

Developing a new Provincial Sarcoma Services Plan through Regional Involvement

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Background

Sarcomas are rare and complex malignancies that arise in the soft tissue and bone throughout the body. In Ontario, there are approximately 1,000 new adult sarcoma cases annually. The appropriate investigation, management and rehabilitation of patients with sarcoma requires a high degree of coordination among healthcare disciplines. Quality sarcoma care includes:

- Expert pathology review and molecular diagnostics;
- Site specific imaging, and
- Multidisciplinary treatment planning with:
 - Complex surgery and reconstruction;
 - High precision radiotherapy, and
 - Delivery of complex chemotherapy regimens.¹

Approach



In 2009, Cancer Care Ontario (CCO) facilitated an Expert Panel that made recommendations for the organization and delivery of adult sarcoma care in Ontario to ensure coordinated access to multidisciplinary, high quality care for all sarcoma patients.²

In December 2012, CCO issued a request to Ontario's 13 Regional Cancer Programs (RCPs) calling upon cancer centres and hospitals to collaboratively develop a province-wide Sarcoma Services Plan that aligns with the 2009 Recommendations Report. The regional submissions were to identify:

- 1) Ontario regional cancer centres/hospitals which would commit to being Host Sarcoma Services Provider Sites, where a full scope of sarcoma expertise and care would be available;
- 2) Partner Sarcoma Services Provider Sites, which would provide a subset of sarcoma services and refer patients for sarcoma care, and
- 3) Partner Regions, in which some hospitals would also provide a subset of sarcoma services and refer patients for sarcoma care.

The submitted plans designed multi-regional, multi-disciplinary programs focused on ensuring equitable access to high quality sarcoma care for all Ontarians.

A Provincial Steering Committee with regional clinical, administrative and patient representation was formed in March 2013. The Committee was tasked with the review of the regional submissions and developing an overall provincial sarcoma plan.

Provincial Sarcoma Services Plan

FIGURE 1 | Map of Ontario's Sarcoma Services Programs, including Host and Partner Sarcoma Services Provider Sites and catchment areas.

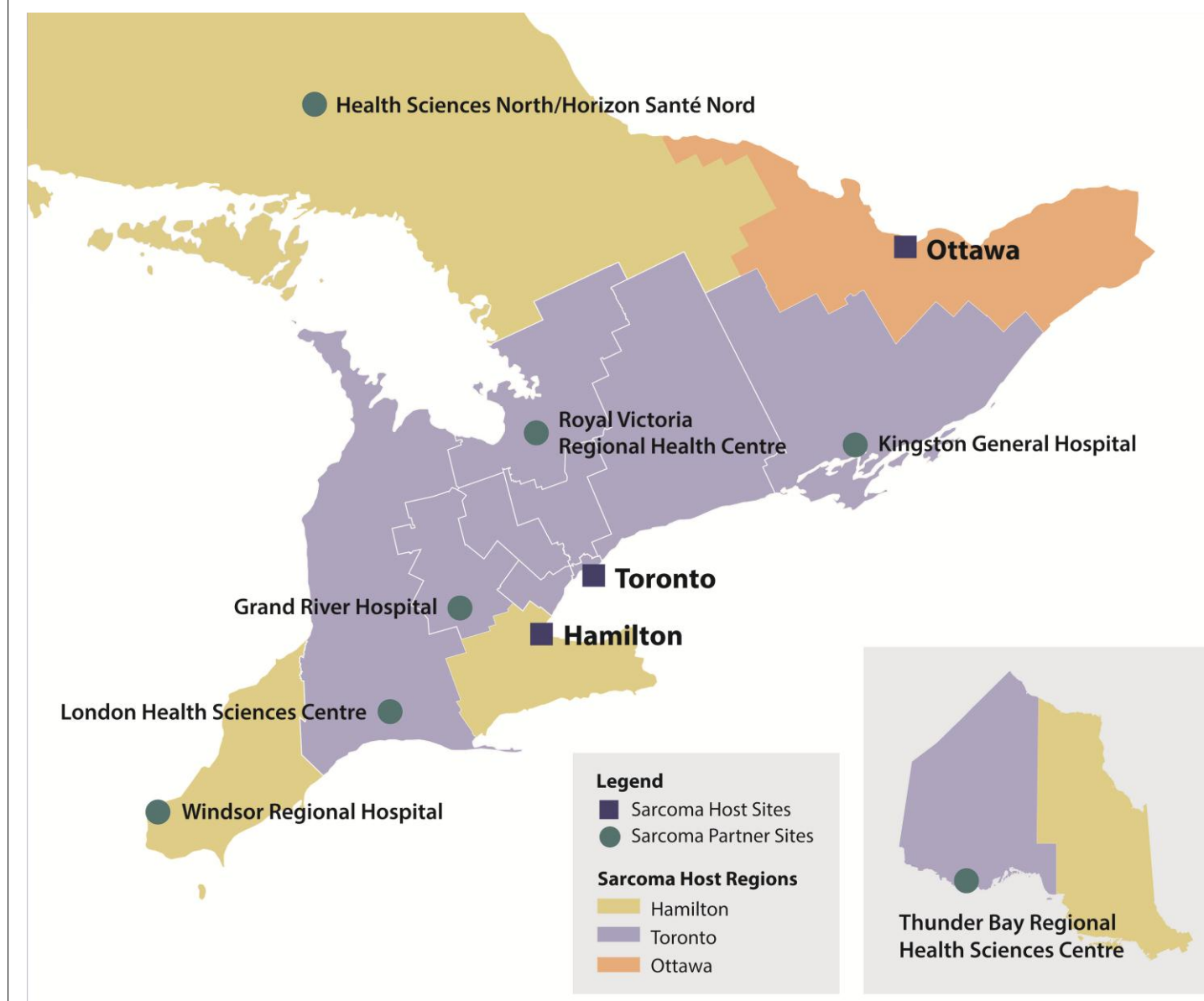


Table 1 | Service delivery and referral patterns for Ontario's 14 Local Health Integration Networks (LHINs).

Host Site	Partner Sites	Partner Regions
Hamilton Juravinski Cancer Centre	<ul style="list-style-type: none"> • Health Sciences North • Windsor Regional Cancer Program 	<ul style="list-style-type: none"> • Hamilton Niagara Haldimand Brant • Erie St. Clair • North East
Toronto Princess Margaret Cancer Centre (University Health Network) Mount Sinai Hospital	<ul style="list-style-type: none"> • Royal Victoria Regional Health Centre • Thunder Bay Regional Health Sciences Centre • London Health Sciences Centre • Grand River Hospital • Kingston General Hospital 	<ul style="list-style-type: none"> • Central • Central East • Central West/Mississauga Halton • North Simcoe Muskoka • North West • South West • South East • Toronto Central • Waterloo/Wellington
Ottawa Ottawa Hospital Regional Cancer Centre		<ul style="list-style-type: none"> • Champlain

Table 2 | Once the Plan is implemented, the following services will be provided at each of the sites across Ontario.

Service	Host Sarcoma Site	Partner Sarcoma Site	Other Hospitals and Cancer Centres in Partner Regions
Diagnostic Imaging	YES – provide secondary review	YES – initial imaging	YES – initial imaging
Case Review – Multidisciplinary Cancer Conference (MCC)	YES – Must host weekly/bi-weekly MCCs	Should attend MCC	Can attend MCC
Pathology Review	YES Must provide: • Light Microscopy • Immunohistochemistry • Electron Microscopy	NO – provide initial review	NO – provide initial review
Molecular Diagnostics	Provide expert/ secondary review Provide: • Translocation • FISH • Sequencing	May provide initial: • Translocation • FISH • Sequencing	Should limit investigations to avoid duplication of services
High Precision Radiotherapy	YES – Provision of Curative, Supportive and Palliative Radiotherapy Host sites should be able to provide: • IMRT • MRI image fusion capabilities • 3D and 4D treatment planning • CNS and body stereotactic radiation treatment	YES - Provision of Curative, Supportive and Palliative Radiotherapy Treatment provided after discussion at central MCC and provided that real time peer review measures are in place.	May provide Supportive and Palliative Radiotherapy
CHEMOTHERAPY			
Treatment Decision	YES – decision made at MCC	YES, after discussion at central MCC and provided that real-time Quality Assurance (QA) measures are in place.	NO
Delivery of Adjuvant Chemotherapy	YES* Regimens: • Etoposide/ifosfamide/mesna • HDMTX • Ifosfamide/mesna • Ifosfamide/doxorubicin • Gemcitabine • Docetaxel/gemcitabine • Cyclophosphamide/topotecan • Methotrexate/vinorelbine	YES*, after discussion at central MCC and provided that QA measures are in place.	YES, under limited circumstances following discussion at central MCC and provided that QA measures are in place.
Delivery of Supportive and Palliative Chemotherapy	YES	YES	YES
SURGERY			
Bone	YES	NO**	NO
Prosthetic	YES	NO	NO
Allograft	YES	NO	NO
Soft Tissue	YES	Non-complex cases after discussion at central MCC	NO
Rehabilitation Services	YES	YES	YES
Anatomy Specific Disciplines (eg. Head and Neck, Gynecologic Oncology, Thoracic)	YES	If available and after discussion at central MCC	NO
Other services (eg. Travel and accommodation assistance)	YES [†]	YES [†]	YES [†]

*Chemotherapy regimens will be updated periodically as needed to support evolving clinical practice.
**Bone sarcoma surgery should be done at the Host Site. Partner Sites may perform bone sarcoma surgery only in exceptional cases where the MCC and the Host Site determine that it is reasonable to do so.
† Other services (such as travel and accommodation assistance) should either be provided at all sites or sites must have information to connect patient to other services.

Results

The Provincial Sarcoma Services Plan is formed by three regional programs, centred in Hamilton, Ottawa and Toronto, with designated Host Sites and a network of Partner Sites and Partner Regions (Figure 1 and Table 1).

The Plan lays out clear service delivery expectations and referral patterns across the province (Table 2). This model includes inter- and intra-regional collaboration, and leverages the existing expertise and capacity within the system. Clear responsibilities and formal linkages for Host Sites, Partner Sites and Partner Regions have been articulated and agreed upon.

Conclusions

The active engagement of regional stakeholders led to the transparent development of a Provincial Sarcoma Services Plan. Ongoing engagement at the clinical, administrative and patient level will support implementation of the Plan across Ontario.

Moving forward, CCO, the Sarcoma Services Steering Committee and the regions will work together to support the transition to a more organized, integrated, multidisciplinary model of adult sarcoma care across the province. Inter- and intra-regional collaboration will leverage the existing expertise and capacity within the system to provide appropriate care for all Ontario sarcoma patients.

References

- 1) Sarcoma Expert Panel (2009). *Managing System Pressures for Sarcoma Service Delivery in Ontario*. Available at www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=121321.
- 2) Sarcoma Expert Panel (2009). *Adult Sarcoma Management in Ontario – Recommendations Report*. Available at www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=121319.

Acknowledgements

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More information on the Provincial Sarcoma Services Plan is available at www.cancercare.on.ca/sarcomacare