



An advanced gene expression test for predicting the risk of distant recurrence in early-stage primary breast cancer.

*Risk of Breast Cancer Recurrence • Benefits of Chemotherapy • Suitability for Extended Endocrine Therapy*

Partial  
**MEDICARE  
REBATE  
Available**



Only available at  
AUSTRALIAN  
**Clinicalabs**



**Personalised medicine helps guide  
ER+, HER2-, N0 and N+, pre or post-menopausal breast  
cancer treatment decisions**



**EndoPredict®**  
One Test – Three Clinical Answers

**The ONLY test that answers the following  
three important clinical questions...**

**Can chemotherapy  
be avoided?**

(Risk at 10 years<sup>1</sup>)

**What is the absolute  
benefit from  
chemotherapy?**

(Chemotherapy benefit<sup>2</sup>)

**Can the extension of  
endocrine therapy  
be avoided?**

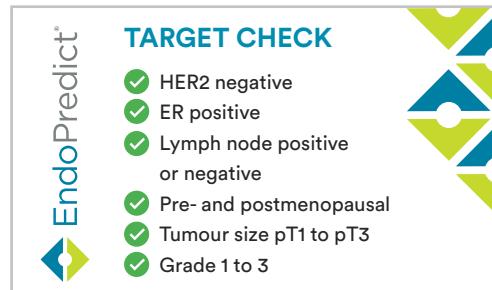
(Risk between 5 and 15 years<sup>3</sup>)

**... to optimise treatment for your breast  
cancer patients**

EndoPredict is designed for women with ER+, HER2- primary breast cancer  
(node-negative or node-positive (micrometastases, 1-3 nodes), pre- or postmenopausal)

# One Test – Three Clinical Answers

EndoPredict is a gene expression assay for patients with estrogen receptor positive (ER+), human epidermal growth factor receptor 2 negative (HER2-) early-stage breast cancer who are lymph node negative or positive (N0, N+). The second generation test combines a molecular score with tumour size and nodal status to provide more prognostic power than first generation tests.



In the result report the individual risk, either low or high, is clearly indicated for each patient. In addition the risk of early and late distant recurrence with 5 years of adjuvant endocrine therapy alone and the estimated absolute benefit of chemotherapy are determined.

**EndoPredict** provides highly important and clear information for different stages of treatment planning.

## **Initial treatment planning:**

10-year risk of recurrence for patients with node-negative or node-positive disease<sup>1</sup> and estimated absolute chemotherapy benefit at 10 years based on modern treatment regimens.<sup>2</sup>

## **Long-term treatment planning:**

Breast cancer recurrence risk out to 15 years.<sup>3</sup>

Patients at low risk of distant recurrence are usually treated initially without chemotherapy. Under endocrine therapy alone, more than 95% of EndoPredict low-risk patients do not experience a distant recurrence, even more than 10 years after diagnosis.<sup>1</sup>

Compared to risk stratification using clinical parameters or other gene expression tests, EndoPredict identifies the largest group of women with breast cancer at low risk (<10% chance of distant recurrence in 10 years) who might safely avoid chemotherapy.<sup>4,5,6</sup>

For even more treatment confidence, EndoPredict predicts the individual absolute chemotherapy benefit based on modern treatment regimens.<sup>2</sup>

In addition EndoPredict can support long-term treatment planning. Some patients can benefit from prolonged endocrine therapy up to ten years, but other patients can avoid this additional treatment and be safely treated with only 5 years of endocrine therapy.

EndoPredict is the only test that provides your patient's individual risk of breast cancer late distant recurrence within years 5-15<sup>3</sup> to help in deciding whether your patient can avoid extended endocrine therapy.

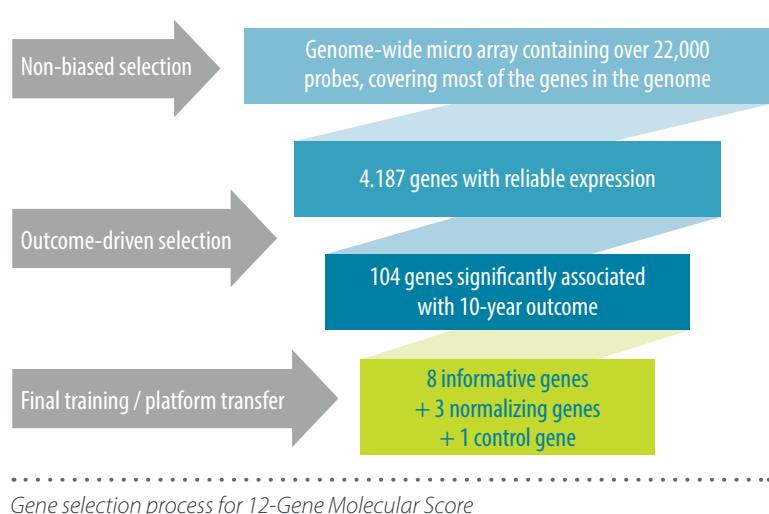
**EndoPredict** is the only prognostic test that can help in deciding whether your patient can safely avoid chemotherapy, how beneficial chemotherapy would be, and whether your patient can avoid extended endocrine therapy.

# Measures 8 Genes related to Early and Late Recurrence

**Endopredict** was developed using consistent criteria for patients during training and independent validation studies on 10 year outcome data. ER+/HER2- breast cancer, both N0 and N+.

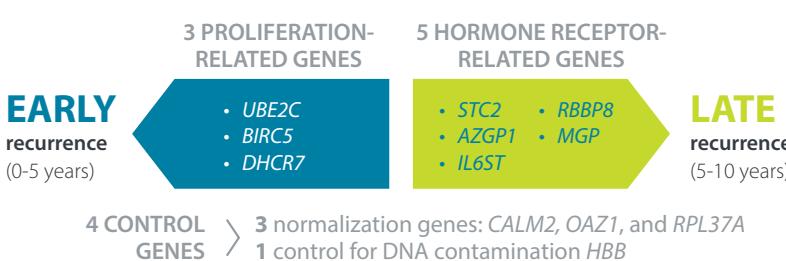
The **Endopredict** algorithm was generated in a large training set of 964 ER+/HER2- breast cancer samples.<sup>1</sup>

**Consistent** study cohorts for training and validation



	Gene	Assigned biological processes
Proliferation associated Genes	<b>UBE2C</b>	Protein degradation, cell division
	<b>BIRC5</b>	Anti-apoptosis, cell division, cytokinesis, chromosome localization
	<b>DHCR7</b>	Cholesterol biosynthesis
Hormone Receptor associated Genes	<b>STC2</b>	Cell-to-cell communication
	<b>AZGP1</b>	Cell adhesion
	<b>IL6ST</b>	Various signal transduction pathways, cell proliferation, T cell proliferation
	<b>RBBP8</b>	DNA repair
	<b>MGP</b>	Transcriptional regulation

Genes and assigned biological processes



Variable	0-5 years HR (95% CI)	P-value	>5 years HR (95% CI)	P-value
<b>PROLIFERATION</b>	<b>1.60 (1.33-1.92)</b>	<b>&lt;0.001</b>	<b>1.19 (0.85-1.67)</b>	<b>0.298</b>
<b>ER SIGNALING</b>	<b>0.89 (0.75-1.06)</b>	<b>0.204</b>	<b>0.61 (0.46-0.81)</b>	<b>&lt;0.001</b>

A multivariate analysis of the contribution of variables to predict early and late distant recurrence showed proliferation genes provide important additional prognostic information within the first five years, while ER-associated genes are critical to predict late recurrences.<sup>7</sup>

Genes for early and late recurrence<sup>7</sup>

Proliferation and hormone receptor related genes for **early and late recurrence**

EndoPredict measures the activity of eight genes relevant to the course of disease (BIRC5, UBE2C, DHCR7, RBBP8, IL6ST, AZGP1, MGP, STC2). Inclusion of proliferation and hormone receptor related genes contributes to accurate assessment of early and late recurrence risk.<sup>1,7</sup>

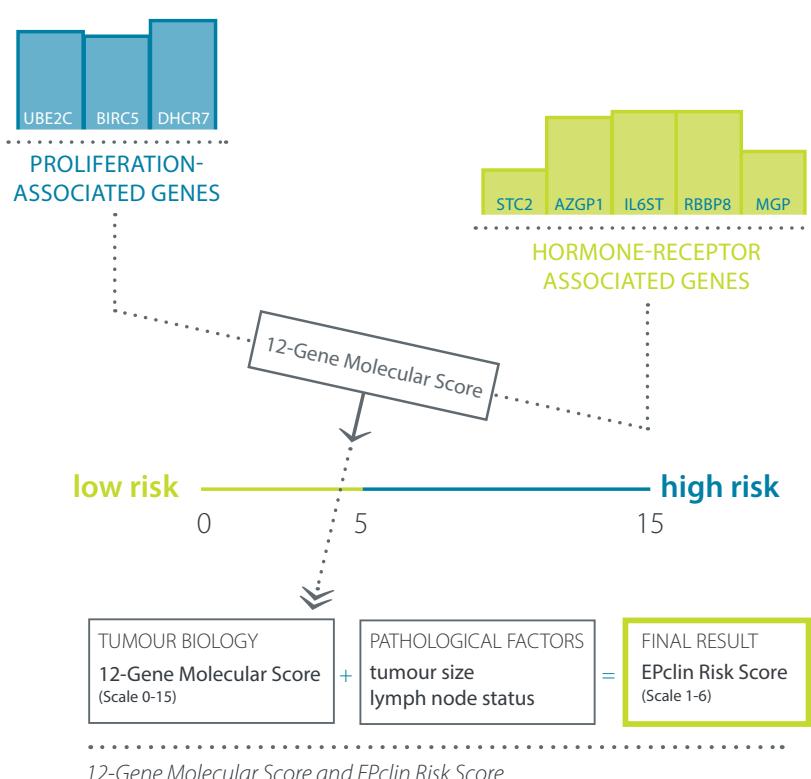
These eight genes are compared against three normalization genes (OAZ1, CALM2, RPL37A) and one control gene (HBB). Based on the activity of the genes, the **12-Gene Molecular Score** is calculated using a mathematical algorithm and reported on a scale of 0 to 15.

# Combines Gene Expression and Clinical-Pathological Factors

The final EndoPredict result, the **EPclin Risk Score**, is calculated combining the 12-Gene Molecular Score with clinical pathological prognostic factors (tumour size and lymph node status) as assessed by the pathologist. This makes EndoPredict a second generation gene expression test and a more powerful predictor of prognosis.

The EPclin Risk Score is reported on a scale of 1 to 6. The value of 3.32867 is associated with 10% risk of breast cancer recurrence within 10 years. Values below 3.32867 are associated with low risk and values above or equal to 3.32867 with high risk.

EndoPredict provides a clear classification into **high risk** and a **low risk**

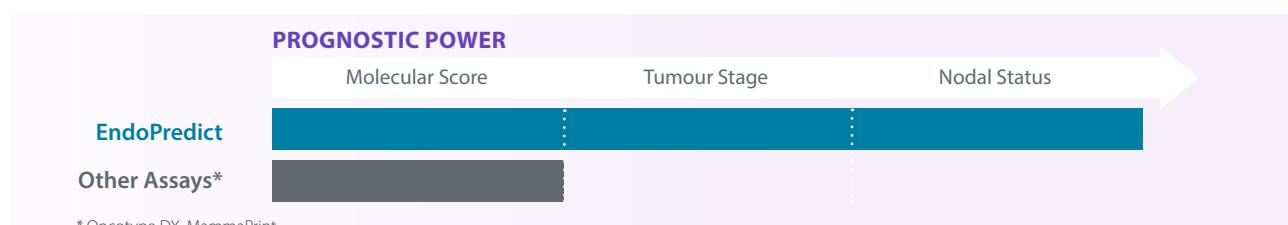
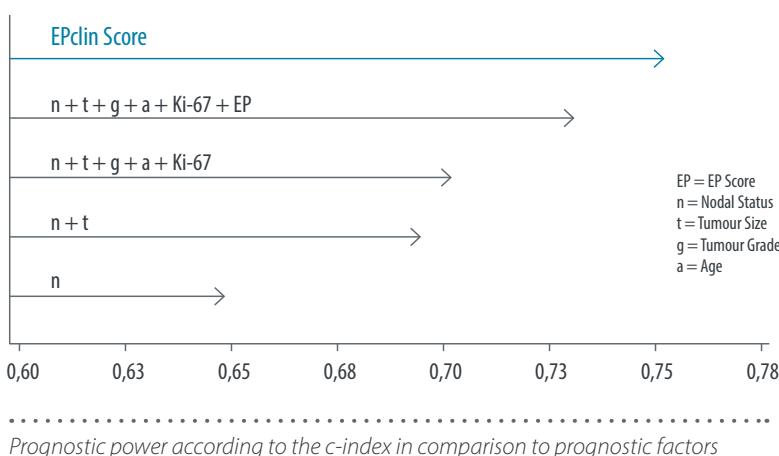


12-Gene Molecular Score and EPclin Risk Score

The EPclin Risk Score alone is a more powerful predictor of the prognosis than combinations of all classical prognostic factors.<sup>1</sup>

As a second generation gene expression test, EndoPredict is a more powerful predictor of prognosis than first generation assays. Prognostic power providing results you can trust.

**Second generation gene expression test for more prognostic power**



# Clearly Structured Result Report

**Result Report** 

Created by: EndoPredict Report Generator®

Sample Name: **Sample Bb**

Note:

Report Created: **2019-02-08 11:11 AM (CET)**

**RESULT**

12-GENE MOLECULAR SCORE: (Range 0-15)	<b>4.9</b>
TUMOR SIZE:	<b>pT1ab (<math>\leq 1\text{cm}</math>)</b>
NODAL STATUS:	<b>1 to 3 positive lymph nodes (incl. pN1mic)</b>

<b>EPclin</b>	<b>EPclin</b>
<b>RISK SCORE</b>	<b>RISK CLASS</b>
<b>3.0</b>	<b>LOW</b>

EndoPredict® is a gene expression assay for patients with ER-positive, HER2-negative early-stage breast cancer. From this genomic analysis, a 12-Gene Molecular Score is assigned. This score, combined with tumor size and nodal status, contributes to the EPclin Risk Score, from which the risks of distant recurrence (10-year and 5 to 15-years) with 5 years of adjuvant endocrine therapy alone and the estimated absolute benefit of chemotherapy (at 10 years) are determined. The EPclin Risk Class refers to the risk of distant recurrence with 5 years of adjuvant endocrine therapy alone.

**INITIAL Treatment Planning**

LIKELIHOOD OF DISTANT RECURRENCE WITHIN YEARS 0-10 For patients treated with 5 years of endocrine therapy alone	<b>7%</b>
ABSOLUTE CHEMOTHERAPY BENEFIT AT 10 YEARS	<b>2%</b>

**LONG-TERM Treatment Planning**

LIKELIHOOD OF LATE DISTANT RECURRENCE WITHIN YEARS 5-15 For patients with no recurrence after 5 years of endocrine therapy alone	<b>6%</b>
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page 1 of 5

EndoPredict result report front page (low risk)

An overview of the three clinical answers given by Endopredict is organized by treatment planning stage.

## Initial treatment planning

1. Risk at 10 years - Can chemotherapy be avoided?
2. Chemotherapy benefit - What is the absolute benefit from chemotherapy?

## Long-term treatment planning

3. Risk between 5 and 15 years - Can the extension of endocrine therapy be avoided?

The EndoPredict Result Report documents the molecular data and the established prognostic factors of tumour size and lymph node status.

Using a mathematical algorithm, the 12-gene molecular score is combined with the clinical data. This results in the patient's individual **EPclin Risk Score** and subsequent classification as "**low risk**" or "**high risk**".

**Result Report** 

Created by: EndoPredict Report Generator®

Sample Name: **Sample Aa**

Note:

Report Created: **2019-02-08 10:55 AM (CET)**

**RESULT**

12-GENE MOLECULAR SCORE: (Range 0-15)	<b>10.1</b>
TUMOR SIZE:	<b>pT1c (<math>&gt;1\text{cm}</math> but <math>\leq 2\text{cm}</math>)</b>
NODAL STATUS:	<b>1 to 3 positive lymph nodes (incl. pN1mic)</b>

<b>EPclin</b>	<b>EPclin</b>
<b>RISK SCORE</b>	<b>RISK CLASS</b>
<b>4.8</b>	<b>HIGH</b>

EndoPredict® is a gene expression assay for patients with ER-positive, HER2-negative early-stage breast cancer. From this genomic analysis, a 12-Gene Molecular Score is assigned. This score, combined with tumor size and nodal status, contributes to the EPclin Risk Score, from which the risks of distant recurrence (10-year and 5 to 15-years) with 5 years of adjuvant endocrine therapy alone and the estimated absolute benefit of chemotherapy (at 10 years) are determined. The EPclin Risk Class refers to the risk of distant recurrence with 5 years of adjuvant endocrine therapy alone.

**INITIAL Treatment Planning**

LIKELIHOOD OF DISTANT RECURRENCE WITHIN YEARS 0-10 For patients treated with 5 years of endocrine therapy alone	<b>36%</b>
ABSOLUTE CHEMOTHERAPY BENEFIT AT 10 YEARS	<b>17%</b>

**LONG-TERM Treatment Planning**

LIKELIHOOD OF LATE DISTANT RECURRENCE WITHIN YEARS 5-15 For patients with no recurrence after 5 years of endocrine therapy alone	<b>28%</b>
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EndoPredict result report front page (high risk)

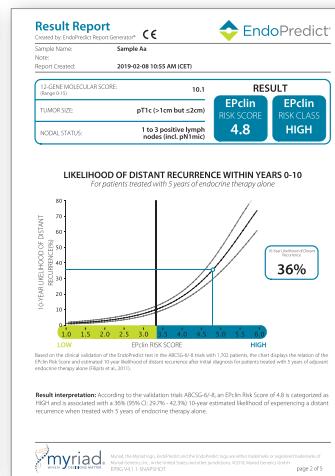
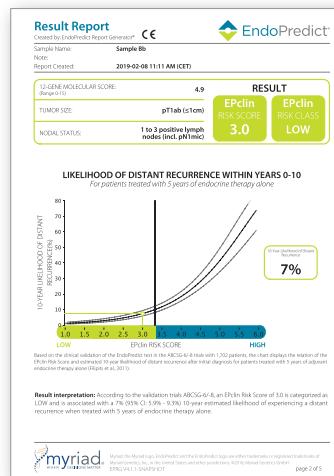
Information is **summarised** by treatment planning stage

# Detailed Information on Three Clinical Questions

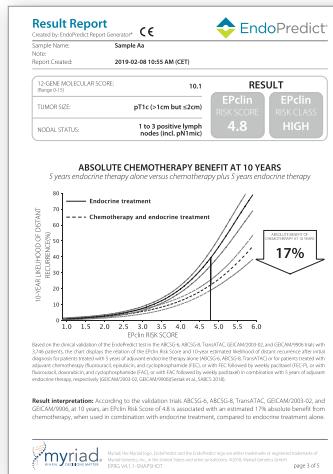
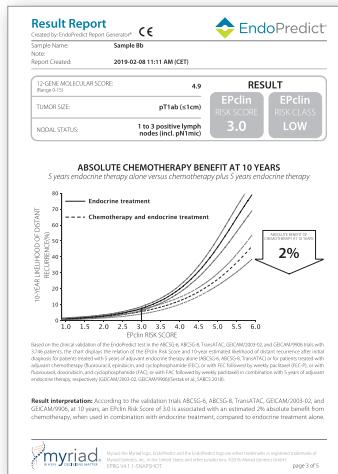
## Can chemotherapy be avoided?

Each patient's report will show a graphic curve illustrating her risk of recurrence within years 0-10 after diagnosis.

This information helps you to identify your patients with a low risk of recurrence who might safely avoid chemotherapy.



EndoPredict result report second page (low and high risk)

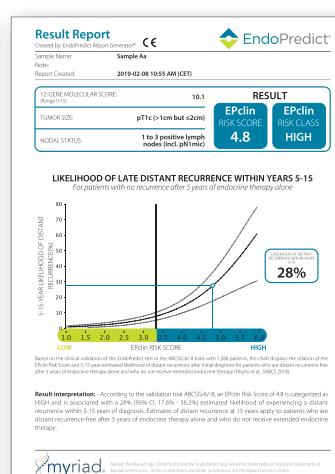
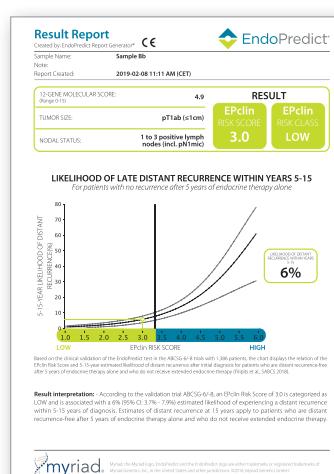


EndoPredict result report third page (low and high risk)

## Can the extension of endocrine therapy be avoided?

The third graph on the report illustrates your patient's risk of recurrence within years 5-15 after diagnosis.\*

This information guides treatment decisions regarding endocrine therapy beyond 5 years.



EndoPredict result report fourth page (low and high risk)

\*5-15 year risk is based on treatment with 5 years of ET only – no chemo. The result assumes the patient has not recurred by 5 years.

# Independently Validated for Robust Prognostic Results

	Trial	# of patients	Breast cancer sub-type	Nodal Status	Treatment	10-year distant metastasis rate in low-risk group
Training	Multicenter <sup>1</sup>	964	ER+/HER2-	N0, N+	E	7%
Validation I	ABCSG-6 <sup>1</sup>	378	ER+/HER2-	N0, N+	E	4%
Validation II	ABCSG-8 <sup>1</sup>	1,324	ER+/HER2-	N0, N+	E	4%
Validation III	GEICAM/9906 <sup>8</sup>	555	ER+/HER2-	N+	E + CT	0%
Validation IV	TransATAC <sup>5</sup>	928	ER+/HER2-	N0, N+	E	5.8%

EndoPredict training and validation studies

EndoPredict was developed using consistent criteria for patients during training and independent validation studies - ER+, HER2- patients, both node-negative (N0) and node-positive (N+). These "clean" cohorts are one reason for the test's stronger performance compared to tests that included HER2+ patients in their training cohorts. The score and the cutoff value is consistent in all studies and has never changed.

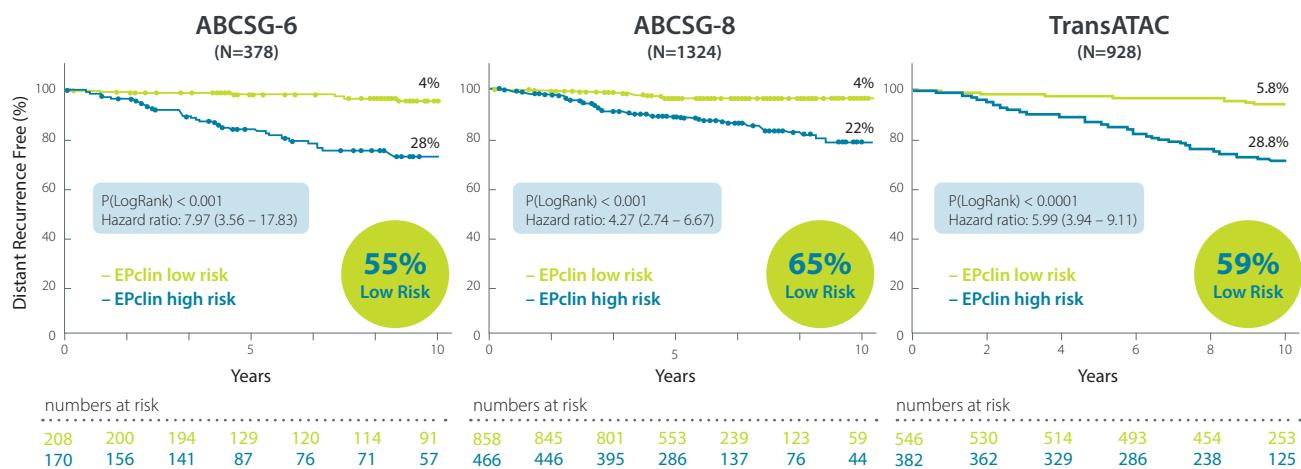
The patients in the ABCSG6, ABCSG8 and TransATAC studies were treated with endocrine therapy alone. The prognostic value of EndoPredict under chemotherapy was demonstrated by the GEICAM/9906 study. All patients received only 5 years of hormone therapy.

Consistently identifies a large low risk group with a recurrence risk of less than 10%

## Patients in training and validation studies

- Breast cancer subtype ER+, HER2-
- Nodal status N0 or N+
- Adjuvant treatment 5 years of endocrine therapy (not extended)

Validated in four prospective-retrospective studies<sup>1, 2, 3, 4, 5, 8</sup> providing level 1 evidence



Analysis of ER+, HER2-, N+ and N0 patients from ABCSG-6, ABCSG-8 and TransATAC<sup>1,5</sup>

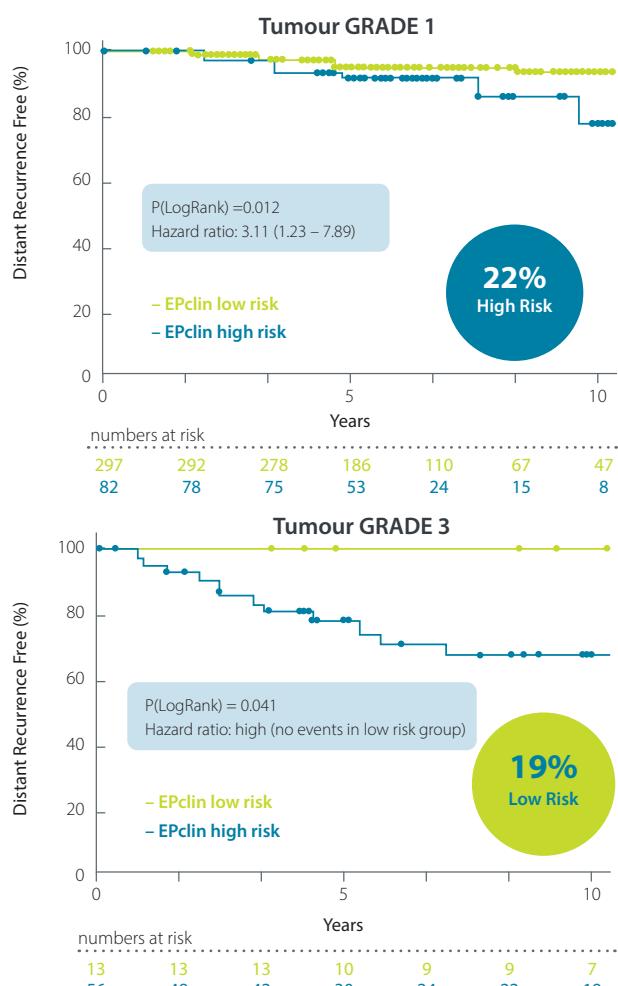
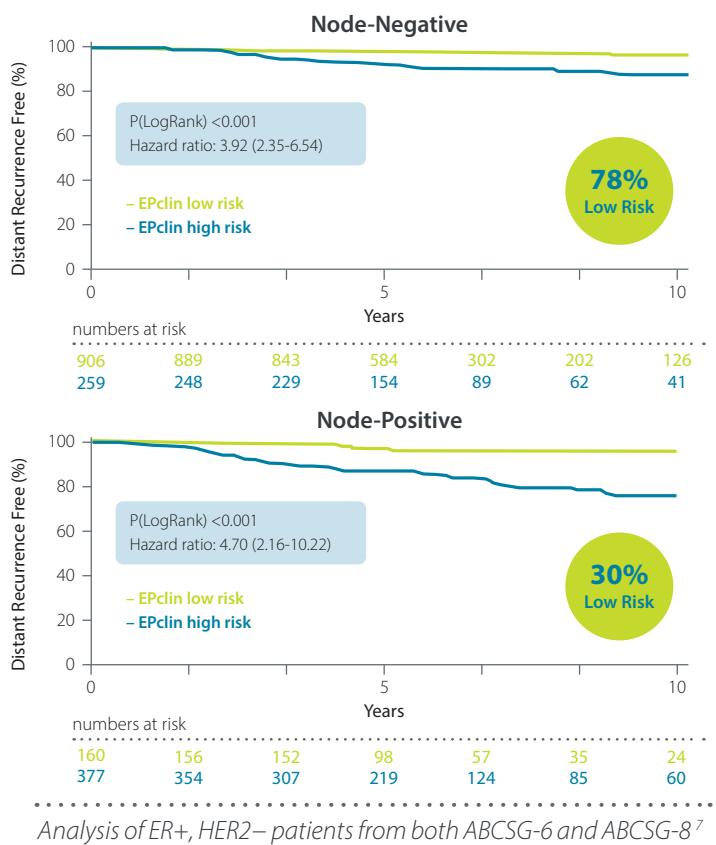
# Identifies Clear Risk Groups in Different Subgroups

EndoPredict supplies additional prognostic information to supplement common prognostic factors such as nodal status, tumour grade or Ki67. This has been demonstrated in four validation studies.

EndoPredict identifies a large percentage of low risk patients (average of 6% recurrence)<sup>1,3,5,6</sup>

- More than 70% of N0 patients
- Up to 30% of N+ patients

Risk assessment independent of nodal status



EndoPredict identifies high and low risk patients independent from tumour grade.<sup>4</sup>

- 22% high risk in grade 1 patients
- 60% low risk in grade 2 patients
- 19% low risk in grade 3 patients

Risk assessment independent of grading

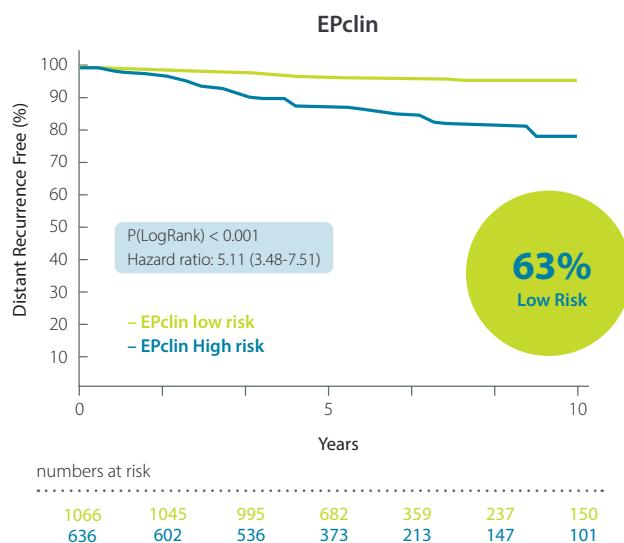
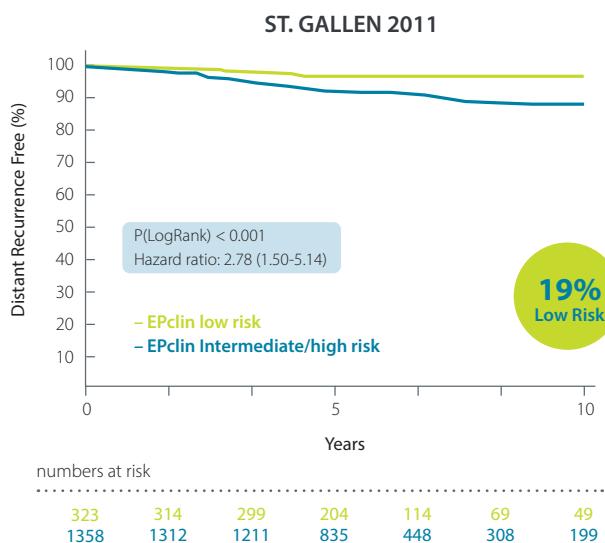
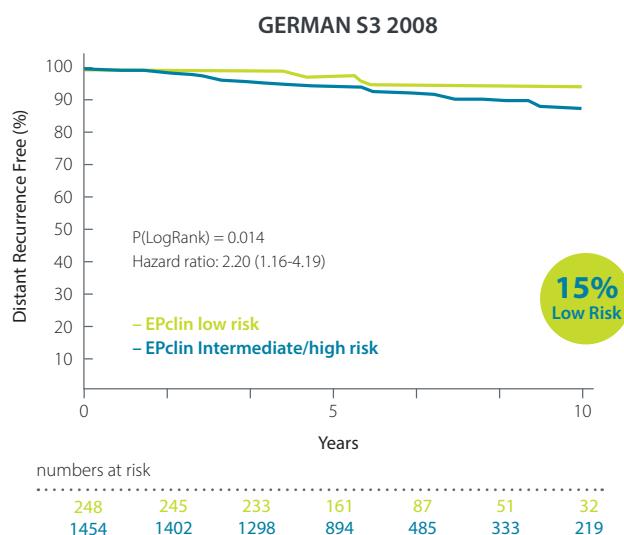
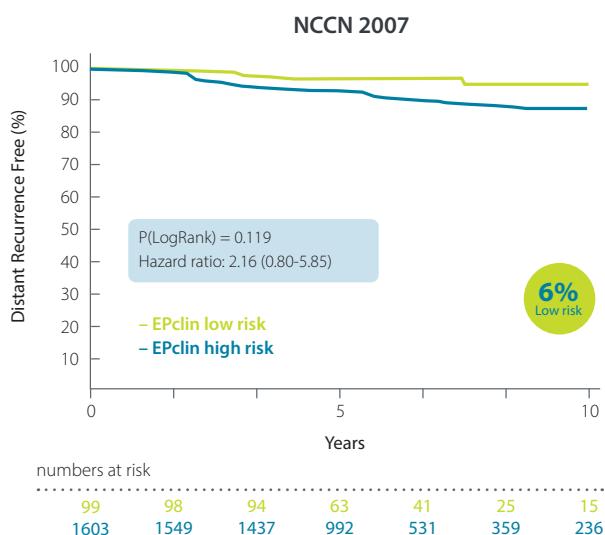
# Significantly increases the low risk group

More patients can safely forgo chemotherapy

Patients at low risk of recurrence do not always require chemotherapy.

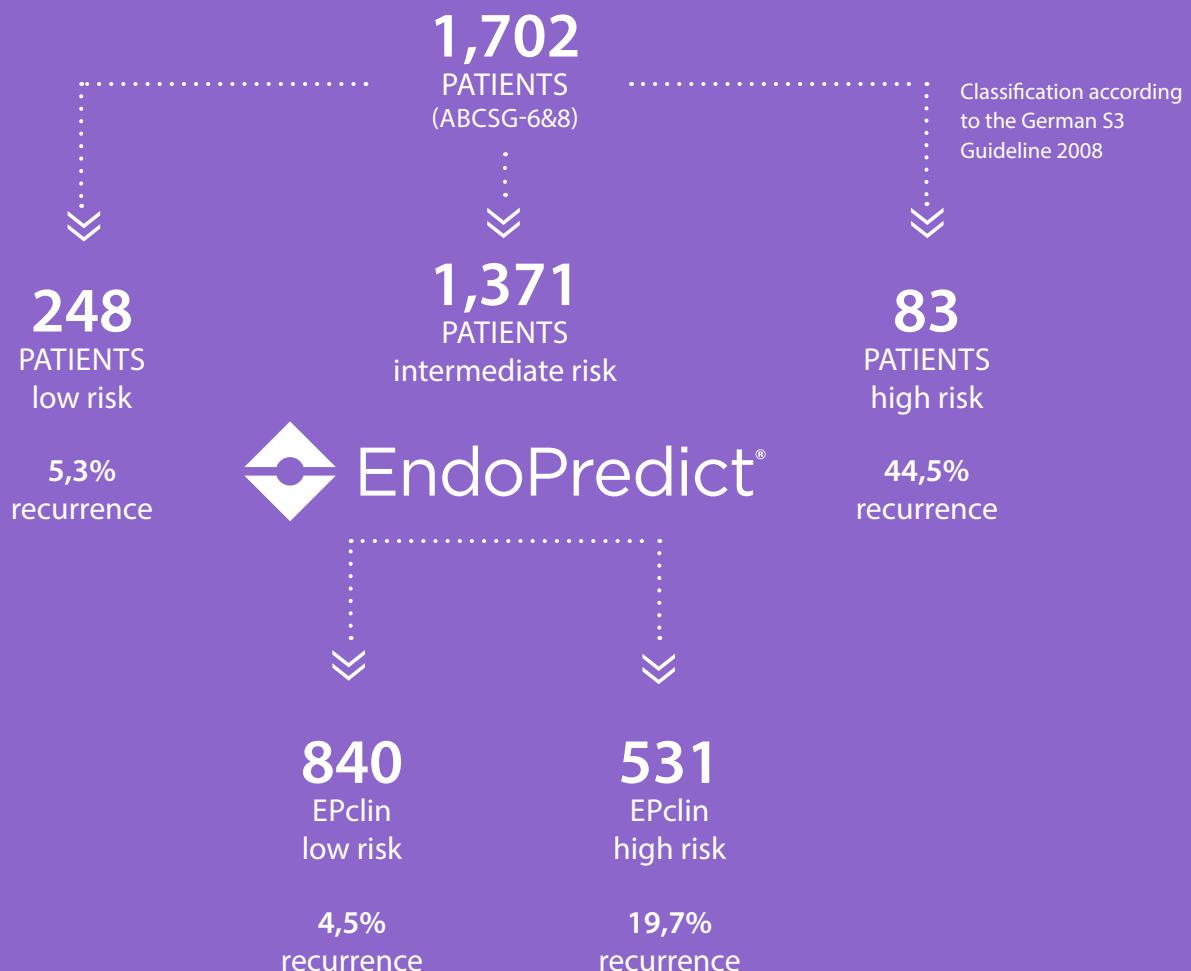
Based on previous guidelines that did not yet include gene expression tests, only a few patients could be clearly identified as low risk. Depending on the guideline used, only 6%-19% of patients were classified as low risk in the ABCSG-6&8 study cohorts.

With the additional information supplied by EndoPredict, 63% of patients were categorized as low risk. This means that – based on the EndoPredict test result – many more patients might optimally be treated without chemotherapy.<sup>4</sup>



Kaplan-Meier curve for recurrence free survival from (A) National Comprehensive Cancer Center Network (NCCN) guideline (2007), (B) German S3 Guidelines (2008), (C) St. Gallen Consensus (2011) and (D) EPclin risk groups.<sup>4</sup>

## Divides S3 Intermediate Risk Group in Low- and High-Risk<sup>4</sup>



A patient categorized as intermediate risk from the guidelines has an unclear treatment pathway. With EndoPredict, this intermediate risk group can be divided into a low-risk and a high-risk group.

The much larger EndoPredict low risk group shows a comparable risk of distant metastasis to the group defined as low risk by the guideline.<sup>4</sup>

The clear risk assessment for a period of more than ten years provides greater long-term therapeutic confidence for patients and physicians.

Current guidelines therefore recommend using gene expression analyses in unclear cases (NCCN, ASCO, AGO, ESMO, St. Gallen, EGTG and AJCC).

## Shows Absolute and Relative Benefit of Chemotherapy

EndoPredict predicts chemotherapy benefit in women with ER-positive, HER2-negative disease. Chemobenefit was validated in a large study with over 3,700 patients with ER+, HER2- breast cancer.<sup>2</sup> 2,630 patients were treated with 5 years of endocrine therapy alone and 1,116 patients were treated with endocrine plus chemotherapy with modern (taxane and/or anthracycline-containing) treatment regimens.

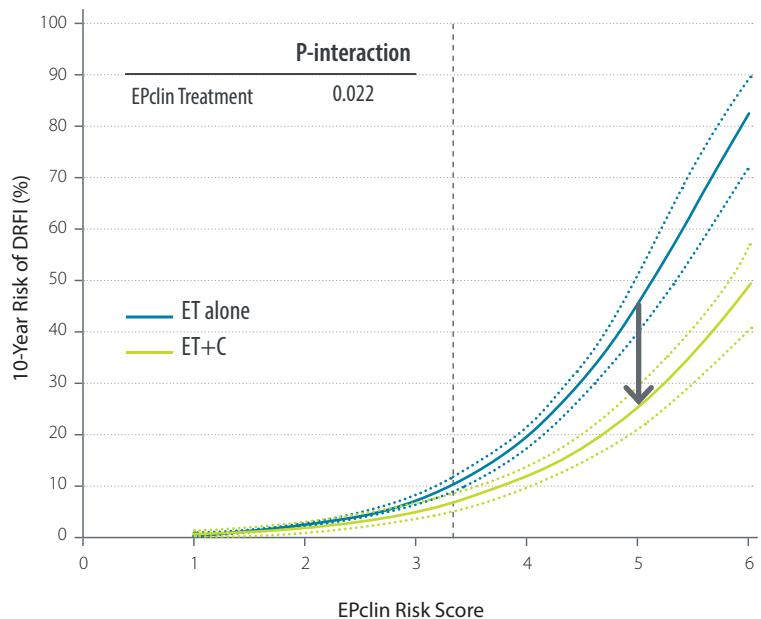
EPclin Risk Score	1	2	3	3.3	4	5	6
10 year risk for DRFI	1.0% (0.6-1.4)	2.8% (2.1-3.5)	7.6% (6.4-8.8)	10.2% (8.8-11.6)	19.8% (17.6-22.0)	46.1% (40.2-51.4)	82.2% (72.1-88.6)
	<b>ET alone</b>						→
	1.1% (0.5-1.7)	2.5% (1.5-3.5)	5.7% (4.1-7.2)	7.2% (5.4-8.9)	12.4% (10.1-14.6)	25.8% (22.0-29.5)	49.2% (40.5-56.7)
<b>Absolute benefit</b>	-0.1%	0.3%	1.9%	3.0%	7.4%	20.3%	33.0%
<b>Relative benefit</b>	-0.1	0.11	0.25	0.29	0.37	0.44	0.40

*Prediction of absolute and relative chemo benefit*

In patients with low EPclin Risk Scores, no differences in 10 year risks were observed between endocrine treatment alone and endocrine treatment plus chemotherapy.

Patients with a low risk EndoPredict result did not benefit from the addition of chemotherapy.

Patients with a high risk EndoPredict result had a stronger benefit from chemotherapy. This benefit was more than proportional.

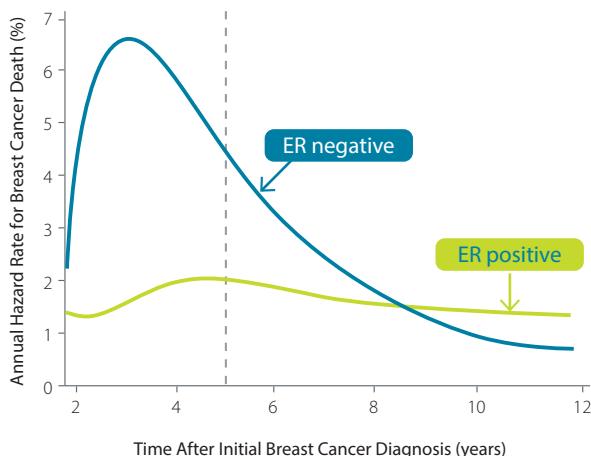


*10-year risks by EPclin Risk Score for endocrine treatment (ET) vs. endocrine treatment plus chemotherapy (ET+C)<sup>2</sup>*

*For an EPclin score of 5.0, women receiving ET alone had a 10-year DRFI risk of 46.1% compared to 25.8% for women who received ET+C.*

Personalised absolute chemotherapy benefit for confident treatment decisions

## Provides Recurrence Risk out to 15 years



Risk of breast cancer death after initial diagnosis<sup>9</sup>

EndoPredict is the only prognostic test that successfully predicts risk of early (0-10 years) and late (5-15 years) recurrence for patients with node-negative and node-positive disease.<sup>3</sup>

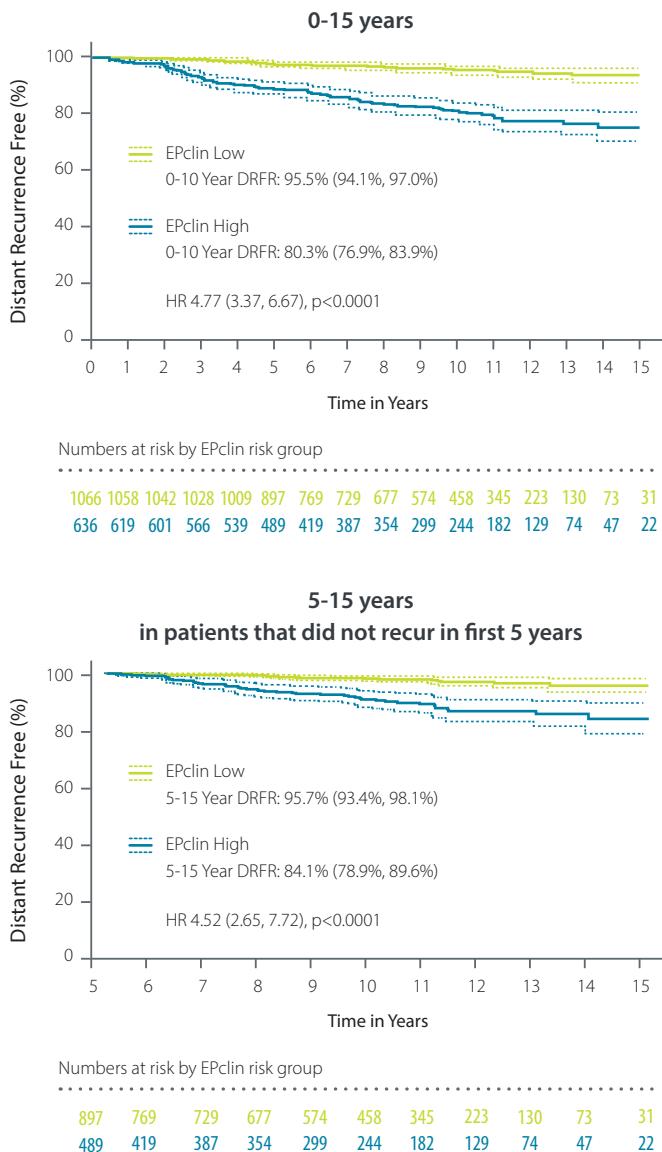
Late recurrence risk was validated in over 1,300 ER+, HER2- patients. Analyses were performed for the overall cohort, by nodal status, and for patients who were distant recurrence-free at year 5 (late recurrence).

EndoPredict low-risk patients had a consistent low risk of recurrence in years 0-10 and 5-15. The results for the late distant recurrence period (5-15 years) indicate that EPclin Risk Score is informative for selecting patients who may safely forgo extended endocrine therapy.

Guides treatment decisions regarding extended endocrine therapy

After 5 years of endocrine therapy, breast cancer recurrences in ER+ tumours continue to occur steadily up to 20 years after diagnosis. Of those patients with ER+ breast cancer who experience recurrent disease, more than 50% occur after 5 years.<sup>9,10</sup>

Therefore assessment of risk out to 10 or 15 years is important to identify the subgroup of patients who may benefit from extended endocrine therapy beyond 5 years.

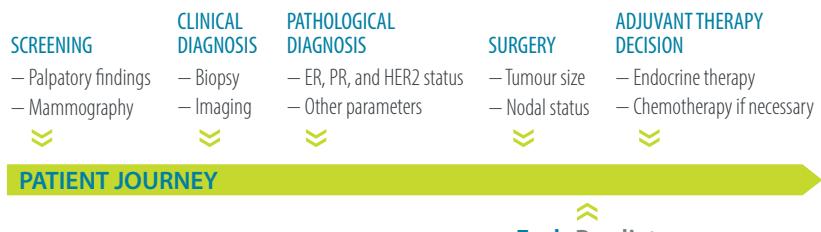


Kaplan-Meier curves of estimated DRFR<sup>3</sup>

# Fast and Reliable

EndoPredict is performed on FFPE tumour tissue from biopsy<sup>11</sup> or surgical specimens<sup>13</sup> from patients who have not received systemic endocrine therapy and/or chemotherapy.

Once the sample has been sent to the laboratory, results are usually available within 1 week.



## EndoPredict

When performed on a surgical sample, the 12-gene molecular score and the **EPclin Risk Score** are provided in the test report.

If **EndoPredict** is performed on a biopsy specimen, information on surgical tumour size and nodal status can be added after surgery to calculate **EPclin Risk Score**, if the patient was not treated with systemic therapy before the surgery.

.....  
*Use of EndoPredict during clinical course*

## Results within 1 week for fast therapy decisions

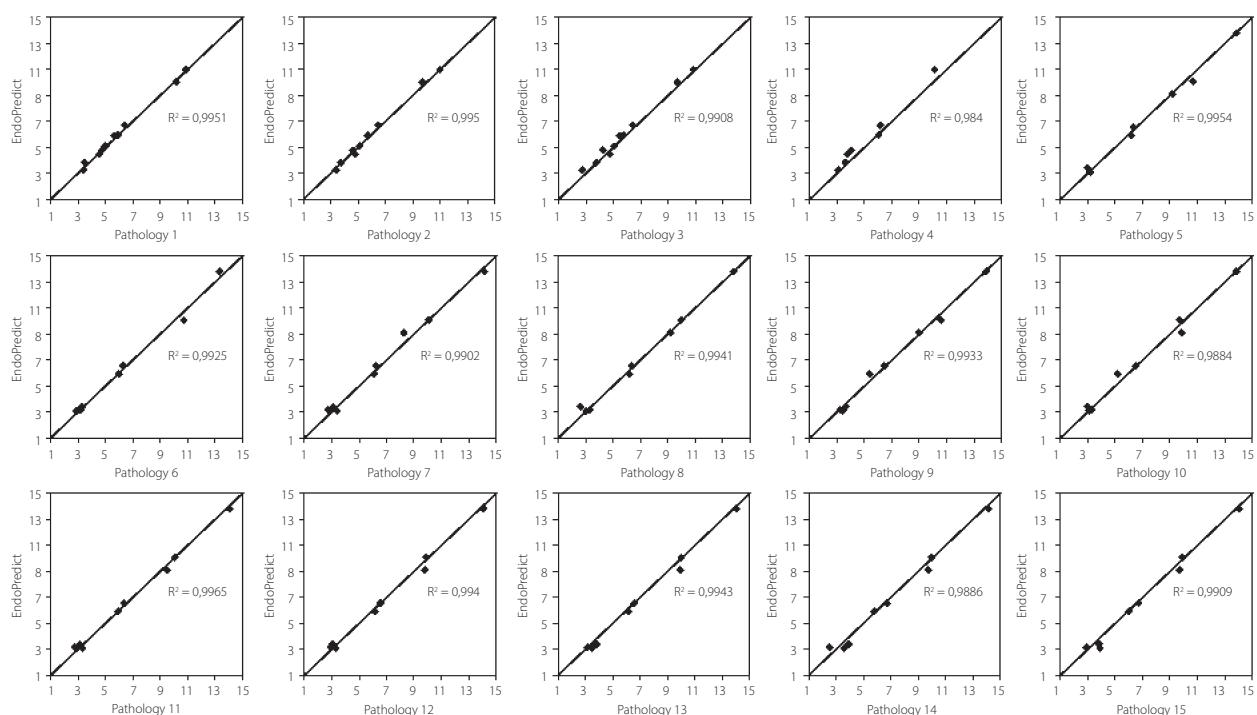
An EndoPredict assay takes less than 8 hours in the normal operation of a molecular pathology laboratory. Only a small section of the tumour block (10 $\mu$ m) is required. The tumour content of the tissue sample must be at least 30%. The subsequent RNA extraction is followed by reverse transcription (transcription of RNA into the corresponding cDNA sequence) and quantitative PCR. The gene expression values of all the relevant genes are determined, and the 12-Gene Molecular Score is calculated.

Analysis and quality assurance remain in the hands of the local pathologists.

EndoPredict consistently delivers the same quality of results, regardless of the pathological institute conducting the assay, as has been demonstrated in round-robin testing.<sup>12,13</sup>

Implementing this procedure at a new site requires 2 days of installation and qualification.

This process guarantees the consistent reliability of the EndoPredict result, regardless of the laboratory conducting the assay.



.....  
*Consistent results and correlations achieved in 15 sites with local implementation*

## Proven in Practice

Decision impact studies conducted at different centers documented how EndoPredict results affect the treatment decision in clinical practice.<sup>14, 15, 16, 17, 18</sup>

The treatment plan of each participating patient was discussed before and after release of the EndoPredict result. In the first three mentioned studies in 25.4%, 28.4% and 38% of cases, the treatment decision in favor of chemotherapy was reversed, and the patient was advised to receive endocrine therapy alone. In 12.3%, 7.5% and 5% of cases, chemotherapy was recommended to avoid undertreatment.

Changes in therapy aligned with test result.

Leads to substantial  
change in  
chemotherapy  
decision

Country	Germany	France	Germany	UK	Mexico
Institution	Charité Berlin	Centre Jean Perrin Clermont-Ferrand	Technical University Munich	University of Sussex Brighton	National Institute of Cancerology Monterrey
Publication/ Conference	PlosOne 2013	SABCS 2016	PlosOne 2017	Psycho Oncology 2018	SABCS 2018
First author	Mueller et al. <sup>14</sup>	Penault-Llorca et al. <sup>15</sup>	Ettl et al. <sup>16</sup>	Fallowfield et al. <sup>17</sup>	Villarreal-Garza al. <sup>18</sup>
# patients	167	201	395	149	91
EPclin low risk	46%	67%	63%	50%	46%
EPclin high risk	54%	33%	37%	50%	54%
N0	62%	91%	77%	67%	72%
N+	38%	9%	23%	33%	28%
Change of therapy recommendation	<b>37.7%</b>	<b>35.8%</b>	<b>43.0%</b>	<b>36.9%</b>	<b>17.0%</b>
Net change CT	<b>-13.1%</b>	<b>-20.9%</b>	<b>-33.0%</b>	<b>+0.7%</b>	<b>-10.53%</b>

.....  
Decision Impact Studies with EndoPredict

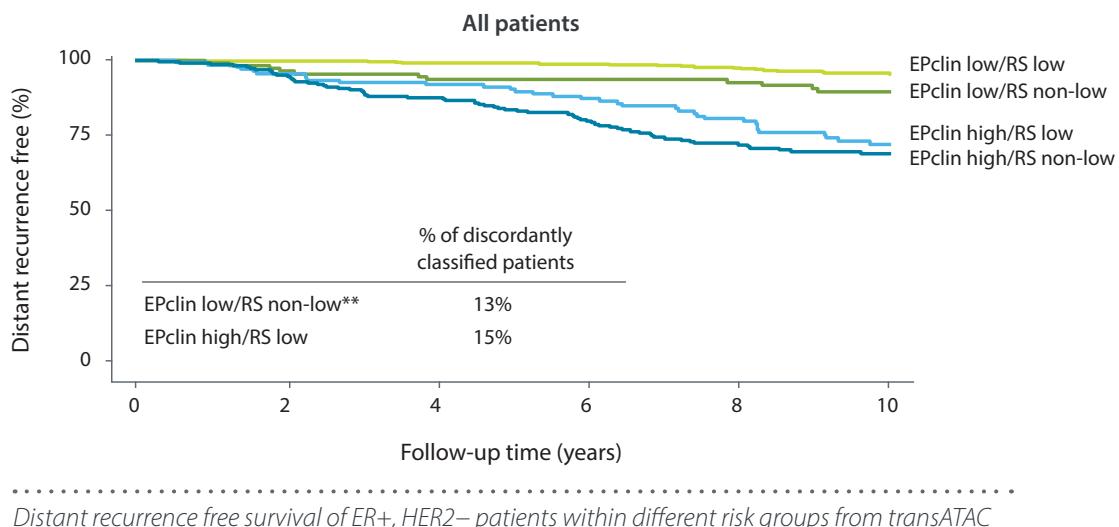
## Low Risk Results you can Trust

Decisions on the use of adjuvant chemotherapy in ER+, HER2- primary breast cancer are guided by the risk of distant recurrence.

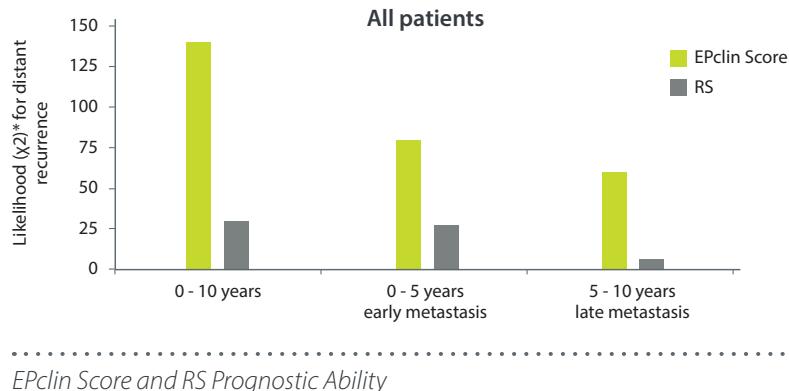
EndoPredict and Oncotype DX® are prognostic gene expression tests used for estimating distant recurrence risk. EndoPredict provides prognostic information from a molecular signature combined with tumour size and nodal status (EPclin Risk Score). Oncotype DX provides prognostic information from a molecular signature only (Recurrence Score RS).

In the TransATAC study the prognostic abilities of EPclin Risk Score and RS were compared directly. A total of 928 patients treated with 5 years endocrine therapy only were included. The primary endpoint was 10 year distant recurrence free survival.<sup>5</sup>

The classification by EndoPredict aligns more closely with the patient outcomes



EndoPredict demonstrates superior prognostic performance independent from cutoff values

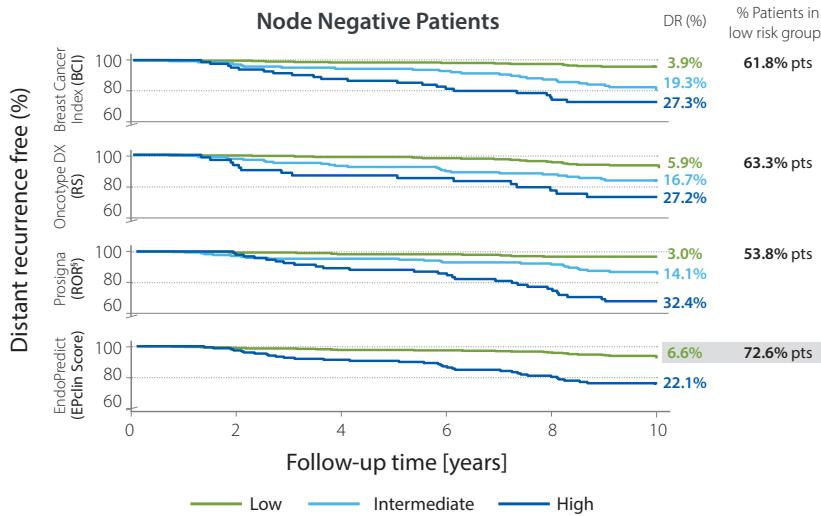


\*The  $\chi^2$ -value is a standard statistic for prognostic power that is used to compare prognostic accuracy of different tests. The greater the  $\chi^2$ -value, the better is the prognostic power of a test. The  $\chi^2$ -value reflects the prognostic power of the continuous score independent from cutoff values.

\*\* RS non low = RS intermediate plus RS high.

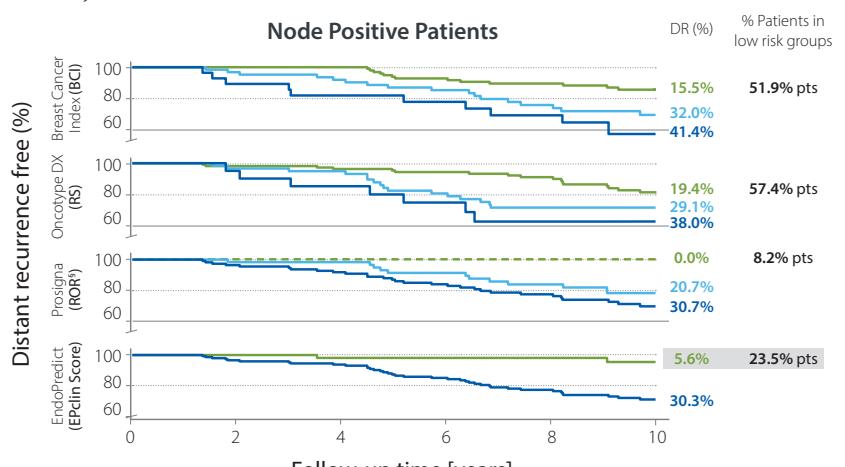
## Outperforms other Signatures

The TransATAC study also compared the performance of four commercially available prognostic signatures for breast cancer distant recurrence (DR) in years 0-10 and in years 5-10. A total of 774 patients treated with 5 years endocrine therapy only were included.<sup>6</sup>



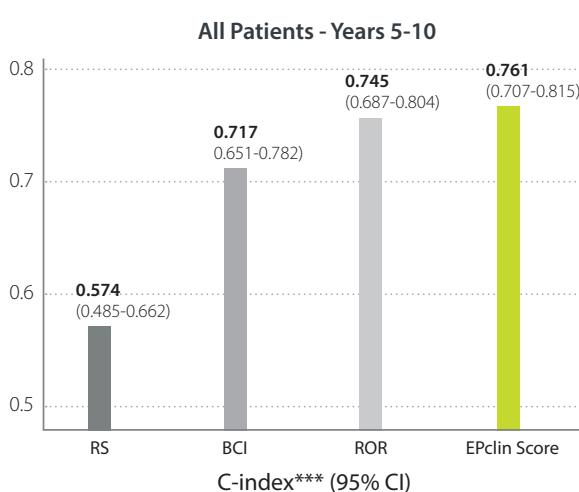
EndoPredict identified most node negative patients as low risk

Accuracy to Identify node negative low risk patients in years 0-10



EndoPredict identified most node positive patients with "true" low risk

Accuracy to Identify node positive low risk patients in years 0-10

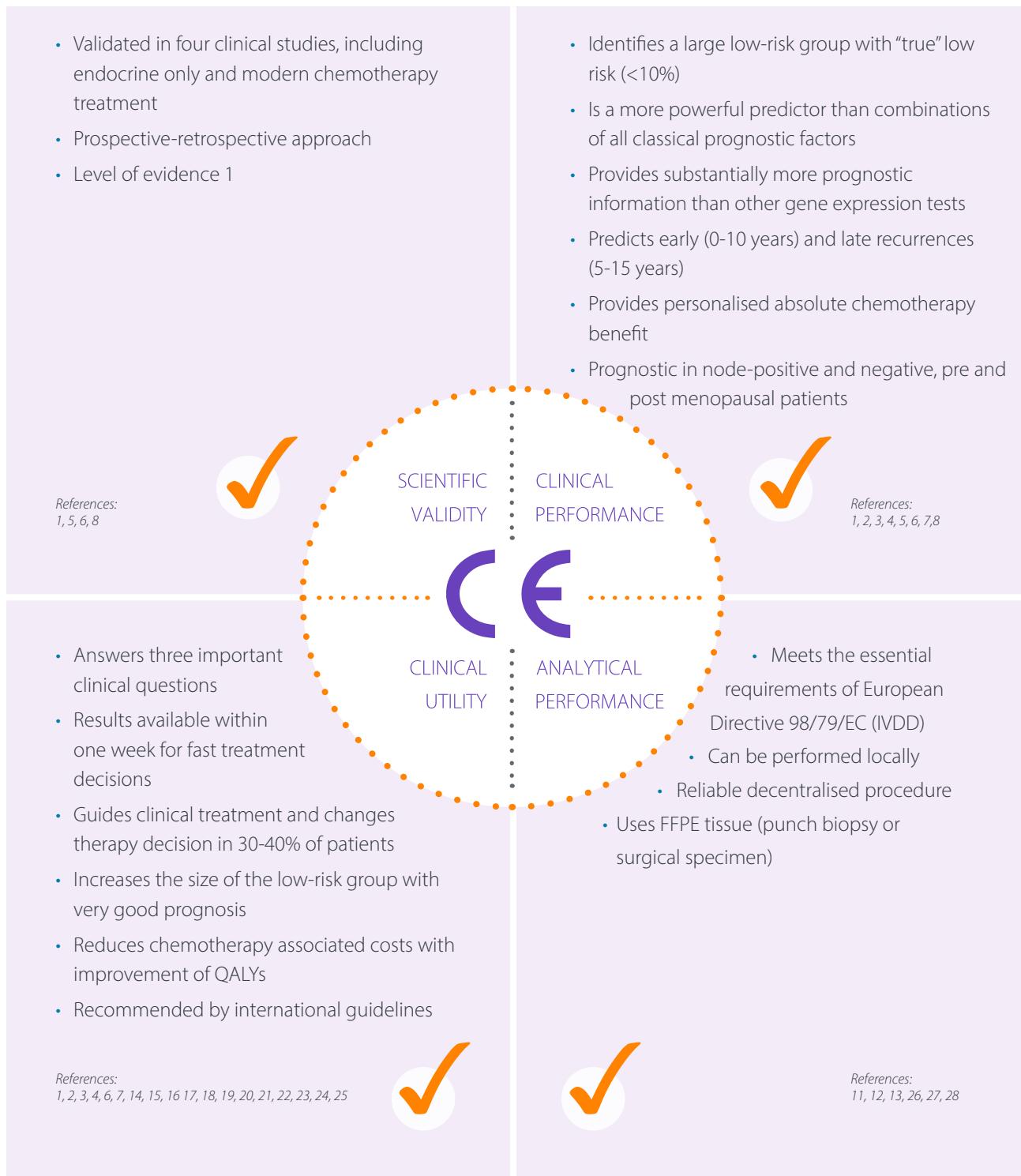


EndoPredict was the most prognostic signature independent from cutoff values

\*\*\*The C-index is a standard statistic for prognostic power that is used to compare prognostic accuracy of different tests. The greater the C-Index, the better is the prognostic power of a test. The C-Index reflects the prognostic power of the continuous score independent from cutoff values.

## CE Marked as *in vitro* Diagnostic

EndoPredict meets the European regulatory requirements for safety, scientific validity, and clinical benefit. It can be used to improve the quality and safety of treatment of breast cancer patients in different disease stages.



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# Our Expert Pathologist

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Associate Professor Mirette Saad is an RCPA Consultant Chemical Pathologist and the National Director of Molecular Genetics at Australian Clinical Labs. She obtained a PhD in Molecular Genetics from Melbourne University and Peter MacCallum Cancer Institute. A/P Saad chairs the RCPA Chemical Pathology Advisory Committee and is a member of the AACB and RCPA Genetic Advisory Committee.

## Ordering EndoPredict with Clinical Labs

### How to order

Please download the EndoPredict request form, which can be found at [clinicallabs.com.au/endopredict](http://clinicallabs.com.au/endopredict). Fill in patient details and clinical history, and select “EndoPredict”. Ensure that referring clinician details are complete, and if known, provide specimen details. If you would like a copy of the report to be sent to another clinician, please provide the necessary details.

### Specimens required

EndoPredict is performed on FFPE tumour tissue from biopsy or surgical specimens.

### Turnaround time

4–5 business days from the sample receipt date.

### Test cost

A partial Medicare rebate is available under item number **73306**.

Patients are required to pay for EndoPredict prior to our laboratory conducting the test. Clinical Labs will contact your patient via SMS or phone call with payment instructions—please advise them to expect this communication in the days following the test request.

After making the payment online, Clinical Labs will send your patient a receipt, which they can use to claim the partial Medicare rebate directly from Medicare.

For current pricing and further information, please visit [clinicallabs.com.au/endopredict](http://clinicallabs.com.au/endopredict)

### Medicare Eligibility Criteria

Gene expression profiling testing using EndoPredict, for the purpose of profiling gene expression in formalin-fixed, paraffin-embedded primary breast cancer tissue from core needle biopsy or surgical tumour sample to estimate the risk of distant recurrence of breast cancer within 10 years, if:

- (a) the sample is from a new primary breast cancer, which is suitable for adjuvant chemotherapy; and
- (b) the sample has been determined to be oestrogen receptor positive and HER2 negative by IHC and ISH respectively on surgically removed tumour; and
- (c) the sample is axillary node negative or positive (up to 3 nodes) with a tumour size of at least 1 cm and no more than 5 cm determined by histopathology on surgically removed tumour; and
- (d) the sample has no evidence of distal metastasis; and
- (e) pre-testing of intermediate risk of distant metastases has shown that the tumour is defined by at least one of the following characteristics: (i) histopathological grade 2 or 3; (ii) one to 3 lymph nodes involved in metastatic disease (including micrometastases but not isolated tumour cells); and
- (f) the service is not administered for the purpose of altering treatment decisions

Applicable once per new primary breast cancer diagnosis for any particular patient