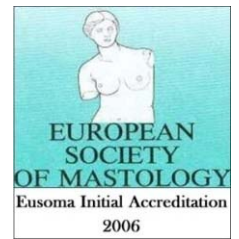


# Primär systemische Therapie beim Mammakarzinom

**W.Eiermann Claus Hanusch A.Albert M.Kern H.Schuhmacher B.Ataseven**

**ROTKREUZKLINIKUM München, Frauenklinik**

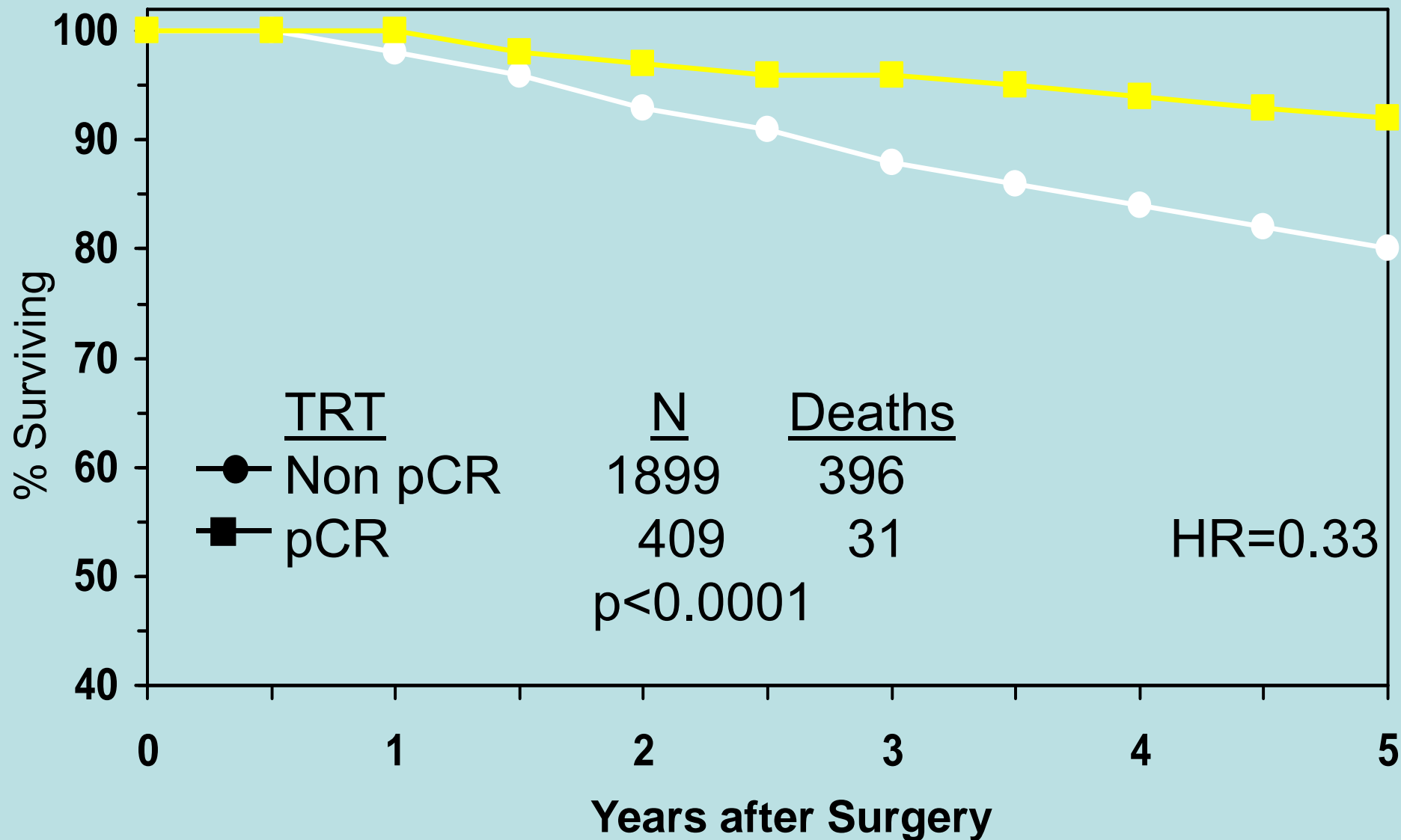
**Akad. Lehrkrankenhaus der TU München  
EUSOMA –Brustzentrum  
Cancer Internat. Research Group (CIRG)  
Translational Research In Oncology (TRIO)  
Michelangelo Foundation  
GABG - GBG**



# Primär systemische Therapie

Chemotherapie +/- Herceptin oder endokrine  
Therapie

# NSABP B-27: Survival pCR vs. non-pCR Pat.



# ECTO: Main Efficacy Outcome at 7 years

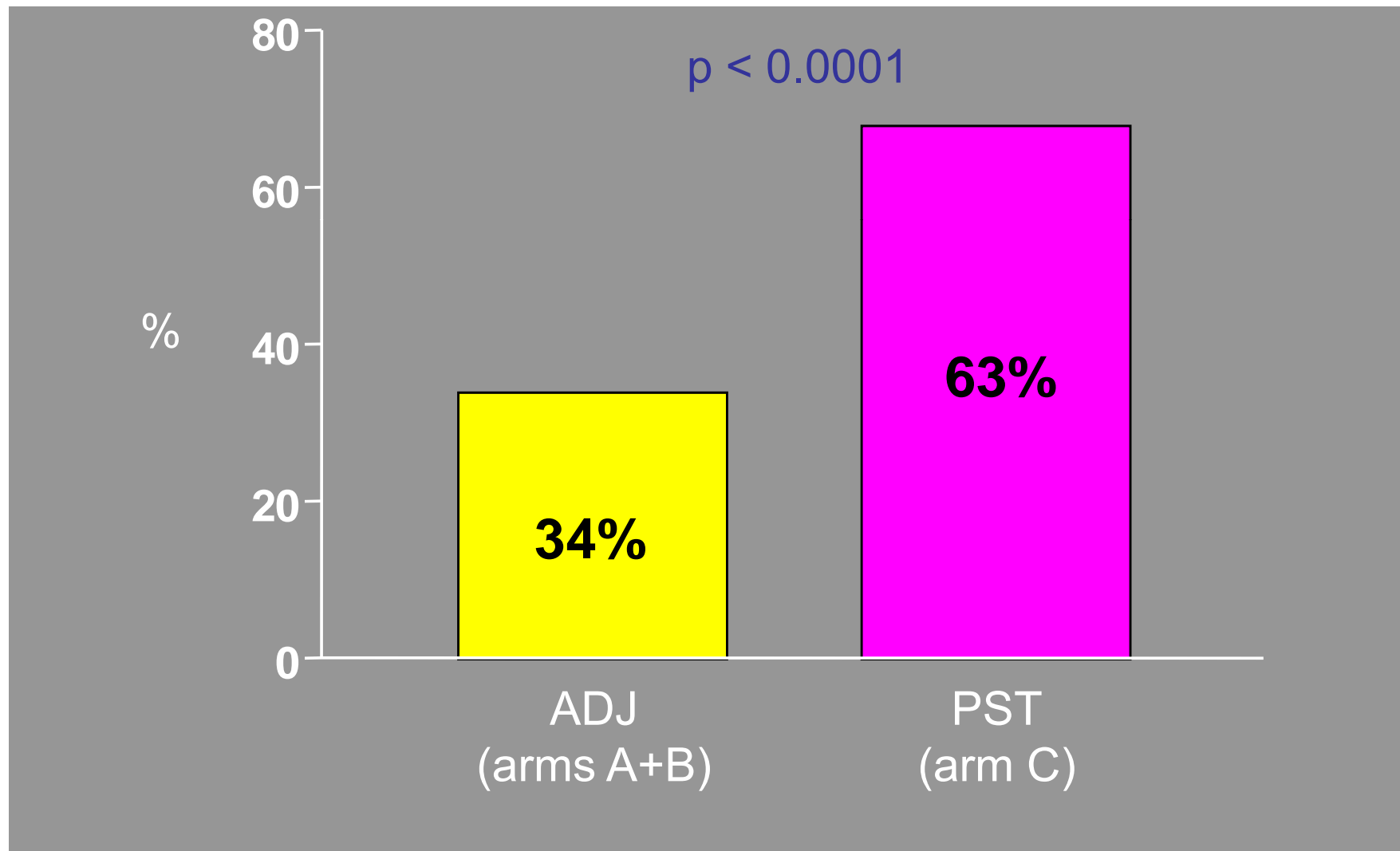
	Arm A S→A→CMF	Arm B S→AT→CMF	Arm C AT→CMF→S
RFS	69%	76%	72%
DRFS	77%	84%	80%
OS	82%	85%	84%
LBR			
Cons.	6.9%	5.2%	5.3%
Mast.	2.3%	3.5%	2.7%

# Primär systemische Therapie

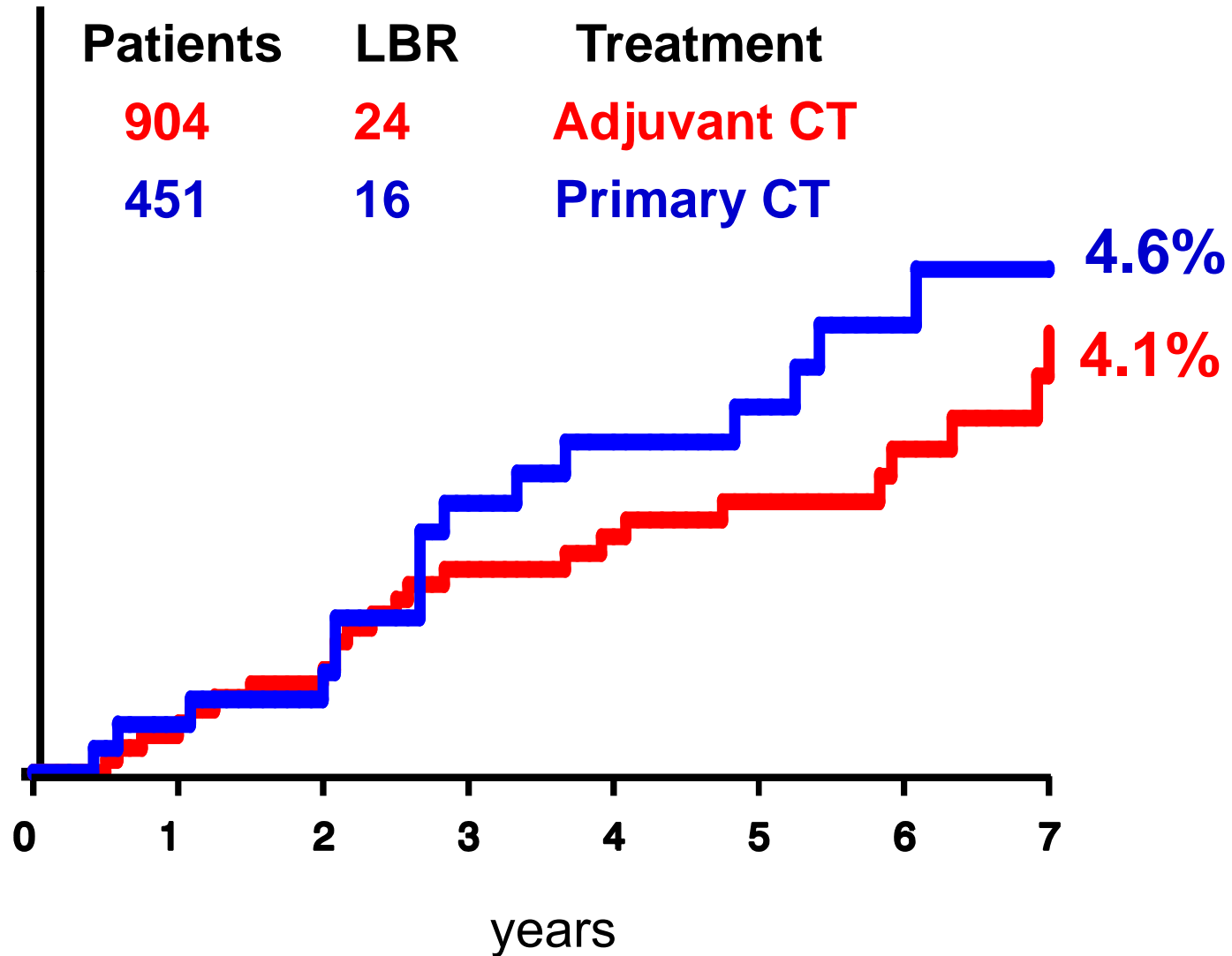
## Zusammenhang: Rezeptorstatus und pCR

Autor	Patienten- zahl	Regime	% HR negativ	% pCR in HR negativ	% pCR in HR positiv
Houston	1018	Pooled data	NA	20,6	5,6
Geparduo	913	dd AD/AC- doc	26,3	22,8	6,2
<b>ECTO</b>	<b>438</b>	<b>AP-CMF</b>	<b>38,2</b>	<b>42,2</b>	<b>11,6</b>
NSABP-B27	2411	AC vs AC-doc	32	16,7	8,3
Gepartrio	286	DAC/DAC-NX	31,9	36,6	10,1
Gepardo	250	dd AD +/Tam	43,9	15,4	1,1

# ECTO: Rate of breast conserving surgery



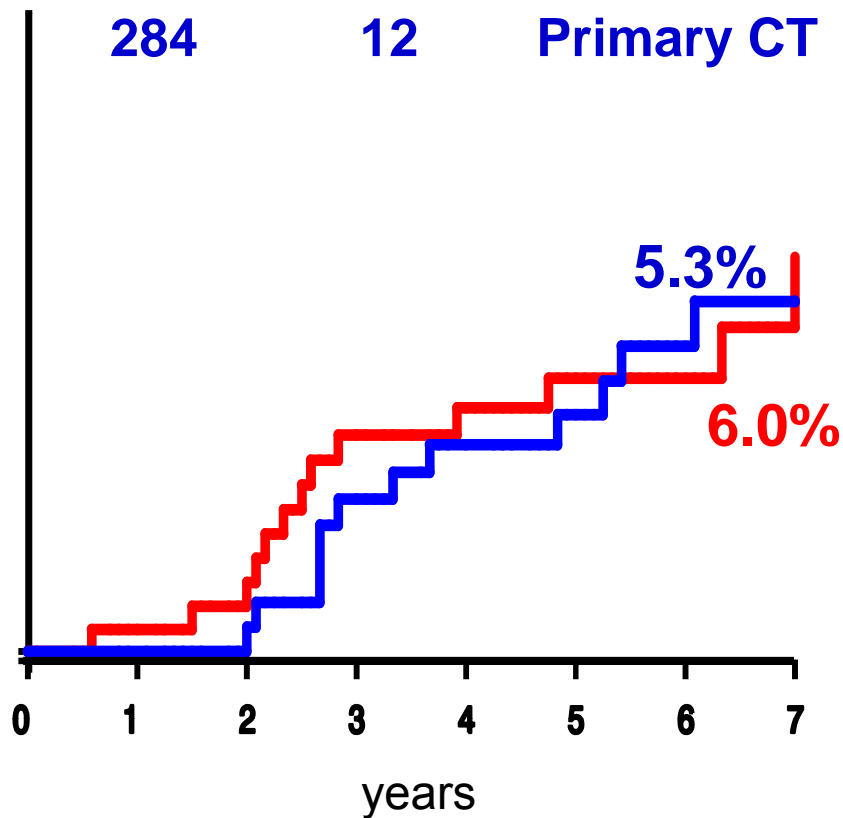
# ECTO: Cumulative risk of LBR



# ECTO: Cumulative risk of LBR

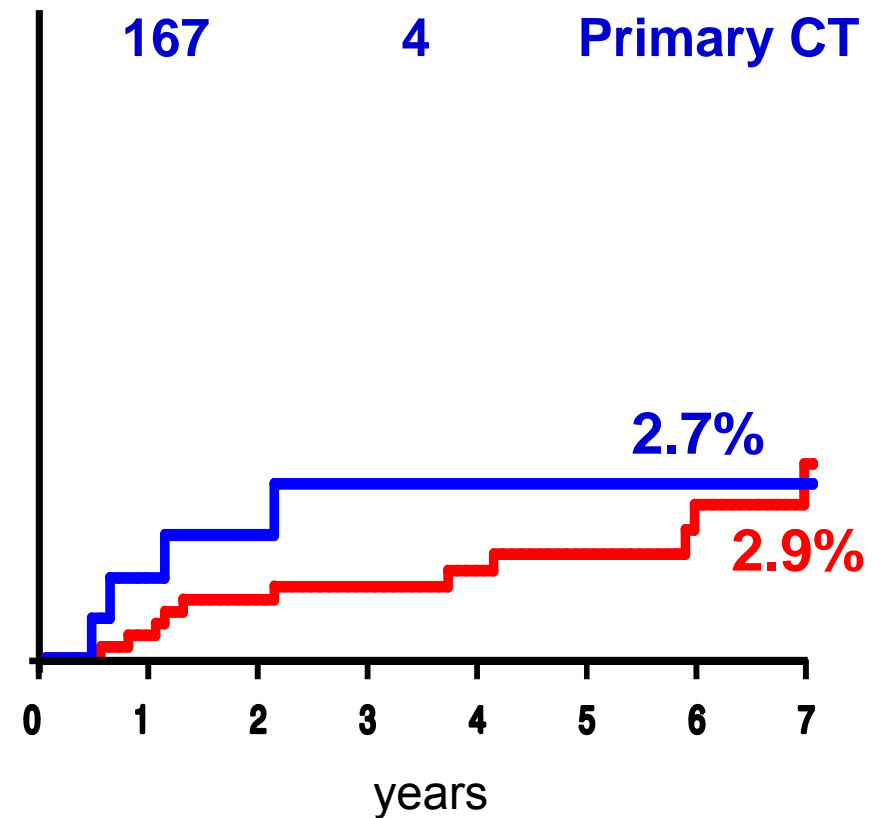
## Conservative surgery

Patients	LBR	Treatment
307	13	Adjuvant CT
284	12	Primary CT



## Mastectomy

Patients	LBR	Treatment
597	11	Adjuvant CT
167	4	Primary CT





# **Faktoren die eine hohe LRR nach PST mit BET vorhersagen**

- **Klinisch N 2 – 3**
- **Verbliebener Tumor über 2 cm**
- **Multifokaler Resttumor nach PST**
- **Lymphangiosis**
- **Vaskuläre Invasion**

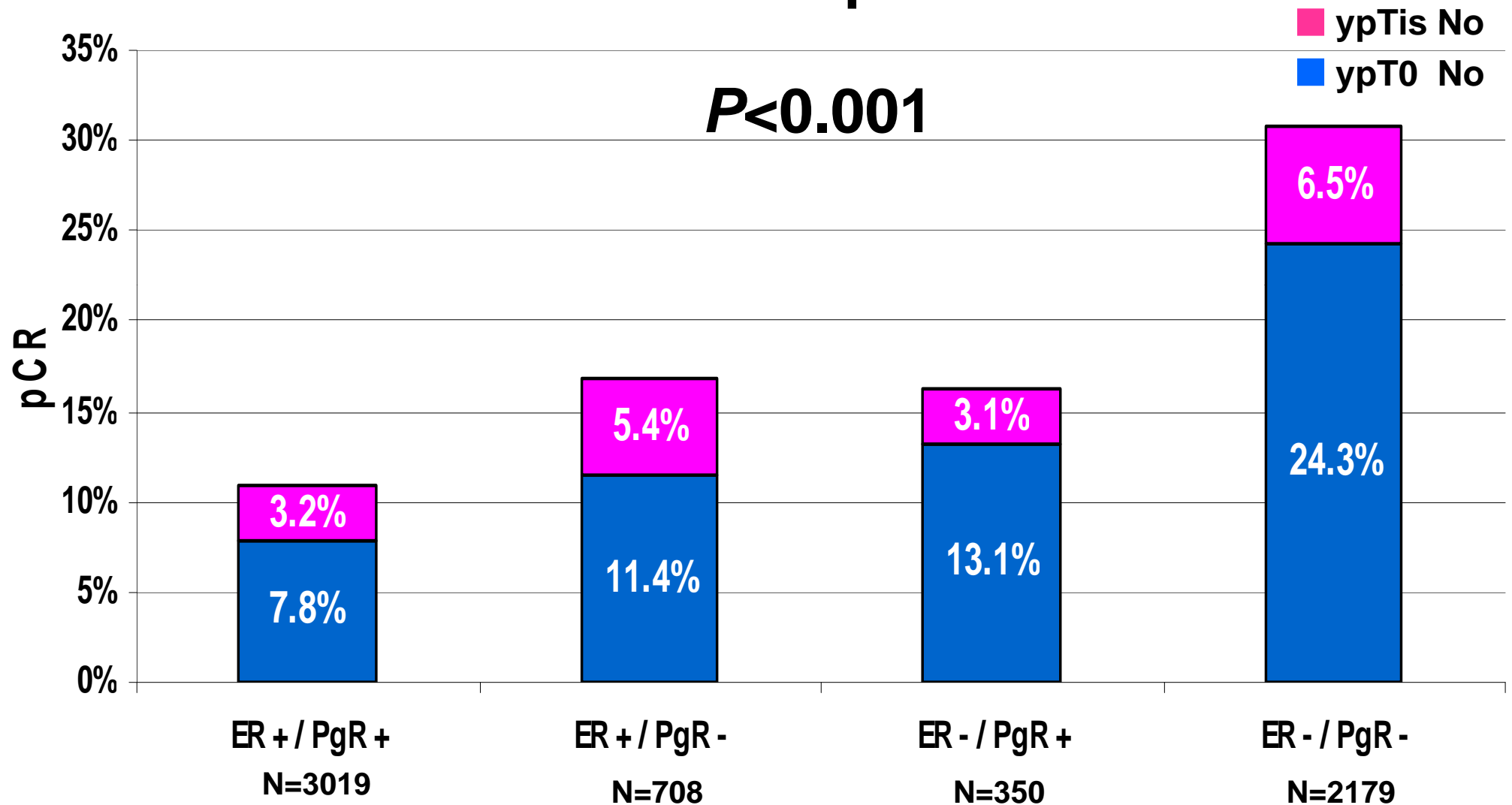
**Integrated meta-analysis on  
6634 patients with early breast cancer  
receiving neoadjuvant  
anthracycline-taxane +/- trastuzumab  
containing chemotherapy**

**von Minckwitz G, Kaufmann M, Kümmel S, Fasching P,  
Eiermann W, Blohmer JU, Costa SD, Loibl S, Mehta K, Untch**



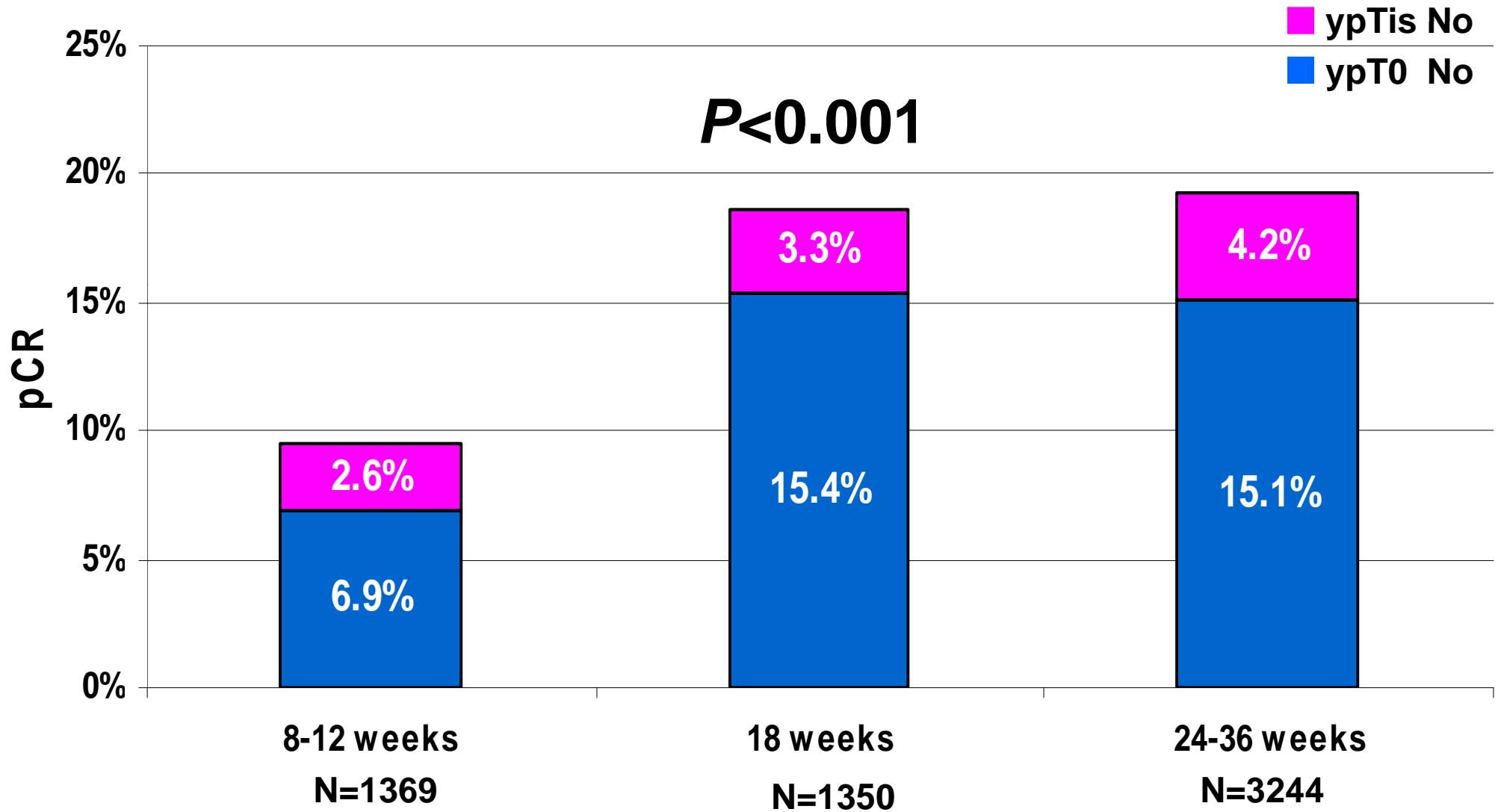
# Predictive Factors

## Hormone Receptor Status



# Treatment Group Effects\*

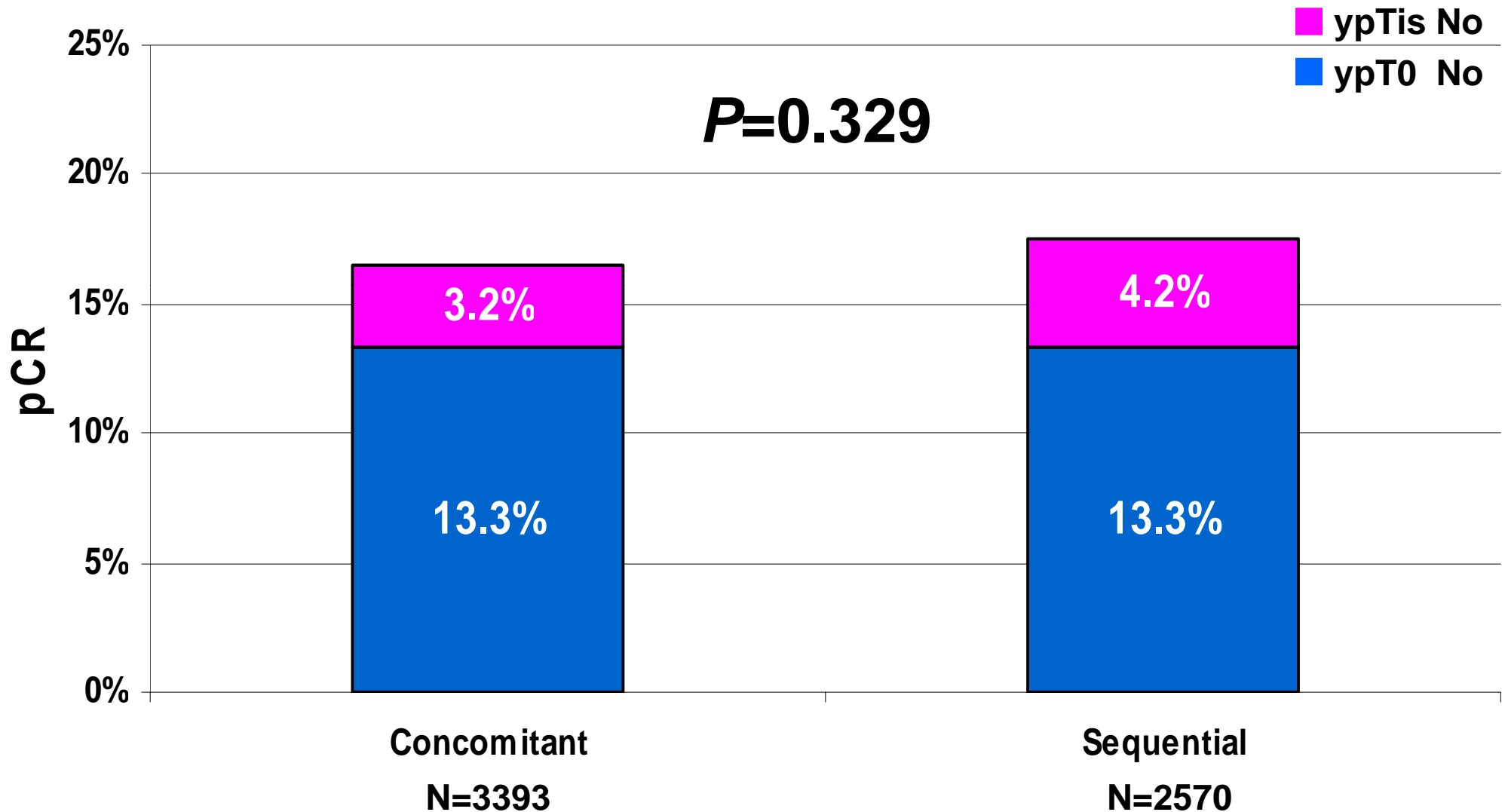
## Planned Duration of Regimen



\* excluding patients treated with trastuzumab

# Treatment Group Effects\*

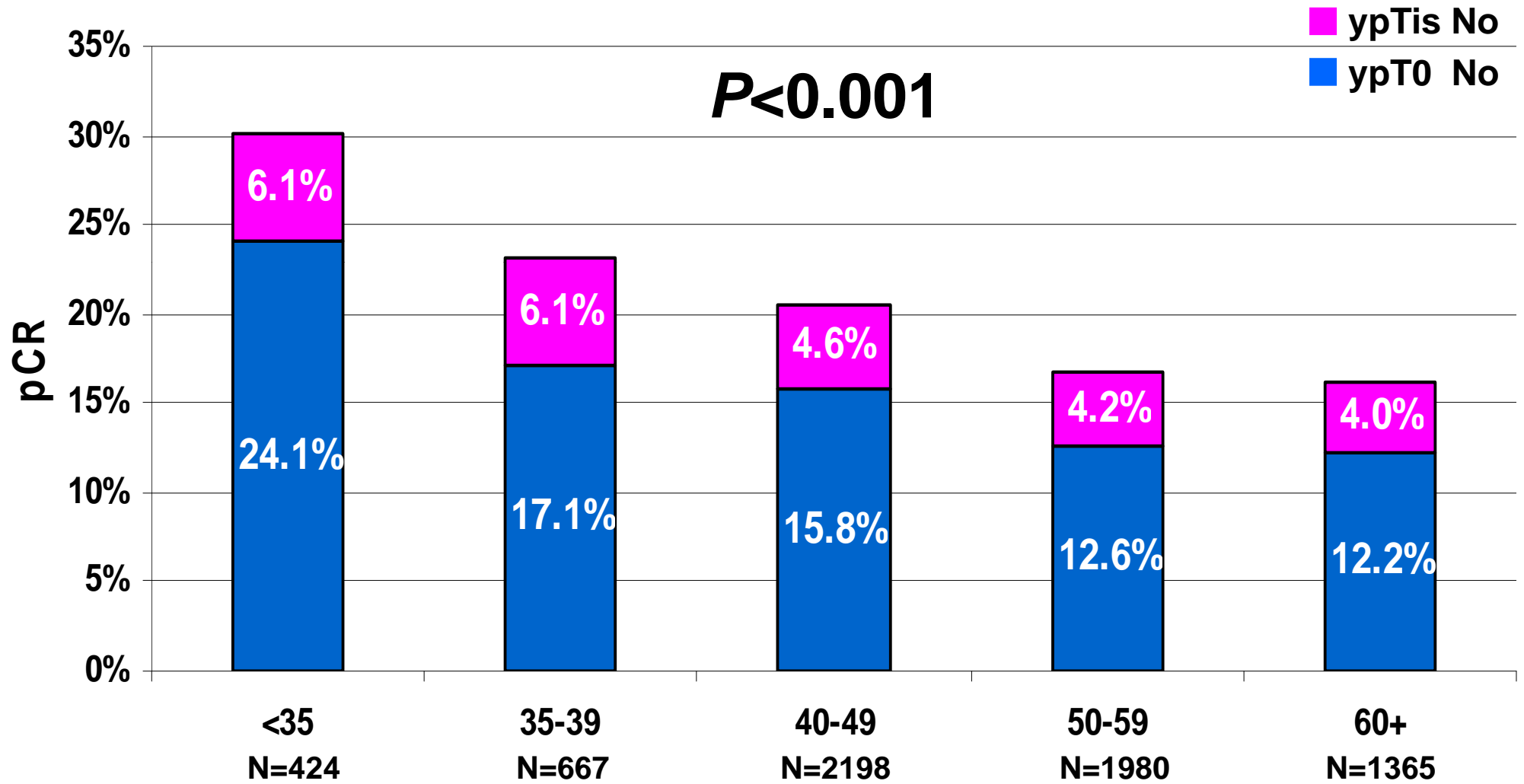
## Concomitant vs. Sequential



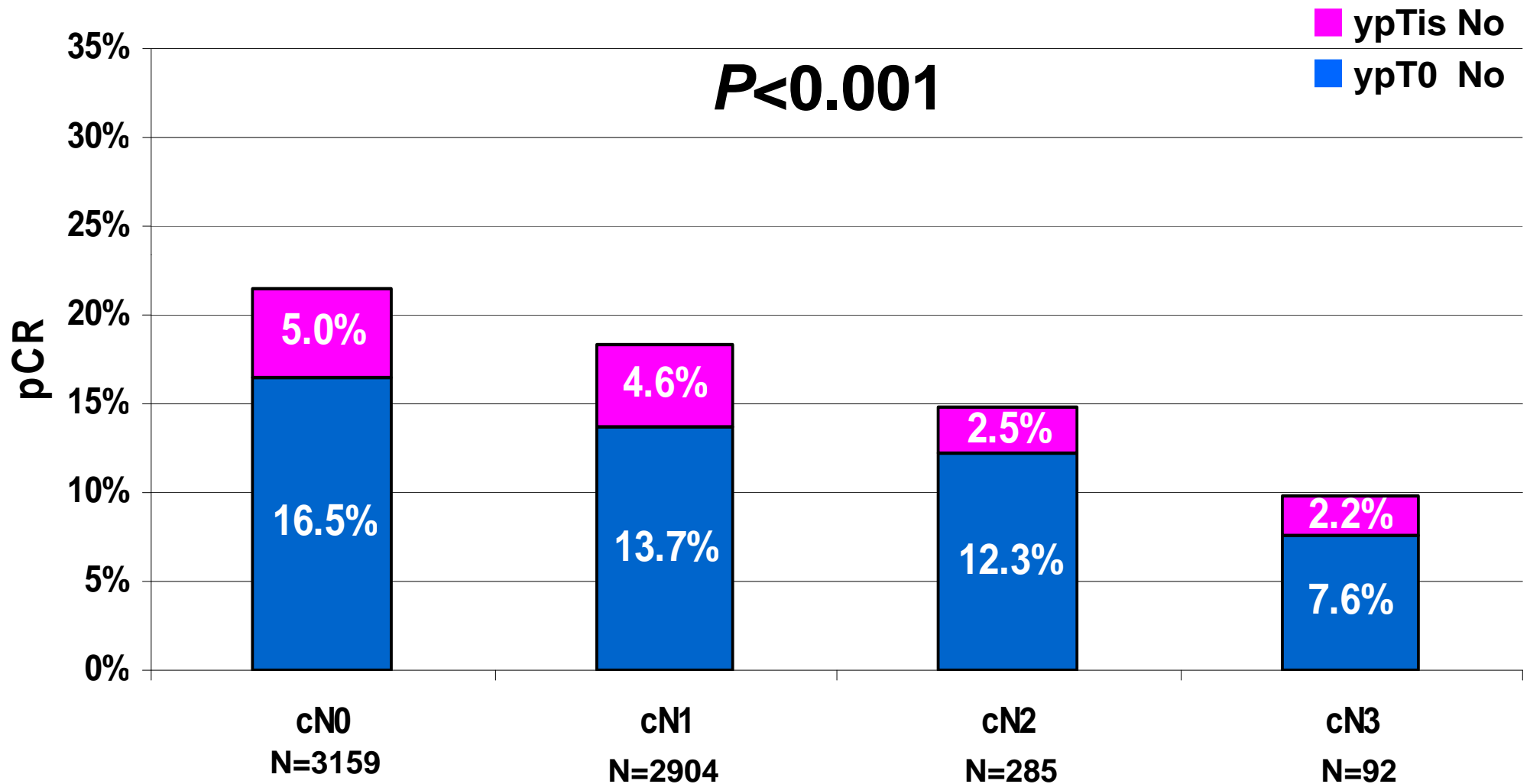
\* excluding patients treated with trastuzumab

# Predictive Factors

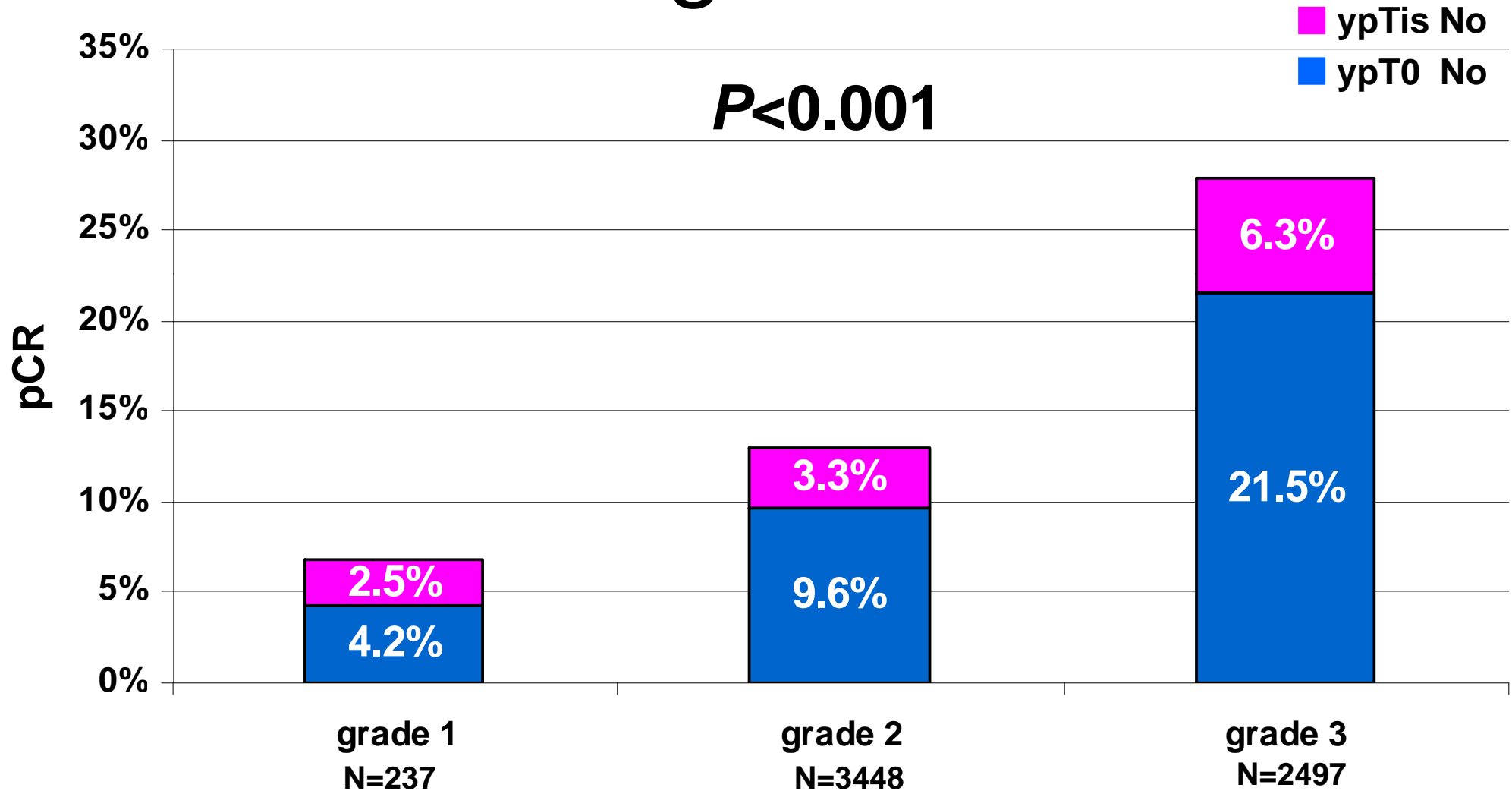
## Age



# Predictive Factors Clinical Nodal Stage



# Predictive Factors Histological Grade





# **Hormonrezeptor pos. Mammakarzinom und PST**

- **Niedrige pCR Rate ca. 10%**
- **Falls Brusterhaltende Therapie erwünscht sinnvoll**
- **Alternative Option präoperativ Aromatasehemmer (Letrozol oder Anastrozol )**

# GEPARTRIO

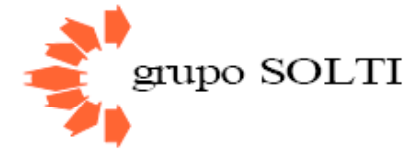
- frühes Ansprechen (2 Zyklen) prädiktiv für pCR
- aber die frühen Non responder zeigen trotzdem noch 5% pCR

# **Invasiv lobuläres Carcinom**

**pCR Rate bei 3% vs 20 % bei invasiv ductalem Ca.**

# Triple neg. Mamma Ca (TNBC)

- Höhere pCR Rate als non -TNBC 22 vs 11%
- Bei pCR vergleichbares OS (Liedtke 2008)
- Bei Resttumor nach Chemotherapie hat TNBC schlechteres OS im Vergleich zu non TNBC mit Resttumor

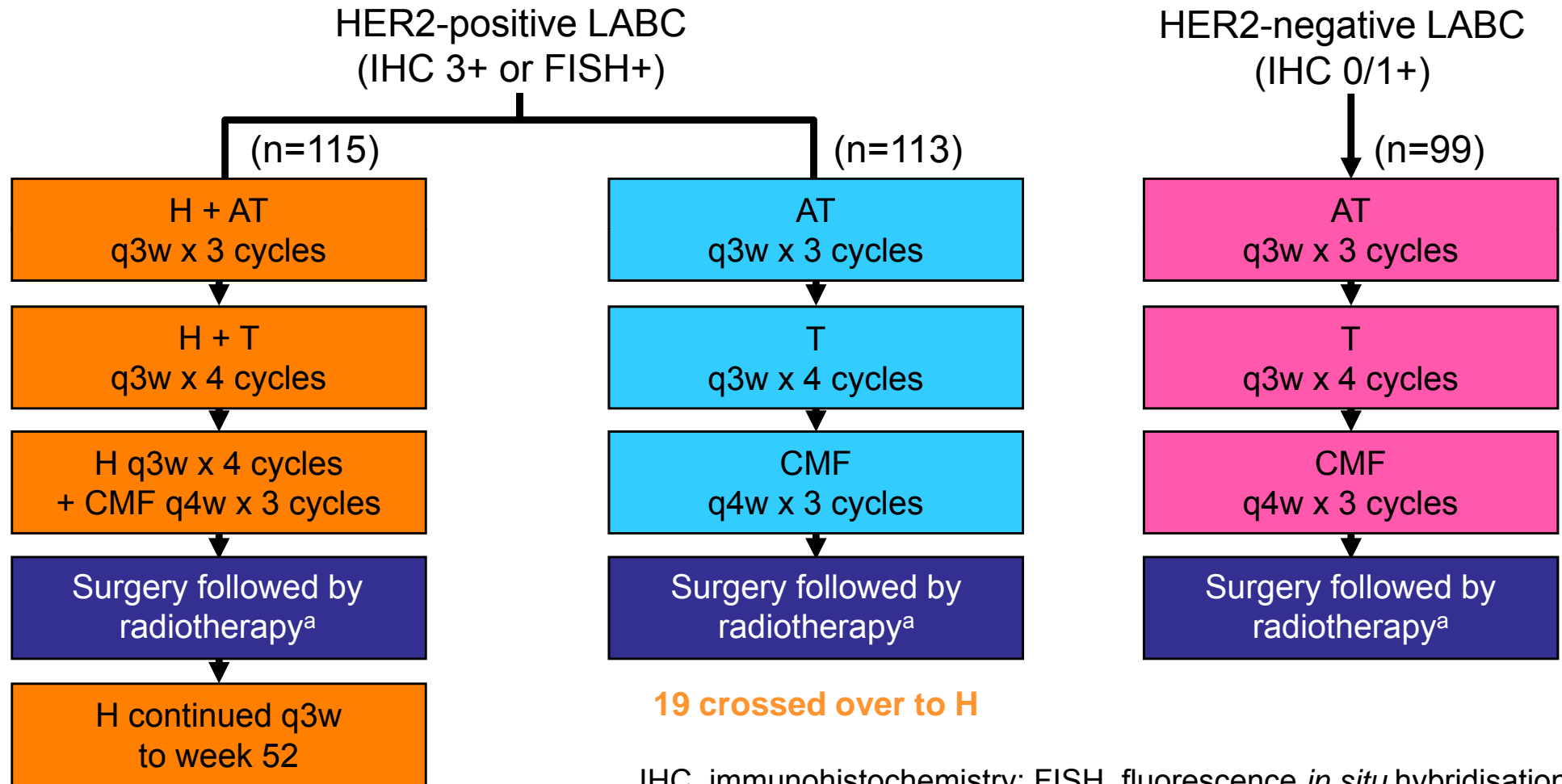


# **Neoadjuvant trastuzumab in patients with HER2-positive locally advanced breast cancer: primary efficacy analysis of the NOAH trial**

**L Gianni, W Eiermann, V Semiglazov, GM Manikhas, A Lluch, S Tjulandin, A Feyereislova, P Valagussa, J Baselga**

*The study is co-sponsored by the Michelangelo Foundation and F Hoffmann-La Roche*

# NOAH study design



IHC, immunohistochemistry; FISH, fluorescence *in situ* hybridisation;  
H, trastuzumab (8 mg/kg loading dose then 6 mg/kg); AT, doxorubicin (60 mg/m<sup>2</sup>), paclitaxel (150 mg/m<sup>2</sup>);  
q3w, every 3 weeks; T, paclitaxel (175 mg/m<sup>2</sup>); q4w, every 4 weeks  
<sup>a</sup>Hormone receptor-positive patients will receive adjuvant tamoxifen

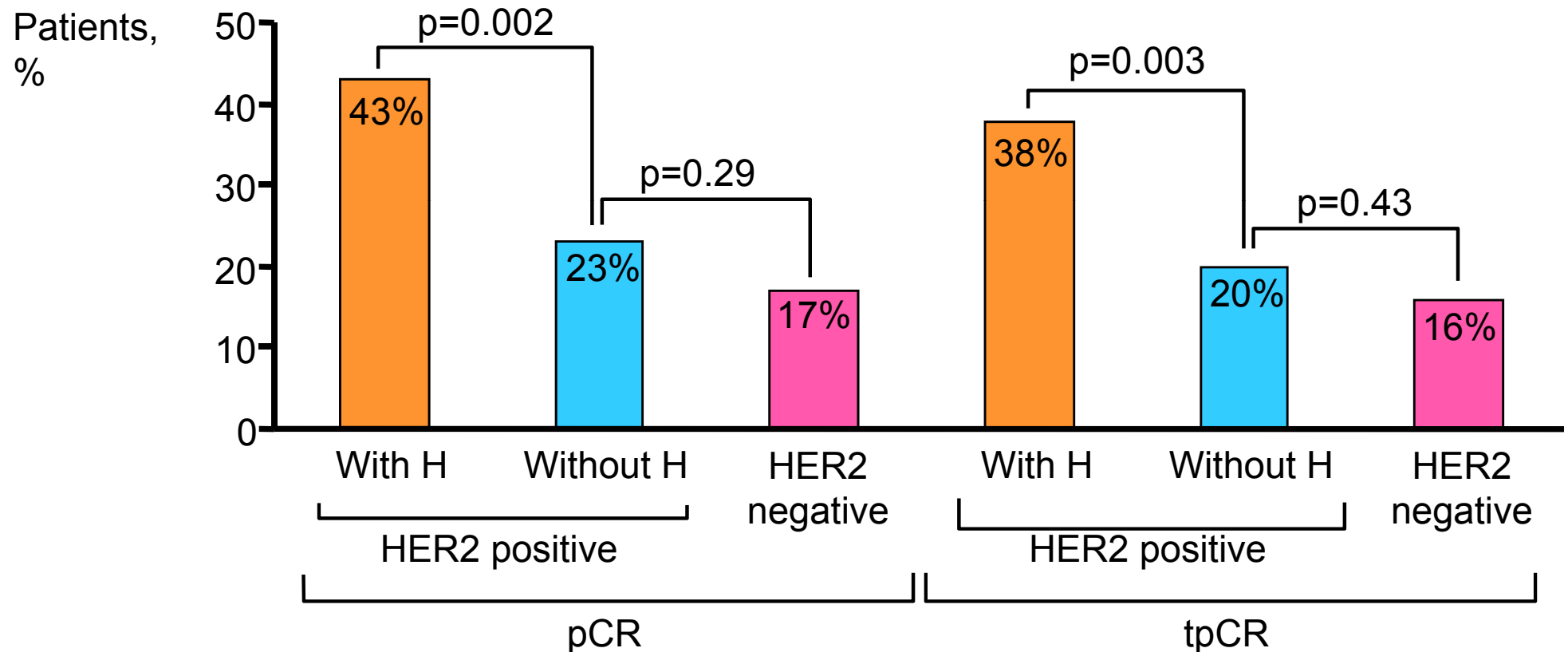
# Baseline characteristics (1)

	HER2 positive		HER2 negative
	With H (n=115)	Without H (n=112 <sup>a</sup> )	(n=99)
Stage group, %			
T4, non-inflammatory	42	43	44
Inflammatory disease	27	27	14
N2 or ipsilateral nodes	31	30	41
Hormone receptor status, %			
ER and / or PgR positive	35	35	64
Both negative	65	65	36
Age group, %			
<50 years	46	41	51
≥50 years	54	59	49

<sup>a</sup>1/113 did not receive ethics approval for the last protocol amendment at the moment of the analysis

ER, oestrogen receptor; PgR, progesterone receptor

# pCR of primary tumour: intent-to-treat population

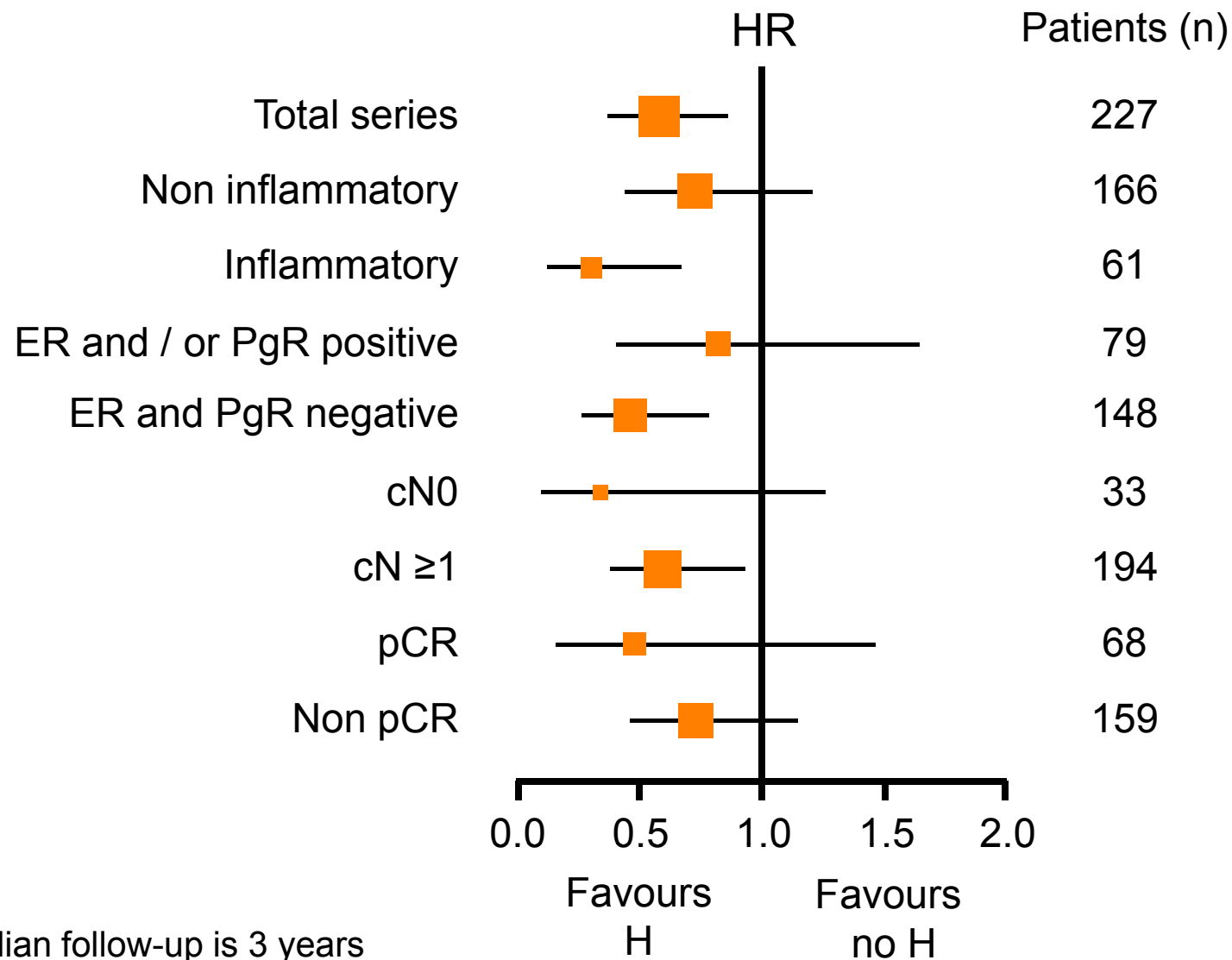


tpCR: total pathologic complete response in breast and nodes

Eiermann et al 2008;  
Semiglazov et al 2008



# EFS by subgroup analysis of patients with HER2-positive disease: with vs without trastuzumab



Median follow-up is 3 years

# **Prim. systemische endokrine Therapie**

**Kein Standard**

**Ältere Pat. mit fortgeschrittenem Ca.**

**Bei Ablehnung einer Chemotherapie**

**Keine Daten i.d. Prämenopause**

**Beste Datenlage mit Letrozol**

# Primär systemische endokrine Therapie

## Aromataseinhibitoren in der Postmenopause

Autor/Studie	Patienten- zahl	Therapie	cRR (%)	BCS (%)
Eiermann et al 2001	337	Letrozol vs Tam	55 vs 36	45 vs 35
Smith et al 2003 IMPACT	330	Anastrozol vs Tam vs Anastrozol+Tam	37 vs 36 vs 39	46 vs 22 vs 26
Gil et al 2004	55	Exemestan	45	42
Paepke et al 2003	33	Letrozol (4 Mo) Vs Letrozol (8 Mo)	57 vs 90	67
Semiglazov et al 2004	121	Chemo Vs Anastrozol Vs Exemestan	76 vs 76 vs 82	24 vs 32 vs 34

# **Welchen Pat. ist Prim.syst. Therapie als Alternative zur Adj.Therapie zu empfehlen?**

- 1. Primär inoperables bzw. nicht brusterhaltend operables Ca.**
- 2. Inflammatorisches Ca.**
- 3. Stadium IIIA-B oder T3 oder Beteiligung ipsilateraler supra –oder infraclav. Lnn (N3)**
- 4. Rezeptorneg. und / oder HER2 neu pos. Befund nach Stanzbiopsie**
- 5. Kontraindikation für Chirurgie**

# Behandlungsvorschläge ausserhalb klin. Studien die empfohlen werden können.

Regime	Dosierung (mg/m <sup>2</sup> )	Zeitablauf
AC/EC-D (P)	A75, E90, C600, D100	Jeweils 4 Zyklen 3 wöchentlich
DAC/DEC	D75, A50, E75, C500	6 Zyklen 3 wöch.
AP-CMF	A60, P200, CMF i.v.	4 Zyklen 3 wöch. 4 Zyklen Tag 1+8, q 28

A=Doxorubicin, C=Cyclophosphamide, E=Epirubicin, D=Docetaxel, P=Paclitaxel,  
M=Methotrexate, F=5-Fluorouracil

# Primär systemische Chemotherapie MammaCa - Vorteile

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- **In vivo Chemosensitivitäts-Test**
- **Schnelle Beurteilung der Effektivität neuer Therapieregime**
- **Beurteilung von Tumorsprechen durch Patientin**
- **Vergleich von Biomarkern mit Tumorsprechen (prädiktive Faktoren, Resistenz-Faktoren)**
- **Erhöhte BET-Rate**
- **Plattform für Phase III – Studien adjuvant**