# CanAssist Breast: Does It Solve The Unmet Need Of 'Prognostication' In Asian Er+/Her2- Early Breast Cancer Patients?

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13th Asia-Pacific Breast Cancer Summit™
Reaching New Heights in Breast Cancer Care

OncoStem
CanAssist Breast
predicts risk of recurrence

## Abstract

**Objective:** Asian breast cancer patients are often diagnosed at a younger age, with high Ki67, node positive tumors, with lower ER expression than the Western counterparts. Data on prognostication of Asian ER+/HER2- early stage breast cancer (EBC) patients is limited, intriguing and remains an unmet need. CanAssist Breast (CAB) - an immunohistochemistry and artificial intelligence based prognostic test was developed on Indian patient's tumors and validated in retrospective global studies in India, US, Spain, Germany, Austria, Italy, The Netherlands. CAB uses CD44, ABCC11, ABCC4, two cadherins as biomarkers plus 3 clinical parameters to segregate patients as low-risk (LR) or high risk (HR) for distant recurrence. CAB is in clinical use in South East Asia, UAE, Turkey, Iran for last 8 years. Here we showcase the usefulness of CAB in prognosticating Asian patients.

**Methods:** We analysed retrospective and prospective CAB user data over last ~8 years. Specifically, how does CAB help to segregate the slightly "clinically high" risk patients.

**Results**: CAB based prognostication is statistically significant in various subgroups tested. CAB identified 87% patients <48 years treated with ET as LR with 94% DMFS. In (0-3)node+ patients CAB segregated ~55% patients as LR treated with ET with 91% DMFS. In Low ER (1-20%) expressing patients CAB segregated 65% as LR with 91% DRFI and 35% CAB HR patients with much lower DRFI can benefit from additional therapies. . In the intermediate Ki67 patients CAB segregated 73% as CAB LR with 94% DMFS. Prospectively, CAB has been used on 7000+ patients, over segregation across different histological subtypes in 72:28% (LR:HR). We observed overall treatment adherence to CAB risk category is at 92%.

**Conclusion:** CAB represents tumor biology of Asian patients with slightly aggressive features well and coupled with world-wide validation it presents as an accurate alternative for patients in Asia, Africa and Middle East (ME).

## What Makes CanAssist Breast Test Unique?

- CanAssist Breast is India's first AI-driven immunohistochemistry test, providing crucial insights into breast cancer recurrence risk. By analyzing key tumor biomarkers, CAB helps oncologists assess whether a patient is at "low-risk" or "high-risk" for recurrence, guiding treatment decisions, including the need for chemotherapy.
- CAB has been in use for last 8 years in India and select countries internationally.

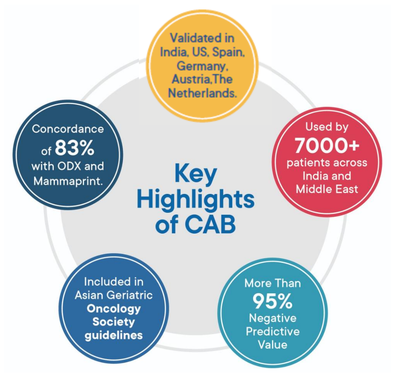



**Figure 1: Key highlights of CanAssist Breast Test (CAB)**

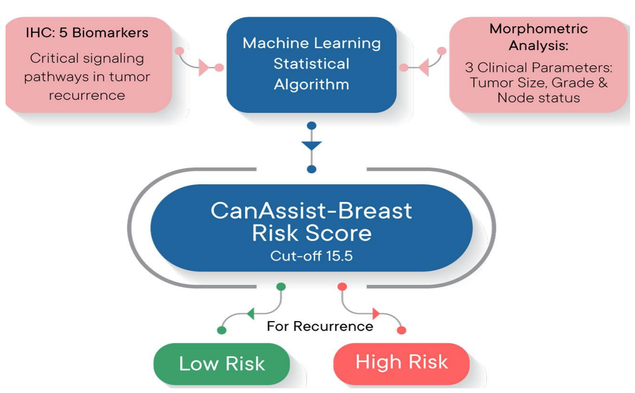



**Figure 2: CanAssist Breast Test (CAB) risk prediction.**

## Results

**Table 1: Distribution and CAB risk stratifications of patient demographics**

| Parameters | Clinical subgroups | % | CAB Low risk (%) | CAB High risk (%) |
|---|---|---|---|---|
| | **Total (n=7075)** | 100 | 72% | 28% |
| **Gender** | **Female** | 99 | 72% | 28% |
| | **Male** | 1 | 70% | 30% |
| **Age at diagnosis ( years)** | **≤ 48 yrs** | 22 | 75% | 25% |
| | **> 48 yrs** | 78 | 71% | 29% |
| | **Median age (years)** | 58 | | |
| **Tumor size ( cm)** | **0-2 cm** | 34 | 83% | 17% |
| | **> 2 cm** | 66 | 66% | 34% |
| | **Median T size (cm)** | 2.5 | | |
| **Node status** | **Node negative (N0)** | 81 | 78% | 22% |
| | **Node positive ( N+)** | 19 | 41% | 59% |
| **Histological grade** | **G1** | 16 | 93% | 7% |
| | **G2** | 65 | 80% | 20% |
| | **G3** | 19 | 25% | 75% |
| **Ki67** | **< 5%** | 8 | 81% | 19% |
| | **6-29%** | 63 | 76% | 24% |
| | **> 30%** | 29 | 60% | 40% |

**Figure 3: CAB based risk stratification in entire validation cohort**

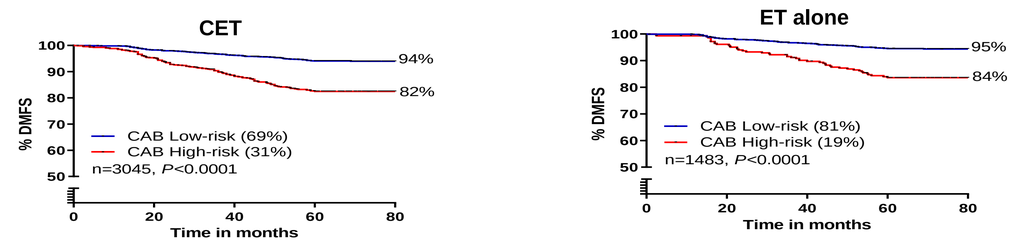



**Figure 4: Chemotherapy benefit in CAB High Risk patients**

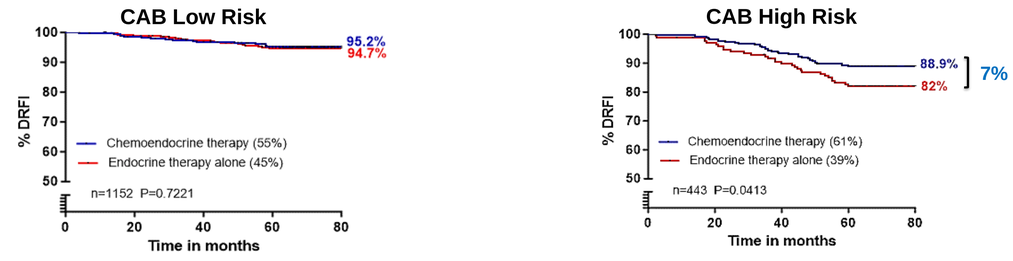



**Figure 5: CAB stratification in young patients aged 48 years or below.**

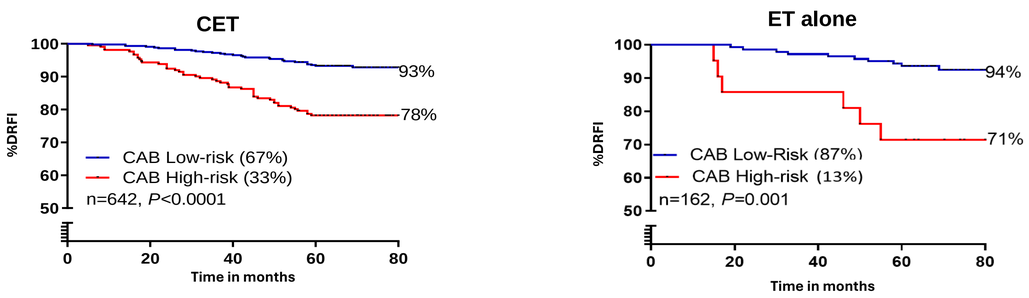



**Figure 6: CAB stratification of patients with lymph node-positive disease (N+)**

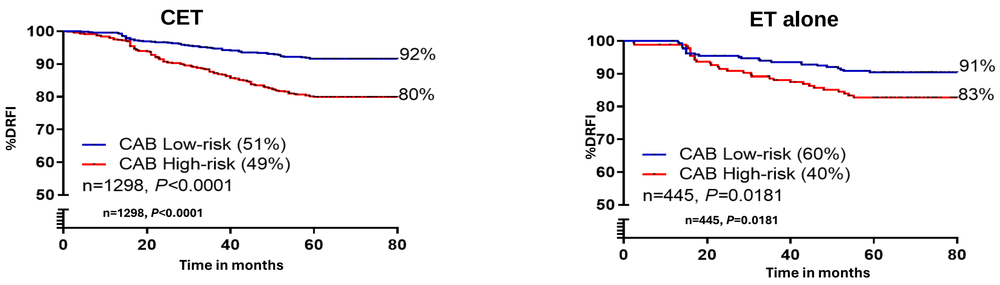



**Figure 7:Risk stratification of low ER (1-20%) and high ER (>20%) patients by CAB**

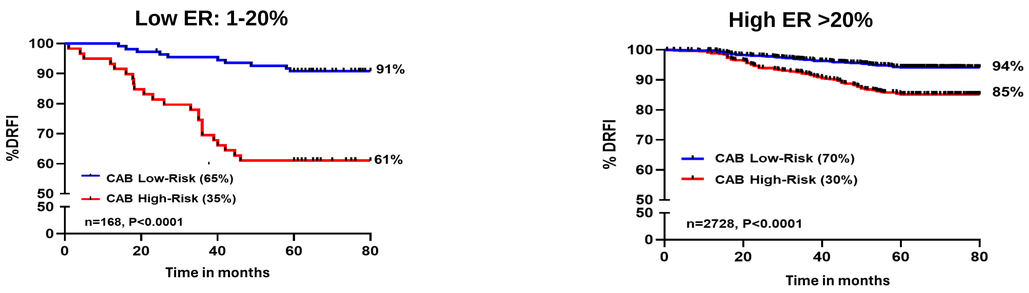
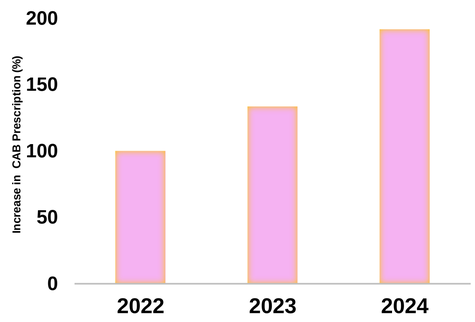



**Figure 8: Real world reach of CanAssist Breast**

**Global reach of CanAssist Breast**


**Increase in CAB prescriptions/adoption year on year**




**The Real World NPV of CanAssist Breast is 97.5%**

## Conclusions

- **CanAssist Breast (CAB)** is a pioneering prognostic test **developed and validated on Asian patients** and validated in **a global study in USA, Germany, Spain, The Netherlands, Austria, Italy and Turkey.**
- In **Asia, Africa & ME** incidence of breast cancer is often **early with T2 tumors, and 1 involved node. CAB meaningfully stratifies** these **young patients, T2 and node positive patients** showcasing usefulness of CAB in these patient populations.
- **CAB stratifies** tumors with **intermediate Ki67 (6-29%) in a decisive manner** thus helping with a treatment decision.
- **CAB** has been in **clinical use for past 8 years** and increase in prescriptions shows growing confidence of clinicians in CAB in **India, Sri Lanka, Bangladesh, Turkey, UAE and Iran.**
- **Real world NPV of CAB is >95%** showcasing its effectiveness and clinical utility.
- **CAB offers a cost- effective and suitable alternative** to western prognostic tests to patients in Asia, Africa and ME.

## References

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## Acknowledgment

Dr Deepti K S, Dr Naveen Krishnamoorthy, Dr Rahul Bhagat, Mr. Manjunatha G, Mr. Dinesh Babu P, Mr. Harishkumar N, Mrs. Prathima R from OncoStem Diagnostics, Bangalore for helping us with IHC experimentation, histopathological and data analysis, respectively.

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