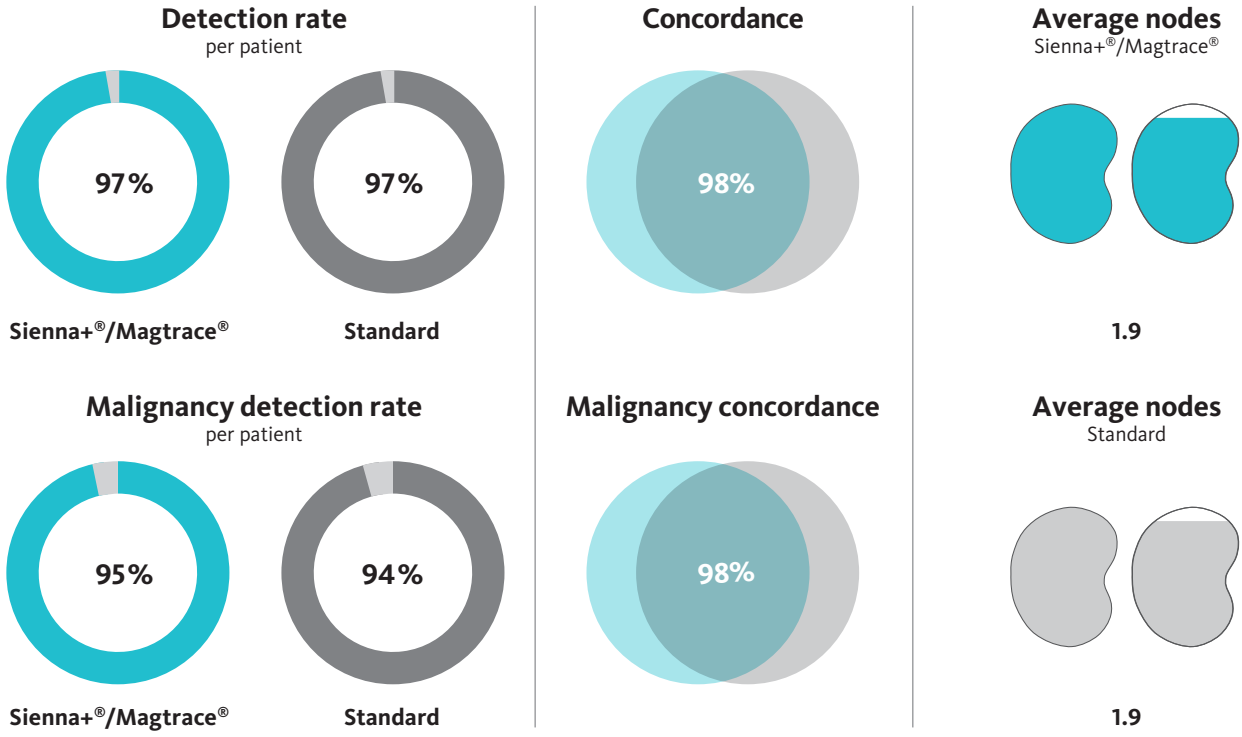
sysmex | Lighting the way with diagnostics

PUBLICATION SPOTLIGHT

Sentimag® – Sienna+®/Magtrace®

Magnetic lymph node localisation for breast cancer – clinical results

Since the Sentimag® system was launched for lymph node localisation at the end of 2012, it has been used to treat over 65,000 patients and has produced a strong base of clinical results that confirms its safety and efficacy in the nodal staging of breast cancer. Clinical studies involving over 1,800 patients across 12 European countries and the United States have demonstrated non-inferiority to the standard of care for SLNB – either Technetium (^{99m}Tc) alone or the combination technique (^{99m}Tc and blue dye).



Clinical study results

First author	Patients	Detection rate standard	Detection rate Sentimag®	Concordance	Malignancy concordance	Av SLNs standard	Av SLNs Sentimag®
Alvarado[2]	147	98.6%	99.3%	98.6%	100%	2.4	2.4
Karakatsanis[3]	206	97.1%	97.6%	98.0%	98.1%	1.8	1.9
Houpeau[6]	108	95.4%	97.2%	99.0%	97.7%	1.9	2.0
Ghilli[7]	193	99.0%	97.9%	97.9%	94.7%	1.9	1.9
Piñero[8]	181	98.3%	98.8%	99.4%	98.1%	1.6	1.6
Thill[9]	150	97.3%	98.0%	99.3%	100%	1.8	1.9

www.sysmex-europe.com/magtrace

Magnetic lymph node localisation for breast cancer – clinical results

Publications (selection)

[1] Rubio et al. (2020): *A randomized study comparing different doses of superparamagnetic iron oxide tracer for sentinel lymph node biopsy in breast cancer: The SUNRISE study. EJSO. 46(12):2195–201. [pubmed]*

[2] Alvarado et al. (2019): *SentimagIC: A Non-inferiority Trial Comparing Superparamagnetic Iron Oxide Versus Technetium-99m and Blue Dye in the Detection of Axillary Sentinel Nodes in Patients with Early-Stage Breast Cancer. Ann Surg Oncol. 26(11):3510–6. [pubmed]*

[3] Karakatsanis et al. (2017): *Superparamagnetic iron oxide nanoparticles as the sole method for sentinel node biopsy detection in patients with breast cancer. Br J Surg. 104(12):1675–85. [pubmed]*

[4] Karakatsanis et al. (2016): *The Nordic SentiMag trial: a comparison of super paramagnetic iron oxide (SPIO) nanoparticles versus Tc99 and patent blue in the detection of sentinel node (SN) in patients with breast cancer and a meta-analysis of earlier studies. Breast Cancer Res Treat. 157(2):281–94. [open access] – Meta-analysis of publications [4] and [6] to [9]*

[5] Teshome et al. (2016): *Use of a Magnetic Tracer for Sentinel Lymph Node Detection in Early-Stage Breast Cancer Patients: A Meta-analysis. Ann Surg Oncol. 23 (5):1508–14. [pubmed] – Meta-analysis of publications [6] to [9]*

[6] Houpeau et al. (2016): *Sentinel lymph node identification using superparamagnetic iron oxide particles versus radioisotope: The French Sentimag feasibility trial. J Surg Oncol. 113(5):501–7. [pubmed]*

[7] Ghilli et al. (2017): *The superparamagnetic iron oxide tracer: a valid alternative in sentinel node biopsy for breast cancer treatment. Eur J Cancer Care. 26(4):e12385. [pubmed]*

[8] Piñero-Madrona et al. (2015): *Superparamagnetic iron oxide as a tracer for sentinel node biopsy in breast cancer: a comparative non-inferiority study. Eur J Surg Oncol. 41(8):991–7. [pubmed]*

[9] Thill et al. (2014): *The Central-European SentiMag study: sentinel lymph node biopsy with superparamagnetic iron oxide (SPIO) vs. radioisotope. The Breast. 23:175–9. [open access]*

Last update December 2020

Distributor EMEA: Sysmex Europe GmbH
Bornbarch 1, 22848 Norderstedt, Germany · Phone +49 40 52726-0 · Fax +49 40 52726-100 · oncology@sysmex-europe.com · **www.sysmex-europe.com**

Manufacturer: Endomagnetics Ltd
The Jeffreys Building, St John's Innovation Park, Cowley Road, Cambridge CB4 0WS, United Kingdom

You will find your local Sysmex representative's address under www.sysmex-europe.com/contacts

ZE001262.EN.C.01/21