A woman with short dark hair, wearing a blue patterned scarf and a dark top, is smiling and looking towards the camera. Behind her, a man with glasses and a grey shirt is also smiling. They are in a room with a large bookshelf filled with books in the background. The lighting is warm and indoor.

Provincial Plan for
**Focal Tumour
Ablation Services**



Focal Tumour Ablation

Focal tumour ablation (FTA) is a minimally invasive treatment option for patients with certain cancers, such as cancers involving the liver, kidney and lung. There are several types of FTA procedures, which involve either directly applying thermal energy (extreme heat or cold) or chemical therapies to the specific tumours.

FTA services included in this Provincial Plan are:

- Thermal Ablation (includes Radiofrequency Ablation (RFA), Microwave Ablation (MWA), and Cryoablation (CA))
- Chemical Ablation (includes Transcatheter Arterial Chemoembolization (TACE))
- Emerging Technologies (includes Transarterial Radioembolization (TARE) with Y90).

Other FTA services may be included in the future, as evidence emerges.

What is the Provincial Plan for Focal Tumour Ablation Services?

The Provincial Plan for FTA Services provides an overview of how FTA services are organized in Ontario. It was developed collaboratively by regional, clinical and patient representatives through Ontario Health (Cancer Care Ontario) Interventional Oncology Steering Committee. The plan is designed to:

- Provide timely access to high-quality, coordinated and specialized FTA services for cancer patients across Ontario;
- Optimize care and resource utilization across the province; and
- Provide open and transparent criteria for funding FTA services in Ontario.

Under this provincial model, resources are organized to ensure that all patients have coordinated access to high-quality, expert, multidisciplinary care.

Who Should Access FTA Services?

Patients requiring treatment for liver, kidney or lung tumours (primary or metastatic) who meet specific clinical criteria may be considered eligible for treatment, as detailed in the Focal Tumour Ablation in Ontario: Recommendations Report 2015.¹

Clinical Criteria



LIVER TUMOUR THERMAL ABLATION RECOMMENDATIONS

1. RFA/MWA for diagnosed hepatocellular carcinoma (HCC):
 - a) Primary liver cancer, “very early stage” or “early stage”, and
 - b) Not a surgical candidate, and
 - c) Size of tumour is ≤ 4 cm, and
 - d) Maximum number of tumours is 3
2. Thermal Ablation alone is not recommended when surgical resection is recommended
3. RFA for liver metastases of colorectal cancer (CRC):
 - a) Unresectable metastases, and
 - b) Size of tumour is ≤ 4 cm, and
 - c) Maximum number of tumours is 3
 - d) No vascular invasion or unresectable extrahepatic spread
 - e) Intraoperative RFA may be used to treat a greater number of tumours if combined with surgical resection



KIDNEY TUMOUR THERMAL ABLATION RECOMMENDATIONS

1. RFA/CA for renal cell carcinoma (RCC):
 - a) T1a N0 M0 RCC where surgery or active surveillance is not recommended, and
 - b) Size of tumour is ≤ 4 cm, and
 - c) Maximum number of tumours is 3



LIVER TUMOUR TACE RECOMMENDATIONS

1. TACE for HCC:
 - a) “Intermediate” stage HCC, and
 - b) Unresectable/untransplantable HCC, and
 - c) No major vascular invasion or extrahepatic spread
2. Follow-up imaging with contrast-enhanced CT or MRI at appropriate intervals
3. Not recommended where surgical resection or RFA is recommended



LUNG TUMOUR THERMAL ABLATION RECOMMENDATIONS

1. RFA/MWA for lung tumours:
 - a) Early-stage primary lung cancers, or
 - b) Metastases, where surgery is contraindicated, and
 - c) Unresectable tumour, and
 - d) Size of tumour is ≤ 4 cm, and
 - e) Maximum number of tumours is 3 in both lungs
2. Thermal Ablation alone is not recommended for patients eligible for surgical resection

Emerging Technologies: TARE with Y90

Clinical Criteria



LIVERTUMOUR TARE WITH Y90 RECOMMENDATIONS

1. TARE with Y90 for liver malignancies:
 - a) For selected patients with HCC; or
 - b) Liver metastases from:
 - Uveal Melanoma
 - CRC
 - NETs

2. There is currently insufficient evidence to support the routine use of TARE with Y90 as standard of care, but it can be considered in clinical scenarios where other treatments are not well tolerated or indicated.

Note: For TARE with Y90, clinicians require additional training compared to other FTA procedures. Due to the low frequency of these procedures, a lower volume threshold may be appropriate (refer to the **Requirements for Physicians Performing FTA** section).

Where to Access FTA Services

Patients being considered for RFA or TACE can be referred to an FTA service provider site in order to be discussed at a Multidisciplinary Cancer Conference (MCC) and to access services. All 14 Local Health Integration Networks (LHINs) have access to an FTA service provider site.

Site Information (maps on next page)

	SERVICE PROVIDERS	LHINS SERVED	HEALTH REGION
A	Windsor Regional Hospital	1 – Erie St. Clair	West
B	London Health Sciences Centre	2 – South West	West
C	Grand River Hospital	3 – Waterloo Wellington	West
D	Hamilton Health Sciences Corporation	4 – Hamilton Niagara Haldimand Brant	West
E	St. Joseph's Healthcare Hamilton, a division of the St. Joseph's Health System	4 – Hamilton Niagara Haldimand Brant	West
F	Niagara Health System	4 – Hamilton Niagara Haldimand Brant	West
G	Trillium Health Partners	5 – Central West 6 – Mississauga Halton	Central
H	Halton Healthcare Services Corporation	5 – Central West 6 – Mississauga Halton	Central
I	North York General Hospital	8 – Central	Central
J	Royal Victoria Regional Health Centre	12 – North Simcoe Muskoka 13 – North East	Central
K	Orillia Soldiers' Memorial Hospital	12 – North Simcoe Muskoka	Central
L	University Health Network/ Sinai Health System	5 – Central West 6 – Mississauga Halton 7S – Toronto Central, South 9 – Central East 13 – North East 14 – North West (And complex cases from across the province)	Toronto
M	Sunnybrook Health Sciences Centre	7N – Toronto Central, North 8 – Central 9 – Central East	Toronto
N	Unity Health Toronto	7S – Toronto Central, South	Toronto
O	Lakeridge Health	9 – Central East	East
P	Peterborough Regional Health Centre	9 – Central East	East
Q	Kingston Health Sciences Centre	10 – South East	East
R	The Ottawa Hospital	11 – Champlain	East
S	Health Sciences North/Horizon Santé Nord	13 – North East	North
T	Thunder Bay Regional Health Sciences Centre	14 – North West	North

TABLE 1: FTA service provider site information as of December 1, 2020.



Focal Tumour Ablation Service Map

Legend

-  **Existing Service Provider Site:**
A hospital that is currently providing in-scope FTA services

FIGURE 1: Map of Ontario's (and magnification of Southern Ontario's) FTA service provider sites as of December 1, 2020.

Description of FTA Service Provider Sites

Service provider sites will have the following components in place:

- Multidisciplinary Cancer Conference² (MCC, on-site or off-site);
- Quality assurance processes (e.g., peer review);
- Interventional radiology equipment; and
- Space to support treatment and recovery.

Service provider sites will provide patient care under the oversight of a multidisciplinary care team, and have the patient's case reviewed at an MCC. In addition to the MCC disease site attendance criteria articulated in the *MCC Disease Site Attendance Criteria* document, interventional oncology procedures should also include attendance by:

- A liver or thoracic surgeon, or a urologist, as relevant to the case; and
- A radiologist or interventional radiologist when patients are being considered for treatment with FTA.

New Service Provider Sites

New service provider sites will require a ramp-up period to achieve their planned service volumes.

- New service provider sites will establish a three-year institutional target, with a lower target in the first year and a gradual ramp up in the second and third years;
- Ontario Health (Cancer Care Ontario) Interventional Oncology Steering Committee will facilitate evaluation to ensure that minimum training requirements are met; and
- Provincial quality assurance processes (e.g., patient outcome measurement) will apply.

New services will be introduced to existing sites following quality assurance recommendations. Service provider sites are expected to collaborate with one another at the regional level and between potential collaborating regions, to establish patient referral patterns, as they build and implement their programs.

Year one

- Sites apply and demonstrate that training requirements are completed.
- A relationship with a site performing higher volumes is established.

Year two

- Sites begin ramping up volumes.
- Relationship with a site performing higher volumes is maintained.
- Providers will contribute data to the measurement of quality indicators.

Year three

- Sites continue ramping up volumes.
- Evaluation takes place at the end of the third year.

FIGURE 2: Three-year ramp up plan for new FTA service provider sites.



Requirements for Physicians Performing FTA

Volume Requirements

While there is limited evidence to suggest a minimum service volume threshold, the Interventional Oncology Steering Committee recommends that each physician perform 36 procedures over 3 years in order to maintain competencies and optimize patient outcomes.

The Steering Committee will guide the development of a process to monitor volumes and patient outcomes. These volume requirements will undergo periodic review and will be adjusted as relevant information becomes available.

Training Requirements

In addition to performing sufficient volumes to maintain expertise, physicians providing FTA services (interventional radiologists, radiologists and surgeons) in Ontario must demonstrate that they have satisfactory training and/or experience in performing FTA procedures. Providers must comply with one of the following training requirements:

1. Training in interventional radiology

- Additionally, hepato-pancreatic biliary (HPB)³ and thoracic surgeons⁴ must function in alignment with other Ontario Health (Cancer Care Ontario) standards and guidelines.

OR

2. Experience with interventional radiology, including

- Continuing Medical Education (CME) in FTA (e.g., Royal College certification in Diagnostic Radiology, with Subspecialty Training in Interventional Radiology in the future), and
- Mentorship/hands-on training.

Providers will contribute data to support measurement of future quality indicators. As additional guidance and training requirements become available in this evolving area of practice, additional requirements will be incorporated into these recommendations.

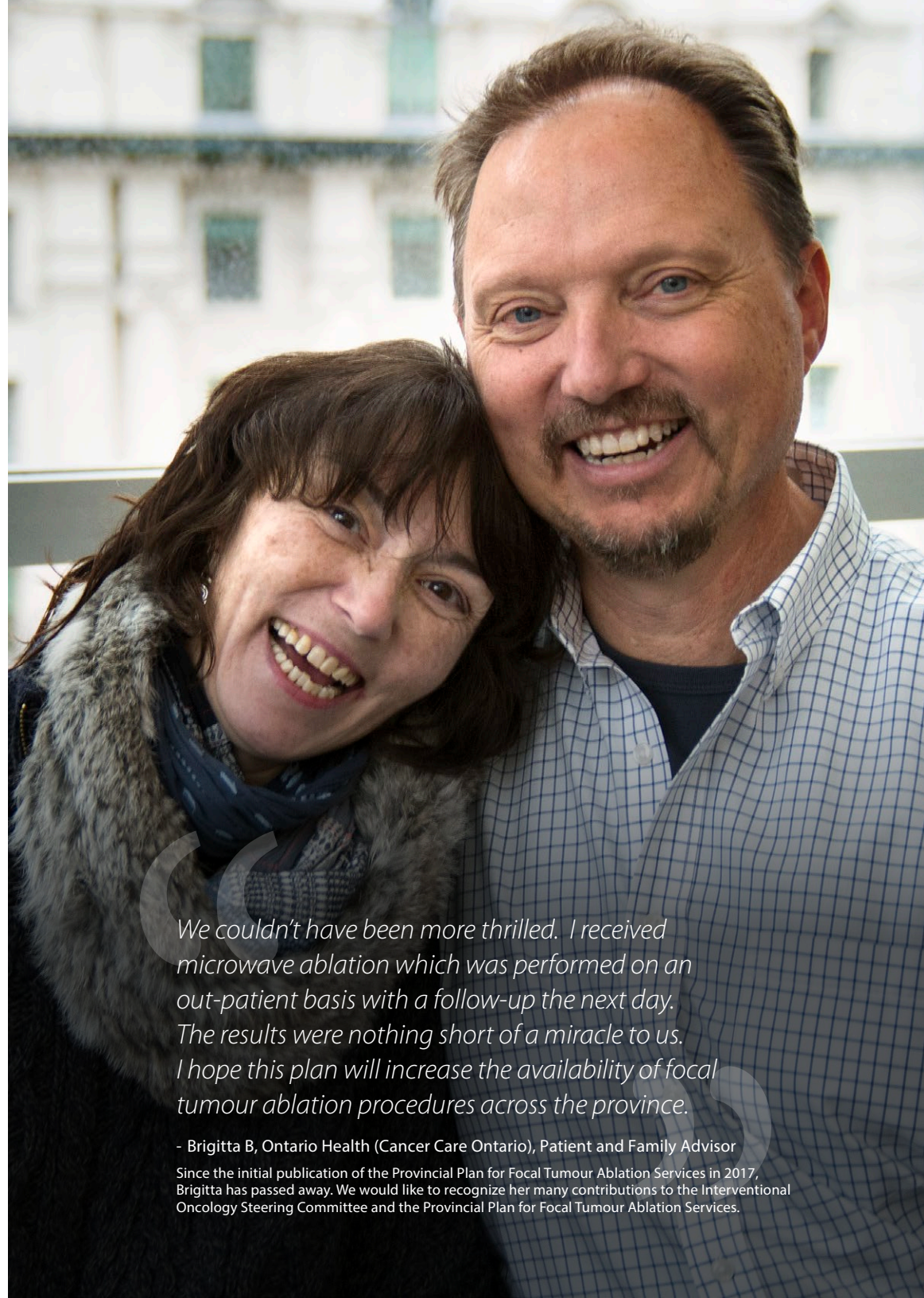
The Plan

Moving Forward

Ontario Health (Cancer Care Ontario), the Steering Committee and the regions will be working together to support the transition to a more organized, integrated, multidisciplinary model of FTA services across the province. In order to meet future needs in the province, service provider sites will work closely with Ontario Health (Cancer Care Ontario) to plan for expected growth and be aware of emerging and new technologies. Inter- and intra-regional collaboration will leverage existing expertise and capacity within the system to provide appropriate access for all patients in Ontario eligible for FTA procedures. A comprehensive measurement framework will be put into place to ensure Ontario cancer patients have access to the highest quality FTA services. This plan will be updated as needed to support evolving clinical practice.

More information is available on our website at [cancercare.on.ca/fta](https://www.cancercare.on.ca/fta).

1. Focal Tumour Ablation Advisory Committee (2015). Focal Tumour Ablation in Ontario: Recommendations Report 2015. Summary available at www.cancercare.on.ca/fta.
2. F. Wright, C. De Vito, B. Langer, A. Hunter and the Expert Panel on the Multidisciplinary Cancer Conference Standards (2006). Multidisciplinary Cancer Conference Standards. Document available at <http://www.cancercare.on.ca/cms/one.aspx?portalId=1377&pageId=8256>
3. The Expert Panel on HPB Surgical Oncology (2015). Hepatic, Pancreatic, and Biliary Tract (HPB) Surgical Oncology Standards. Document available at <https://www.cancercare.on.ca/pcs/treatment/orgguidcserv/hpbcentres/>.
4. The Expert Panel on Thoracic Surgical Oncology (2015). Thoracic Surgical Oncology Standards. Document available at: <https://www.cancercare.on.ca/pcs/treatment/orgguidcserv/thoracicsurgcentres/>.



We couldn't have been more thrilled. I received microwave ablation which was performed on an out-patient basis with a follow-up the next day. The results were nothing short of a miracle to us. I hope this plan will increase the availability of focal tumour ablation procedures across the province.

- Brigitta B, Ontario Health (Cancer Care Ontario), Patient and Family Advisor

Since the initial publication of the Provincial Plan for Focal Tumour Ablation Services in 2017, Brigitta has passed away. We would like to recognize her many contributions to the Interventional Oncology Steering Committee and the Provincial Plan for Focal Tumour Ablation Services.

We were so relieved when Felicia's medical oncologist suggested a focal tumour ablation procedure as an option. The more we learned about it, the happier we became. We were very thankful that this simple and straightforward procedure was an option for her and very grateful that this choice was available to us.

- Malcolm S, Ontario Health (Cancer Care Ontario), Patient and Family Advisor