

*Department of Medical Statistics,
Informatics and Health Economics
Innsbruck Medical University*

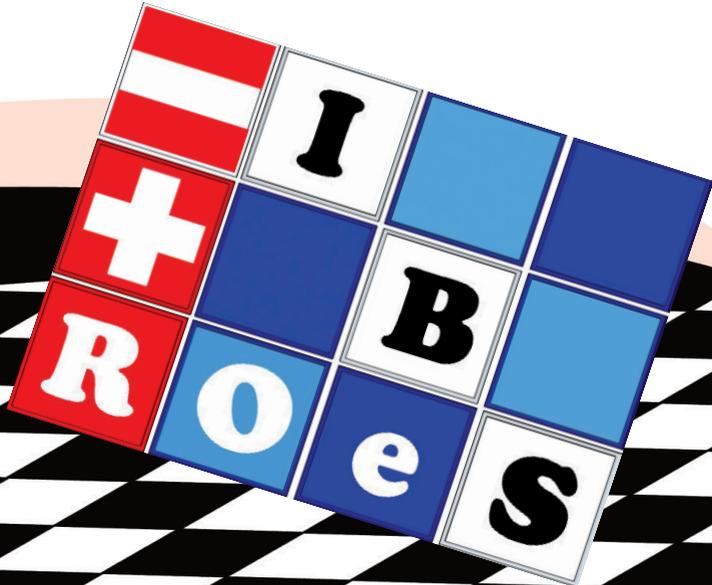


**Sabrina B. Neururer
Hanno Ulmer
(editors)**

ROeS 2013

9th - 12th September 2013. Dornbirn, Austria

Conference Program Conference Proceedings



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Hanno Ulmer
(editors)

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organized by

*Department of Medical Statistics,
Informatics and Health Economics*

Innsbruck Medical University

Dear Participant,

It is our great pleasure to welcome you to Dornbirn for this conference organized by the Department of Medical Statistics, Informatics and Health Economics of Innsbruck Medical University. The conference has brought together leading scientists from academia and industry across the disciplines of biostatistics, mathematical statistics, epidemiology, as well as clinical trials and promises to be a highly interactive event.

This conference features an exceptional program that includes the latest developments. It offers excellent networking and collaboration opportunities for scientists from a variety of research fields.

The conference venue, Dornbirn, the largest town in the Austrian state of Vorarlberg, benefits from its favorable location in a diverse cultural and natural setting, close to Liechtenstein, Switzerland, and Germany. It is a friendly, lively small city which has been able to keep its cozy traditional rustic character. This location comprises a perfect combination of a picturesque town in an impressive landscape.

On behalf of all of who contributed to the organization of this conference we would like to thank all our speakers, financial supporters, reviewers, and attendees, and extend a warm welcome to you in Dornbirn.

We hope you will enjoy your stay.

With best wishes,



Sabrina B. Neururer
Conference Director



Hanno Ulmer
ROeS President

PROGNOSTIC SCORES TO SUPPORT DECISION MAKING FOR WOMEN WITH BREAST CANCER: RESULTS OF A RETROSPECTIVE DATA ANALYSIS

Marjan Arvandi, UMIT - University for Health Sciences, Medical Informatics and Technology, Hall i.T., Austria

Beate Jahn, UMIT - University for Health Sciences, Medical Informatics and Technology, Hall i.T., Austria

Heidelinde Fiegl, Department of Gynecology and Obstetrics, Innsbruck Medical University, Innsbruck, Austria

Georg Göbel, Department of Medical Statistics, Informatics and Health Economics, Innsbruck Medical University, Innsbruck, Austria

Uwe Siebert, UMIT - University for Health Sciences, Medical Informatics and Technology, Hall i.T., Austria

The role of CHAC1-mRNA expression(CHAC1) in breast cancer patients was investigated recently by Goebel et al. The study showed that high CHAC1 besides other risk factors such as socioeconomic factors, type of cancer, etc. could be an independent indicator for elevated risk of breast cancer recurrence.

The goal of our study was to develop a multivariate prognostic score for combining multiple significant prognostic factors that is easy to apply in clinical practice.

Original patient-level data were taken from Goebel et al study containing information on 106 patients with primary breast cancer. Potential predictors included age, tumour size and grade, histological type, therapies (endocrine, radiation and chemo), menopausal, lymphnode status, hormone receptor(HR), HER-2/neu status and CHAC1. Risk factors were analysed using a time-independent Cox proportional hazard model for the two main outcomes relapse-free survival (RFS) and overall survival (OS). A multivariate prognostic score was calculated based on regression coefficients of statistically significant prognostic factors. We performed sensitivity analyses for different cutoff points. Survival distributions were visualized via Kaplan-Meier curves and tested by log-rank tests. Significance level was set at $p < 0.05$.

For OS, age, tumour size, HR and CHAC1 were significant predictors. Low risk group (53%) includes patients with one or two risk factors high risk group (47%) includes patients with >2 risk factors. For RFS, age, CHAC1 and radiation therapy were significant predictors. Low risk group (38%) includes patients with one risk factor high risk group (62%) includes patients with >1 risk factors.

The prognostic scores derived by our analysis can be easily used by clinicians and decision makers besides current decision devices. Next steps involve validation of these scores with independent data sets to assess validity and generalizability.