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BREAST HEALTH

## Implementation of Magnetic Seed Localization in Breast Cancer Surgery

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### Background Information:

Manitoba will be implementing the use of magnetic seed localization beginning in 2024. This will be a phased approach with relevant sites being onboarded with training and equipment in the coming weeks. In most cases, this will replace the use of wire localization. Magnetic seed localization is an innovative technology used to help pinpoint cancer tissue location in the breast during tissue removal procedures. Seeds are about the size of a grain of rice and are magnetized during the surgery to allow for easy identification.

### Change in Procedure:

- Seeds will be placed in the tissue ahead of surgery. This can be days or weeks before the surgery which is a change from wire localization occurring the day before or day of surgery.
- Patients with magnetic seed localization who are also receiving a sentinel node biopsy will have a non-radioactive trace injection at the start of their surgery in lieu of an earlier nuclear medicine injection.
- Surgeons will utilize the Sentimag localization tool to magnetize and locate the seed during the surgical procedure.
- Magnetic seed localization tools used in the operating room (OR) will be required to be reprocessed.

### References/Resources:

- [Patient Instruction Sheet](#)
- [Vendor Questions & Answers](#)
- [Clinical Process Videos](#)

### Patient Impact:

- Most patients will no longer need to visit nuclear medicine prior to their surgery
- Less appointments overall and less travel particularly for rural patients
- Seed placement can be scheduled well in advance of surgery and causes no discomfort to patients
- May reduce post-surgical complications
- Contraindications for use of Magseed include any large metal implants (pacemakers, implantable defib, metal plates in the chest area, etc.)
- Contraindications for use of Magtrace include any sensitivity to iron

### System Improvements:

- Frees up about 400 nuclear medicine appointments annually
- Reduced schedule disruptions and short-notice appointment shifting
- May enable OR efficiencies
- May reduce occurrences of revision surgery
- More opportunity for breast surgery in rural facilities

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