).</li> <li>Guidelines/policies/directives to minimize unnecessarily long duration of therapy (e.g. mandatory duration for antimicrobial orders, evidence-based short course therapy on order sets, antibiotic time-out policies).</li> <li>Guidelines/policies/directives for switching from intravenous to oral therapy as early as possible, when clinically appropriate.</li> <li>Formalized stewardship program(s) for other medications or polypharmacy (e.g. with dedicated resources, KPIs/outcome goals).</li> </ul>
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