EndoPredict Research Updates and Guidelines

The latest clinical updates reflect the growing role of EndoPredict as an innovative diagnostic guidance tool supporting healthcare providers in making early ER+, HER2- breast cancer treatment decisions.

Quick Summary

- ESMO early breast cancer guidelines in 2024 recognize EndoPredict as having the highest level of clinical evidence alongside other genomic assays[1]
- NICE in the UK now recommends EndoPredict for tailored treatment of lymph node positive and negative early breast cancer[2]
- New prospective data from two studies confirm evidence for EndoPredict in making treatment decisions for early-stage breast cancer (UNIRAD and TUM study)[3] [4]

Updated Guidelines and Studies

1. New real-world prospective data confirm prognostic and predictive accuracy[3]

A long-term, real-world prospective study led by Evelyn Klein and her team at the Technical University Munich (TUM) published study data after a median follow-up time of more than 8 years in May 2024 in the Breast Cancer Research and Treatment Journal providing additional prospective evidence for the effectiveness of EndoPredict in:

- **Identifying low-risk patients** who can safely avoid chemotherapy, regardless of menopausal status
- **Predicting chemotherapy benefit**, where high-risk patients significantly benefited from chemotherapy
- **Classifying risk of recurrence more accurately than Ki67**

The findings confirm previous trial results, with the added value of the prospective study design. Real-world data was collected from a representative group of 368 pre- or postmenopausal patients with ER+, HER2- early-stage breast cancer, and 0-3 positive lymph nodes.

Including pre- and postmenopausal patients, this prospective study confirms the validity of EndoPredict in both subgroups regardless of their menopausal status. This is particularly relevant for premenopausal patients, providing reassurance of positive outcomes of chemotherapy avoidance in low-risk patients as classified by the EPclin Risk Score.

Where study findings for other tests have suggested that test performance and risk threshold for chemotherapy depends on the menopausal status,[5–7] the new trial data for EndoPredict confirms that the risk classification of patients as "low risk" is reliable for both, pre- and postmenopausal patients, with excellent 5-year outcomes for these patients.

Read the key findings from the study summarized here.

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2. Updated ESMO Guidelines 2024[1]

The European Society for Medical Oncology (ESMO) is a world-leading society of oncology professionals. Their guidelines inform current best practices based on review of the latest high-quality evidence by a panel of leading consultants and experts.

Key changes to the ESMO early breast cancer management guideline include:

- **No preferred assay** for guiding chemotherapy decisions in uncertain indications, raising EndoPredict to an equal recommendation as other genomic tests
- **Level of evidence 1A for all genomic assays**

- Inclusion of **separate guidance for pre and postmenopausal patients** on adjuvant therapy decisions guided by genomic testing and/or clinical factors[8]
- **Mid Range RS scores excluded** from treatment decision recommendations[8]

The new ESMO guidelines for the management of early breast cancer reflect significant positive shifts in the appraisal of evidence for EndoPredict. Alternative tests MammaPrint® and Oncotype DX® are no longer preferred over EndoPredict, with level of evidence 1A cited for all four commercially available assays (EndoPredict®, MammaPrint®, Oncotype DX®, and Prosigna®).

Read a summary of EndoPredict in the ESMO 2024 guidelines.

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3. NICE in the UK recommends EndoPredict[2]

New guidance from the National Institute of Health and Care Excellence (NICE) in the UK gives express approval for the use of EndoPredict as an option for guiding chemotherapy decisions in node positive early ER+, HER2- breast cancer.

This means the guidelines now recognize the clinical utility and evidence for EndoPredict in both patients with node positive and node negative disease. Expanding the recommended usage for genomic profiling is expected to improve access to testing, helping certain patients safely avoid chemotherapy and identifying those who can benefit by enhancing clinical risk assessments for recurrence.

Read a summary of the recommendations here.

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4. Phase III validation of EndoPredict confirms prognostic power[4]

A preplanned sub-analysis of the phase III UNIRAD trial, a large prospective, randomized, double-blind clinical trial, was published in the ESMO Open journal (April 2024), providing level of evidence 1A data for EndoPredict

The new UNIRAD trial data confirm the prognostic accuracy of EndoPredict in clinically high-risk, node-positive, ER+, HER2- early-stage breast cancer patients by:

- Effectively separating high and low-risk chemotherapy treated patients, with zero recurrences in the EPclin low-risk group over 5 years.
- Being the only second-generation test with LOE1A validation data.
- Showing reliable and consistent performance across trials, confirming previous data from the GEICAM study group.

The trial, which included data from 767 patients with 1-3 positive lymph nodes, demonstrates that EndoPredict can reclassify 14% of clinically high-risk patients (based on classic clinicopathological factors) as EPclin low-risk. Remarkably, none of these reclassified patients experienced recurrence or death within 5 years after standard chemotherapy, highlighting its value in predicting invasive disease-free survival and distant metastasis-free survival.

These results affirm EndoPredict as a reliable prognostic tool for identifying low-risk patients who could safely reduce treatment to avoid side effects and high-risk patients who may benefit from optimized adjuvant therapy.

*Read a summary of the **UNIRAD trial here**.*

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5. Looking ahead for EndoPredict

The UNIRAD and TUM trials continue to collect long-term data on late recurrence, adding to the growing pool of evidence in more than 3,500 patients across five prospective retrospective studies.[10–16]

Additionally, the RESCUE clinical trial has completed its recruitment for its large prospective multicentre non-interventional study that will observe five-year outcomes in early luminal breast cancer for patients with node positive and node negative disease.

This large-scale registry is expected to report its first outcome in 2026, as it collects long-term data to explore:

- The primary outcome – that more than 90% of EPclin low-risk patients live for 10 years without metastatic recurrence after treatment with endocrine therapy alone for at least five years
- Secondary outcomes in EPclin low-risk vs EPclin high-risk patients for metastatic recurrence, any recurrence, and overall survival

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