

MammaPrint® and Blueprint® Summary

Patient Name: Last, First

Age: 75 DOB: 01-Jan-1950 Specimen ID: SID-124856789XX

MRN: MRN-123456789XX



CLINICAL INFORMATION

Receptor Status: ER+ / PR+ / HER2-

Tumor Grade: 1

Specimen Type: FFPE, Needle Core

Nodal Status: Positive

Tumor Size: 2.8 cm

Age: >50 years

Clinical characteristics were determined using information that was provided at the time of test request from:
Test Pathology Lab, 999 Broadway Ave, Irvine, CA 92618

GENOMIC TESTING RESULTS

MammaPrint
Risk Group

High Risk 2

MammaPrint
Index

-0.800

Blueprint Molecular
Subtype

Basal

Patient MPI: **-0.800**



CLINICAL IMPLICATIONS

Neoadjuvant Chemotherapy Planning

Probability of pCR with
Neoadjuvant Chemotherapy

≥34%

NBRST^A

Adjuvant Chemotherapy Planning

Expected Chemotherapy
Benefit

Yes

MINDACT^D

5-Year Distant Risk of Recurrence
High Risk 2

With ET alone

19%

(15%-25%)*

With ET & CT

8%

(7%-11%)*

Absolute Chemotherapy Benefit

11%

(8%-14%)*

FLEX^B

Adjuvant Endocrine Therapy Planning

Standard Endocrine
Therapy Benefit

Yes

STO-3^C

Absolute Benefit from Extended
Endocrine Therapy

No

NSABP B-42^E

CT: Chemotherapy
ET: Endocrine Therapy (TAM or AI)
MPI: MammaPrint Index
pCR: Pathologic Complete Response

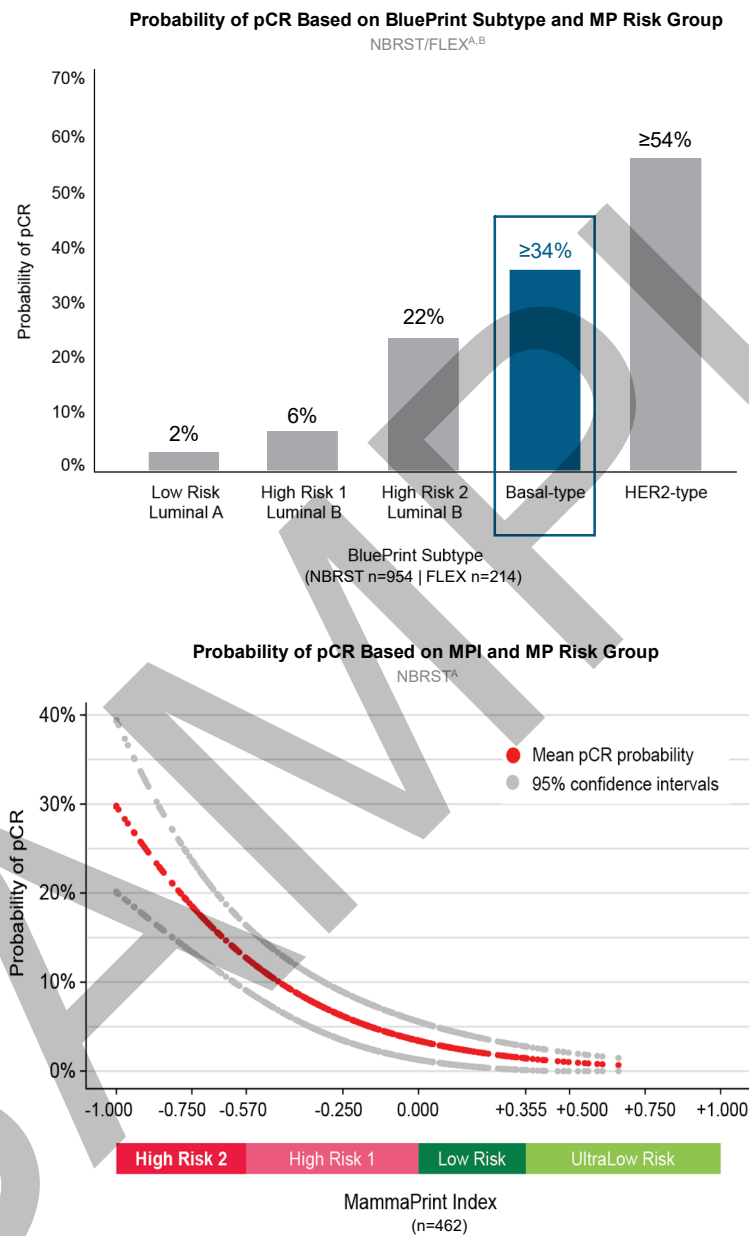
*Indicates lower and upper bound observed within the MammaPrint Risk Group

Note: This summary is provided for general informational purposes. It is not part of any official diagnostic report. Please refer to individual MammaPrint and Blueprint reports for comments, assay information, and references. Expected chemotherapy benefit is based on administration of therapy within standard guidelines and timeframe.

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FFPXX-XXXXXX

NEOADJUVANT CHEMOTHERAPY PLANNING DATA*



* Clinical implications are based on observed outcomes from clinical research studies depicted above and further referenced on page 4. Results should be taken in the context of all other relevant clinico-pathological factors and standard practice of medicine.

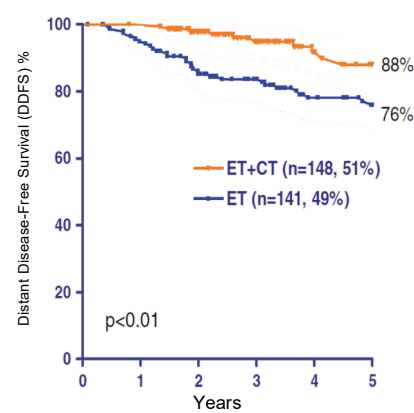
MP: MammaPrint | MPI: MammaPrint Index | pCR: Pathologic Complete Response

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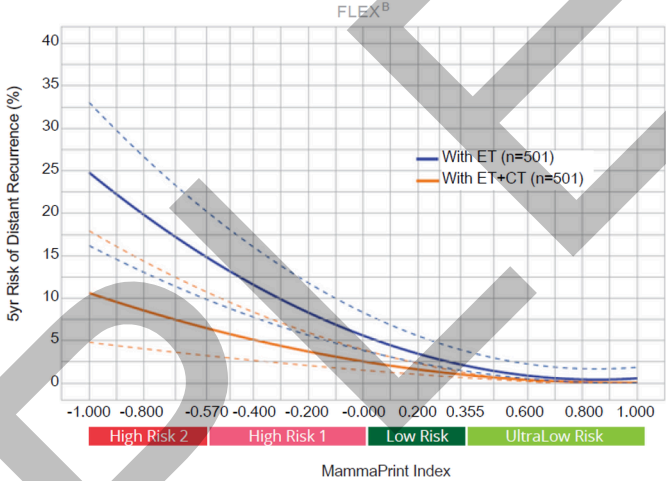
ADJUVANT CHEMOTHERAPY PLANNING DATA*

5-Year DDFS in MP High Risk Patients with and without CT
Knauer^F



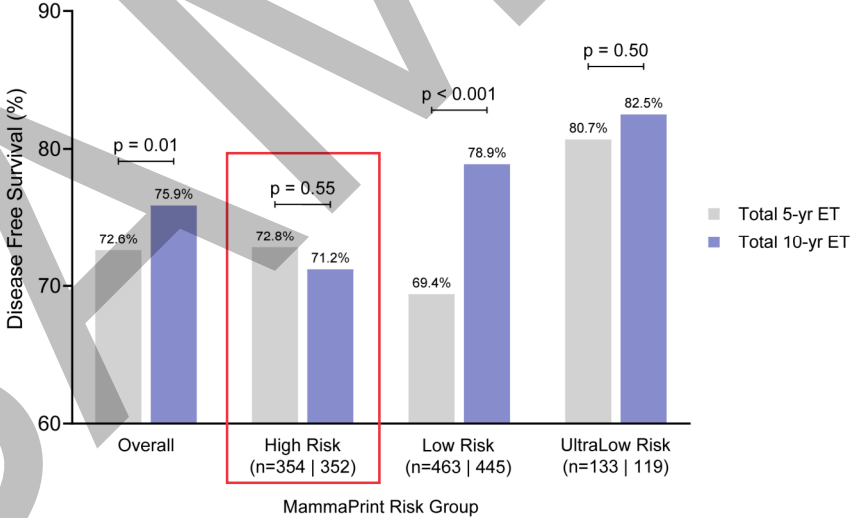
Predicted benefit of chemotherapy included both clinically high risk and clinically low risk patients at 5 years

5-Year Recurrence Risk (%) by MammaPrint Index with and without CT
FLEX^B



ADJUVANT ENDOCRINE THERAPY PLANNING DATA*

Years 5-15 Post-Diagnosis Disease Free Survival (DFS)
NSABP B-42^E



*Clinical implications are based on observed outcomes from clinical research studies depicted above and further referenced on page 4. Data supporting adjuvant endocrine therapy planning were generated from studies composed of predominantly HR+, post-menopausal women (>50 years old). Menopausal status at 5 years post-diagnosis can be used to determine the application of data for adjuvant endocrine therapy planning. Results should be taken in the context of all other relevant clinico-pathological factors and standard practice of medicine.

CT: Chemotherapy | DFS: Disease-Free Survival | ET: Endocrine Therapy | MP: MammaPrint

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PATIENT AND ORDERING INFORMATION

PATIENT	PHYSICIAN	SPECIMEN
Patient Name: Last, First	Ordering Physician: Doe, Jane	Specimen ID: SID-124856789XX
Date of Birth: 01-Jan-1950	Customer Reference #: CREFXXXXXX	Specimen Type: FFPE, Needle Core
Age: 75	Account: ABC Oncology	Specimen Source: Right Breast
MRN: MRN-123456789XX	Address: 123 ABC Oncology Way	Collection Date: 15-Dec-2024
Sex: Female	City, State 12345	Performed Date: 20-Dec-2024
		Reported Date: 08-Jan-2025

CLINICAL STUDY AND TRIAL REFERENCES

- A. NBRST:** A prospective study that included 1,069 patients with histologically proven early stage breast cancer (ESBC), aged 18–90 years, who were scheduled to receive neoadjuvant therapy. Patients were enrolled from 40 US institutions and received both MammaPrint and Blueprint genomic testing. Treatment was at the discretion of the physician adhering to NCCN-approved or other peer-reviewed, established regimens. Intrinsic preoperative chemosensitivity and long-term outcomes were precisely determined by MammaPrint and Blueprint regardless of patient age, supporting the utility of these assays to inform treatment and surgical decisions in ESBC.¹⁻⁴
- B. FLEX (NCT03053193):** An ongoing prospective, observational trial that has enrolled >17,000 patients with ESBC who were tested with MammaPrint as standard of care, with or without Blueprint, and consented to clinically annotated full transcriptome data collection (data locked August 2024).⁵⁻⁷
- C. STO-3:** The Stockholm tamoxifen trial included 1,780 lymph node-negative, hormone receptor-positive, post-menopausal patients with tumors smaller than or equal to 3 cm in diameter, randomized to 2 (65%) to 5 (35%) years of adjuvant tamoxifen vs no adjuvant treatment. MammaPrint was retrospectively assessed on a translational cohort of 652 patients; 313 had received tamoxifen (2–5 years) and 339 had not received adjuvant systemic therapy.^{8,9}
- D. MINDACT:** A phase 3, prospective, randomized clinical trial that enrolled 6,693 patients at 112 academic and community hospitals in 9 European countries. Patients were eligible to enroll if they were women aged 18–70 years with histologically confirmed unilateral primary non-metastatic (M0) invasive breast cancer (clinical stage T1 or T2 or operable T3) with 0–3 positive axillary lymph nodes. For hormone-positive women ≤ 50 years, there was a 2.6% benefit in 5-year distant metastasis free survival for women who received chemotherapy (CT) vs those that received endocrine therapy (ET) alone. Although this difference is possibly due to CT-induced ovarian function suppression, it should be part of informed, shared decision making.^{10,11}
- E. NSABP B-42:** An adjuvant extended endocrine therapy (EET) trial which included 3,966 post-menopausal women with stage I–IIIA hormone receptor-positive breast cancer, who were disease-free after 5 years of ET. Patients were randomized to receive either an additional 5 years of letrozole (EET) or placebo. MammaPrint was retrospectively analyzed on a translational cohort of 1,866 patients; 916 patients received EET and 950 patients received placebo.¹²
- F. Knauer:** A retrospective study that included 541 patients with stage pT1–3, N0–1 invasive breast cancer with known adjuvant treatment status. 252 (47%) and 289 (53%) were classified as MammaPrint Low Risk and High Risk, respectively. A 12% absolute reduction in recurrence risk (50% relative risk reduction) was observed in 5-year distant disease-free survival among MammaPrint High Risk patients who were treated with ET and CT versus those who were treated with ET alone, which was statistically significant.¹³

References:

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- Whitworth P et al. *JCO Precis Oncol*. 2022 Apr;6(1):e2100463.
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- Rastogi P et al. *J Clin Oncol*. 2024;00:1-9.
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