



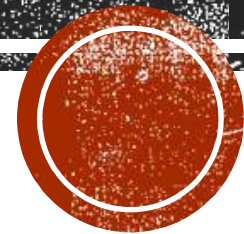
UPDATES FROM THE

ST. GALLEN B.C.C. 2019

Andrea Villasco, Lorenzo Novara, Nicoletta Biglia



NEOADJUVANT CHEMOTHERAPY



NEOADJUVANT CHEMOTHERAPY: RATIONALE

- **pCR:** strong and independent **prognostic factor**
- **non-pCR:** higher risk population who can benefit from **additional treatment strategies**
- **Mammary and axillary downstaging:** rise in BCS and ALND avoidance



NEOADJUVANT CHEMOTHERAPY: BACK FROM THE... END



BCC 2019

16th St.Gallen International Breast Cancer Conference 2019

Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus

20–23 March 2019, Vienna/Austria

Neo-adjuvant systemic therapy

183.

Neoadjuvant systemic therapy is the preferred initial treatment for women with stage II and III TNBC and HER2+ breast cancer regardless of suitability for lumpectomy at presentation:

1) Yes



2) No



2,0%

5) Abstain



0%



WHY SHOULD WE CHOOSE NEOADJUVANT CHEMOTHERAPY?

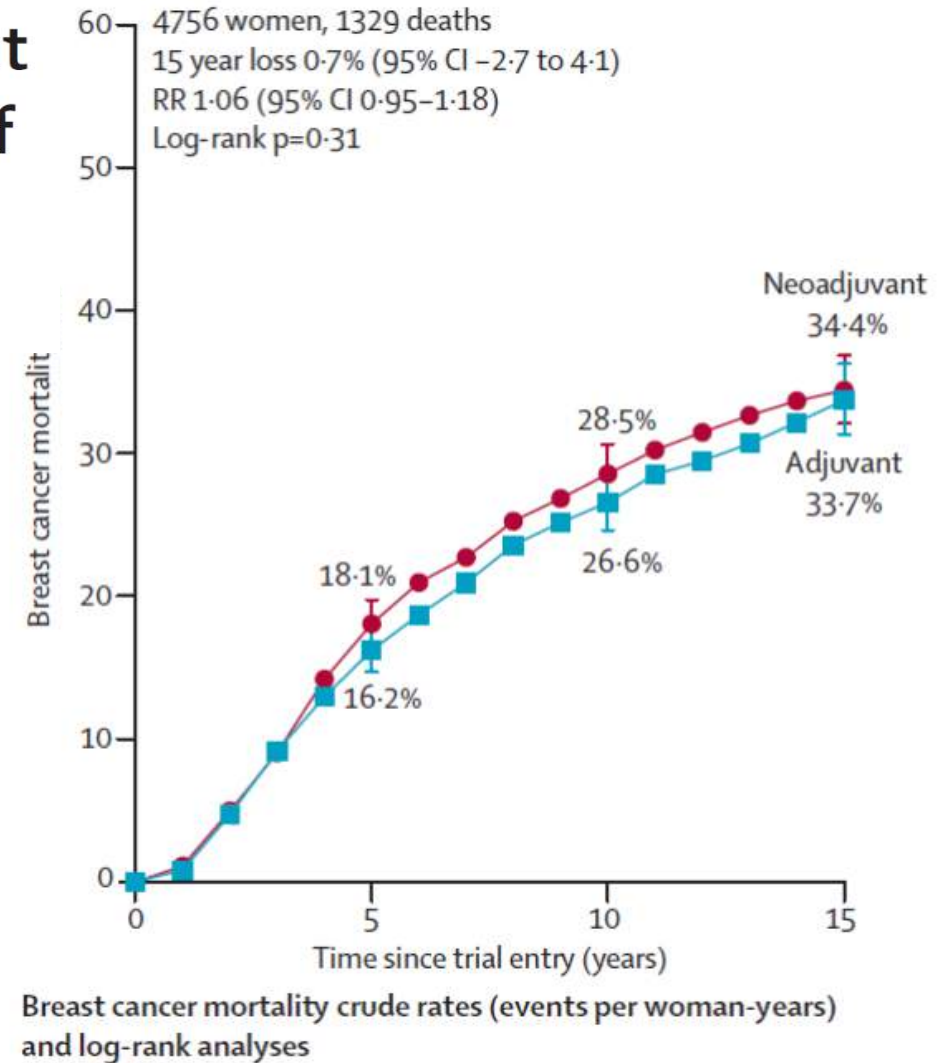
Long-term outcomes for neoadjuvant versus adjuvant chemotherapy in early breast cancer: meta-analysis of individual patient data from ten randomised trials

Early Breast Cancer Trialists' Collaborative Group (EBCTCG)*

THE LANCET
Oncology

Volume 19, Issue 1, January 2018, Pages 27-39

- **No significant difference between** NACT and adjuvant chemotherapy was noted for **distant recurrence** (RR 1.02 [95% CI 0.92–1.14]; $p=0.66$), **breast cancer mortality** (RR 1.06 [0.95–1.18]; $p=0.31$), or **death from any cause** (RR 1.04 [0.94–1.15]; $p=0.45$).



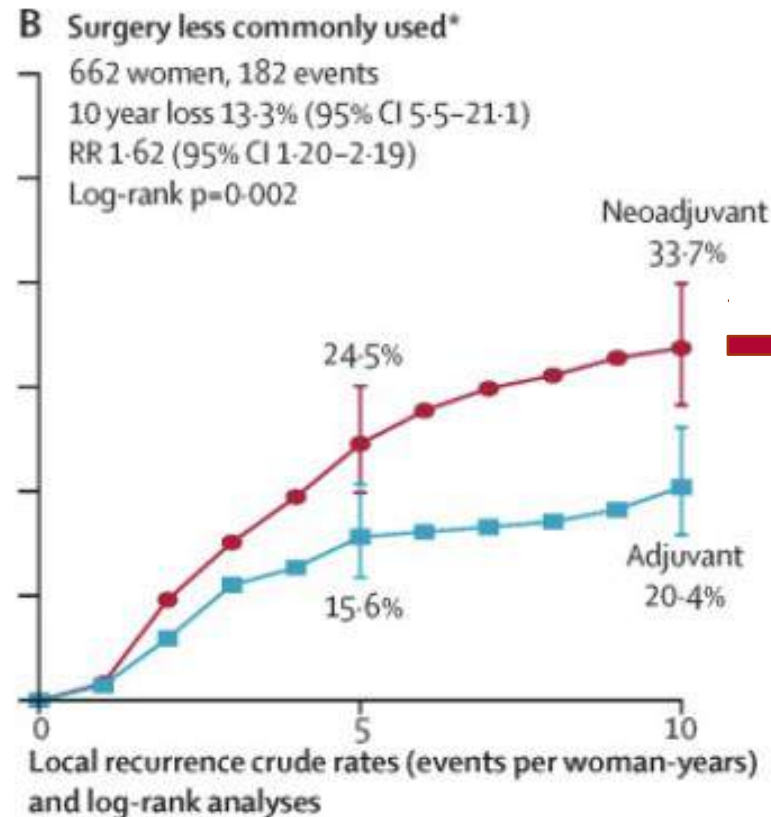
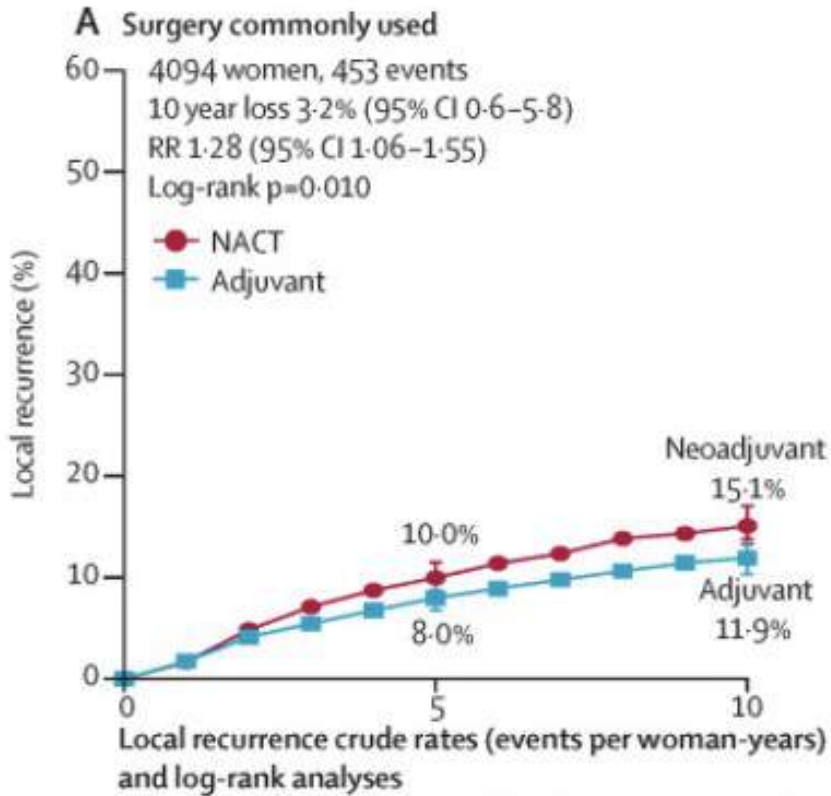
WHY SHOULD WE CHOOSE NEOADJUVANT CHEMOTHERAPY?

Long-term outcomes for neoadjuvant versus adjuvant chemotherapy in early breast cancer: meta-analysis of individual patient data from ten randomised trials

Early Breast Cancer Trialists' Collaborative Group (EBCTCG)*

THE LANCET
Oncology

Volume 19, Issue 1, January 2018, Pages 27-39

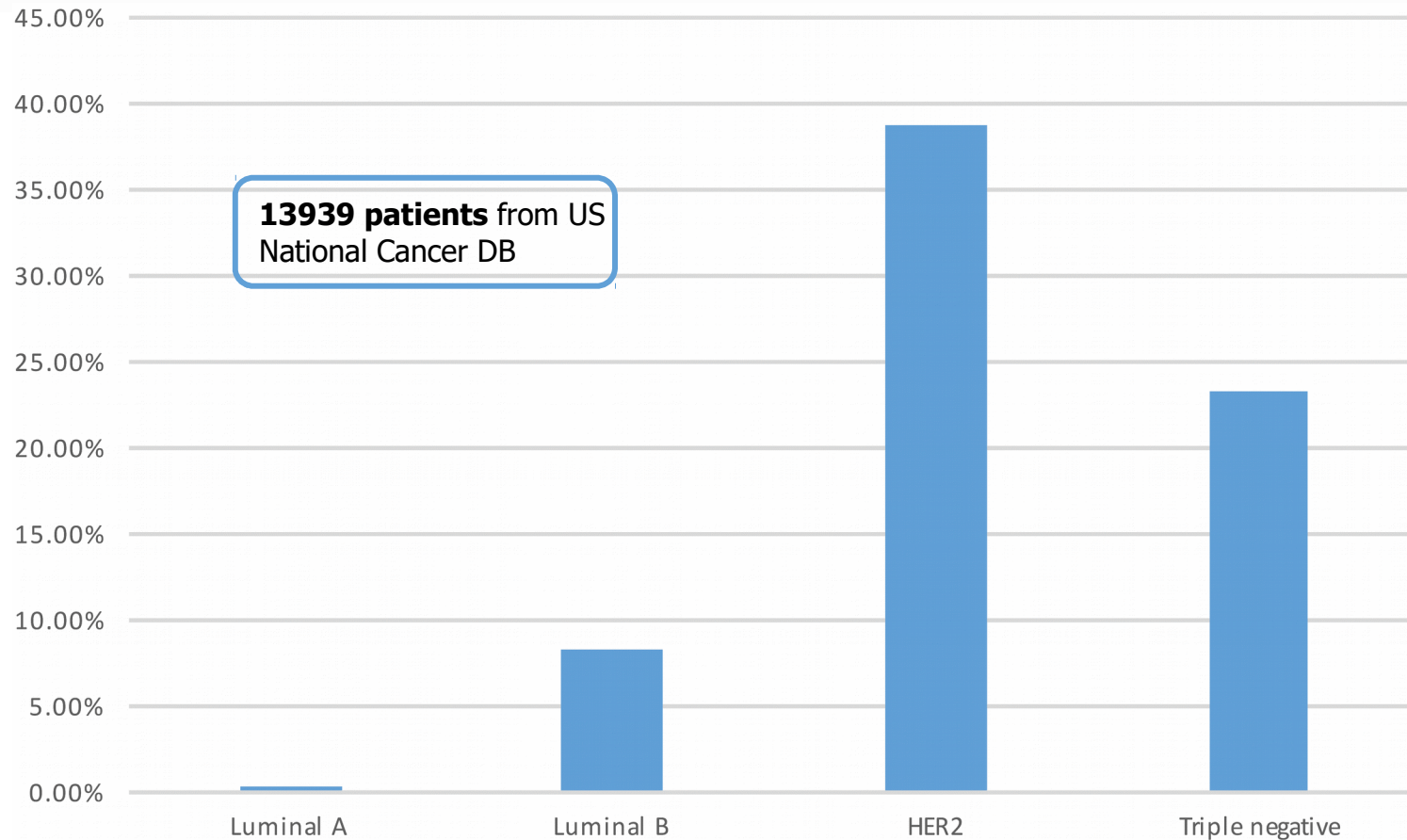
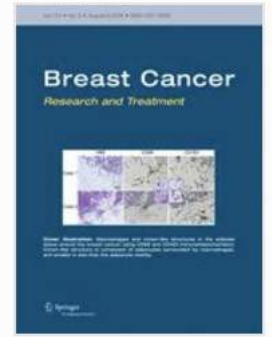


The absolute increase in 10-year local recurrence with NACT was largest in the two trials, in which, after NACT, many women did not have breast surgery



EFFECTIVENESS OF NACHT BASED ON MOLECULAR SUBTYPE

Response rates and pathologic complete response by breast cancer molecular subtype following neoadjuvant chemotherapy



[Breast Cancer Research and Treatment](#)

... August 2018, Volume 170, [Issue 3](#), pp 559–567 | [Cite as](#)

Overall, **19%** of all patients achieved pCR, the lowest in luminal A (0.3%) and the **highest in Her2 (38.7%)**



EFFECTIVENESS OF NACHT BASED ON

1 **MOLECULAR SUBTYPE**

JAMA Oncology | Review

Melissa Pilewskie, MD; Monica Morrow, MD

Axillary Nodal Management Following Neoadjuvant Chemotherapy

A Review *JAMA Oncol.* 2017;3(4):549-555. doi:10.1001/jamaoncol.2016.4163



Table 5. Rates of Axillary Nodal Pathologic Complete Response (ypNO) by Tumor Subtype

Source	No./Stage	Pathologic Complete Response, %			Chemotherapy Regimen
		HR+/HER2-	HER2+	Triple Negative	
Zhang et al, ⁵³ 2013	301/Stage II-III	46	72	69	51% Taxane based; 95% HER2+ received trastuzumab
Boughey et al, ²⁵ 2014	756/pN+	21	65	49	75% Anthracycline and taxane; 89% HER2+ received trastuzumab
Kim et al, ²⁷ 2015	415/pN+	29	49	54	86% Anthracycline and taxane; 10% HER2+ received trastuzumab
Mamtani et al, ²⁸ 2016	195/pN+	21	82	47	97% Dose-dense doxorubicin, cyclophosphamide, and paclitaxel, 9% carboplatin; 100% HER2+ received trastuzumab plus pertuzumab
A L-Tweigeri et al, ⁴⁸ 2016	80/Stage II-III	50	79	73	Fluorouracil, epirubicin, and cyclophosphamide, cisplatin/docetaxel; 100% HER2+ received trastuzumab
Diego et al, ²⁹ 2016	30/pN+	0	69	67	Chemotherapy regimen unknown; 100% HER2+ received trastuzumab

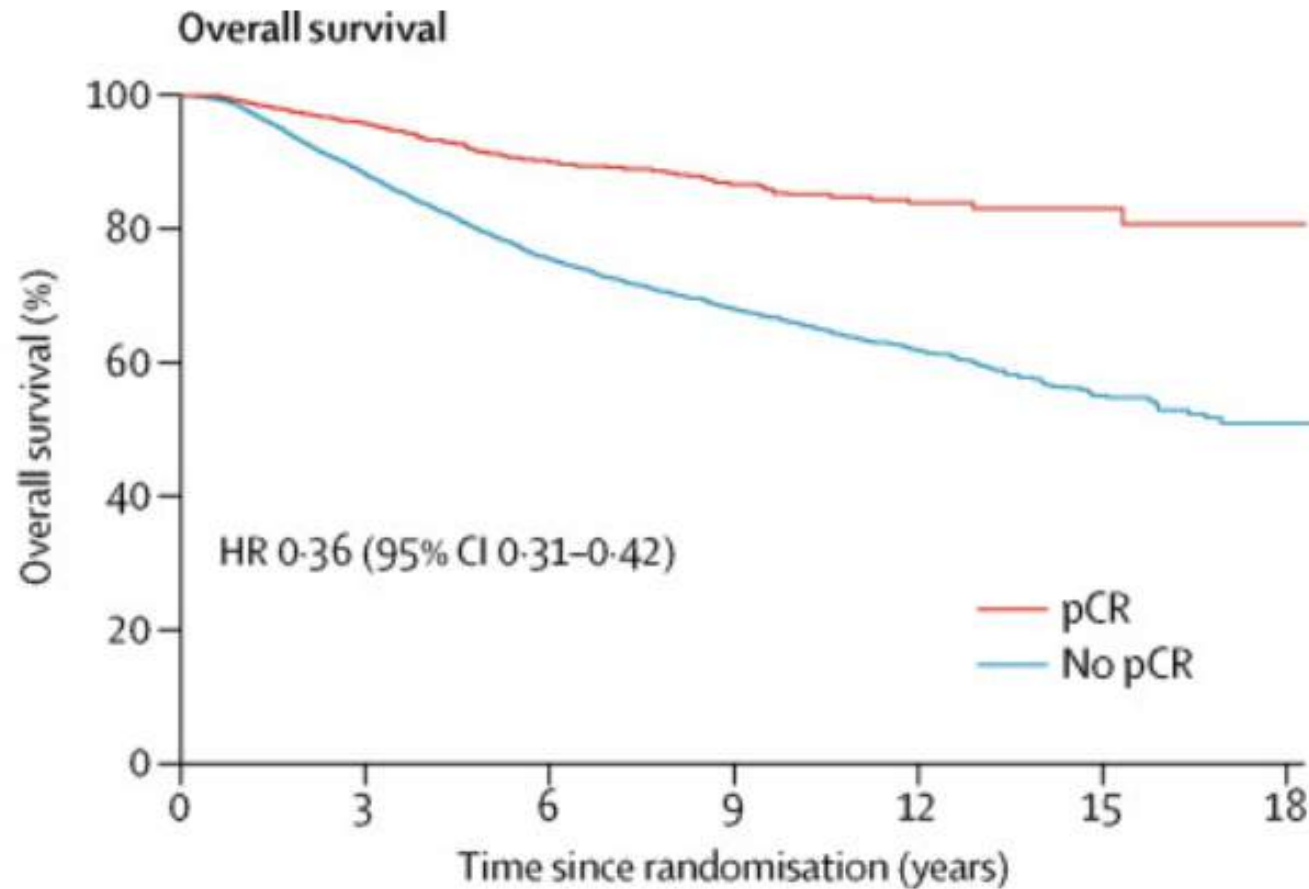
Rates of axillary pathological complete response after NACHT according to molecular subtypes.



WHY SHOULD WE CHOOSE NEOADJUVANT CHEMOTHERAPY?

Pathological complete response and long-term clinical benefit in breast cancer: the CTNeoBC pooled analysis

THE LANCET
Volume 384, Issue 9938, 12–18 July 2014, Pages 164-172



12 international trials
and **11955 patients**

Patients who attain **pathological complete response** defined as ypT0 ypN0 or ypT0/is ypN0 **have improved OS.**

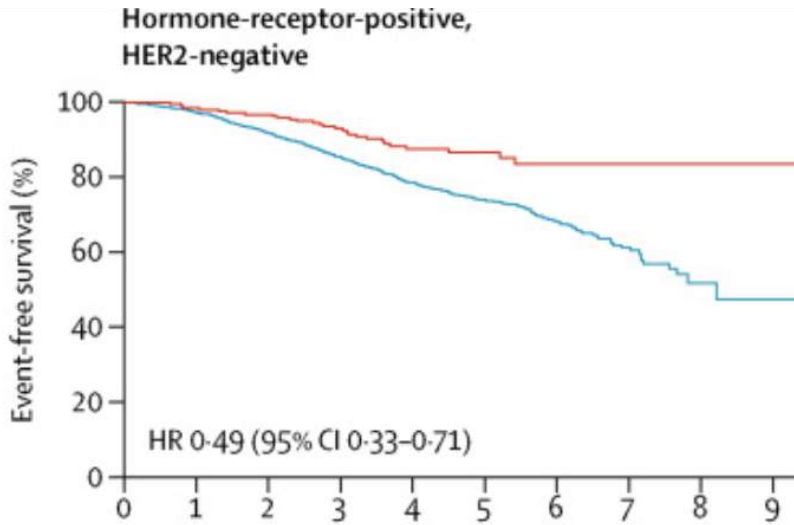


WHY SHOULD WE CHOOSE NEOADJUVANT CHEMOTHERAPY?

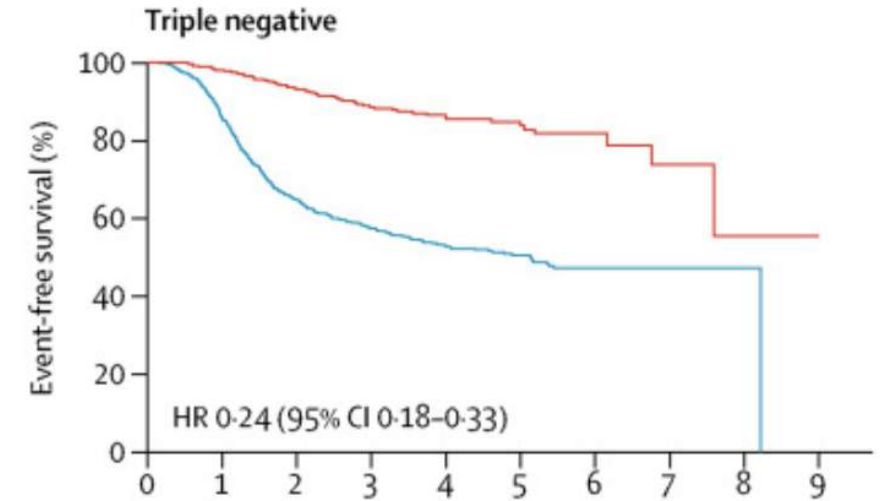
Pathological complete response and long-term clinical benefit in breast cancer: the CTNeoBC pooled analysis

THE LANCET

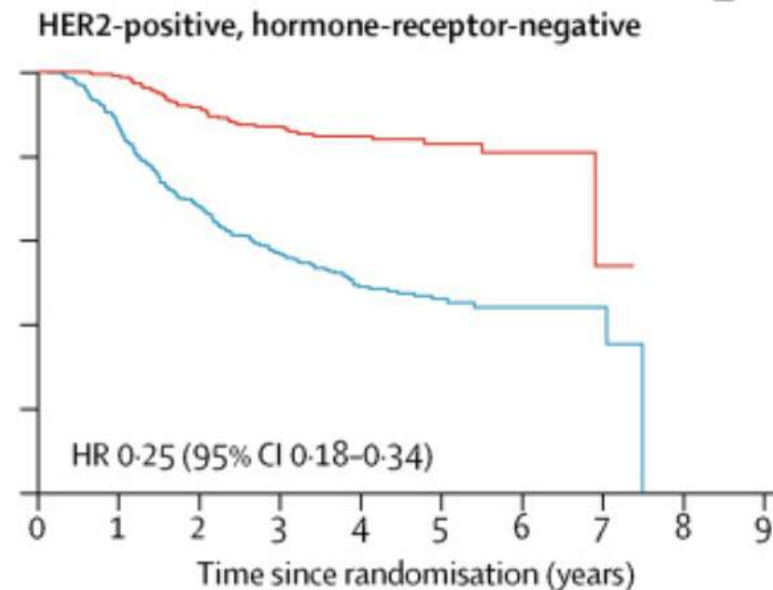
Volume 384, Issue 9938, 12–18 July 2014, Pages 164-172



12 international trials and **11955** patients



Patients who attain **pathological complete response** defined as ypT0 ypN0 or ypT0/is ypN0 **have improved DFS.**



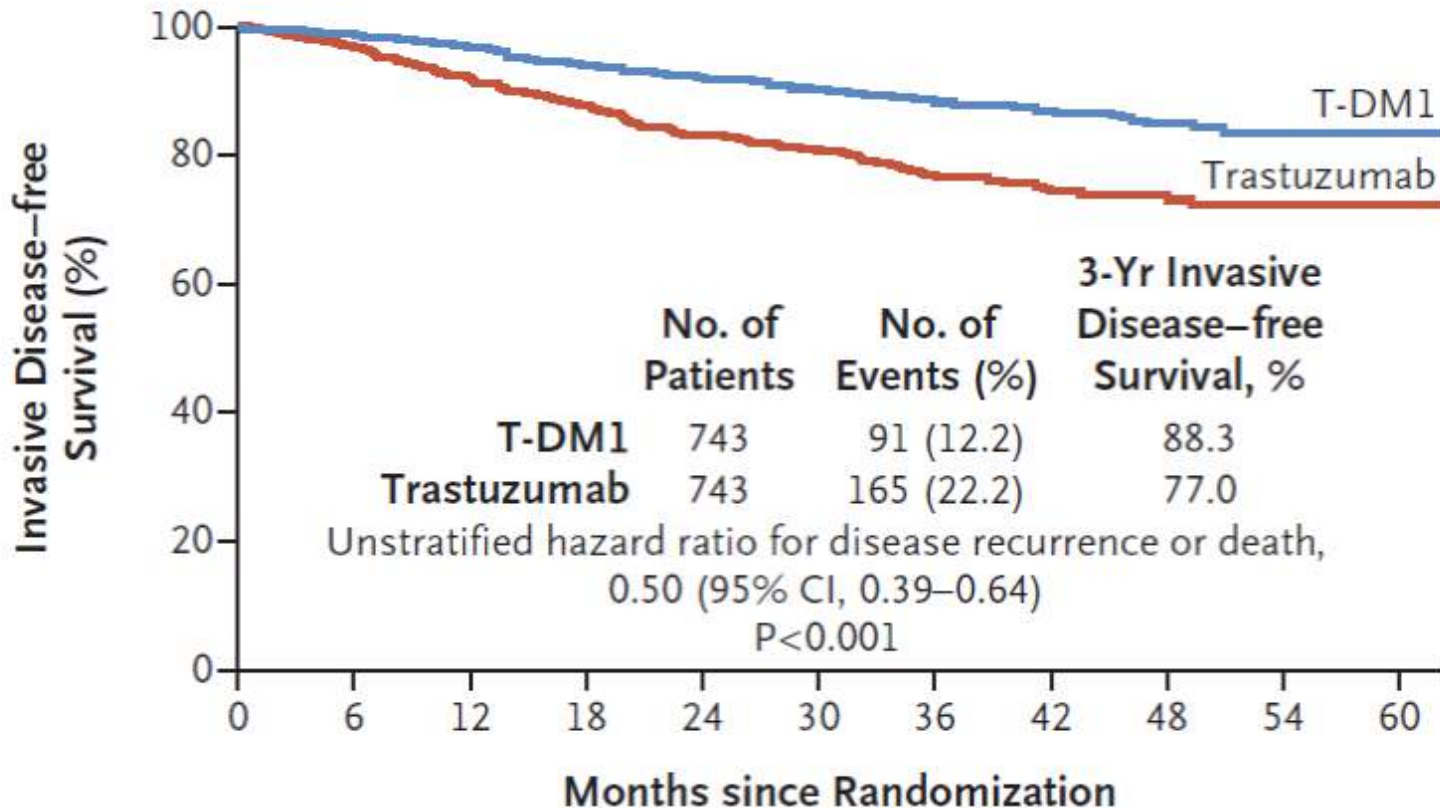
— pCR
— No pCR



NON-PCR: OPTIONS

Trastuzumab Emtansine for Residual Invasive HER2-Positive Breast Cancer

1486 patients with HER2-positive early breast cancer who were found to have **residual invasive disease in the breast or axilla at surgery after receiving neoadjuvant therapy** containing a taxane (with or without anthracycline) and trastuzumab. Patients were randomly assigned to receive **adjuvant T-DM1** (743 pt) or **trastuzumab** (743) for 14 cycles.



The risk of recurrence of invasive breast cancer or death was **50% lower** with **adjuvant T-DM1** than with **trastuzumab alone**



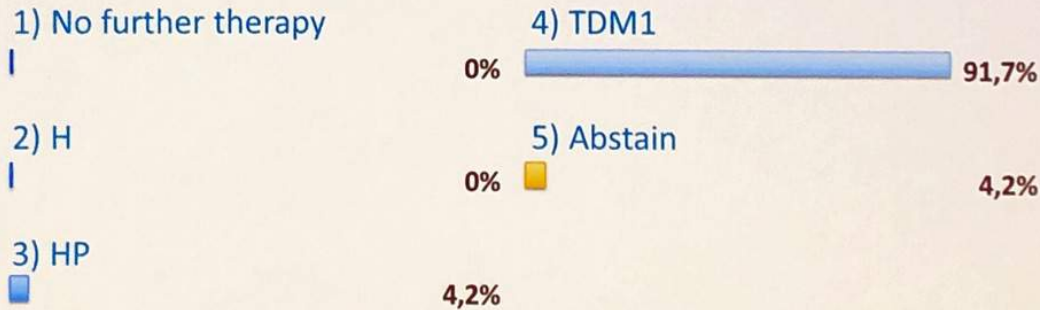
NON-PCR: OPTIONS FOR HER2 + BC



Management of residual disease after neoadjuvant therapy: HER2+

189.

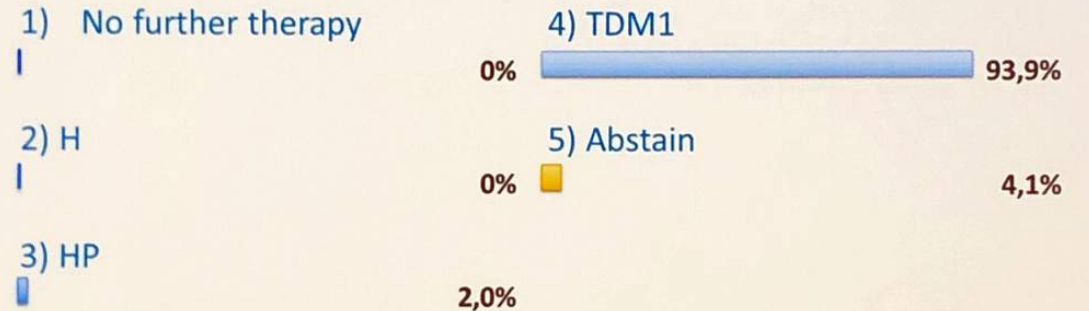
If there is residual cancer in breast and/or axillary LN (no pCR/near pCR) following neoadjuvant TCH or AC/EC -> TH (without P), in HER2+ breast cancer, your preferred systemic therapy is:



Management of residual disease after neoadjuvant therapy: HER2+

190.

If there is residual cancer in breast and/or axillary LN (≥ 1 cm residual cancer) following neoadjuvant TCHP or AC/EC -> THP, in HER2+ breast cancer, the preferred systemic therapy is:



NON-PCR: OPTIONS

The NEW ENGLAND JOURNAL of MEDICINE

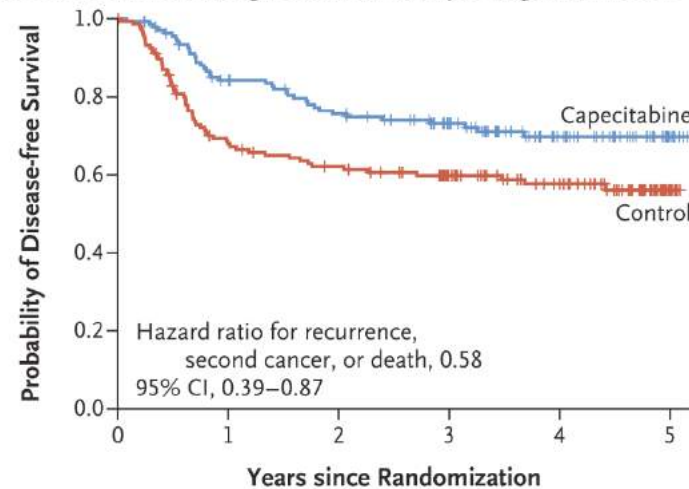
June 1, 2017

Adjuvant Capecitabine for Breast Cancer after Preoperative Chemotherapy

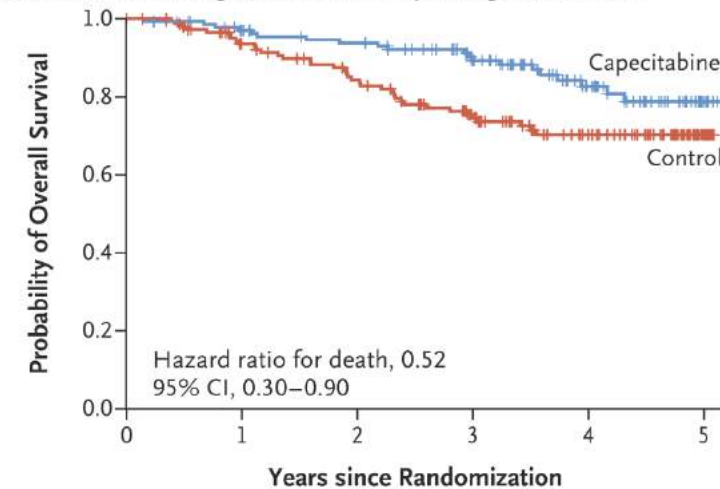
910 patients with HER2-negative residual invasive breast cancer after neoadjuvant chemotherapy (containing anthracycline, taxane, or both) to receive standard postsurgical treatment either with **capecitabine or without** (control).

After standard neoadjuvant chemotherapy, the **addition of adjuvant capecitabine therapy is safe and effective in prolonging disease-free survival and overall survival** among patients with HER2-negative breast cancer **who had residual invasive disease on pathological testing.**

C Disease-free Survival among Patients with Triple-Negative Disease



D Overall Survival among Patients with Triple-Negative Disease



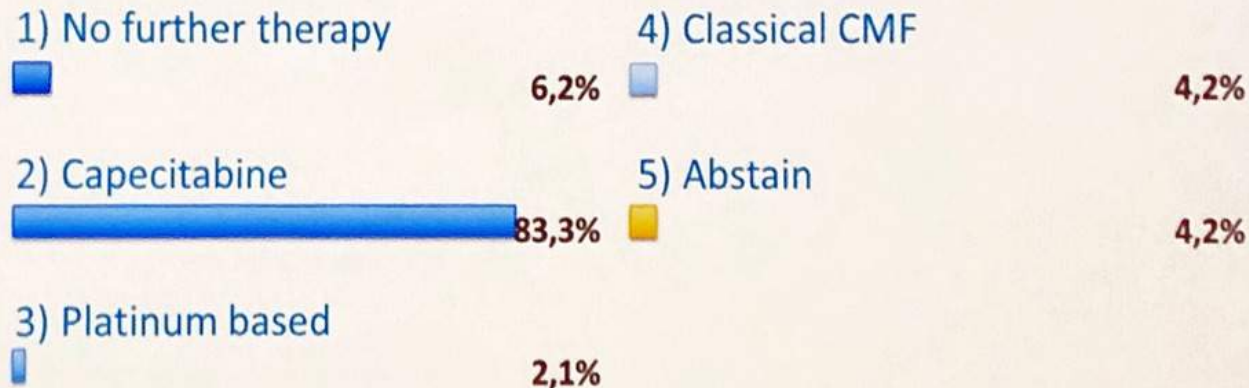
NON-PCR: OPTIONS FOR TNBC



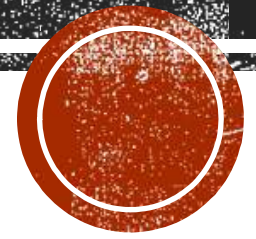
Management of residual disease after neoadjuvant therapy: TNBC

187.

If there is residual cancer in axillary LN or breast (≥ 1 cm residual cancer and/or LN+) following neoadjuvant sequential AC -> T chemotherapy for TNBC, your preferred systemic therapy is:



**SURGERY
AFTERNACHT**



SURGERY OF THE BREAST

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



BCC 2019



Session 1: News since St.Gallen 2017

Chairs: Fatima Cardoso (Portugal),
Beat Thürlimann (Switzerland)

Walter Weber, Switzerland

News in surgery of patients with early breast cancer

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Neoadjuvant chemotherapy for breast carcinoma

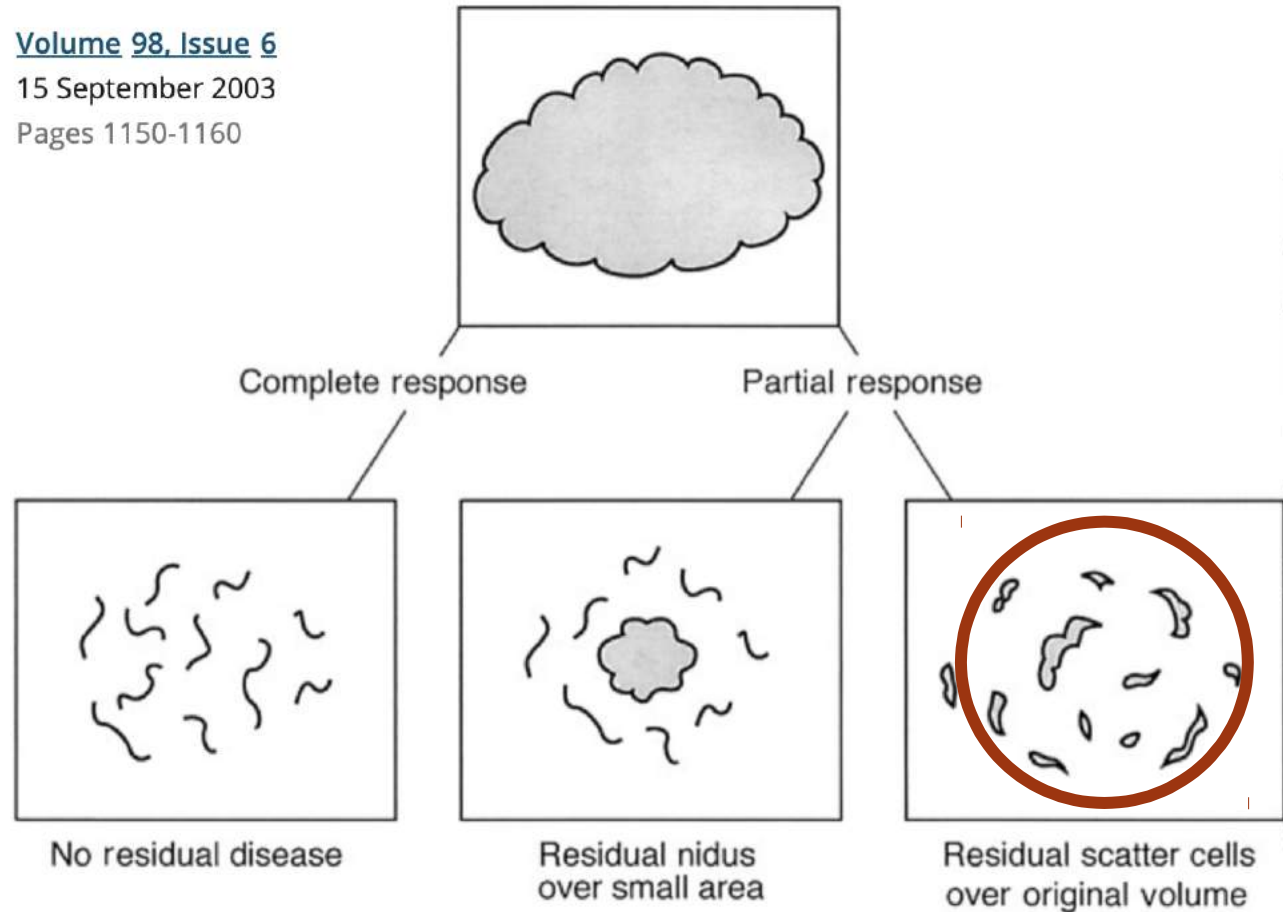
Thomas A. Buchholz M.D. ✉



Volume 98, Issue 6

15 September 2003

Pages 1150-1160



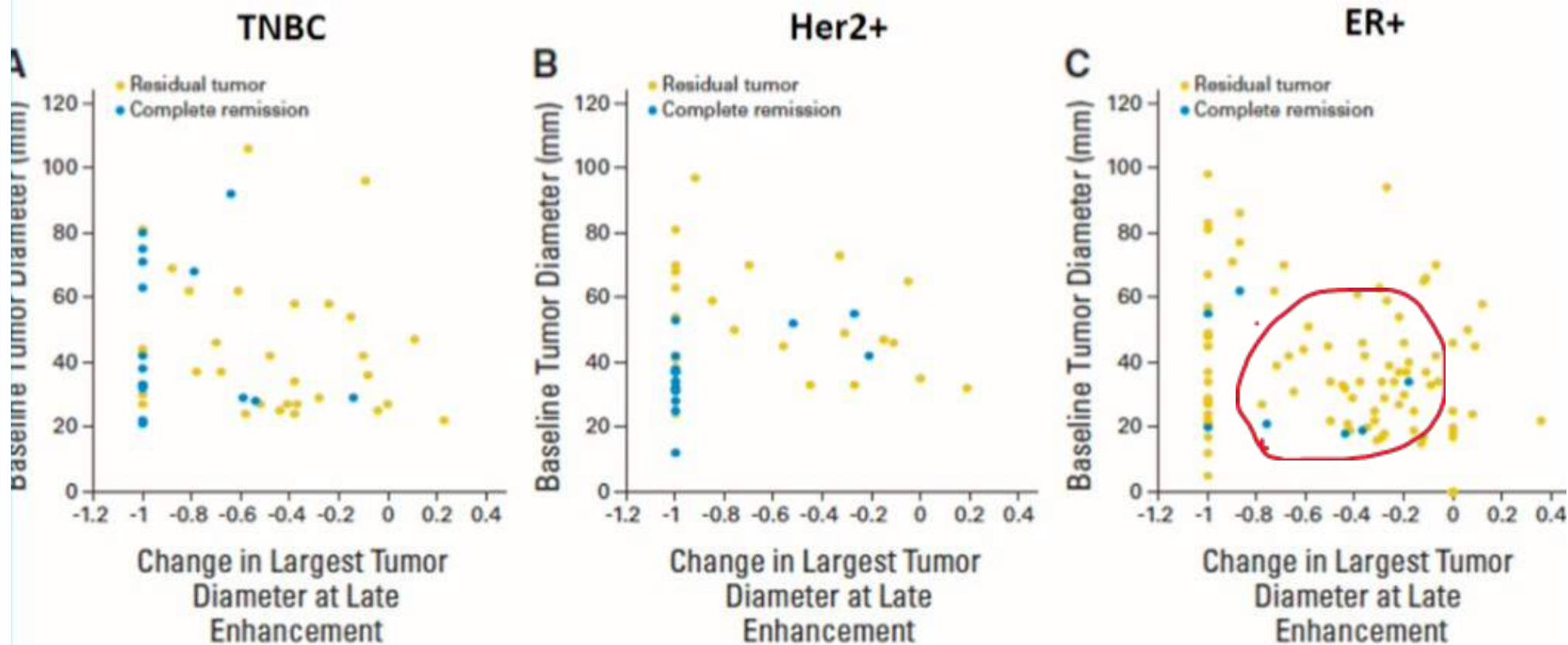
TN, HER2

HR+



Extent of residual burden?

MR correlates with residual burden in non luminal breast cancer



SURGERY OF THE BREAST

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



BCC 2019



Session 1: News since St.Gallen 2017

Chairs: Fatima Cardoso (Portugal), Beat Thürlimann (Switzerland)

Walter Weber, Switzerland

News in surgery of patients with early breast cancer

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Annals of Surgical Oncology

November 2018, Volume 25, Issue 12, pp 3541–3547 | Cite as



Margins in Breast-Conserving Surgery After Neoadjuvant Therapy

Jungeun Choi, Alison Laws, Jiani Hu, William Barry, Mehra Golshan, Tari King

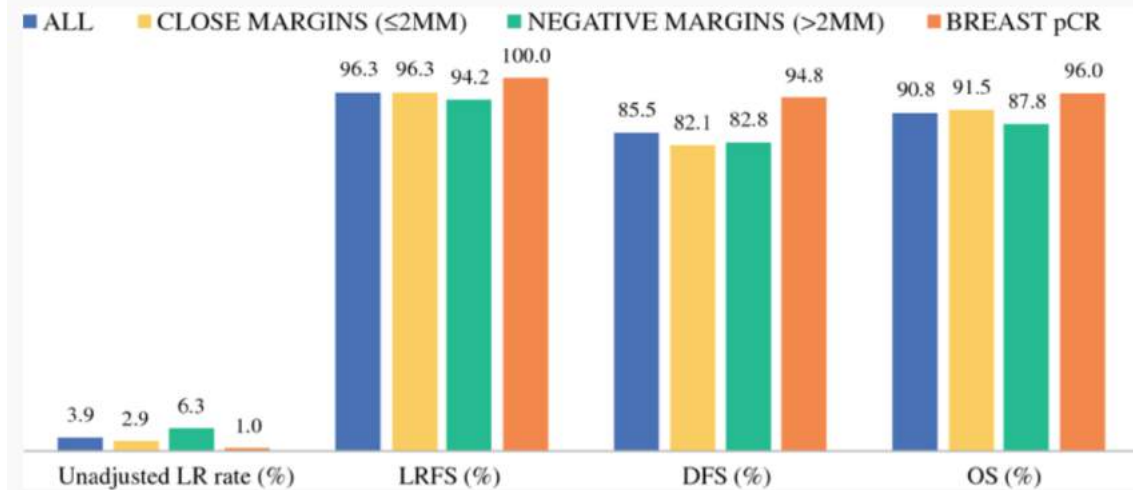


Fig. 1

Five-year local recurrence and survival outcomes by margin width using Kaplan–Meier methods. *LRR* local recurrence rate; *LRFS* local recurrence-free survival; *DFS* disease-free survival; *OS* overall survival

LR occurred in 3 of 103 (2.9%) patients with 1.1 to 2 mm margins, 11 of 174 (6.3%) patients with > 2 mm margins, and 1 of 105 (1.0%) patients with a breast pCR. **On multivariate analysis, margin width (pCR, >2mm vs < 2mm) was not associated with LRFS, DFS or OS.**

- Retrospective
- 382 patients
- **37,7% TN**
- **49,2% LUM**
- **13,1% HER2**



SURGERY OF THE BREAST



16th St.Gallen International Breast Cancer Conference 2019

Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus

20-23 March 2019, Vienna/Austria

Estimated clinical benefit of margins

Residual invasive breast cancer after Primary Systemic Therapy (PST)

In 2017 the panel suggested that the “no tumour on ink” was applicable to unifocal residual.

1.

Which margin in multifocal residual disease, provides adequate clinical benefit (low LRR and lower 2nd surgeries) in patients that in addition receive radiotherapy.



SURGERY OF THE BREAST

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.gallenoncology conference



BCC 2019



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands),
Zhiming Shao (China)

Florian Fitzal, Austria

Extent of surgery post neoadjuvant – setting:
Estimating the extent of surgery

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch



Annals of Surgical Oncology

June 2017, Volume 24, Issue 6, pp 1492–1498 | Cite as

Do Calcifications Seen on Mammography After Neoadjuvant Chemotherapy for Breast Cancer Always Need to Be Excised?

Yara Feliciano, Anita Mamtani, Monica Morrow, Michelle M. Stempel, Sujata Patil, Maxine S. Jochelson

Mammogramm	MRI	n = 90	pCR (%)
Microcalc ↑→	Enhancement ↓	40 (44%)	3 (7%)
Microcalc ↑→	Enhancement 0	32 (35%)	19 (60%)
Microcalc ↓0	Enhancement ↓	10 (11%)	3 (30%)
Microcalc ↓0	Enhancement 0	8 (9%)	4 (50%)

Many of the **tumor bed calcifications** seen on **post-NAC mammography** are associated with **benign disease**, but **MRI does not predict the absence of residual tumor with sufficient accuracy** to allow calcifications to be left in place. **Complete excision of all indeterminate or malignant-appearing calcifications remains standard practice.**



MANAGEMENT OF THE AXILLA

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



Session 1: News since St.Gallen 2017

Chairs: Fatima Cardoso (Portugal),
Beat Thürlimann (Switzerland)

Walter Weber, Switzerland

News in surgery of patients with early breast cancer

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

European Journal of Surgical Oncology
(EJSO)

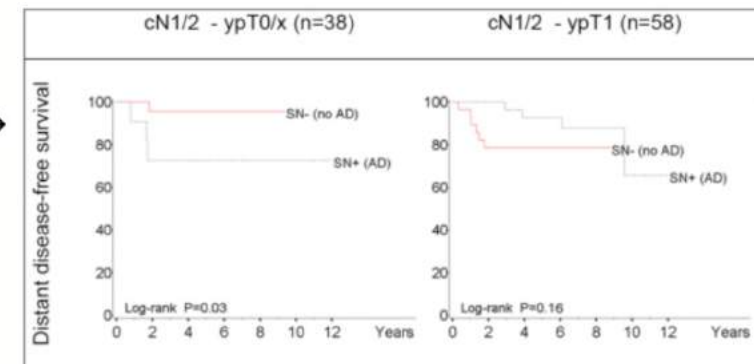
V. Galimberti ^a

Volume 42, Issue 3, March 2016, Pages 361-368

Sentinel node biopsy after neoadjuvant treatment in breast cancer: Five-year follow-up of patients with clinically node-negative or node-positive disease before treatment



- Single institution retrospective analysis of prospective database¹
 - 70 patients, cN1/2 → NACT → cN0 → neg. SLN → no ALND
 - Single tracer (⁹⁹Tc)
 - Isolated tumor cells considered SLN negative
 - Median follow-up 61 months
- No axillary recurrence



SNB is acceptable in **cN1/2 patients who become cN0 after neoadjuvant therapy**: particularly in those with no residual disease in the breast, because SN status maintains its expected prognostic role, but also in cases with residual disease, because **AD has no influence on outcomes**.



MANAGEMENT OF THE AXI.I.A

16th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



Session 1: News since St.Gallen 2017

Chairs: Fatima Cardoso (Portugal), Beat Thürlimann (Switzerland)

Walter Weber, Switzerland

News in surgery of patients with early breast cancer

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Meta-analysis of sentinel lymph node biopsy after neoadjuvant chemotherapy in patients with initial biopsy-proven node-positive breast cancer

S. R. Tee¹, L. A. Devane, D. Evoy, J. Rothwell, J. Geraghty, R. S. Prichard and E. W. McDermott

Volume 105, Issue 12

November 2018

Pages 1541-1552

- Node-positive disease at presentation with pathological confirmation who underwent NAC
- SLNB after NAC;
- Followed by ALND as part of management.



Reference	SLN identification rate (%)	False-negative rate (%)
Zetterlund <i>et al.</i> ¹⁴	77.9	14
Enokido <i>et al.</i> ¹⁵	90.9	16
Carrera <i>et al.</i> ¹⁶	91	10
Boileau <i>et al.</i> ¹⁷	87.6	8
Ge <i>et al.</i> ¹⁸	88	25
Yagata <i>et al.</i> ¹⁹	85	16
Boughey <i>et al.</i> ¹⁰	92.7	12.6*
Park <i>et al.</i> ²⁰	94.9	22.0
Rebollo-Aguirre <i>et al.</i> ²¹	85	8
Alvarado <i>et al.</i> ²²	93.0	21
Thomas <i>et al.</i> ²³	87	20
Ozmen <i>et al.</i> ²⁴	92	14
Newman <i>et al.</i> ²⁵	98	8

FNR	Meta-analyse Tee
In all	14%
Dual tracer	11%
>2 SLN identified	4%



MANAGEMENT OF THE AXILLA

16th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology.com



Session 1: News since St.Gallen 2017

Chairs: Fatima Cardoso (Portugal), Beat Thürlimann (Switzerland)

Walter Weber, Switzerland

News in surgery of patients with early breast cancer

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Diagnostic Accuracy of Different Surgical Procedures for Axillary Staging After Neoadjuvant Systemic Therapy in Node-positive Breast Cancer A Systematic Review and Meta-analysis

Annals of Surgery: March 2019 - Volume 269 - Issue 3 - p 432–442

Simons, Janine M., MD*

ANNALS OF SURGERY

■ Meta-analysis of 20 studies (2217 patients)¹

	n (studies)	n (patients)	Identification rate	False-negative rate
SLN only	17	2002	89%	Overall: 17% <3 SLNs: 22% ≥3 SLNs: 8%
MARI	1	95	97%	7%
TAD	2	120	100%	2-4%



WHEN TO PERFORM ALND AFTER NACHT

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology conference



BCC 2019



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands), Zhiming Shao (China)

Florian Fitzal, Austria

Extent of surgery post neoadjuvant – setting: Estimating the extent of surgery

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org



Annals of

SURGICAL ONCOLOGY

OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY

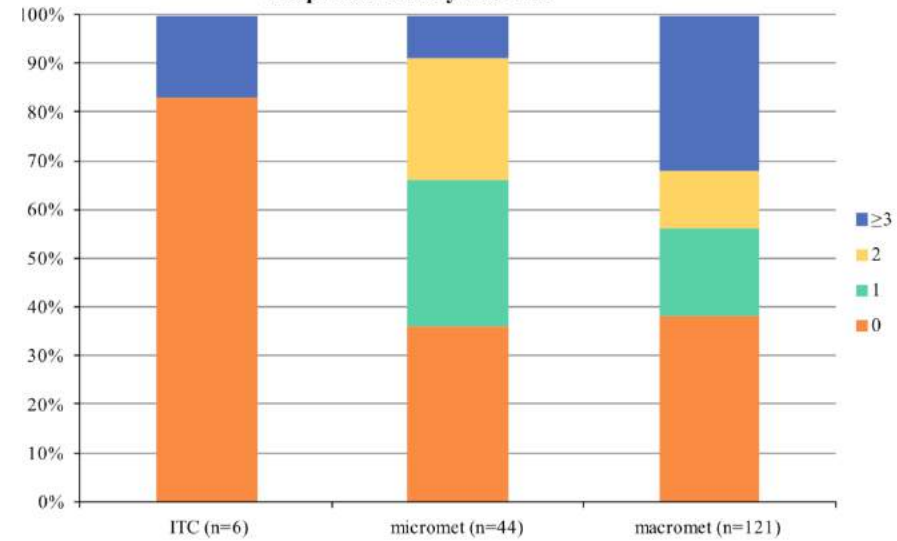


Is Low-Volume Disease in the Sentinel Node After Neoadjuvant Chemotherapy an Indication for Axillary Dissection?

Ann Surg Oncol (2018) 25:1488–1494

Tracy-Ann Moo, MD¹, Marcia Edelweiss, MD², Sabina Hajjiyeva, MD², Michelle Stempel, MPH¹, Monica Raiss, BA¹, Emily C. Zabor, MS³, Andrea Barrio, MD¹, and Monica Morrow, MD¹

Frequency of additional positive non-sentinel nodes on completion axillary dissection



Perform ALND if:

- cN2 before NACT (or > 2 nodes radiological susp)
 - ypN1 (non SN pos in 50-60%)
 - ypN1mic (non SN pos in 30-40%)
 - ypN0(is+) (non SN pos in 30-60%)



Professor Florian Fitzal, MD FEBS MBA
Head Breast Surgery, Department of Surgery
Breast Health Center, Vienna Medical University



PANEL DECISIONS

16th St.Gallen International Breast Cancer Conference 2019
Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus
BCC 2019 20-23 March 2019, Vienna/Austria

Use of SLND in cN1 undergoing PST

In a patient who is clinically node positive (cN1) at presentation and downstages to cN0 after neoadjuvant therapy, SLN can substitute for ALND if:

23.
3 or more neg SLNs obtained

1) Yes 91,7%

2) No 4,2%

5) Abstain 4,2%

st.galleroncology

16th St.Gallen International Breast Cancer Conference 2019
Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus
BCC 2019 20-23 March 2019, Vienna/Austria

ALND after PST when there is residual axillary disease

In a patient who is cN1 at presentation and has a good clinical response; SLN mapping identifies 3 SLN:

25.
ALND may be avoided if there is limited involvement with micrometastasis in one positive node only (no radiotherapy planned)

1) Yes 25,5%

2) No 63,8%

5) Abstain 10,6%

st.galleroncology

Regional lymph node irradiation following PST

32.
In initially cN+ patients who have a negative SLN procedure after PST, lymph node irradiation is:

1) The standard 43,8%

2) Not the standard 16,7%

3) Indicated in the presence of risk factors (tumour size, grade, vascular invasion, initial number of suspicious LN, ...) 22,9%

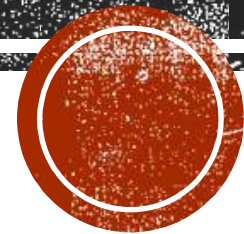
4) Indicated if no pCR of the breast tumour was obtained 6,2%

5) Abstain 10,4%

st.galleroncology



ALND AFTER SLNB: STANDARD AND CONTROVERSIES



ALND AFTER SLNB: TRENDS

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



BCC 2019



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands), Zhiming Shao (China)

Paolo Veronesi, Italy

Standards and controversies in sentinel node

Webcast sponsored for Health Care Professionals by Novartis



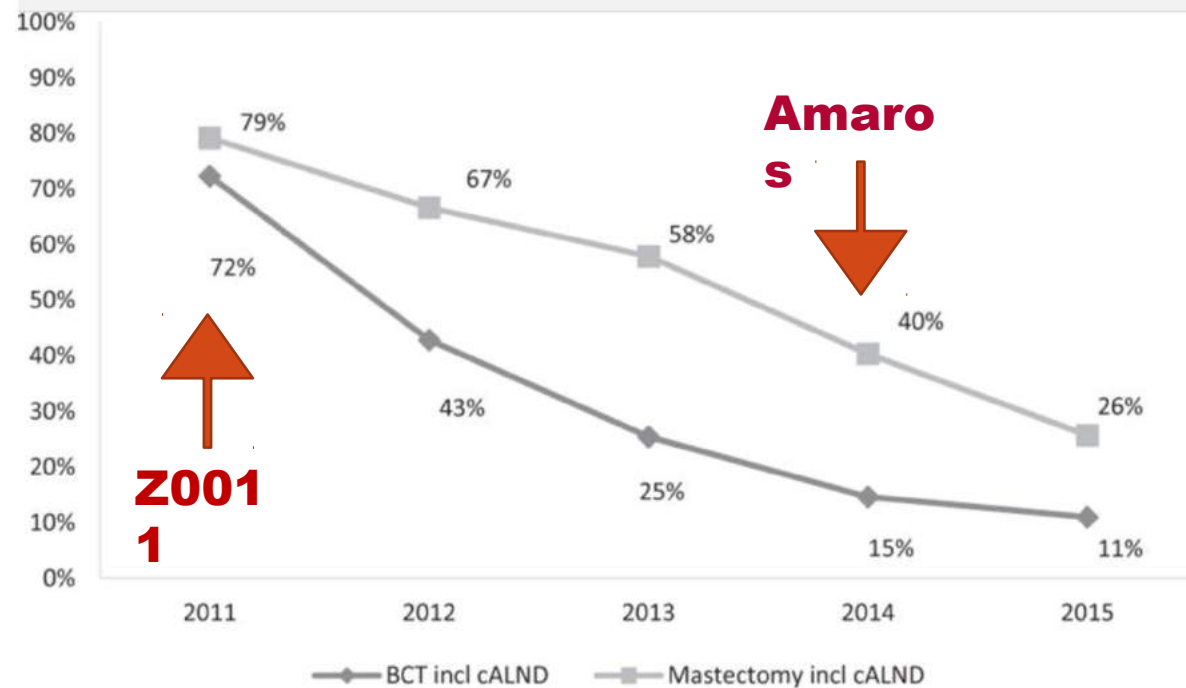
Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Trends on Axillary Surgery in Nondistant Metastatic Breast Cancer Patients Treated Between 2011 and 2015: A Dutch Population-based Study in the ACOSOG-Z0011 and AMAROS Era

Annals of Surgery. 268(6):1084–1090, DEC 2018 Ingrid G. Poodt



Between 2011 and 2015 the use of **ALND** decreased from **75% to 17%** in **cT1-2N0 sentinel node-positive patients** ($P < 0.001$).



ALND AFTER SLNB: ATTITUDE-CHANGING TRIALS

16th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20-23 March

st.gallenoncology.com



BCC 2019



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands), Zhiming Shao (China)

Paolo Veronesi, Italy

Standards and controversies in sentinel node

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

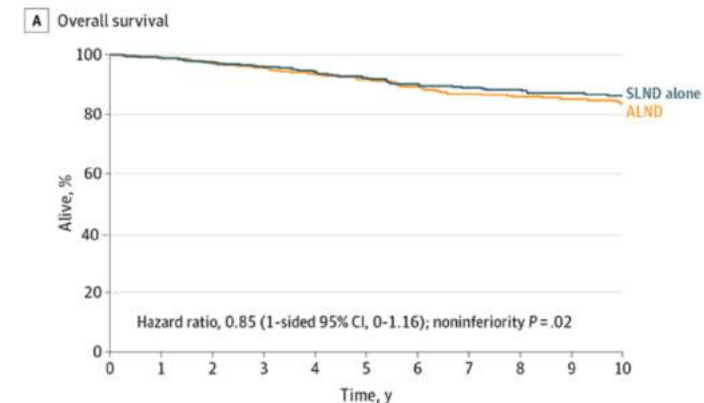
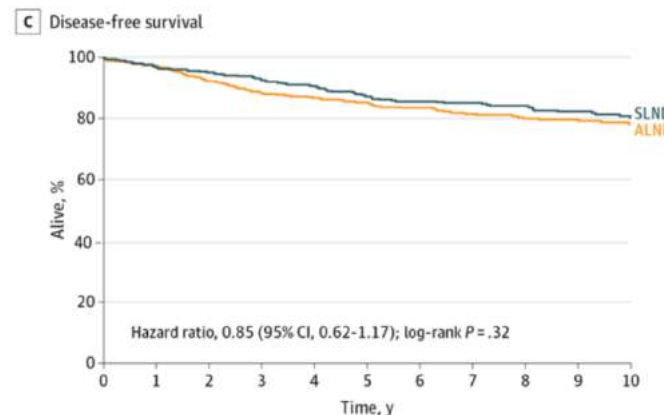
JAMA | Original Investigation September 12, 2017

Effect of Axillary Dissection vs No Axillary Dissection on 10-Year Overall Survival Among Women With Invasive Breast Cancer and Sentinel Node Metastasis The ACOSOG Z0011 (Alliance) Randomized Clinical Trial

Armando E. Giuliano, MD; Karla V. Ballman, PhD; Linda McCall, MS; Peter D. Beitsch, MD; Meghan B. Brennan, RN, ONP, PhD; Pond R. Kelemen, MD; David W. Ollila, MD; Nora M. Hansen, MD; Pat W. Whitworth, MD; Peter W. Blumencranz, MD; A. Marilyn Leitch, MD; Sukamal Saha, MD; Kelly K. Hunt, MD; Monica Morrow, MD

LOCO REGIONAL RECURRENCES		NODAL RECURRENCES		BREAST RECURRENCES	
SLN	ALND	SLN	ALND	SLN	ALND
5.6%	6.2%	1.5%	0.5%	4.1%	4.7%
P= 0.36		P= 0.28			

DISEASE FREE SURVIVAL		OVERALL SURVIVAL	
SLN	ALND	SLN	ALND
80.2%	78.2%	86.3%	83.6%
P=0.44		P=0.72	



ALND AFTER SLNB: ATTITUDE-CHANGING TRIALS

16 th St. Gallen International Breast Cancer Conference
 Primary Therapy of Early Breast Cancer
 Vienna, Austria 20- 23 March
 st.galleroncology.comferences



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands), Zhiming Shao (China)

Paolo Veronesi, Italy

Standards and controversies in sentinel node

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
 Dr. med. Thomas Ferber,
 oncoletter.org

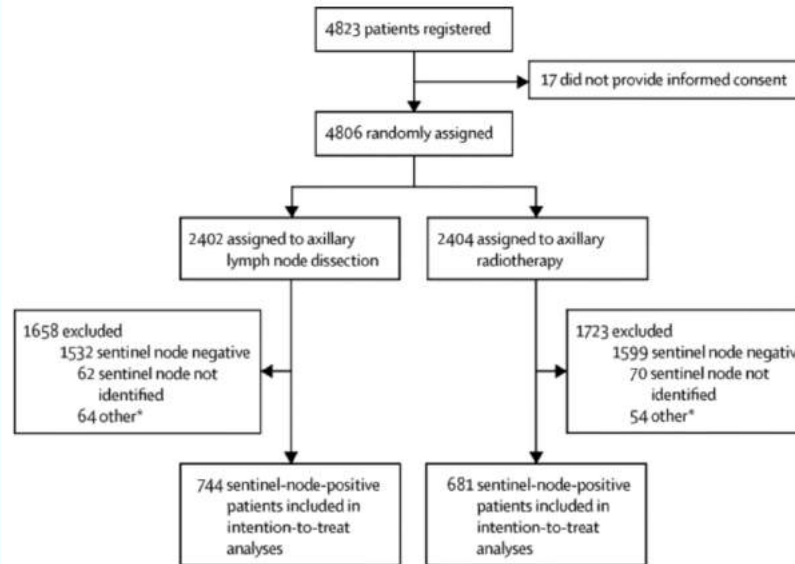


Radiotherapy or surgery of the axilla after a positive sentinel node in breast cancer (EORTC 10981-22023 AMAROS): a randomised, multicentre, open-label, phase 3 non-inferiority trial [Mila Donker MD^a](#)

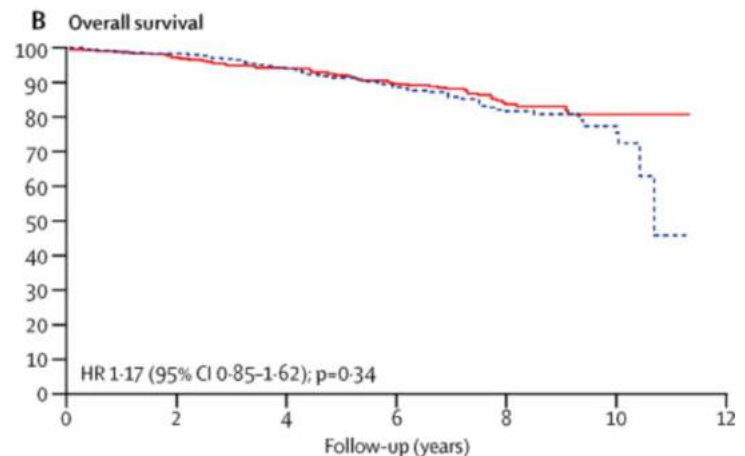
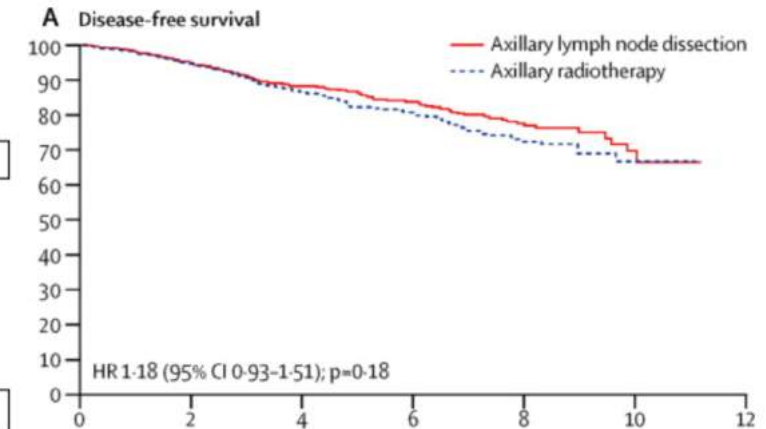


THE LANCET
 Oncology

Volume 15, Issue 12, November 2014, Pages 1303-1310



Type of breast surgery	ALND	AxRT
Breast-conserving surgery	609 (82%)	557 (82%)
Mastectomy	127 (17%)	121 (18%)

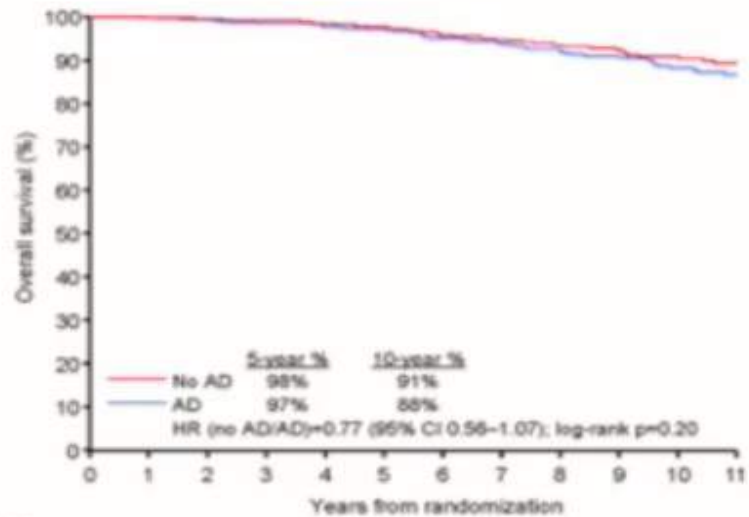


Axillary dissection versus no axillary dissection in patients with breast cancer and sentinel-node micrometastases (IBCSG 23-01): 10-year follow-up of a randomised, controlled, phase 3 trial



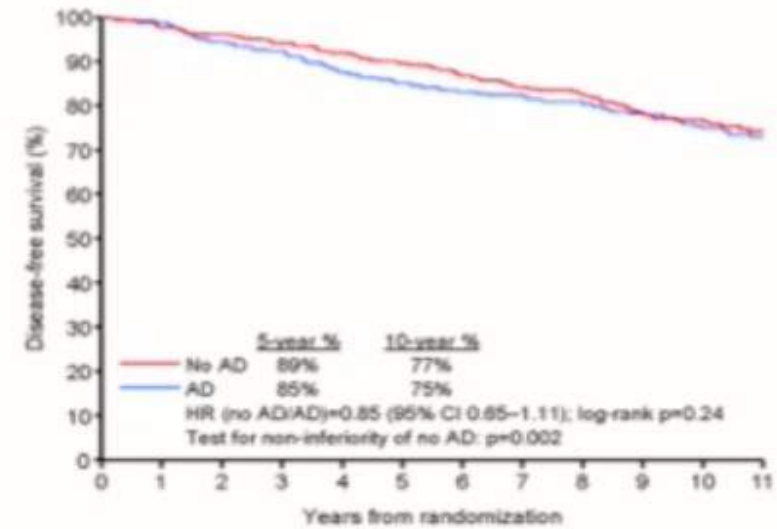
Viviana Galimberti, Bernard F Cole, Giuseppe Viale, Paolo Veronesi, Elisa Vicini, Mattia Intra, Giovanni Mazzaro, Samuele Massant, Janez Zgajnar, Mario Taffurelli, David Littlejohn, Michael Krauer, Carlo Tondini, Angelo Di Leo, Marco Colleoni, Meredith M Regan, Alan S Coates, Richard D Gelber, Aron Goldhirsch, for the International Breast Cancer Study Group Trial 23-01*

Overall Survival



Number at risk	0	1	2	3	4	5	6	7	8	9	10	11
No AD	467	464	460	451	441	424	405	375	314	267	197	158
AD	464	461	456	446	436	422	401	379	319	264	199	156

Disease-Free Survival



Number at risk	0	1	2	3	4	5	6	7	8	9	10	11
No AD	467	455	443	428	412	369	307	336	278	215	168	131
AD	464	456	433	419	392	371	363	335	282	231	169	130

934 pazienti; follow up 9.7 anni



ALND AFTER SLNB: NEW STANDARDS

16 th St. Gallen International Breast Cancer Conference
 Primary Therapy of Early Breast Cancer
 Vienna, Austria 20- 23 March
 st.galleroncology.comferences



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands), Zhiming Shao (China)

Paolo Veronesi, Italy

Standards and controversies in sentinel node

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
 Dr. med. Thomas Ferber,
 oncoletter.org

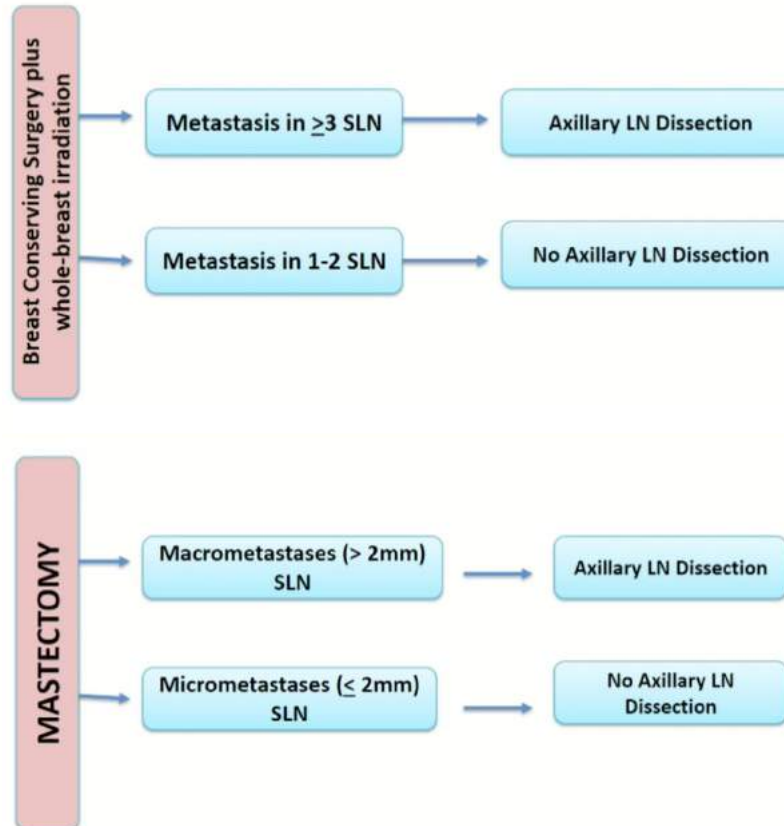


JAMA Network Insights

Management of the Node-Positive Axilla in Breast Cancer in 2017 Selecting the Right Option



Monica Morrow, MD



Management of a patient with breast cancer and no palpable axillary lymph nodes planning primary surgery

- 1 Perform sentinel lymph node biopsy
 Prebiopsy axillary imaging is not necessary
- 2 Determine axillary management based on results of sentinel lymph node biopsy and planned breast surgical procedure

		Axillary management
Biopsy results	Metastases in ≥3 sentinel lymph nodes or matted lymph nodes found intraoperatively	Axillary lymph node dissection
	Metastases in 1-2 sentinel lymph nodes	
Surgery type	Breast-conserving surgery plus whole-breast irradiation	No axillary lymph node dissection Selective use of nodal radiotherapy for high-risk patients ^a
	Mastectomy	
Size of node metastases	Micrometastases (≤2 mm)	No axillary lymph node dissection
	Macrometastases (>2 mm)	
Postmastectomy radiotherapy	Postmastectomy radiotherapy is indicated	No axillary lymph node dissection
	Postmastectomy radiotherapy is contraindicated or total number of lymph nodes with metastases needs to be determined to assess need for postmastectomy radiotherapy	Axillary lymph node dissection

Consider neoadjuvant therapy for patients with *ERBB2/HER2*-positive or triple-negative breast cancer and planned mastectomy if adjuvant chemotherapy is indicated based on patient and tumor features

^a High-risk patients include those with large tumors (≥ 3 cm), lymphovascular tumor invasion, or microscopic extracapsular extension of metastases in sentinel nodes.



ALND OMISSION AFTER SLNB: NEIGHBOURS STANDARDS

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



BCC 2019



Session 7: Surgery of early breast cancer

Chairs: Emiel J.T. Rutgers (The Netherlands), Zhiming Shao (China)

Paolo Veronesi, Italy

Standards and controversies in sentinel node

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Radiotherapy and Conservative Surgery

EIO guidelines for 1-2 macrometastatic lymph nodes without axillary dissection

	MOLECULAR SUBTYPE	RT
Luminal A	➤ ER+ and/or PR+, HER2-, and low Ki67 (<20%)	ONLY BREAST
Luminal B	➤ ER+ and/or PR+ and HER2+ (luminal-HER2 group) ➤ ER+ and/or PR+, HER2-, Ki67 (≥20%)	BREAST + I-II level
HER2+	➤ ER-, PR-, and HER2+	BREAST + I-III level
Basal-like or triple negative	➤ ER-, PR-, HER2-, and CK5/6 and/or EGFR+	BREAST + I-III level



PANEL DECISIONS

16th St.Gallen International Breast Cancer Conference 2019
Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus
BCC 2019 20-23 March 2019, Vienna/Austria

Radiation therapy: after mastectomy

Should post mastectomy RT (chest wall & regional nodes) be standard for patients (not having received PST) with:

45.
1 or 2 positive SLNs but no axillary dissection?

1) Yes 66,0%

2) No 17,0%

5) Abstain 17,0%

st.galleroncology

16th St.Gallen International Breast Cancer Conference 2019
Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus
BCC 2019 20-23 March 2019, Vienna/Austria

Radiation therapy: after mastectomy

Should post mastectomy RT (chest wall & regional nodes) be standard for patients with:

43.
N+ 1 to 3, with adverse features (TN)?

1) Yes 85,4%

2) No 8,3%

5) Abstain 6,2%

st.galleroncology

16th St.Gallen International Breast Cancer Conference 2019
Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus
BCC 2019 20-23 March 2019, Vienna/Austria

ALND in patients with macrometastatic SLN

ALND can be omitted in:

18.
mastectomy with 1-2 positive SNs and CW* but not RNI* planned

1) Yes 19,1%

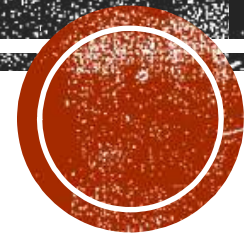
2) No 66,0%

5) Abstain 14,9%

st.galleroncology



ADJUVANT ENDOCRINE THERAPY



ADJUVANT ENDOCRINE THERAPY: PREMISES

16th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20-23 March

st.galleroncology



BCC 2019



Session 2: Biology of Breast Cancer I: Risk stratification

Chairs: Suzette Delalogue (France), Peter Dubsy (Switzerland/Austria)

Ivana Sestak, UK

Risk assessment of late recurrence

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

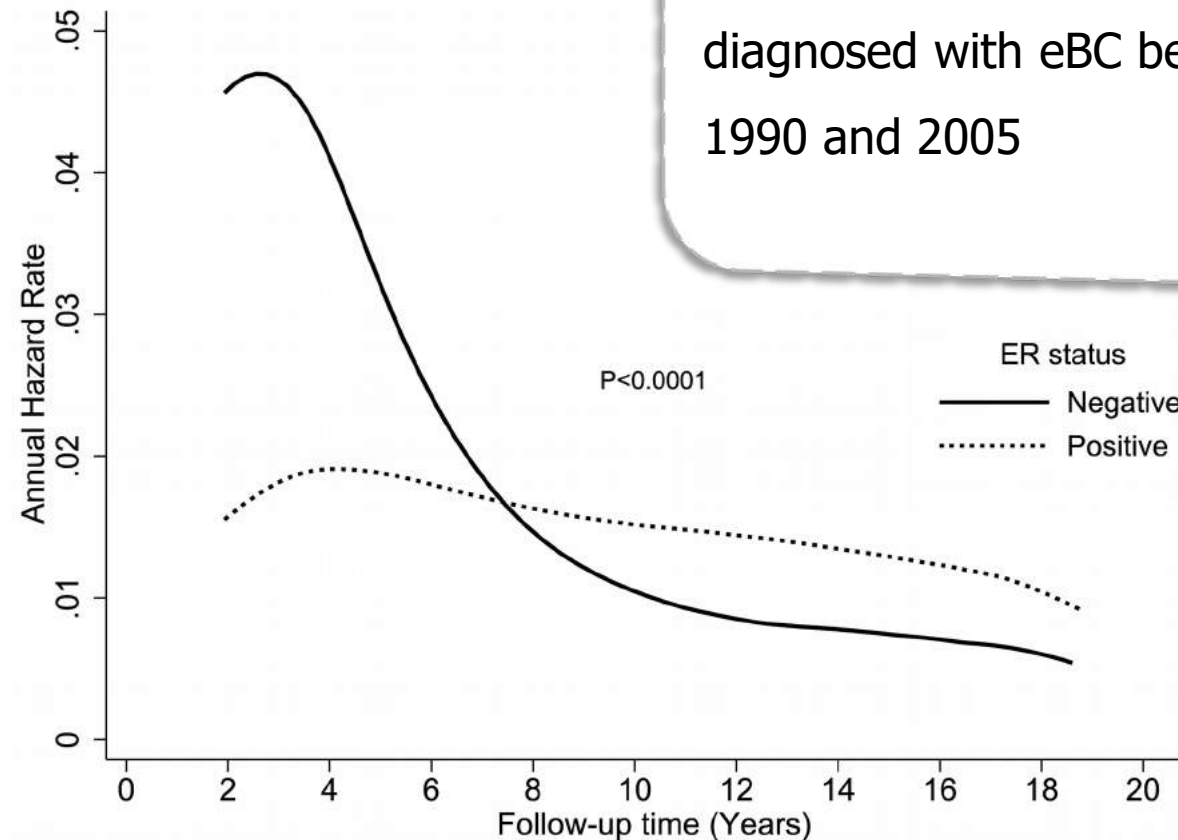
webcast.oncoletter.ch

Crossover Effects of Estrogen Receptor Status on Breast Cancer-Specific Hazard Rates by Age and Race

Yu Ren, Daliah M. Black, Elizabeth A. Mittendorf, Peijun Liu, Xu Li, Xianglin L. Du, Jianjun He, Jin Yang, Kelly K. Hunt, Min Yi

Published: October 21, 2014 • <https://doi.org/10.1371/journal.pone.0110281>

PLOS ONE



Retrospective study on 439,444 SEER patients diagnosed with eBC between 1990 and 2005



EXTENDED ADJUVANT ENDOCRINE THERAPY: STUDIES

Study	Years	Population	Median FU	Time to recurrence	Time to recurrence, second primary malignancy or death	Time to death
NSABP B-14	0 1 2 3 4 5 6 7 8 9 10	n = 1,152 ER+ LN- Postmenopausal	6.8 yrs	NA	7-yrs: RR = 1.30 (1.00-1.70) P = 0.03	7-yrs: RR = 1.50 (1.00-2.20) P = 0.07
ATLAS		n = 6,846 ER+ LN+ and LN- Pre- and postmenopausal	7.6 yrs	5-9 yrs: RR = 0.90 (0.79-1.02) ≥10 yrs: RR = 0.75 (0.62-0.90) P = 0.002	NA	5-9 yrs: RR = 0.97 (0.79-1.18) ≥10 yrs: RR = 0.71 (0.58-0.88) P = 0.01*
aTTom		n = 6,953 ER+ and ER- LN+ and LN- Pre- and postmenopausal	NA	5-6 yrs: RR = 0.99 (0.86-1.15) 7-9 yrs: RR = 0.84 (0.73-0.95) ≥10 yrs: RR = 0.75 (0.66-0.86) P = 0.003	NA	5-6 yrs: RR = 1.05 (0.90-2.20) ≥10 yrs: RR = 0.77 (0.75-0.97) P = 0.05*
MA.17		n = 5,187 Hormone receptor-positive LN+ and LN- Postmenopausal	2.5 yrs	HR = 0.58 (0.45-0.76) P < 0.001	NA	HR = 0.82 (0.67-1.19) P = 0.30
NSABP B-33		n = 1,598 Hormone receptor-positive LN+ and LN- Postmenopausal	2.5 yrs	HR = 0.44 (NA) P = 0.004	HR = 0.68 (NA) P = 0.07	NA
ABCSG-6a		n = 856 Hormone receptor-positive LN+ and LN- Postmenopausal	5.2 yrs	HR = 0.62 (0.40-0.96) P = 0.031	NA	HR = 0.89 (0.59-1.34) P = 0.57
MA.17R		n = 1,918 Hormone receptor-positive LN+ and LN- Postmenopausal	6.3 yrs	HR = 0.66 (0.48-0.91) P = 0.01	NA	HR = 0.97 (0.73-1.28) P = 0.83
NSABP B-42		n = 3,966 Hormone receptor-positive LN+ and LN- Postmenopausal	6.9 yrs	HR = 0.71 (0.56-0.89) P = 0.003	HR = 0.85 (0.73-0.99) P = 0.046	HR = 1.15 (0.92-1.44) P = 0.22
DATA		n = 1,912 Hormone receptor-positive LN+ and LN- Postmenopausal	4.2 yrs**	NA	HR = 0.79 (0.62-1.02) P = 0.07	HR = 0.91 (0.65-1.29) P = 0.60
IDEAL		n = 1,824 Hormone receptor-positive LN+ and LN- Postmenopausal	6.6 yrs	NA	HR = 0.92 (0.74-1.16) P = 0.49**	HR = 1.04 (0.78-1.38) P = 0.79
ABCSG-16		n = 3,469 Hormone receptor-positive LN+ and LN- Postmenopausal	8.9 yrs	NA	HR = 1.01 (0.87-1.16) P = 0.93	HR = 1.01 (0.82-1.23) P = 0.95
SOLE		n = 4,884 Hormone receptor-positive LN+ Postmenopausal	5 yrs	NA	HR = 1.08 (0.93-1.26) P = 0.31	HR = 0.85 (0.68-1.07) P = 0.16



ADJUVANT ENDOCRINE THERAPY: PREMISES

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology



BCC 2019



Session 2: Biology of Breast Cancer I: Risk stratification

Chairs: Suzette Delaloge (France), Peter Dubsy (Switzerland/Austria)

Ivana Sestak, UK

Risk assessment of late recurrence

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

Hongchao Pan, Ph.D.



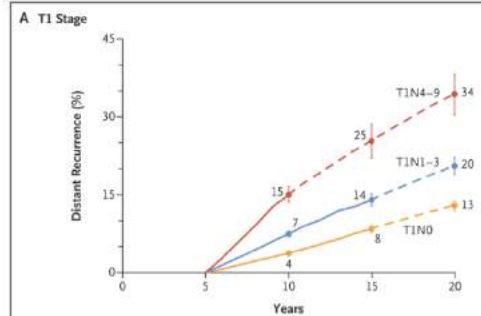
The NEW ENGLAND
JOURNAL of MEDICINE

November 9, 2017

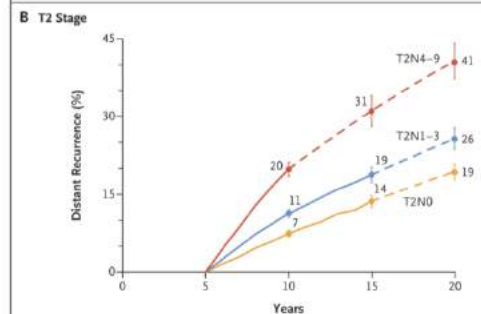
N Engl J Med 2017; 377:1836-1846

DOI: 10.1056/NEJMoa1701830

20-Year Risks of Breast-Cancer Recurrence after Stopping Endocrine Therapy at 5 Years



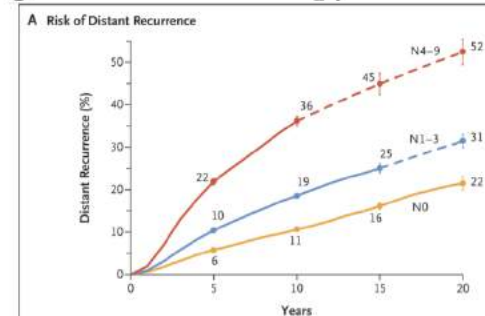
No. at Risk				
T1N4-9	3,832	1,193	214	32
T1N1-3	14,342	5,138	817	154
T1N0	19,402	8,020	2,345	440
No. of Events — annual rate (%)				
T1N4-9	391 (3.2)	68 (2.6)	11 (2.2)	
T1N1-3	734 (1.5)	162 (1.5)	35 (1.7)	
T1N0	509 (0.8)	218 (1.0)	58 (1.0)	



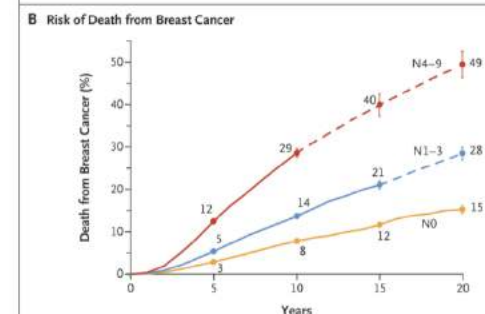
No. at Risk				
T2N4-9	4,952	1,517	285	51
T2N1-3	10,950	3,551	614	114
T2N0	9,445	3,901	1,129	218
No. of Events — annual rate (%)				
T2N4-9	688 (4.5)	106 (3.3)	12 (1.7)	
T2N1-3	842 (2.4)	134 (1.8)	28 (1.9)	
T2N0	512 (1.6)	152 (1.4)	37 (1.3)	

+7%
+6%
+6%

62923 women in 88 trials without BC events **after 5 years** of scheduled endocrine therapy



No. at Risk				
N4-9	12,333	8,116	2,165	259
N1-3	31,936	23,576	7,250	949
N0	29,925	24,081	8,571	1,982
No. of Events — annual rate (%)				
N4-9	2568 (4.8)	969 (4.0)	121 (3.1)	13 (2.2)
N1-3	3126 (2.2)	1421 (1.9)	241 (1.7)	39 (1.8)
N0	1646 (1.2)	835 (1.1)	272 (1.3)	68 (1.4)



No. at Risk				
N4-9	12,333	9,079	2,481	294
N1-3	31,936	24,866	7,728	1,011
N0	29,925	24,819	8,926	2,144
No. of Events — annual rate (%)				
N4-9	1463 (2.6)	1,154 (4.1)	185 (3.7)	20 (2.3)
N1-3	1,600 (1.1)	1,506 (1.9)	319 (1.9)	52 (1.8)
N0	826 (0.6)	890 (1.0)	228 (0.8)	77 (1.0)



EXTENDED ADJUVANT ENDOCRINE THERAPY: CTS5

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology.comferences



BCC 2019



Session 2: Biology of Breast Cancer I: Risk stratification

Chairs: Suzette Delaloge (France), Peter Dubsky (Switzerland/Austria)

Ivana Sestak, UK

Risk assessment of late recurrence

Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch

VOLUME 36 · NUMBER 19 · JULY 1, 2018

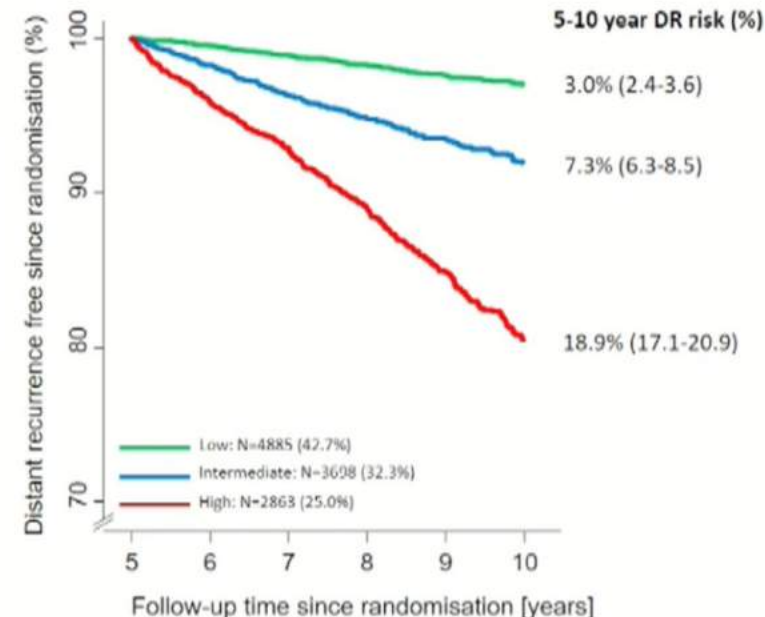
JOURNAL OF CLINICAL ONCOLOGY

Integration of Clinical Variables for the Prediction of Late Distant Recurrence in Patients With Estrogen Receptor-Positive Breast Cancer Treated With 5 Years of Endocrine Therapy: CTS5

Mitch Dowsett, Ivana Sestak, Meredith M. Regan, Andrew Dodson, Giuseppe Viale, Beat Thürlimann, Marco Colleoni, and Jack Cuzick

CTS5 (ATAC) was **significantly prognostic for late DR** in the ATAC cohort (hazard ratio, 2.47; 95% CI, 2.24 to 2.73; P, .001) and BIG 1-98 validation cohort (hazard ratio, 2.07; 95% CI, 1.88 to 2.28; P

Clinical variable	HR (95% CI)	P-value
Number of positive nodes	1.14 (1.12-1.15)	<0.0001
Tumor size (mm)	1.10 (1.08-1.12)	<0.0001
Grade (1 vs. 2, 1 vs. 3)	2.26 (1.58-3.22) 3.37 (2.33-4.86)	<0.0001 <0.0001
Age (years)	1.04 (1.02-1.05)	<0.0001
Endocrine therapy (T vs. A)	0.84 (0.67-1.04)	0.108



ATAC	BIG1-98
N=5216	N=8010
Median FUP: 9.8 years	Median FUP: 8.1 years

Evaluable clinical variables and distant recurrence-free at 5 years
N=11446



EXTENDED ADJUVANT ENDOCRINE THERAPY: CTS5

16 th St. Gallen International Breast Cancer Conference

Primary Therapy of Early Breast Cancer

Vienna, Austria 20- 23 March

st.galleroncology conference



BCC 2019



Session 2: Biology of Breast Cancer I: Risk stratification

Chairs: Suzette Delaloge [France], Peter Dubsy [Switzerland/Austria]

Ivana Sestak, UK

Risk assessment of late recurrence

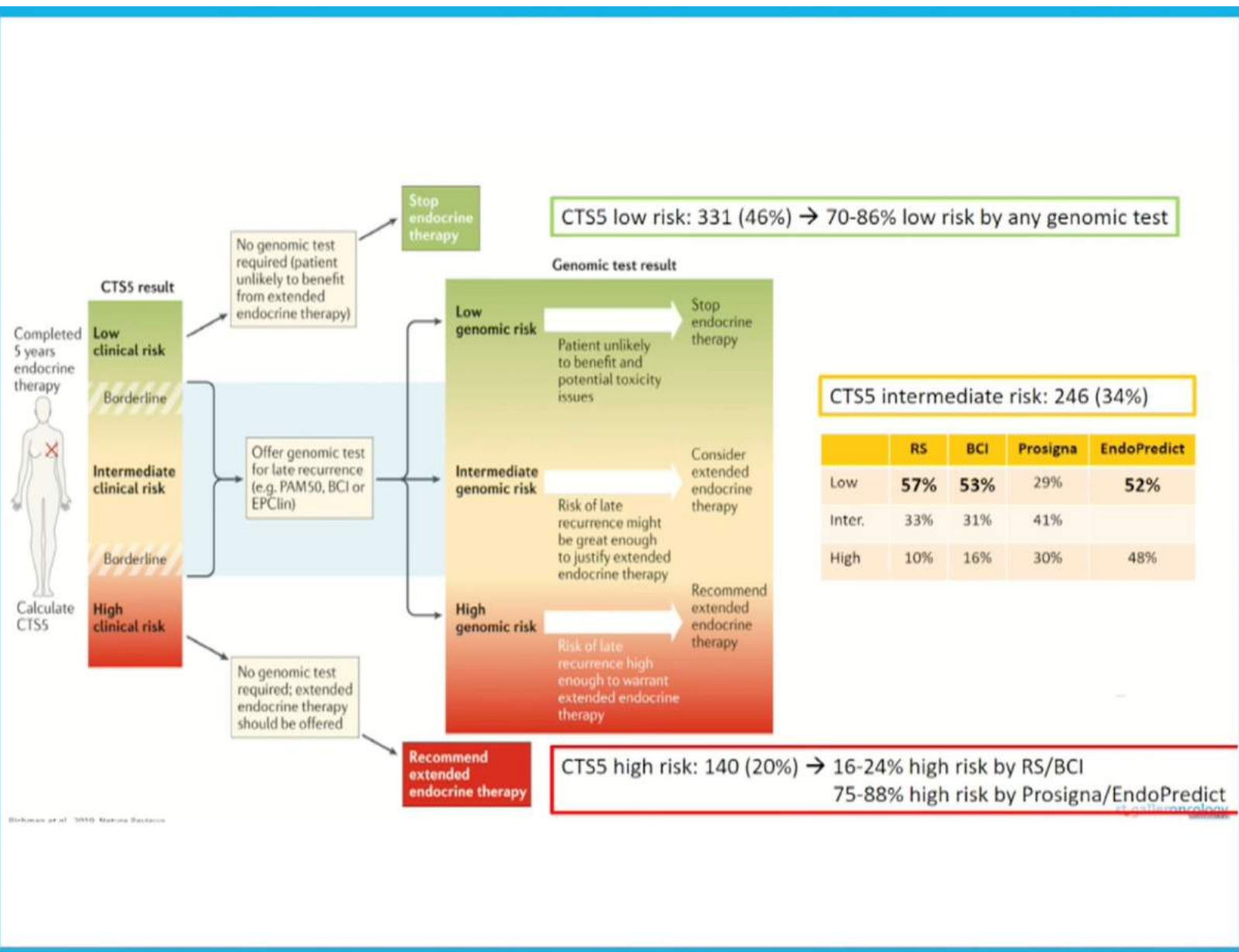
Webcast sponsored for Health Care Professionals by Novartis



Webcast production:
Dr. med. Thomas Ferber,
oncoletter.org

oncoletter

webcast.oncoletter.ch



EXTENDED ADJUVANT ENDOCRINE THERAPY: CTS5

REMINDE!

- **CTS5** was validated on a population including **HER2 + patients** when trastuzumab therapy was not yet a standard of care



**NOT APPLICABLE TO ER+ /HER2+ PATIENTS
TREATED WITH TRASTUZUMAB!**

- **CTS5** was validated on a population of **postmenopausal** patients



NOT APPLICABLE TO PREMENOPAUSAL PATIENTS



PANEL DECISION ON A-ET IN POSTMENOPAUSAL WOMEN



16th St.Gallen International Breast Cancer Conference 2019

Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus

BCC 2019

20-23 March 2019, Vienna/Austria

Endocrine therapy Postmenopausal

If an AI is used, should it be started upfront:

81.

In all patients?

1) Yes



38,8%

2) No



59,2%

5) Abstain



2,0%



16th St.Gallen International Breast Cancer Conference 2019

Primary Therapy of Early Breast Cancer Evidence, Controversies, Consensus

BCC 2019

20-23 March 2019, Vienna/Austria

Endocrine therapy Postmenopausal

If an AI is used, should it be started upfront:

82.

In patients at higher risk by stage?

1) Yes



93,8%

2) No



6,2%

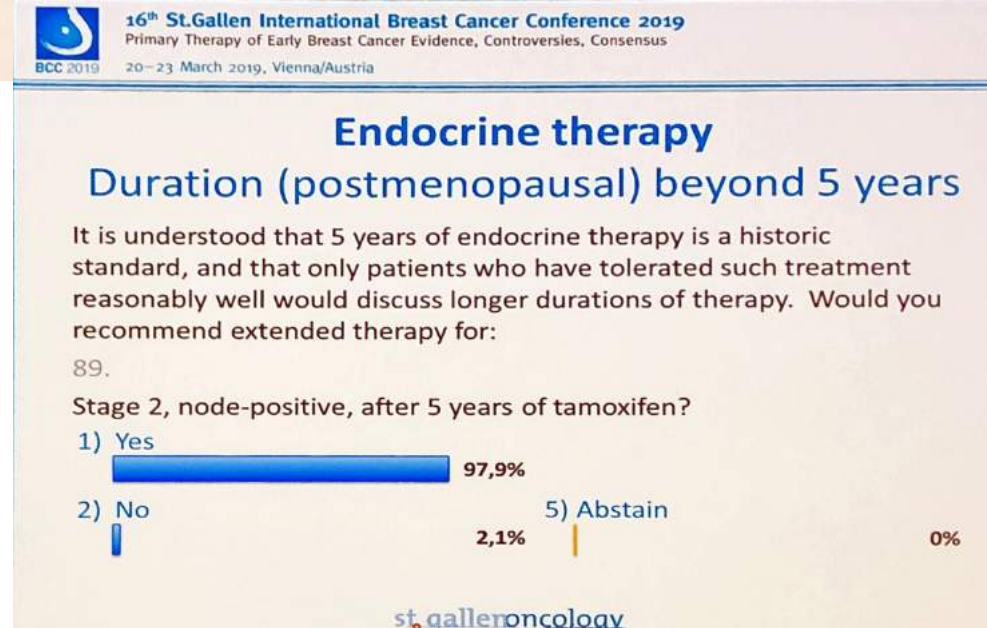
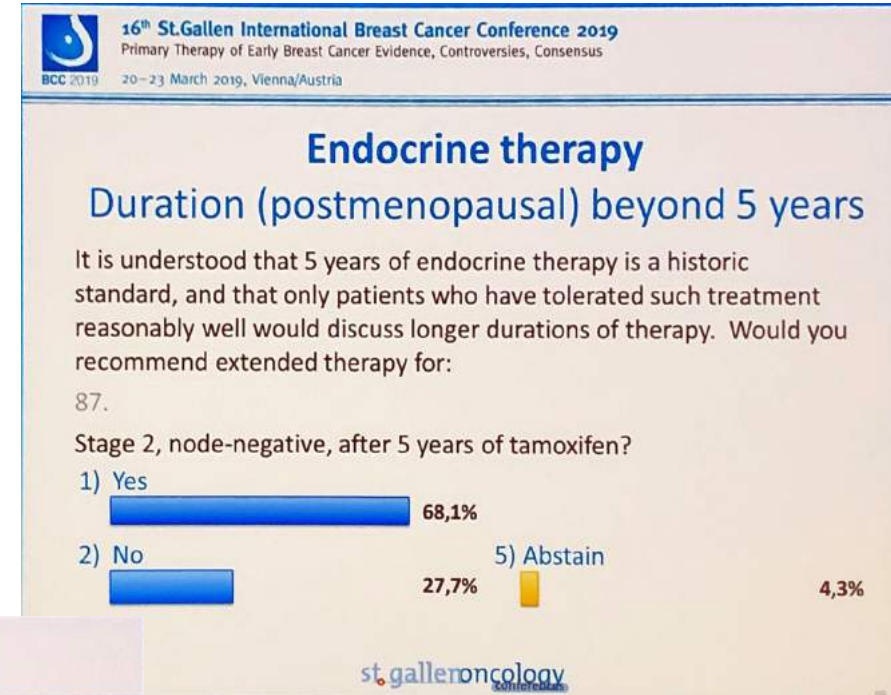
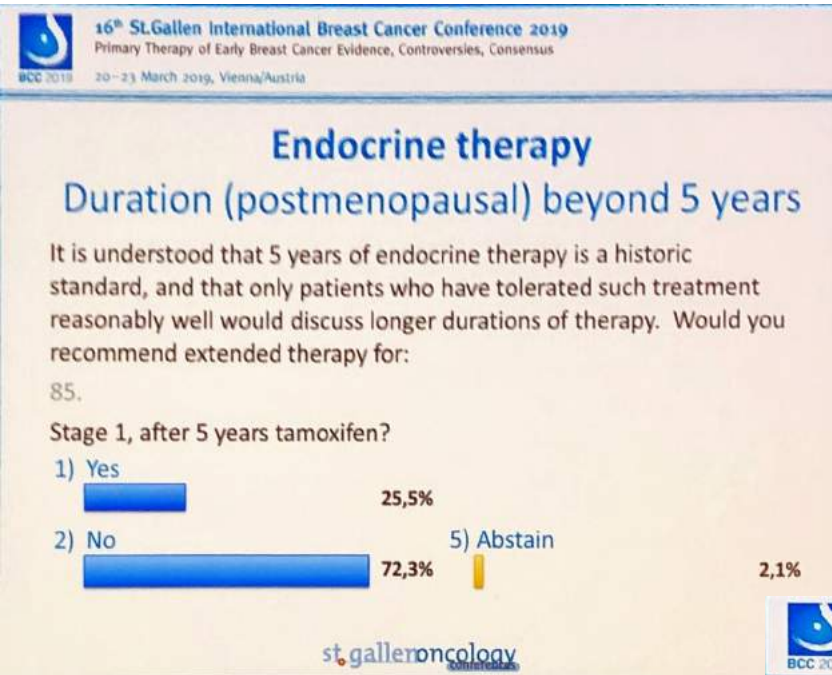
5) Abstain



0%



PANEL DECISION ON EA-ET IN POSTMENOPAUSAL WOMEN



PANEL DECISION ON EA-ET IN POSTMENOPAUSAL WOMEN

