



What you need to know about IRE for pancreatic cancer

For people who have pancreatic cancer that has not spread.

The purpose of this document is to support communication between healthcare providers and people with pancreatic cancer (and their families and caregivers) if conversations related to IRE (irreversible electroporation) arise. This document is intended to be used for informational purposes only.

How will my pancreatic cancer be treated?

If your cancer has not spread outside the pancreas it is called ‘non-metastatic.’

Surgery

If it is possible, surgery is usually the first choice for treating pancreatic cancer. In some cases, surgery may not be safe, for example if:

- Your tumour is too close to another organ or attached to another organ.
- Your doctor thinks you may not recover well from surgery.

Chemotherapy and Radiation

Chemotherapy and/or radiation may be used with or without surgery. If you are unable to have surgery, these treatments may help to shrink your tumour or stop it from growing.

There is a lot to think about when making a decision about your pancreatic cancer treatment. Your health care team will work with you and answer any questions you may have so that you can make a decision that feels right for you.

What is IRE (irreversible electroporation)?

IRE (irreversible electroporation) is a new type of treatment that is still being tested. It is used together with surgery to treat pancreatic cancer that has not spread but cannot be removed with surgery. Nanoknife is the brand name of the machine used for the procedure.

During IRE, pulses of electricity are put right into the tumour using special needles. The pulses of electricity destroy cancer cells without damaging nearby organs and cells. IRE is done during surgery. You will need to have a surgical incision (cut), which requires general anesthesia (medicine to put you to sleep). After the procedure you will stay in the hospital and then it will take 4-6 weeks of recovery time at home.

Is IRE safe and does it work?

The safety of IRE for people with pancreatic cancer is still being tested. As with many other treatments, serious and life-threatening complications can happen with IRE. At this time, doctors do not know for sure that IRE is safe or how well IRE works to treat pancreatic cancer.

IRE has been shown to be safe in studies for people with other types of cancer, such as colon or liver cancer.

Where is IRE available?

At this time, the only way to get IRE in Ontario is through a clinical trial in Toronto at Princess Margaret Cancer Centre.

A clinical trial is a study that tests treatments for safety and for how well they work. Clinical trials have strict rules for who can and cannot participate. This is so that the study results can be trusted.

For the IRE clinical trial, you **may be able to participate** if your tumour:

- Cannot be removed with surgery.
- Has not spread to distant places in the body.
- Is less than 5 cm, but it is best if the tumour is less than 3 cm.

Also, you must have already finished 4 months of chemotherapy and have not yet had any radiation therapy.

You **may not participate** if:

- Your pancreatic cancer can be removed by regular surgery.
- You are not well enough to get 4 months of chemotherapy.
- You have had radiation therapy.
- Your cancer has spread to other parts of your body (metastasized).
- You have other health conditions or medical implants (like a pacemaker).
- Your overall health is poor and you are not strong enough for surgery.

Talk to your health care team about this clinical trial and others you may be able to take part in.

Why is IRE being done in other parts of the world but not in Ontario?

Ontario's Health Insurance Plan (OHIP) does not cover treatments that are still being tested, such as IRE.

Other health care systems may have different rules and guidelines that they follow. In some cases, IRE may also be done privately in other countries with patients paying for the cost of the IRE themselves.