



平成21年2月6日
第4回
多地点WEBカンファレンス



ST.GALLEN 2009

浜松オンコロジーセンター 腫瘍内科 渡辺 亨

CONSENSUS CONFERENCE

St. Gallen 2009

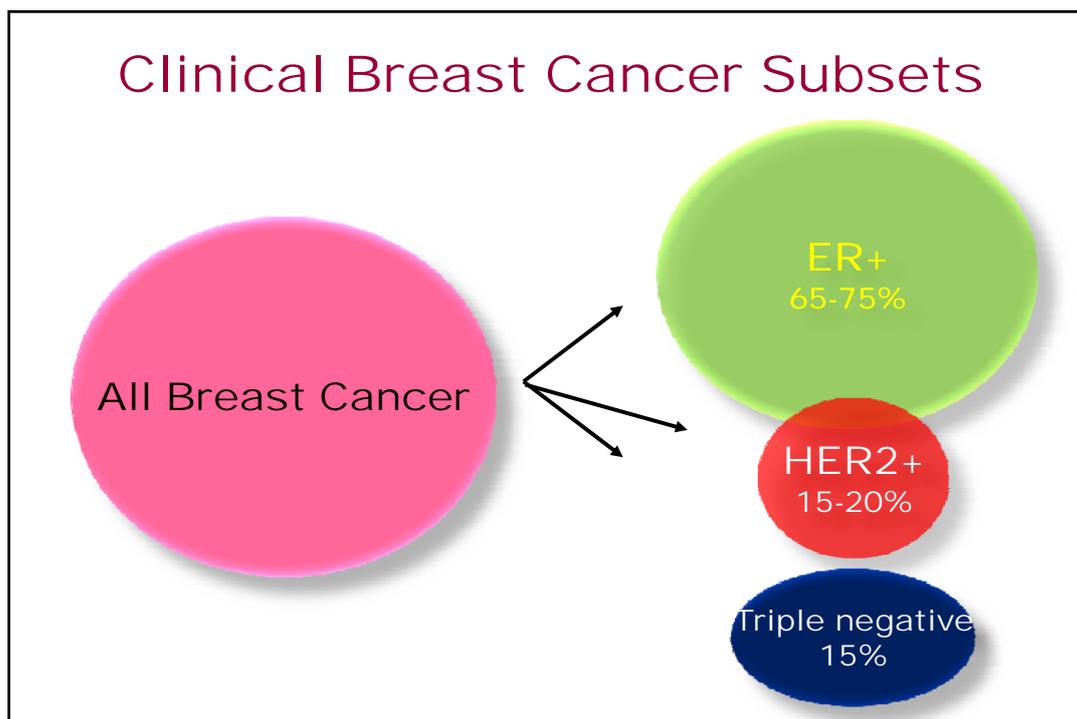
Recommendations Consensus & Controversy

International Consensus Panel -2009 St. Gallen

James N. Ingle, USA & Aron Goldhirsch, CH/I

(Chairmen)

- **Matti Aapro (CH)**
- **Kathy Albain (USA)**
- **Jonas Bergh (S)**
- **Harold Burstein (USA)**
- **Robert Carlson (USA)**
- **Monica Castiglione-Gertsch (CH)**
- **Alan S. Coates (AUS)**
- **Marco Colleoni (I)**
- **Alberto Costa (I)**
- **Jack Cuzick (UK)**
- **Nancy Davidson (USA)**
- **Angelo Di Leo (I)**
- **John F. Forbes (AUS)**
- **Richard D. Gelber (USA)**
- **John H. Glick (USA)**
- **Joseph Gligorov (F)**
- **Michael Gnant (A)**
- **Paul E. Goss (USA)**
- **Jay R. Harris (USA)**
- **Jacek Jassem (PL)**
- **Per Karlsson (S)**
- **Manfred Kaufmann (D)**
- **Stella Kyriakides (CY)**
- **Louis Mauriac (F)**
- **Gunter von Minckwitz (D)**
- **Monica Morrow (USA)**
- **Henning Mouridsen (DK)**
- **Moise Namer (F)**
- **Larry Norton (USA)**
- **Soon Paik (USA) – invited**
- **Martine Piccart-Gebhart (B)**
- **Kurt Possinger (D)**
- **Kathy Pritchard (CAN)**
- **Emiel J.T. Rutgers (NL)**
- **Vladimir Semiglazov (RUS)**
- **Ian E. Smith (UK)**
- **Beat Thürlimann (CH)**
- **Giuseppe Viale (I)**
- **Toru Watanabe (JPN)**
- **Eric P. Winer (USA)**
- **William C. Wood (USA)**



Considerations (1): Top 10

- Surgery (need for a more extensive approach?)
 - Role of ALND in clinically neg axilla: + SLN, micromets, IHC+
 - Re-excisions for + margins: DCIS, LCIS

Considerations (2): Top 10

- Radiation (better selection?)
 - Not needed in some DCIS? If so, which pts?
 - Role for IORT, PBI, accelerated RT?
 - Postmastectomy RT: node-neg, 1-3+, >4+, decide according to stage (not biology)?
 - Need for RT in older pts with endocrine responsive disease?

Considerations (3): Top 10

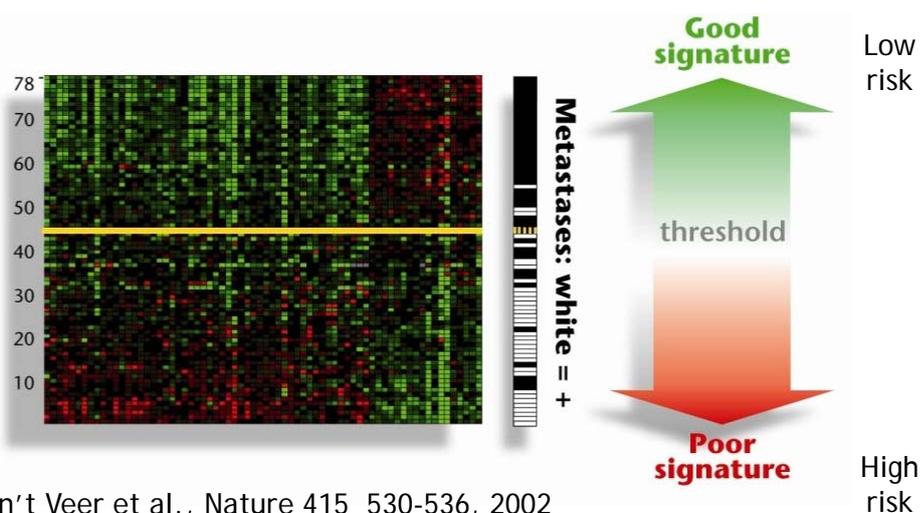
- Pathology (1)
 - Histological type
 - Histological grade: status
 - Ki-67
 - ER: QC, reporting
 - PgR: value in predicting endocrine responsiveness: in ER pos., in ER neg.
 - HER2: requirements for valid assay
 - HER2: value of polysomy 17
 - ER, PgR, Ki-67, HER2 & Risk estimation (St.Gallen)

Considerations (4): Top 10

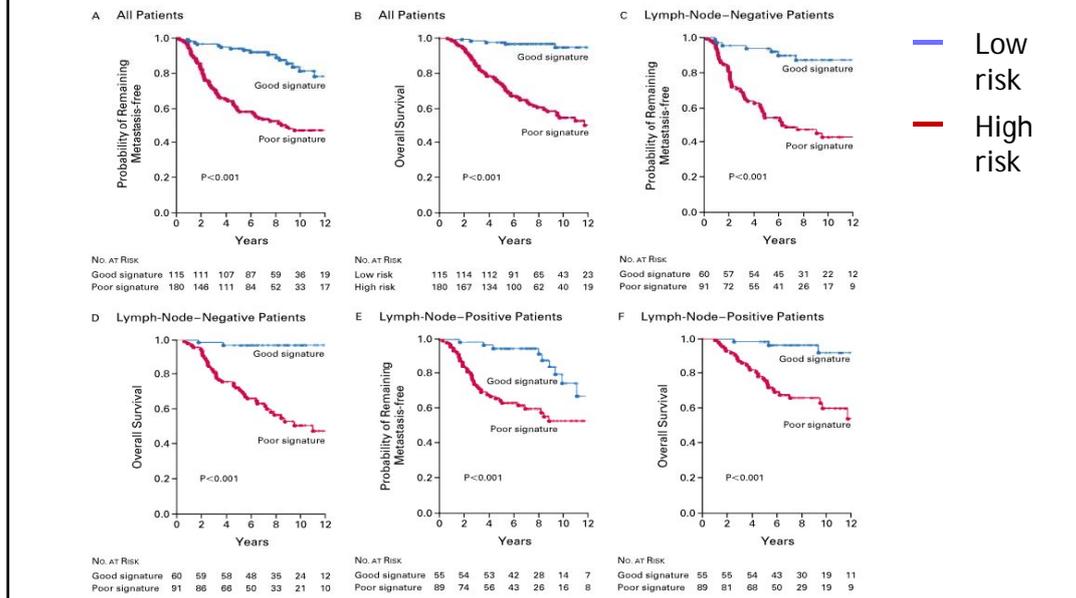
- Pathology and related (2)
 - Oncotype DX™
 - MammaPrint™ (gene profiling)
 - ready for routine clinical use ?
or can we use ER, HER2, Ki-67, grade, stage ?
 - for which patients ?
 - cost considerations
- Adjuvant! Online?

MammaPrint™

マイクロアレイ法を用いた70遺伝子発現分析



MammaPrintによる再発リスクの判定



ANALYSIS REPORT

Customer: Mrs. Junko Ikeda
 Location: DNA CHEP RESEARCH INC.
 5-4-5 Saitohashi, Tsurumi-ku, Yokohama
 226-0246 JAPAN (226-0246)
 226-0246 Yokohama
 TEL: 81-45-051-0208

Report number: 00000005
 Analysis performed: MammaPrint 1st service
 Sample received: January 21, 2009
 Date analysis report: January 28, 2009
 Your reference: MP-050-CA-Mammamultit0110000
 Our reference: 00000005

SERVICE DESCRIPTION

The tissue sample you sent is, labeled as MAMMA, was analyzed on the MammaPrint™ service. The analysis was performed in duplicate. This comprises of independent testing with two different color dyes and independent hybridization on two different microarrays, but include 72 unique genes in duplicate.

ANALYSIS RESULT

Consistent with MammaPrint™ results of previously published (1), gene expression profiles in breast samples of good outcome patients (i.e., no distant metastasis within at least 5 years, Low Risk) or poor outcome patients (i.e., distant metastasis within 5 years, High Risk). Result is given as low risk or high risk profile respectively.

The sample you sent is in classified as: **LOW RISK**

Additional information:

ANALYSIS EXPLANATION

In the reference group as published (1), patients classified as LOW RISK had a 57% chance of survival after 10 years and 67% chance to be metastasis free after 10 years, without adjuvant treatment.

The patients classified (1) as HIGH RISK patients had less than 50% chance of survival after 10 years and less than 40% chance to be metastasis free after 10 years, without adjuvant treatment.

The same patient group analyzed on MammaPrint™ service confirmed these results. Analysis of MammaPrint™ service in an independent external patient group revealed a 69% (97/142), 10 year survival prediction for Low Risk patients and a 71% (63/87), 10 year survival prediction for High Risk patients (2).

ANALYSIS INFORMATION

General information on MammaPrint™ technology and analysis method can be found in our website MammaPrint for Breast Cancer prognosis or on our website at (3). Please specify date.

If you have any questions on the report please do not hesitate to contact us through customer.service@targetprint.com or by phone at 417 32-462 1515.

Your sincerely,
 Dr. F. de Stoop, Director Medical Affairs
 Dr. J. Cloos, Chief Operating Officer

TargetPrint
 TargetPrint B.V.
 TargetPrint

(1) The publication is described as "Low-Dose-Density Tamoxifen as a Predictor of Survival in Breast Cancer" (doi:10.1182/blood-2007-09-106320) (Blood 110:1063-1070, 2007) (2) The publication is described as "Gene Expression Profiles in Breast Cancer: A Systematic Review" (doi:10.1182/blood-2007-09-106320) (Blood 110:1063-1070, 2007) (3) The publication is described as "MammaPrint: A Gene Expression Signature for Breast Cancer" (doi:10.1182/blood-2007-09-106320) (Blood 110:1063-1070, 2007)

Breast Cancer Test Report

Sample ID: 00000005
 Patient: Mrs. Junko Ikeda
 Customer: DNA CHEP RESEARCH INC. (Customer)
 5-4-5 Saitohashi, Tsurumi-ku, Yokohama
 226-0246 JAPAN

Sample Information

Sample	Patient	Customer
Sample ID: 00000005		Sample ID: Junko Ikeda
Received: 21.01.2009		Account: DNA CHEP RESEARCH INC. (Customer)
In use on: 22.01.2009		1-1-01 Saitohashi, Tsurumi-ku, Yokohama
Test on: 28.01.2009		DNA CHEP RESEARCH INC. (Customer)

Service Description

TargetPrint determines the mRNA levels of estrogen receptor (ER), progesterone receptor (PR) and HER2 using DNA microarray technology. The values of the DNA microarray test set for these three genes have been related to 530 breast cancer samples against conventional immunohistochemistry (IHC) and fluorescent in situ hybridization (FISH), allowing a correlation of the microarray values to IHC and FISH-equivalent results as shown in the next slide.

Test Result

ER
 Microarray measurement of the expression of the estrogen receptor determined that the ER status of the sample is **ER Positive**.

PR
 Microarray measurement of the expression of progesterone receptor determined that the PR status of the sample is **PR Positive**.

HER2
 Microarray measurement of the expression of HER2 determined that the HER2 status of the sample is **HER2 Negative**.

Pathologist's comment:
 Tumor Cell Percentage: An independent pathologist reviewed an image of the tumor sample. **70%**

Sample quality: **PASS**

Interpretation:
 IHC scores were initially assigned on 100 specimens analyzed through a central US Lab for comparison with microarray scoring to establish concordance and subsequently validated in 400 specimens. A threshold of 70% was used.

Sign Off:
 Dr. F. de Stoop, MD, Director Medical Affairs
 Dr. J. Cloos, Chief Operating Officer

Considerations (5): Top 10

- Endocrine therapy
 - General issue: Pharmacogenetics of CYP2D6: ready for clinical use in selecting tamoxifen in postmenopausal pts? In premenopausal pts?
 - Premenopausal: role for ovarian function suppression (OFS), OFS + AIs?
 - Postmenopausal: Tam, AIs, Tam to AI, AI to Tam; monitoring ovarian function in young postm. women receiving AIs
 - PgR and HER as predictive factors for endocrine therapy

Considerations (6): Top 10

- Chemotherapy
 - Value of HER2, TOPO2 in selecting anthracyclines?
 - Are anthracyclines necessary?
 - Is dose-dense AC followed by T really the best regimen?
 - Can you use ER and HER2 to determine who benefits from Taxane following AC?
 - In ER pos. and HER2 neg. pts, is anything better than TC regimen?

Considerations (7): Top 10

- Targeted Therapy
 - Trastuzumab
 - Definition of HER2 pos.?
 - Chemotherapy required?
 - Give with endocrine therapy alone?
 - Consider in which patients: N pos., N neg. with T>1, any age limit or base on patient's physiology?
 - Other targeted agents:
 - Lapatinib?

Considerations (8): Top 10

- Neo-adjuvant systemic therapy
 - Patterns requiring chemotherapy?
 - Avoid if low proliferation?
 - Avoid if lobular?
 - Insist if non-endocrine responsive?
 - Must contain taxanes?
 - Duration 4-6 courses or to maximal response?
 - Add trastuzumab if HER2 pos.?
 - Endocrine therapy to highly endocrine responsive?

Considerations (9): Top 10

- Special issues (1)
 - Fertility
 - Pharmacologic preservation
 - Harvesting eggs
 - Pregnancy after breast cancer
 - Recommendations based on risk? Tumor biology?

Considerations (10): Top 10

- Special issues (2)
 - Male breast cancer
 - Tamoxifen for ~all
 - Role of AIs, e.g., after 5 years of Tam in high-risk pts. or in patients with contraindication to Tam

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