Ontario College of Pharmacists
Putting patients first since 1871

Ontario
North East Local Health Integration Network
Réseau local d'intégration des services de santé du Nord-Est

# NE LHIN REGIONAL PHARMACY STRATEGY


## Acknowledgements

We would like to thank the members of the North East LHIN's Hospital Pharmacy Peer Group for their valuable contribution to this Strategy.

**Betty Cheechoo,** Weeneebayko Area Health Authority

**Bohang Zhao,** MICs Group of Health Services

**Chantal Tessier,** Hôpital de Smooth Rock Falls Hospital

**Connie Free,** St. Joseph's General Hospital Elliot Lake

**Elizabeth White,** Hornepayne Community Hospitale

**Erin Montgomery,** Temiskaming Hospital

**Frances Brisebois,** Health Sciences North

**Gail Renaud,** Englehart and District Hospital

**Isabelle Boucher,** MICs Group of Health Services

**Jamie Fiaschetti,** Services de santé de Chapleau Health Services

**Jo-Ann Labelle,** West Nipissing General Hospital

**Julia Sek,** West Parry Sound Health Centre

**Kaitlin Bynkoski,** Health Sciences North

**Katie Bird,** North Shore Health Network

**Kyle Acton,** Temiskaming Hospital

**Lauren O'Connor-Byer,** Kirkland and District Hospital

**Laurie Landry,** Manitoulin Health Centre (retired)

**Lori Thibodeau,** North Bay Regional Health Centre

**Marissa Dubois,** MICs Group of Health Services (retired)

**Melissa Foden,** North Bay Regional Health Centre

**Nancy Dzeka,** St. Joseph's General Hospital Elliot Lake

**Natalie Roy,** Timmins and District Hospital

**Paula Fields,** Manitoulin Health Centre

**Ralph Schmidt,** Sensenbrenner Hospital

**Sara Grisdale,** Sault Area Hospital

**Tammy Small,** Espanola Regional Hospital and Health Centre

**Tanya Belanger,** Hôpital de Mattawa Hospital

**Teresa Croskery,** St. Joseph's General Hospital

North East LHIN Project Team Members:
**Gary Sims,** Executive Sponsor to the HIS ONE Initiative; **Tamara Shewciw,** CIO (retired); **Nancy Caldwell,** HPPG; **Seamus Jenkin**


July 2018

# NE LHIN REGIONAL PHARMACY STRATEGY

## OVERVIEW:

Medication management systems in hospitals are expected to meet the standards of operation and practice, including recently introduced standards for sterile compounding. Acknowledging the importance of adhering to standards, the North East Local Health Integration Network (NE LHIN) and its hospitals (the Hospital Pharmacy Peer Group) and the Ontario College of Pharmacists (the College) set out to develop the NE LHIN Regional Pharmacy Strategy.

This collaboration allowed the Strategy to leverage the expertise and roles of the College, the NE LHIN and its hospitals. The College provided, knowledge of hospital pharmacy standards and role as regulator of pharmacy; the NE LHIN added the lens of system coordination and integration of care and resources; and hospitals brought local knowledge and pharmacy expertise to the collaboration. Together, the College and the NE LHIN agreed to take an integrated and regional approach to service planning, measurement and improvement and supported hospitals to consider their medication management services as a regional model.

The Strategy takes a risk-based step-wise approach to meeting hospital medication management standards, focusing first on a set of critical elements that have been identified by the College, but also defining a long-term plan to continuously improve medication management practices to meet evolving standards. It is focused on the use of data to inform decisions and instead of focusing on one pharmacy at a time, takes a consolidated group based approach to addressing standards.

The Strategy was developed in partnership with the NE LHIN and its hospitals to address the specific NE LHIN context and challenges. However when designing the Strategy, consideration was given to ensure that the foundational elements of the Strategy would be flexible enough to be applied to any region across the province. The Strategy guides hospitals and LHINs to complete a gap analysis for their region, work together to address any shortfalls, and take a risk-based approach to resourcing decisions.

## BACKGROUND:

The Ontario College of Pharmacists (the College) has a responsibility to regulate the practice of pharmacy in Ontario, including hospital pharmacy. The College began baseline hospital assessments in 2015 and has been completing routine assessments of hospital pharmacies according to the College's Hospital Assessment Criteria since 2016. Assessments include adherence to standards of pharmacy systems, order processing, preparation, compounding, safe medication processes, medication therapy management, and evaluation in the form of quality assurance and quality improvement activity. In addition to these broader standards for hospitals, new standards specific to sterile compounding were introduced by the National Association of Pharmacy Regulatory Authorities (NAPRA), and adopted by the College in 2016. These standards apply to all hospitals where sterile compounding is performed, and the College requires all hospitals to implement the "critical elements" of these standards by January 1, 2019.

The hospitals in the NE LHIN have been working together to improve the quality of their medication management services for several years, and the introduction of the NAPRA Model Standards for Pharmacy Compounding of Non-hazardous Sterile Preparations and the Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations brought a new sense of urgency to this work. The challenges associated with NE LHIN's vast geography and small population (the LHIN covers 44% of the province's land mass, but is home to only 4% of Ontario's population[1]) do not minimize the importance of ensuring services are provided in accordance with standards, but do need to be considered when determining a course of action.

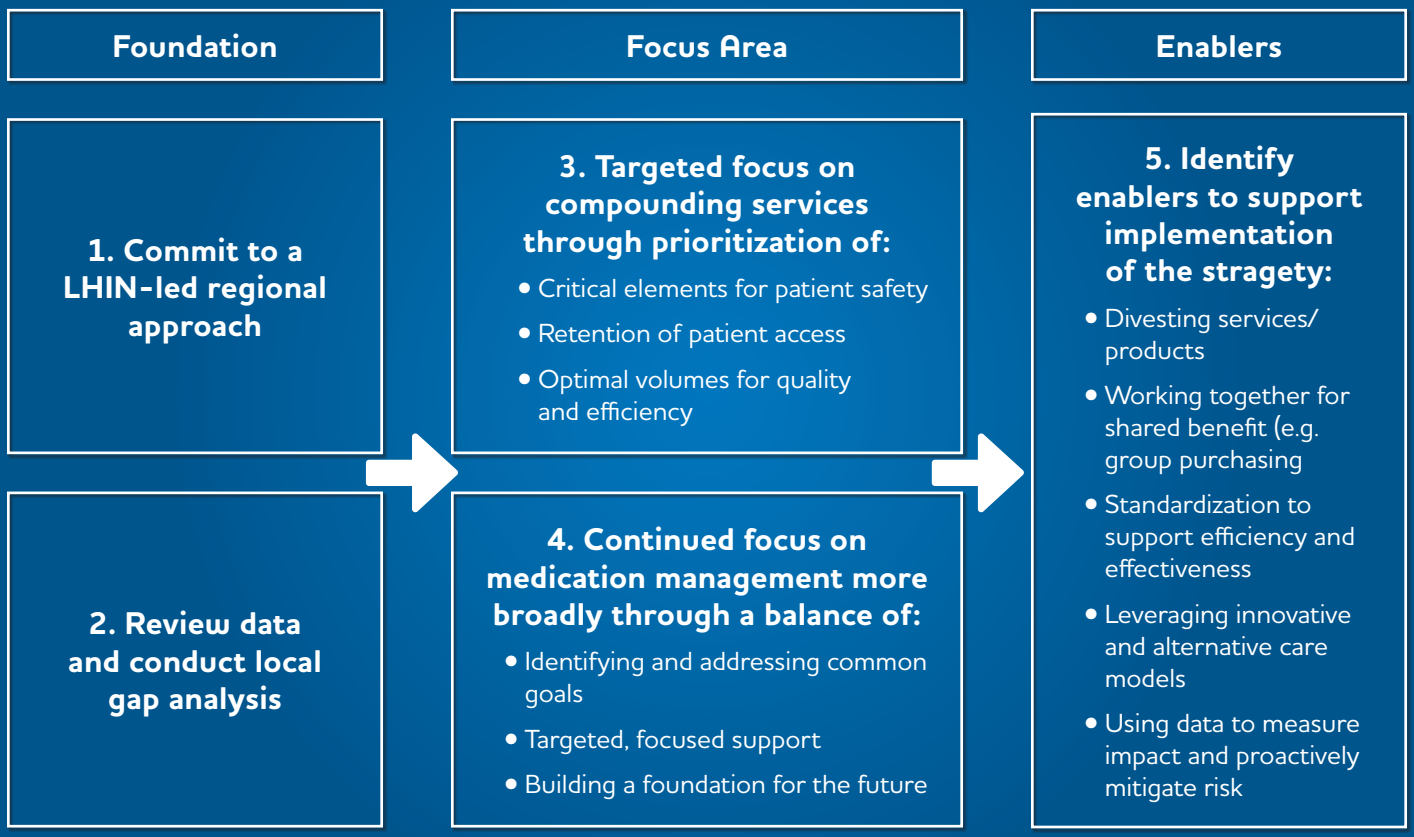
Together, the NE LHIN and the College agreed to work together on a Strategy that would support the hospitals in the NE LHIN to collectively provide medication management services according to standard. To inform development of the Strategy, a set of guiding principles was established. It was agreed that the Strategy would:

- Be patient focused
- Be relevant to both sterile compounding and other priority areas of the medication management system
- Take a collaborative (vs. hospital-specific) approach[2]
- Be driven by data and evidence, and informed by local experience/ expertise
- Support an appropriate balance of patient safety, access and volume considerations
- Be actionable and inform but not dictate local decision-making
- Be generalizable to other LHINs/ hospitals

## NE LHIN REGIONAL PHARMACY STRATEGY

The NE LHIN Regional Pharmacy Strategy identifies five strategic priorities to support hospitals and the LHIN to collectively provide medication management services according to standard. These priorities are outlined below.

### FIGURE 1: REGIONAL PHARMACY STRATEGIC FRAMEWORK




## STRATEGIC PRIORITY 1: **COMMIT TO A LHIN-LED REGIONAL APPROACH**

Given the LHINs' accountabilities and role as system planner, LHIN leadership and commitment to a regional approach is an important first step for the Strategy. Equally important to adopting this Strategy is commitment from hospitals to the common goal of working together to collectively provide medication management services in accordance with standards. Medication management does not stand alone in hospital pharmacies – it is integrated throughout the hospital, making broader hospital engagement all the more important. Furthermore, opportunities to integrate medication management across hospitals by identifying and addressing challenges together is an important priority.

When developing the Strategy, the North East LHIN embraced this approach and its leadership role, and leveraged the pre-existing Hospital Pharmacy Peer Group to engage hospitals and use their pharmacy and local knowledge for planning and Strategy development.

**GOAL:**

**The LHIN and hospitals are committed to adopting a regional approach to hospital medication management through strong LHIN leadership and hospital engagement.**

## STRATEGIC PRIORITY 2: REVIEW DATA AND CONDUCT LOCAL GAP ANALYSIS

Once the region is committed to working together, taking an objective focus on data becomes an important element of the Strategy, both from the perspective of Strategy development and implementation. In the case of Strategy development, available hospital assessment data was analyzed for gaps as a region (rather than on an individual hospital basis) to inform the Strategy and determine where and how to focus. The NE LHIN used their hospital assessment data to examine management of sterile compounding and decided that this was an area in need of focus. Analysis of hospital assessment data against the critical elements for sterile compounding was used to further examine gaps in sterile compounding in hospitals in the region, and will be used to support service planning decisions.

The second key use of data is to inform implementation of the Strategy. Continuous review and tracking of data can be used during implementation to encourage collaborative work and facilitate objective decision making, and quantify gaps and opportunities across the region. Additional qualitative and local information gathering is an excellent opportunity to add context and depth to the data, and make it more useful for planning to close gaps.

Data will be regularly reviewed to track the impact of the Strategy and progress made in meeting the standards.

**GOAL:**

**Data is used to objectively drive decision making. Available data is reviewed by the LHIN and hospitals using a regional lens to identify gaps, opportunities, and review progress.**

## STRATEGIC PRIORITY 3: TARGETED FOCUS ON STERILE COMPOUNDING STANDARDS

Given the need to ensure the hospitals in the NE LHIN are providing care according to the NAPRA Model Standards for Pharmacy Compounding of Non-hazardous Sterile Preparations and the Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations, and the upcoming deadline to meet the critical elements, sterile compounding is given a strong focus in this Strategy. Acknowledging the important balance between safety considerations and access to care, this Strategy identifies a prioritization lens to support decision making.

Using a collaborative, regional approach, hospitals can work together to collectively provide sterile compounding services according to standard by using a prioritization lens focusing on:

### 1. Ensuring patient safety by committing to meet the critical elements

The Strategy applies a risk based approach to prioritize areas of focus that have the highest impact on patient safety. The College has identified a set of "critical elements"[3], and hospitals in the region conduct a self-assessment and gap analysis to determine whether they will meet these critical elements by the January 1, 2019 deadline. This review allows hospitals that do not meet critical elements to take an objective approach to determine whether they will:

- Divest services: by either divesting compounding of sterile preparations to another site or (if appropriate) divesting certain specialized patient services to a nearby site;
- Find the necessary resources to invest in services to ensure they adhere to standards; or,
- Collaborate with other hospitals to identify different approaches to meet the standards. These approaches are outlined under strategic priority #5, "Identify enablers to support implementation of the Strategy"

Applying this approach to focus on the critical elements provides focus and an opportunity to take a risk-based approach to identify short-term solutions. However, it is important to note that adherence to the full model standards (beyond just the critical elements) for sterile compounding is the long-term goal, and the expectation that hospitals will need to provide services in accordance with the full model standards should be taken into consideration when making service planning decisions.

### 2. Retaining patient access to services requiring compounding of sterile preparations

The NAPRA Model Standards for Pharmacy Compounding of Non-hazardous Sterile Preparations and the Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations were developed in the interest of patient safety, but a hospital's focus on adherence to these standards should not negatively impact patient access to services. Patient access to services requiring compounding of sterile preparations should be retained within a reasonable distance. The application of a reasonable

1. http://www.nelhin.on.ca/aboutus.aspx
2. It is important to note that the Strategy was not developed to be a solution for remote, air access only hospitals. Concepts may be useful, but the overall strategic framework requires regional coordination and support, which may not be practical for these very remote sites.
3. http://www.ocpinfo.com/library/practice-related/download/SterilePreparationPharmacySelfAssessment.pdf
4. http://www.health.gov.on.ca/en/public/programs/ruralnorthern/docs/report_rural_northern_EN.pdf

distance may look different in different LHINs, taking into consideration contextual factors such as the rurality of the NE LHIN and unpredictability of driving conditions in winter weather. Given the different types of services and risks associated with hazardous sterile compounding compared to non-hazardous, this Strategy takes different approaches for non-hazardous and hazardous sterile compounding.

***Non-Hazardous Sterile Compounding***

Most care provided during emergency department and inpatient visits requires non-hazardous sterile compounded preparations. To retain patient access to this care, all hospitals not meeting critical elements will need to determine a way to continue to provide non-hazardous sterile compounded preparations to their patients. However, there are options to avoid doing the compounding in-house, by leveraging other hospitals or a third party to do the compounding and provide them with sterile compounded preparations. If this option is not available, hospitals may need to secure the required resources to ensure they meet standards and can continue to do the compounding of non-hazardous sterile preparations in-house.

***Hazardous Sterile Compounding***

Some types of care, for example chemotherapy, are specialized services that involve hazardous sterile compounded preparations. Services such as these are addressed differently by this Strategy. More stringent standards must be met by hospitals compounding hazardous sterile preparations. In addition, there are different expectations for patient access to specialized services[4] such as chemotherapy and not all hospitals are expected to provide these services. In this case, hospitals not meeting critical elements for compounding of hazardous sterile preparations may consider whether other sites within a reasonable driving distance provide this patient service. If the same service can be provided at a different location and patient access can be maintained, hospitals may consider divesting to that site rather than providing the hazardous sterile compounded preparations at their facility.

**3. Optimizing volume of compounding services delivered at each site to ensure quality and efficiency**

Volume is an important consideration point in decisions for service planning for compounding. These considerations will likely be very individual, both in terms of the organization and the product being compounded. From a professional competency perspective, hospitals can examine frequency of compounding to ensure that their staff are completing compounding of sterile preparations frequently enough to maintain proficiency in the skill. From a cost perspective, volume of production can be examined as well as frequency, as timing of the compounding and use of products could result in waste. Hospital sites are encouraged to provide services at volumes that ensure proficiency, following evidence based guidelines and industry recommendations wherever possible. Economies of scale may also be considered in service planning, to ensure the region provides services as efficiently as possible.

**Supporting Decisions for Sterile Compounding Services**

To support this strategic priority, a decision tool (Appendix: Sterile Compounding Decision Support Tool) was developed to guide service planning decisions for compounding in the region. The tool leverages the College's sterile compounding critical elements as a starting point and takes patient access and volume considerations into account. The tool can guide the LHIN and hospitals to understand where their gaps are. To support use of this tool, hospitals will need to conduct a regional gap analysis to provide a foundation for regional planning. Conducting this analysis and planning as a region should ensure a consolidated, group-based approach to capital requests that accurately and objectively reflect the needs of the region. Successful implementation of the Strategy will provide assurance that all hospitals are providing care in accordance with the College's critical elements for sterile compounding.

## GOALS:

**Hospitals in the region that perform compounding of sterile preparations are doing so in accordance with the OCP critical elements for sterile compounding for January 1, 2019 with expectations to meet the full NAPRA Model Standards for Pharmacy Compounding of Non-hazardous Sterile Preparations and the Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations.**

**Patient access to services requiring compounding of sterile preparations is maintained within appropriate driving distance.**

**Service planning decisions promote hospital staff performing compounding of sterile preparations at volumes that ensure proficiency for quality, safe services for patients.**

**Service planning decisions promote efficient distribution of compounding of sterile preparations, to take advantage of economies of scale wherever possible.**

## STRATEGIC PRIORITY 4: **CONTINUED FOCUS ON MEDICATION MANAGEMENT MORE BROADLY**

The College has the authority to license and inspect hospital pharmacies throughout Ontario, and assesses them according to Hospital Assessment Criteria, a set of full standards for hospital pharmacy that extend beyond sterile compounding. With many opportunities for improvement, it may be difficult for LHINs hospitals to decide where to focus their efforts and resources. This Strategy identifies three different types of opportunities to meet standards both in the short and long term, and encourages a balanced approach to addressing these opportunities. Before applying these approaches, LHINs and hospitals will need to use the hospital assessment data provided by the College to conduct gap analysis and identify challenges in hospital medication management. Frontline hospital pharmacy staff are a valuable resource to validate these challenges and identify opportunities for improvement.

### A. Identify and address common goals

LHINs and hospitals can work together to use their hospital assessment data (provided by the College) to identify common challenges in sites across the region. Once the hospital assessment criteria are reviewed for each hospital, they should be considered as a region. The areas that present as challenges most frequently across the hospitals in the region can be identified and LHINs and hospitals should prioritize these and work together to find regional solutions to these challenges (see Strategic Priority 5 for examples of solutions).

### B. Provide targeted, focused support

Available data can also be used to identify hospitals demonstrating high need of support in specific areas of medication management. Hospital assessment data can be used to identify individual hospitals with large gaps in performance against the standards, and the group of hospitals should commit to working as a team to find ways to support improved performance. Given the variety of type and sizes of hospitals in the NE LHIN, this commitment to regional cooperation is especially important, to build on the strengths of hospitals in the region and commit to working as a group to support hospitals that would benefit from targeted support.

### C. Build a foundation for the future

Although short-term approaches are required to address imminent focus areas such as sterile compounding, it is important to work as a region to focus on long-term medication management goals. Building a foundation for the future involves identifying potentially longer term, core foundational elements that need to be in place in order to provide high quality medication management services in hospital. These are the elements that LHINs and hospitals may work to establish over the next five years. The Hospital Pharmacy Peer Group and the NE LHIN identified the following foundational elements for successful hospital medication management in their region, which could be relevant to any region across the province:

***Prioritizing the value of pharmacy as a region and supporting pharmacists in a clinical care role***

Pharmacists should be valued as important health care providers in the clinical care team, and regional resources aligned accordingly. This means working to ensure that pharmacy technicians and pharmacists are working to full scope, so that pharmacists have the capacity to provide direct patient care.

***Establishing education infrastructure and programs for pharmacy***

Establishment and promotion of pharmacist and pharmacy technician training in the north can be used to increase pharmacy resource retention and knowledge, skills and abilities. This may include incentivizing training for new pharmacists and establishment of continuing education programs for pharmacists and pharmacy technicians, to increase and maintain the clinical knowledge and skills of pharmacy staff already working in northern communities.

***Establishing and implementing a standardized pharmacy staffing model and minimum standards for staffing across the region***

Establishing as a region the standard staffing model for hospital pharmacies, and working to ensure that this is implemented at all sites will also help build a foundation for medication management. The NE LHIN suggested that these models could encourage all sites to have 24/7 pharmacist access either physically or virtually, and pharmacy technicians and pharmacists that are working to full scope.

***Improving information management by adopting a universal IT platform and a common drug formulary***

Improved information management as a region through the adoption of a universal platform with a set of standard fields built into the IT infrastructure, a single patient record that is available and used throughout the region, and standardized order sets are foundational elements

to improving overall medication management. This also includes hospitals sharing and using a common drug formulary for efficient use of pharmacy resources as a region and ensuring that smaller sites have access to the same clinical information as larger sites.

**GOALS:**

**Hospitals work together as a region to guide necessary improvements to their overall medication management services to provide services that meet OCP Hospital Assessment Criteria.**

**Hospitals address an appropriate balance of short term and long term challenges, and work together to help those needing additional support.**

## STRATEGIC PRIORITY 5: IDENTIFY ENABLERS TO SUPPORT IMPLEMENTATION OF THE STRATEGY

Once the strategic framework has been applied to compounding and overall medication management challenges, the following set of strategic enablers may be used to support hospitals to identify different ways that they can address these challenges and apply solutions. These enablers were identified through engagement with the NE LHIN and the Hospital Pharmacy Peer Group, and supported by a scan of successful regional pharmacy models and models of medication management in similar rural and remote jurisdictions. LHINs and hospitals may choose to use some or all of the enablers, as appropriate to the challenges identified and the context of their region.

### Deferring services to other hospitals

If hospitals are not meeting standards or do not have sufficient volumes, they may consider to divest services to other hospitals. Depending on the type of sterile compounded preparations, hospitals could continue to provide the compounded products but outsource the process of compounding to another location (for example through a hub and spoke model). Alternatively, hospitals could divest the patient service altogether to a different site if patient access can be maintained and if it is a specialty service and the compounding preparation needed cannot be outsourced safely. Working together as a region is especially important when deferring services, to coordinate leveraging the strengths of hospitals in the region and ensure access to service is maintained.

### Working together for shared benefit

Hospitals and LHINs can work together as a region to create collaborative networks for any support that will benefit the region's hospital medication management. This support may include clinical information exchange, regional or group health information technology implementation and opportunities for shared purchasing and outsourcing. Working together is especially important for a region with many small hospitals, to make information and products or services more accessible to sites that would not normally have access to these products or services on their own. To maximize the benefits of a collaborative network, it is important that all hospitals are committed to a collaborative model and are well supported by the LHIN.

### Standardization to support efficiency and effectiveness

One way to provide the most effective care is by ensuring that all hospital sites have access to regional knowledge and expertise, common policies, procedures and clinical protocols. These standardized tools can be developed for the use of all hospital sites, to decrease duplication of effort from hospital pharmacy and support more efficient use of valuable and limited resources. One important example is the development of a common formulary across hospitals in the region.

### Leveraging innovative and alternative care models

In addition to working as a region of hospitals, there is opportunity to use innovative ways to support access to high quality medication management services. For example, innovative care models with existing community supports such as community pharmacy, primary care, long term care and others could be explored. Alternative care models using technology and virtual support can also be explored.

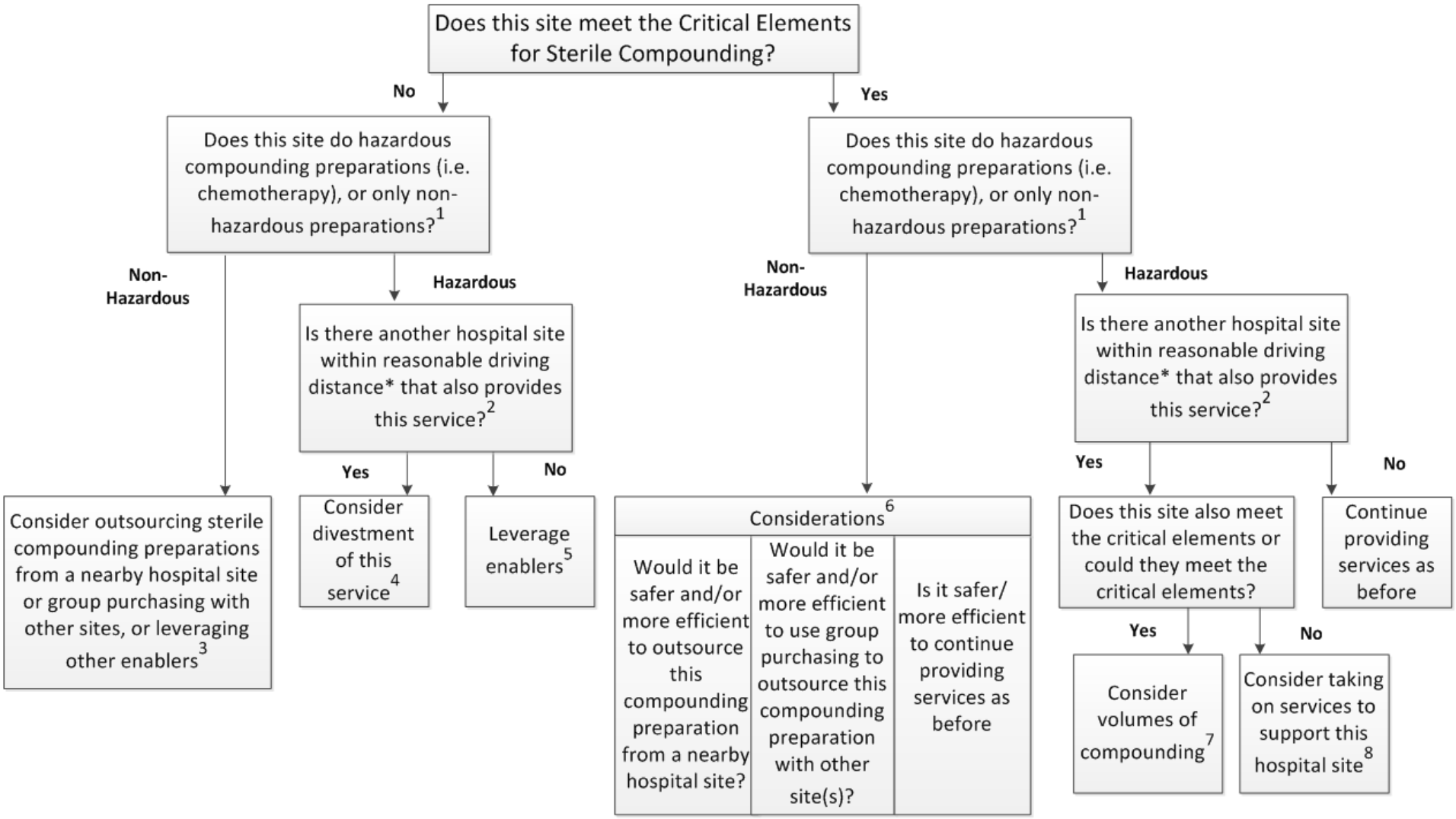
### Using data to measure impact and proactively mitigate risk

In addition to using data to identify gaps, LHINs and hospitals should ensure they take a data driven approach to implementing the Strategy and associated action planning. Planning can include developing process and outcome measures to monitor the implementation status of initiatives and measure the impact of the initiatives and the overall Strategy.

**GOAL:**

**Hospitals identify and apply enablers that optimize resources as a region and facilitate successful implementation of the Strategy.**

# APPENDIX 1:
# STERILE COMPOUNDING DECISION SUPPORT TOOL



## Notes:

1. Given the different types of services and risks associated with hazardous sterile compounding compared to non-hazardous, there are different expectations for each. Most care provided during emergency department and inpatient visits requires non-hazardous sterile compounded preparations, so in order to retain patient access to this care, hospitals need to determine a way to continue to provide non-hazardous sterile compounded preparations to their patients. There are different expectations for patient access to specialized services[5] such as chemotherapy and not all hospitals are expected to provide these services, meaning that if the same service can be provided at a different location and patient access can be maintained, hospitals may consider divesting to that site.

2. Patient access to services requiring compounding of sterile preparations should be retained within a reasonable driving distance, as appropriate in the context of each LHIN.

3. Sites may consider options to avoid doing the compounding in-house, by leveraging other hospitals or a third party to do the compounding and provide them with sterile compounded preparations. If this option is not available, hospitals may need to secure the required resources to ensure they meet standards and can continue to do the compounding of non-hazardous sterile preparations in-house.

4. If another site provides the same service at a different location and patient access can be maintained, there may be an opportunity for this site to divest rather than providing services in house requiring the hazardous sterile compounded preparations.

5. If the site is not meeting standards and deferring services to another hospital is not an option because it will result in loss of patient access to services, hospitals may consider other enablers such as leveraging alternative care models to use innovative ways to support access to high quality medication management services.

6. If the site is already compounding non-hazardous preparations, the site may explore opportunities to work together with other hospitals in the region to increase safety and/or efficiency. This may include enablers such as working together for shared benefit (for example, group purchasing), or leveraging innovative and alternative care models.

7. If both sites meet the critical elements but one or both are compounding low volumes, there may be opportunities for regional collaboration. It may be more efficient for both sites if one divests compounding to the other to increase volume to take advantage of economies of scale, and for greater staff proficiency and further patient safety.

8. If other sites are not meeting standards or do not have sufficient volumes, they may consider divesting services to other hospitals. This site may explore opportunities to take on the divested services from another site in the region that is not meeting the critical elements.

---

5. http://www.health.gov.on.ca/en/public/programs/ruralnorthern/docs/report_rural_northern_EN.pdf

**Ontario College of Pharmacists**
483 Huron Street
Toronto, ON M5R 2R4
www.ocpinfo.com