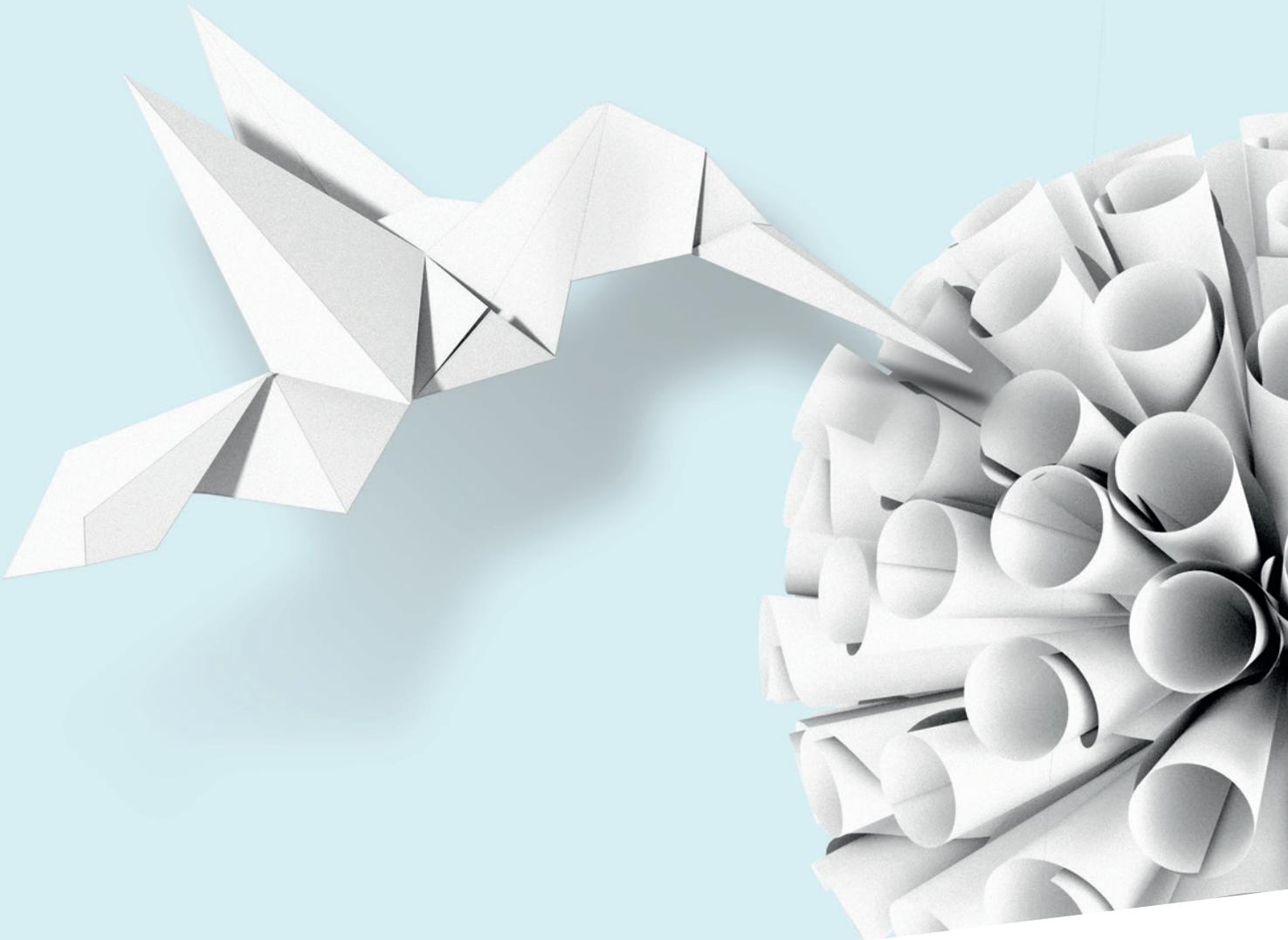


Sentimag[®] – Magseed[®]

Impalpable lesion localisation
has never been so easy.



Simpler. Faster. More precise. Next-generation lesion localisation.

Due to improvements in screening and patient awareness, approximately 50% of breast lesions are impalpable at the time of diagnosis. The current gold standard to assist the surgeon in finding an impalpable lesion is a hookwire, or guidewire. These are usually placed on the morning of surgery. Wire guided localisations (WGL) have been used since the 1960's and have several limitations, including migration of the wire, scheduling conflicts and patient dissatisfaction.

Magseed® has been specifically developed to overcome these issues. It promotes seamless operating room (OR) scheduling, highly accurate lesion localisation and high patient satisfaction.

Our system consists of the Sentimag® probe and the Magseed® magnetic marker. First, the marker is deployed under ultrasound or X-ray guidance up to 30 days before surgery. In the OR, the surgeon uses Sentimag® to precisely localise the Magseed® and therefore the tumour.

Magseed® – benefits for all

- Organise and manage the lesion localisation procedure to suit your needs.
- Can be placed 30 days in advance; better for patients, better for the clinical workflow
- Greatly improved OR and radiology scheduling
- 360-degree sensing and distance calculation for the best oncoplastic approach
- Patient-centric approach: no radioactivity, reduced stress, minimal invasiveness
- Sentimag® and Magseed® are FDA-cleared and CE-marked for lesion localisation





Clinical Results. Simple to place, easy to remove.

The Sentimag® and Magseed® marker were developed in the clinic with direct input and feedback from both surgeons and radiologists. Since it was launched in 2016, the system has been used to treat over 2,000 patients and has found a strong base of support among clinicians. When compared to wire localisation, seed localisation is generally more accurate, less painful and hence less stressful for the patient [1–4]. Magseed® is more convenient, can reduce scheduling delays and improve efficiency in the OR. Adopting Magseed® as standard of care has the potential to drive cost savings in addition to its clinical benefits.

The results below represent feedback from over 200 surgeons and radiologists having used Magseed® in over 350 procedures [5]. Seeds were used to mark invasive and benign lesions, as well as surgical biopsies.

The overall impression is that Magseed® is simple to place and easy to remove. Importantly, radiologists were able to place the seed where intended in 98% of cases and found placing the needle to be very easy. In 99% of cases seeds could be detected by the surgeon pre-incision and later on intra-operative X-ray.

Feedback from 100+ Radiologists



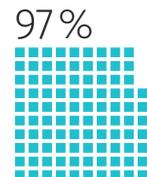
Placed where intended



Placement was easy



Brighter than biopsy clips on US / X-ray



Magseed is easier than current technique*

Feedback from 100+ Surgeons



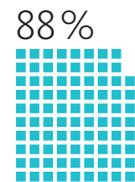
Seeds detected pre-incision



Depth sensing aided dissection



Visible on intraoperative X-ray



Magseed is easier than current technique**

* Hookwire, Radioactive Seed, SAVI Scout

** Remaining 12% rated it 'as easy as their current technique'.

References:

[1] Bloomquist et al. (2016). *Breast J*; 22(2):151–7.

[2] Loving et al. (2014). *Am J Roentgenol*; 202(6):1383–8.

[3] Dauer et al. (2013). *Health Phys*; 105(4):356–65.

[4] McGhan et al. (2011). *Ann Surg Oncol*; 18(11):3096–101.

[5] Data from Endomag

For further clinical results, please visit www.systemex-europe.com

True convenience; for patients and clinicians.

The Sentimag® / Magseed® system greatly enhances convenience for both patients and clinicians. Once a seed is placed, you have 30 days to remove the lesion. Patient schedules are now under your control, as is the use of your radiology suite and OR time, potentially allowing more patients to be treated per list.

Magseed® offers all the benefits of radioseeds, but without the regulatory burden associated with radiation. Patients are not exposed to radioactivity and any hospital, anywhere, can use this technique. Importantly, its signal does not decay or change over time.

Without a wire, stress and infection risks are reduced. The seed's helical design gives it a high echogenicity under ultrasound besides its X-ray visibility, making it simple to place precisely where intended.

X-ray visibility



* Using Sentimag® in combination with Sienna+® magnetic tracer or using a gamma probe in combination with ^{99m}Tc tracer

No wire. No radioactivity. Just magnetism.

Magseed® Marker

At 1 x 5 mm, Magseed® is smaller than a grain of rice. Deployed with an 18-gauge needle, its helical shape optimises tissue in-growth and ensures it stays in place, enhancing surgical precision and the cosmetic outcome.

Constructed from medical grade stainless steel, Magseed® is robust, does not ever lose its magnetism and its signal is not attenuated by tissue type. It cannot be damaged during placement and is still detectable if accidentally cut. For bracketing procedures, seeds are placed 20 mm or more apart.

Sentimag® Probe

Magseed® works with the Sentimag® system, a highly sophisticated magnetometer, which has already been used in over 20,000 sentinel lymph node biopsies across EMEA. Sentimag® generates a magnetic field that temporarily magnetises Magseed®. The probe then detects the magnetic signature generated by the seed.

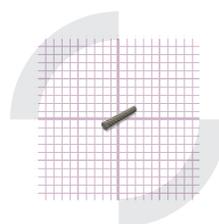
Since Sentimag® sensing is proximity-based, localising seeds is highly intuitive. You can use the system both before and after incision and adjust its sensitivity. With 360-degree, depth- and side-sensing, which enables distance calculation, surgery is particularly accurate. This potentially reduces the need for second surgeries.

Benefits of Magseed®

- Small size surgical steel marker, robust and non-radioactive
- Implantable up to 30 days before surgery, thereby improving scheduling and patient comfort
- Firmly implanted without any skin protruding parts, minimising migration and infection risks
- Detectable by Sentimag®, X-Ray and ultrasound
- MR-conditional up to 3 Tesla

Features of Sentimag®

- Highly accurate, distance-based detection for intuitive lesion localisation
- Use it for both pre-and post-incision use
- Real time audio and visual feedback
- 30 mm sensing depth – greater with palpation
- 360°-sensing to help guide localisation
- The only seed technology that can estimate distance via depth and side sensing



Original Size



Sentimag® – Magnetic lesion and lymph node localisation

