GBG

Country:	Germany		
Group:	German Breast Group (GBG)		
Chairs:	Professor Dr med. G. von Minckwitz J.W. Goethe University Frankfurt Department of Obstetrics and Gynaecology Theodor-Stern-Kai 7 60590 Frankfurt GERMANY Tel: +49 69 6301 7024 Fax: +49 69 6301 7938 Email: minckwitz@em.uni-frankfurt.de Professor Dr med. M. Kaufmann J.W. Goethe University Frankfurt Department of Obstetrics and Gynaecology Theodor-Stern-Kai 7 D-60590 Frankfurt GERMANY		
	Tel: +49 69 6301 5115 Fax: +49 69 6301 4717 Email: kaufmann@em.uni-frankfurt.de		
Project Management, Monitoring and Data Center:	GBG Forschungs GmbH Schleussnerstrasse 42 63263 Neu-Isenburg (Frankfurt) Germany Tel: +49 6102 798 74 0 Fax: +49 6102 798 74 40 Email: info@germanbreastgroup.de		
Website:	www.germanbreastgroup.de		

Title:

A multi-center randomized Phase III study evaluating 4 cycles of docetaxel, doxorubicin and cyclophosphamide (TAC) *versus* 4 cycles of vinorelbine and capecitabine (NX) in patients not sufficiently responding to 2 cycles of TAC and 4 cycles of TAC *versus* 6 cycles of TAC in patients sufficiently responding to 2 cycles of TAC as preoperative treatment of locally advanced (T4 a-d, N0-3,M0) or operable (T \ge 2 cm, N0-2,M0) primary breast cancer/GBG 24.

Coordinator(s): Principal Investigator:

Professor Dr med. G. von Minckwitz University of Frankfurt GERMANY Tel: +49 6102 79874 10 Fax: +49 6102 79874 40 Email: minckwitz@germanbreastgroup.de

Project Management:

Dr O. Schickling GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg (Frankfurt) GERMANY Tel: +49 6102 79874 14 Fax: +49 6102 79874 40 Email: schickling@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary: Design:

Prospective, randomized Phase III trial including an internal Phase II trial opened in September 2001, Phase III trial opened in July 2002

Study Population:

Locally advanced (T4 a-d, N0-3,M0) or operable (T \geq 2 cm, N0-2,M0) primary breast cancer

Primary Objectives:

- To determine the pCR rate of 4 cycles of TAC and of 4 cycles of NX (TAC versus NX) as a salvage treatment in patients not sufficiently responding (i.e. cNC) to 2 cycles of TAC as preoperative treatment of operable (T ≥ 2 cm, N0-2, M0) primary breast cancer.
- To determine the pCR rate of 6 cycles versus 8 cycles of docetaxel, doxorubicin and cyclophosphamide (TAC × 6 versus TAC × 8) in patients sufficiently responding (i.e. cPR or cCR) to the first 2 cycles of TAC as preoperative treatment of operable (T ≥ 2 cm, N0-2,M0) primary breast cancer.



Title:A multi-center randomized Phase III study to compare capecitabine alone
or in combination with trastuzumab in patients with HER-2 positive
metastatic breast cancer and progression after previous treatment with
trastuzumab (Treatment Beyond Progression, TBP).BIG 3-05 - GBG 26

Coordinator(s): Principal Investigator:

Professor Dr med. G. von Minckwitz University of Frankfurt GERMANY Tel: +49 6102 79874 10 Fax: +49 6102 79874 40 Email: tbp@germanbreastgroup.de

Project Management:

Dr M. Zerm GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 27 Fax: +49 6102 79874 40 Email: tbp@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary: Design:

Prospective, randomized Phase III trial

Study Population:

Patients with HER-2 positive metastatic breast cancer and progression during or after previous chemotherapy and trastuzumab treatment as follows:

- Taxanes + trastuzumab given as adjuvant therapy
- Taxanes + trastuzumab given as first line therapy for palliation
- Trastuzumab given as first line therapy for palliation alone or in combination with chemotherapeutic agents other than capecitabine or taxanes

 Trastuzumab has to be given previously for at least 12 weeks, treatment-free interval of trastuzumab for a maximum of 6 weeks. No more than one chemotherapy for palliation

Aims:

The primary aim is to compare the time to disease progression in patients with HER 2 positive metastatic breast cancer and progression after previous treatment with trastuzumab randomized to capecitabine alone or in combination with trastuzumab.

Secondary Aims/Endpoints:

- To compare the objective response rate between the two arms.
- To compare the duration of response.
- To compare the clinical benefit defined as CR, PR, or stable disease >24 weeks between the two arms.
- To evaluate the safety of the capecitabine + trastuzumab combination.
- To compare overall survival between the two arms.

Treatment:

	 Capecitabine 2500 mg/m² orally day 1–14 q day 22 until progression or unacceptable toxicity, patient's request or withdrawal from study, and discontinuation of Trastuzumab. Capecitabine and Trastuzumab Capecitabine 2500 mg/m² orally day 1–14 q day 22 until progression or unacceptable toxicity, patient's request or withdrawal from study. Trastuzumab 6 mg/kg body weight every 3 weeks intravenous (i.v.) as a 90 minutes infusion until progression or unacceptable toxicity, patient's request or withdrawal from study.
Scheme:	None available
Update:	• 135 enrolled as of September 2006.
Related Publications:	None available
Topics:	 Capecitabine HER-2 positive patients Metastatic breast cancer Trastuzumab
Keywords:	Trastuzumab beyond progression, HER-2 positive breast cancer

Title:	A Phase III multi-centre double blind randomized trial of celecoxib <i>versus</i> placebo in primary breast cancer patients. BIG 1–03 – ICCG / C/20/01 – GBG 27 (see also description under ICCG)
Coordinator(s):	Management:
	Professor R. C. Coombes, London (ICCG)
	Dr P. Hupperets, Maastricht (ICCG)
	Professor Dr G. von Minckwitz, Frankfurt (GBG)
	International Collaborative Cancer Group (ICCG) and the German Breast Group (GBG) Intergroup Study
Summary:	 A multi-centre, Phase III, placebo controlled randomized trial. Patients are randomized between 2 years celecoxib and placebo in a 2:1 ratio in favour of celecoxib
	Chemotherapy:

Prior to randomisation, patients may have received chemotherapy (all HR negative patients MUST have received chemotherapy). All patients who have received chemotherapy should have finished their treatment, which will have consisted of at least 4 cycles. The schedule of preference is FEC 3-weekly for 6 courses, however, other dose schedules of FEC or FAC plus combinations that contain EC/AC followed by a taxane, or Epirubicin/Doxorubicin plus a taxane are permitted. CMF may be substituted for patients where Epirubicin is contraindicated.

Aims:

The primary aim is to assess the disease-free survival (DFS) benefit of 2 years adjuvant therapy with the COX-2 inhibitor celecoxib compared with placebo in primary breast cancer patients.

Secondary Aims/Endpoints:

- To compare overall survival.
- To define the safety of adjuvant therapy with celecoxib in this patient population.
- To compare the incidence of second primary cancers.
- In postmenopausal hormone receptor (HR) positive patients, to assess tolerability of celecoxib with tamoxifen.
- To assess DFS benefit of 2 years adjuvant celecoxib compared with placebo in HR positive (i.e. ER positive and/or PR positive) and in HR negative (i.e. ER negative/PR negative) disease.

Scheme:



Keywords: Breast cancer, aromatase inhibitors, celecoxib, tamoxifen

Title:Prospective Register Study of the German Adjuvant Breast Cancer Study
Group (GABG) or Diagnosis and Treatment of Breast Cancer in
Pregnancy / BIG 2–03, GBG 29.

Coordinator(s): Principal Investigator:

Dr S. Loibl University of Frankfurt Klinik für Gynäkologie und Geburtshilfe Theodor-Stern-Kai 7 60590 Frankfurt am Main GERMANY Tel: +49 69 630170 24 Fax: +49 69 630179 38

Project Management:

GBG Forschungs GmbH Dr C. Hanne Schleussner St. 42, 63263 Neu-Isenburg GERMANY Tel: + 49 6102 79874 20 Fax: + 49 6102 79874 40 Email: bcp@germanbreastgroup.de

Funding guaranteed by the BANSS-Foundation.

Summary:

Breast cancer complicating pregnancy is a rare coexistence. Breast cancer is after the age of 25 the most common malignancy in pregnancy. Little is known about the incidence in Germany and Western Europe. We therefore want to initiate a trial collecting prospectively as much data as possible for the diagnostic, treatment, and maternal and foetal outcome during pregnancy. The primary endpoint is the foetal outcome 4 weeks after delivery. Secondary endpoints will include maternal outcome, pregnancy outcome, diagnostic procedures used and the biology of the tumour. A flow sheet for the treatment is given and the acceptance of these guidelines will be evaluated.

Primary Endpoint:

Foetal outcome 4 weeks after delivery.

Secondary Endpoints:

- Maternal outcome of pregnancy.
- Stage of and biological characteristics of breast cancer.

	 Breast cancer therapy (treatment, response to chemotherapy, type of surgery). Sensitivity and specificity of diagnostic procedures (palpation, US, mammogram). Outcome of the newborn after 5 years of therapy. Outcome of breast cancer 5 years after diagnosis.
Scheme:	Prospective and retrospective registration of patients who have been diagnosed with breast cancer during pregnancy
Update:	Accrual as of March 2006: 61.
Related Publications:	Loibl, <i>et al</i> . Breast cancer during pregnancy – recommendations from an international expert panel. <i>Cancer</i> 2006; 106: 237–246.
Topics:	Premenopausal patients
Keywords:	Breast cancer, pregnancy, foetal outcome

Title:Ibandronate with or without capecitabine in elderly patients with early
breast cancer – ICE – Study / BIG 4-04, GBG 32. (see also description under
WSG)

Coordinator(s): Principal Investigator:

Professor Dr med. U. Nitz Frauenklinik der Universitäts-Klinikum Düsseldorf Mohrenstraße 5, 40225 DÜSSELDORF GERMANY Tel: +49 211 81175 50 Fax: +49 211 312283 Email: nitzu@uni-duesseldorf.de

Project Management:

GBG Forschungs GmbH Dr C. Hanne Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 20 Fax: +49 6102 79874 40 Email: ice@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary:

Prospective, multi-center, controlled, open-label, randomized Phase III

Study Population:

Age ${\geqslant}65$ years, N+ or N– (high risk: T ${\geqslant}$ 2 cm or G II/III or receptor negative)

Primary Objective:

• To compare the event-free survival in elderly patients after local treatment for primary breast cancer treated with either ibandronate alone or ibandronate and capecitabine as adjuvant treatment.

Secondary Objectives:

- To compare the overall survival between the two arms.
- To determine the compliance in both arms.

- To determine the toxicity in both arms.
- To determine the rate of bone-related events in hormonsensitive and insensitive disease (with or without anastrozole).
- To determine the preference to oral or intravenous application of ibandronate.
- To assess quality of life.
- To compare a geriatric assessment by Charlson *versus* VES 13 score.

Tertiary Objectives:

- To determine prognostic factors on tumour tissue collected from primary surgery and to correlate them with study treatment effect.
- To evaluate the prognostic impact of age, serum albumin, hemoglobin level, creatinine clearance, Charlson score, VES-score in a multivariate analysis for the prediction of treatment associated adverse events and limited life time expectancy.

Scheme:

Age \ge 65 years, N+ or N- (high risk: T \ge 2 cm or G II/III or receptor negative)	
---	--

✓ Ibandronate 50 mg p.o. daily or 6 mg i.v., q4W, 2 years

Randomization

¹ Ibandronate 50 mg p.o. daily or 6 mg i.v., q4W, 2 years + capecitabine 2000 mg/m² days 1–14 q d22 \times 6

If ER and/or PR \oplus : Anastrozole 1 mg p.o. daily 5 years (in sequence to capecitabine)

Update:	Planned patient No: 1397Accrual as of March 2006: 580.
Related Publications:	O'Shaughnessy J, Miles D, Vukelja S, <i>et al</i> . Superior survival with capecitabine plus docetaxel combination therapy in anthracycline-pretreated patients with advanced breast cancer: phase III trial results. <i>J Clin Oncol</i> 2002; 20: 2812–2823.
	O'Shaughnessy JA, Blum J, Moiseyenko V, et al. Randomized, open-label, phase II trial of oral capecitabine (Xeloda) <i>versus</i> a reference arm of intravenous CMF (Cyclophosphamide, methotrexate and 5–fluorouracil) <i>Ann Oncol</i> 2001; 12: 1247–1254.
Topics:	BisphosphonatesCapecitabineElderly patients
Keywords:	Elderly patients, chemotherapy, bisphosphonates, breast cancer

Title: GAIN: German Adjuvant Intergroup Node-positive Study. A Phase III trial to compare ETC versus EC-TX and ibandronate versus observation in patients with node-positive primary breast cancer / GBG 33.

Coordinator(s): Principal Investigator:

Professor Dr med. V. Möbus Städtische Kliniken Frankfurt a.M.-Höchst Gotenstr. 6–8 D-65929 Frankfurt GERMANY Tel: +49 69310623 55 Fax: +49 69310625 55 Email: vmoebus@skfh.de

Project Management:

Dr P. Segura-Eicke GBG Forschungs GmbH Tel: +49 6102 79874 13 Fax: +49 6102 79874 40 Email:gain@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary:

 A German Intergroup Study of the Arbeitsgemeinschaft Gynäkologische Onkologie (AGO) German Breast Group (GBG) and Nordostdeutsche Gesellschaft für Gynäkologische Onkologie (NOGGO)

Design:

Prospective, multi-center, controlled, non-blinded, randomized Phase III with a 2 \times 2 factorial design

Primary Objectives:

- To compare the disease-free survival after adjuvant chemotherapy with "ETC" (Arm A1) or "EC-TX" (Arm A2) in patients with primary node-positive breast cancer.
- To compare the disease-free survival with (Arm B1) or without ibandronate (Arm B2) treatment for 2 years in patients with primary node-positive breast cancer.

Secondary Objectives:

- To compare overall survival between Arms A1 versus A2 and B1 versus B2.
- To evaluate the compliance in Arms A1 versus A2 and in B1.
- To compare the safety between Arms A1 versus A2 and B1 versus B2.
- To assess the rate of responders to erythropoesis stimulating factors in Arms A1 and A2.
- To compare the incidence of secondary primaries between Arms A1 *versus* A2.
- To compare the event-free survival in subgroups of hormone sensitive and insensitive disease and in groups with 1–3, 4–9 or 10+ involved nodes between Arms A1 versus A2 and B1 versus B2.

Tertiary Objective:

 To determine prognostic factors like TS or TP and others on tumour tissue collected from primary surgery and to correlate them with study treatment effect.

Related Publications:	V.J. Möbus, M. Untch, A. du Bois, <i>et al.</i> Dose-dense sequential chemotherapy with epirubicin (E), paclitaxel (T) and cyclophosphamide (C) (ETC) is superior to conventional dosed chemotherapy in high-risk breast cancer patients (\geq 4 + LN). First results of an AGO-trial. ASCO oral presentation, 5.6.2004.		
Topics:	 Node positive disease Dose dense therapy Capecitabine 		

- Paclitaxel
- Bisphosphonate

Keywords: Breast cancer, dose-dense, bisphosphonates

Title: A randomized, multi-center, open Phase III study comparing the postoperative use of zoledronic acid *versus* no treatment in patients with histological tumour residuals after preoperative anthracycline and taxane-containing chemotherapy for primary breast cancer (Neo-Adjuvant Trial Add-On) / GBG 36.

Coordinator(s): Principal Investigator:

Prof Dr med. Gunter von Minckwitz University of Frankfurt GERMANY Tel: +49 6102 79874 10 Fax: +49 6102 79874 40 Email: minckwitz@germanbreastgroup.de

Project Management:

Dr O. Schickling GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 14 Fax: +49 6102 79874 40 Email: schickling@germanbreastgroup.de

Sponsor:

Design:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary:

Prospective, randomized, open Phase III trial

Study Population:

Completely resected unilateral or bilateral primary carcinoma of the breast with histologically detectable tumour residuals (ypT2-4) and or histologically confirmed involvement of axillary nodes (ypN1-3) after prior preoperative chemotherapy for at least 4 cycles, of which at least two must contain a taxane and an anthracycline.

Primary Objective:

To determine the event-free survival (EFS) after zoledronic acid for 5 years *versus* no postoperative treatment in patients with "chemo-insensitive" breast cancer (ypT2-4 and/or ypN1–3) after preoperative anthracycline/taxane-containing chemotherapy.

Treatment:

Zoledronic acid 4 mg (or adjusted dose based on renal function) will be given i.v.:

- Every 4 weeks for the first 6 doses (year 0–0.5)
- Every 3 months for 8 doses (year 0.5–2.5)
- Every 6 months for 5 doses (year 2.5–5)

Patients with hormone sensitive tumours (ER and/or PgR positive) should receive simultaneous endocrine treatment according to current treatment guidelines. In case an aromatase inhibitor is indicated for postmenopausal patients >50 years, letrozole should be used. Letrozole will be provided free of charge.



Title: Prospective randomized multi-center study to prevent chemotherapyinduced ovarian failure with the GnRH-agonist goserelin in young hormone-insensitive breast cancer patients receiving anthracyclinecontaining (neo-)adjuvant chemotherapy / GBG 37, ZORO-Study

Coordinator(s): Principal Investigator:

Professor Dr med. B. Gerber Klinikum Südstadt Universitätsfrauenklinik Südring 81, 18075 Rostock GERMANY Tel: +49 0381 4401 4500 Email: bernd.gerber@med.uni-rostock.de

Project Management:

GBG Forschungs GmbH Dr C. Hanne Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 20 Fax: +49 6102 79874 40 Email: zoro@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary: Design:

Prospective, randomized, open Phase II trial

Study Population:

Age < 45 years, spontaneous and regular menstrual periods before study entry with FSH below 15 mlU/mL in follicular phase; histologically confirmed primary breast cancer with the need for anthracycline-based chemotherapy; steroid receptor (estrogen and progesterone) negative tumour (diagnosis according to hospital standard procedures).

Primary Objective:

• To increase the percentage of patients with normal ovarian function at 6 months after application of (neo)adjuvant, anthracyclinecontaining polychemotherapy in parallel with goserelin compared to chemotherapy alone.

Secondary Objectives:

To compare the two treatment groups regarding:

- Compliance to treatment
- Toxicity
- Quality of life
- Menopausal symptoms score
- Ovarian function at 6, 12, 18 and 24 months
- Duration until recovery of regular menstrual period
- Pregnancy rate



Premenopausal patients

Keywords: Ovarian function, goserelin, breast cancer

Title: A multi-centre Phase I–II study to investigate the combination of bendamustine with weekly paclitaxel as first or second line therapy in patients with anthracycline-pretreated metastatic breast cancer / GBG 38, Rita – Study.

Coordinator(s): Principal Investigator:

Dr med. S. Loibl Klinik für Gynäkologie und Geburtshilfe Theodor-Stern-Kai 7 60590 Frankfurt am Main Tel: +49 696301 7024 4117 Fax: +49 696301 7938 83469

Project Management:

GBG Forschungs GmbH Dr C. Hanne Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 20 Fax: +49 6102 79874 40 Email: rita@germanbreastgroup.de

Sponsor:

Design:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary:

Prospective, multi-centre, sequential Phase I-II

Primary Objectives:

- To determine the maximum tolerated dose of the combination of bendamustine and weekly paclitaxel (Phase I part).
- To determine the objective response rate achievable with the recommended dose of this combination (Phase II part).

Secondary Objectives:

- To determine the time to progression (Phase II part).
- To determine the safety and tolerability of the combination.
- To determine the dose-limiting toxicity (DLT) (Grade IV haematological toxicities or Grade III non-haematological toxicities).

Scheme:

Treatment will be given on day 1, 8, 15 and repeated on day 29. When the recommended dose has been determined a total of 47 patients will be treated at this dose level.

Update: • Accrual October 2006 : 11 patients, Dosis-Level III filled, no DLTs.

Related None available Publications:

Topics:	•	Metastatic	breast	cancer

Keywords: Metastatic breast cancer, bendamustine, Phase I

Title:A multi-center Phase II study to determine the efficacy of capecitabine as
first line monochemotherapy in patients with HER-2 negative metastatic
breast cancer / GBG 39, Monica – Study.

Coordinator(s): Principal Investigator:

Professor Dr med. M. Kaufmann Universitätsfrauenklinik Klinikum der J. W. Goethe Universität Theodor-Stern-Kai 7 60590 Frankfurt am Main GERMANY Tel: +49 696301 5115 Fax: +49 696301 6317 Email: m.kaufmann@em.uni-frankfurt.de

Project Management:

GBG Forschungs GmbH Dr C. Hanne Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 20 Fax: +49 6102 79874 40 Email: monica@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary: Design:

Prospective, open Phase II trial

Primary Objective:

 To determine the time to disease progression in patients with HER-2 negative metastatic breast cancer after 1st line monochemotherapy with capecitabine.

Secondary Objectives:

- To determine the objective response rate.
- To determine the duration of response.

	 To determine the clinical benefit defined as CR, PR, or stable disease ≥24 weeks. To evaluate the safety and toxicity of capecitabine. To assess quality of life within 1 year after start of capecitabine treatment. To determine overall survival. To determine the objective response rate in male patients. To evaluate QoL the modified Brunner Score. <i>Tertiary Objective:</i> To determine the DPD and proteomics in serum.
Scheme:	Capecitabine 2000 mg/m ² orally day 1–14 q day 22 until progression
Update:	Planned patients: 200.Accrual October 2006: 88.
Related Publications:	None available
Topics:	 Capecitabine HER-2 negative patients Metastatic breast cancer
Keywords:	Capecitabine, HER-2 negative patients, metastatic breast cancer

GBG – Study Details

Title:GeparQuattro: A randomized Phase III study exploring the efficacy of
capecitabine given concomitantly or in sequence to EC – Doc with or
without trastuzumab as neoadjuvant treatment of primary breast cancer.
A joint study of GBG and AGO / GBG 40.

Coordinator(s): Chairmen:

Prof Dr med. G. von Minckwitz University of Frankfurt GERMANY Tel: +49 6102 79874 10 Fax: +49 6102 79874 40 Email: minckwitz@germanbreastgroup.de

Professor Dr med. M. Untch Helios-Kliniken, Berlin Buch Frauenklinik Wiltbergstr. 50 13125 Berlin GERMANY Tel: +49 30 9401 2270 Fax: +49 30 9401 4326 Email: muntch@berlin.helios-kliniken.de

Project Management:

Dr C. Hanne / Dr O. Schickling GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874-14 Fax: +49 6102 79874-40 Email: geparquattro@germanbreastgroup.de

Sponsor:

GBG Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY

Summary: Design:

Prospective, randomized, Phase III trial

Study Population:

Locally advanced (T4 a–d, N0-3, M0) or operable (T \ge 2 cm, N0-2, M0) primary breast cancer. Tumour lesion in the breast with a palpable size of \ge 2 cm or a sonographically size of \ge 1 cm in maximum diameter. Stage of disease in which also adjuvant chemotherapy would be considered.

Primary Objectives:

- To compare the pCR rates of NACT with *versus* without capecitabine and 8 *versus* 12 cycles in patients with primary breast cancer.
- To compare the pCR rates in patients with HER-2/neu positive tumours receiving trastuzumab simultaneously to NACT to patients with HER-2/neu negative tumours receiving NACT only.

Treatment:

All patients will receive 4 cycles of EC:

- Epirubicin 90 mg/m² given simultaneously with
- Cyclophosphamide 600 mg/m², all day 1 q day 21

Thereafter they will be randomized to:

- Arm A: Docetaxel 100 mg/m² day 1 q day 21 for 4 cycles (EC-Doc)
- Arm B: Docetaxel 75 mg/m² day 1 q day 21 for 4 cycles concomitantly given with Capecitabine 1800 mg/m² day 1–14 q day 21 for 4 cycles (EC-DocX)
- Arm C: Docetaxel 75 mg/m² day 1 q day 21 for 4 cycles followed by Capecitabine 1800 mg/m² day 1–14 q day 21 for 4 cycles (EC-Doc-X)

Patients with HER-2/neu positive tumors will receive trastuzumab 6 mg/kg intravenous (i.v.) every 3 weeks concomitantly to cytotoxic treatment, starting with a loading dose of 8 mg/kg i.v. on day 1 of the first EC-cycle. A total number of 8 (in the EC-Doc and EC-DocX arm) or 12 (in the EC-Doc-X arm) infusions will be given preoperatively.

Scheme:	
	GeparQuattro
	A
	$R \xleftarrow{B} OP \not$
	OP
	Epirubicin Cyclophosphamide Docetaxel Capecitable If Her-2 pos: If endocrine 90 mg/m² 600 mg/m² 100 mg/m²(A) 1800 mg/m² Tesponsive Tesponsive 75 mg/m²(B,C) 76 mg/m²(B,C) 6 mg/kg qow 1year Tam/Als Tesponsive
Update:	 Enrolment period: August 2005–December 2006. Planned patients: 1042. Enrolled patients: 510.
Related	None available

Related	None av
Publications:	

Topics:

- AnthracyclinesCapecitabine
- Locally advanced breast cancer
- Taxanes
- Trastuzumab

Keywords:

Preoperative chemotherapy

Title:Randomized study comparing $6 \times FEC$ with $3 \times FEC$ followed by
 $3 \times$ docetaxel in high-risk node-negative patients with operable breast
cancer: comparison of efficacy and evaluation of clinico-pathological and
biochemical markers as risk selection criteria.
A joint study of AGO, the EORTC Receptor and Biomarker Group, and the
GBG (GBG 42 / NNBC 3-Europe).

Coordinator(s): Principal Investigators:

Professor Dr med. C. Thomssen University of Halle, Frauenklinik Ernst-Grube-Strasse 40 06047 Halle an der Saale GERMANY Tel: +49 345 557 1847 Fax: +49 345 557 1501 Email: christoph.thomssen@medizin.uni-halle.de

Professor Dr med. N. Harbeck Klinikum Rechts der Isar, Frauenklinik Ismaninger St. 22 81675 München GERMANY Tel: +49 894140 2420 Fax: +49 894140 4965 Email: nadia.harbeck@lrz.tu-muenchen.de

Project Management:

Dr M. Zerm German Breast Group Forschungs GmbH Schleussner St. 42 63263 Neu-Isenburg GERMANY Tel: +49 6102 79874 27 Fax: +49 6102 79874 40 Email: zerm@germanbreastgroup.de

Summary: Design:

The trial is a prospective, randomized multi-centre open-label Phase III trial that is designed to detect a difference in efficacy between two chemotherapy regimens (FE100C*6 *versus* FE100C*3 followed by Docetaxel100*3) in high-risk node-negative breast cancer patients. Additionally, risk assessment by the traditional clinico-pathological factors and by tumour-biological factors (aPA/PAI-1) will be compared.

Study Population:

Primary breast cancer, tumour size \ge 0.5 cm and \le 5 cm (pT1b-pT2, pN0, M0), age \ge 18 years, \le 70 years

Aims/Endpoints:

- Amongst the chemotherapy treated population:
 - The primary endpoint of the study is Disease-Free Survival (DFS).
 - The secondary endpoints are: Overall Survival (OS) and safety.
- Amongst the entire population of registered patients:
 - DFS in each low-risk group (or of each patient group stratified for type of risk selection, respectively).
 - The proportion of node-negative breast cancer patients grouped into each low-risk group.
 - Side-effects of chemotherapy in each patient group.



Patients with hormone sensitive disease should receive endocrine treatment according to the latest recommendations of the AGO. *= fresh tumour tissue in centres with biological risk assessment, additionally in all patients paraffin blocks for central review.

Update:	• 999 patients enrolled as of October 2006.
Related Publications:	Jänicke F, Prechtl A, Thomssen C, <i>et al.</i> for the German "Chemo- N0" Study Group. Randomized adjuvant chemotherapy trial in high-risk, lymph node-negative breast cancer patients identified by urokinase-type plasminogen activator and plasminogen activator inhibitor type 1. <i>J Natl</i> <i>Cancer Inst</i> 2001; 93(12): 913–920.
	Look MP, van Putten WLJ, Duffy MJ, <i>et al.</i> Pooled analysis of prognostic impact of uPA and PAI–1 in 8377 breast cancer patients. <i>J Natl Cancer Inst</i> 2002; 94(2): 116–128.
	Harbeck N, Kates RE, Gauger K, <i>et al.</i> Urokinase-type plasminogen activator (uPA) and its inhibitor PAI-I: novel tumor-derived factors with a high prognostic and predictive impact in breast cancer. <i>Thromb Haemost</i> 2004; 91(3): 450–456. Review.
	Hayes DF. Prognostic and predictive factors revisited. <i>Breast</i> 2005; 14(6): 493–499. <i>Epub</i> 2005 Oct 18. Review.
Topics:	 Taxanes Prognostic factors Node-negative breast cancer UPA PAI-1
Keywords:	Taxanes, prognostic factors, node-negative breast cancer, uPA, PAI-1