

**13 OTTOBRE**  
**GIORNATA NAZIONALE**  
del tumore mammario metastatico

**2022**  
**CARCINOMA**  
**MAMMARIO METASTATICO:**  
**QUALI NOVITÀ?**

*Conoscere le novità per assicurare  
il trattamento migliore a ogni paziente*

**13 OTTOBRE 2022**  
**ROMA**  
Starhotels Metropole  
Via Principe Amedeo 3

CON IL PATROCINIO DI:

Aiom, RAO, Associazione Italiana Radioterapia e Oncologia clinica, ALLEANZA CONTRO IL CANCRO, A.N.I.S.C., Associazione Nazionale Infermiere Senologia Oncologia, ASOD, FLSM, ROPI, SICO, SIF

# Certificazione Europea e Carcinoma mammario metastatico

**Lucio Fortunato**  
UOC Centro di Senologia  
A.O. San Giovanni-Addolorata  
Roma

13 Ottobre 2022



C'e' un ruolo della chirurgia  
nella malattia al IV stadio ?

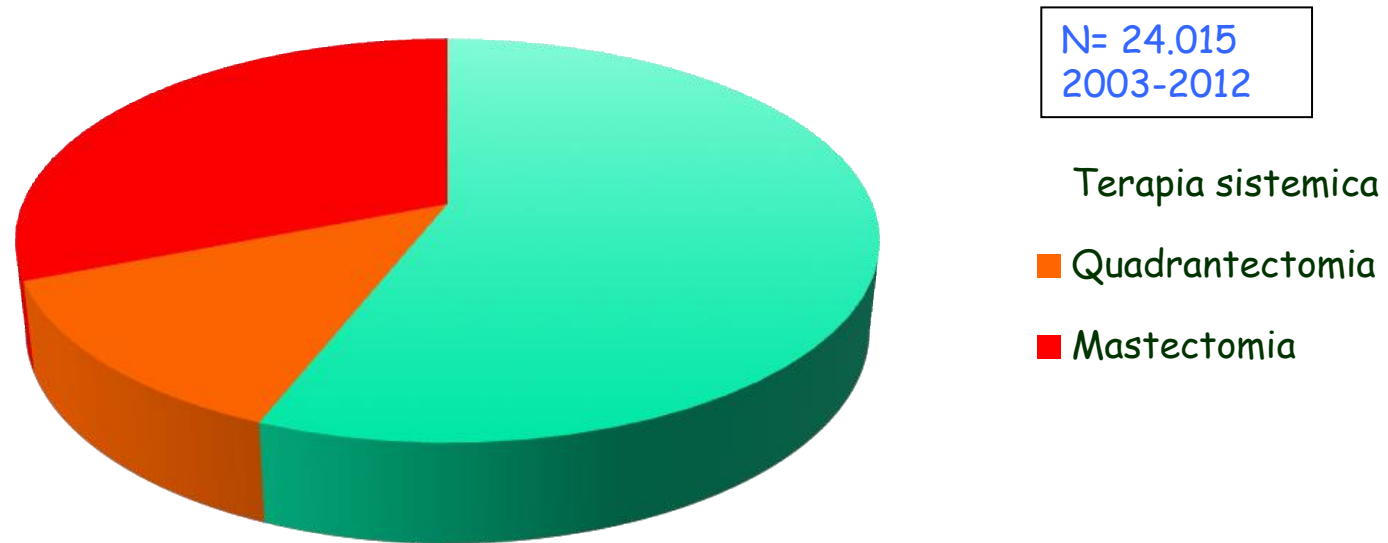
# Practice Patterns - ACS National Cancer Database

ORIGINAL ARTICLE

## Surgical Resection of the Primary Tumor in Women With De Novo Stage IV Breast Cancer

### *Contemporary Practice Patterns and Survival Analysis*

Whitney O. Lane, MD,\* Samantha M. Thomas, MS,†‡ Rachel C. Blitzblau, MD, PhD,§  
Jennifer K. Plichta, MD, MS,\*† Laura H. Rosenberger, MD, MS,\*†  
Oluwadamilola M. Fayanju, MD, MA, MPHS,\*† Terry Hyslop, PhD,†‡  
E. Shelley Hwang, MD, MPH,\*† and Rachel A. Greenup, MD, MPH\*†



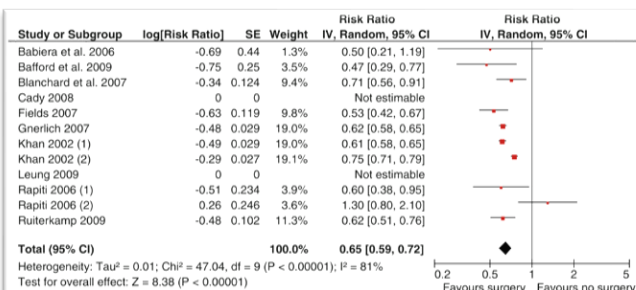
# Meta-analisi studi retrospettivi

Breast Cancer Res Treat (2010) 120:9–16  
DOI 10.1007/s10549-009-0670-0

REVIEW

## Impact of breast surgery on survival in patients with distant metastases at initial presentation: a systematic review of the literature

Jetske Ruiterkamp · Adri C. Voogd ·  
Koop Bosscha · Vivianne C. G. Tjan-Heijnen ·  
Miranda F. Ernst



10 studi  
28.739 paz

Med Oncol (2012) 29:3282–3290  
DOI 10.1007/s12032-012-0310-0

REVIEW ARTICLE

## Surgery of primary tumors in stage IV breast cancer: an updated meta-analysis of published studies with meta-regression

Fausto Petrelli · Sandro Barni

Received: 10 July 2012 / Accepted: 14 July 2012 / Published online: 28 July 2012  
© Springer Science+Business Media, LLC 2012

**Abstract** Systemic therapy is the mainstream treatment of stage IV breast cancer. Surgical excision of the primary breast cancer tumor in the presence of synchronous metastatic disease is debated, but a shared indication is not proposed by current guidelines. The purpose of this analysis is to aggregate the published survival data of surgery of an intact primary tumor in stage IV disease. The authors searched PubMed for publications reporting data about the survival benefit of surgery of the primary tumor in patients with metastatic breast cancer. Hazard ratios for survival when reported after multivariate analysis (with 95 % confidence intervals) were obtained from publications and pooled in a meta-analysis. A meta-regression weighted for the extent of disease, ER/HER2 status, age, visceral or bone disease, rate of radiotherapy, and systemic therapies offered was performed. A total of 15 publications were included in this meta-analysis. Surgery of the primary tumor appeared to be an independent factor for an improved survival in the multivariate analyses from the individual studies, with an HR of 0.69 ( $p < 0.00001$ ). According to meta-regression, the survival benefit was independent of age, extent, site of the metastatic disease, and HER2 status, but was directly proportional to the rate of patients exposed to systemic therapies and radiotherapy and inversely correlated with the ER+ status of the population included. Surgery of the primary tumor in stage IV breast cancer seems to offer a survival benefit in metastatic patients, in particular when it is offered in a multimodality treatment program.

F. Petrelli (✉) · S. Barni  
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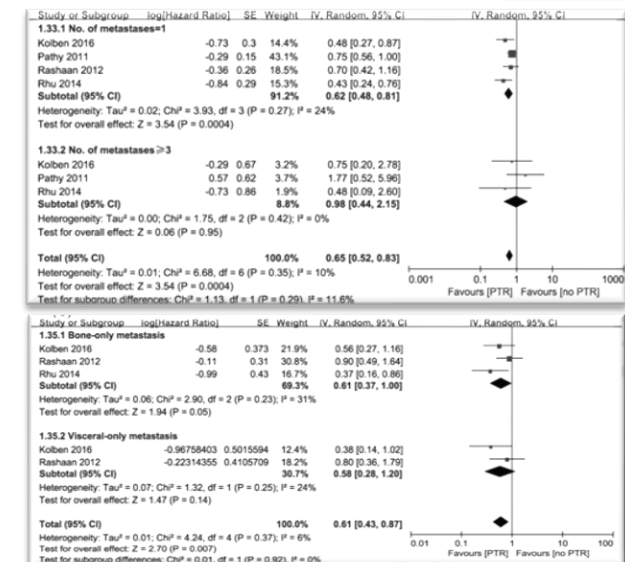
**Keywords** Surgery · Primary tumor ·  
Metastatic breast cancer · Survival

Metastatic breast cancer (MBC) is defined as the dissemination of tumor cells beyond the breast, chest wall, and regional lymph nodes. Treatment of MBC is not usually considered curative, but a small niche of patients, with limited and indolent sites of metastatic disease other than sensitivity to treatment, may experience very long survivals. This gain survival has been reached with better chemotherapy and targeted therapies in particular. The treatment goals in stage IV disease are prolongation of survival, control of burden of disease, reduction in cancer-related symptoms or complications, and maintenance of quality of life. These objectives are usually obtained with systemic therapies (e.g., endocrine therapy, chemotherapy, or biological agents) and in some circumstances with locoregional treatments (e.g., radiotherapy for painful bone lesions or surgery for solitary nodal, lung, or liver metastasis). There is a subset of women with MBC who have limited systemic tumor spread and a biologically indolent disease. Between 5 and 10 % of patients with stage IV disease survive five or more years, and 2–5 % become long-term survivors [1, 2]. These long-term survivors tend to be young, with an excellent performance status and limited metastatic (sometimes referred to as oligometastatic) disease. For such patients, combined modality approaches, often including surgery, appear to provide more hope for long-term progression-free survival than chemotherapy alone.

Primary breast cancer (BC) showing synchronous, distant metastases at presentation is present in a small percentage (3–4 %) in all BC patients, in which both the distant and locoregional controls of disease are endpoints

## Primary Tumor Resection in Stage IV Breast Cancer: A Systematic Review and Meta-analysis

Weikai Xiao, MD, Yutian Zou, MD, Shaoquan Zheng, MD, Xiaojian Hu, BSc, Peng Liu, MD, Xinhua Xie, MD, Ping Yu, MD, Hailin Tang, MD, PhD, Xiaoming Xie, MD, PhD



33 studi  
67.272 paz

Ruiterkamp et al: Breast Cancer Res  
Treat 2010; 120: 9–16

Petrelli F et al: Med Oncol 2012; 29:  
3282–3290 - 15 Studi su 29.563 paz.

Xiao W et al: EJSO 2018; 44: 1504–  
1512



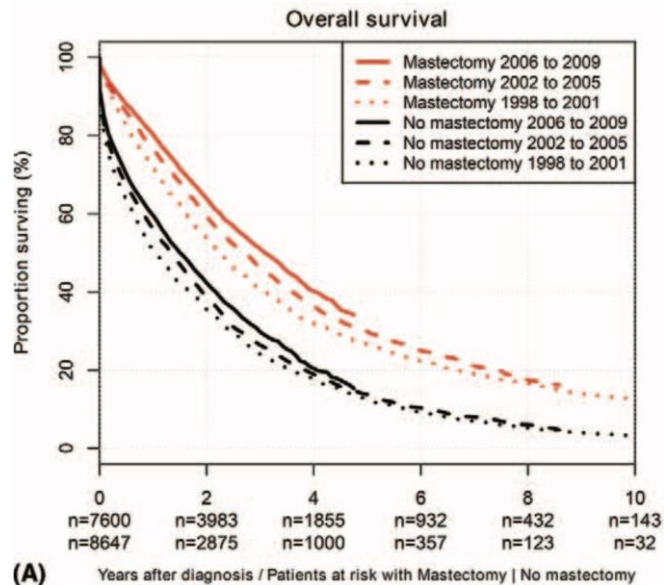
# Studi Propensity Score Matched

ORIGINAL ARTICLE

## Improved Survival After Primary Tumor Surgery in Metastatic Breast Cancer

*A Propensity-adjusted, Population-based SEER Trend Analysis*

Rene Warschkow, MD, MSc,\*† Ulrich Güller, MD, MHS, FEBS,§§ Ignazio Tarantino, MD, MSc,¶  
Thomas Cerny, MD,‡ Bruno M. Schmied, MD, MBA,\* Beat Thuerlimann, MD,|| and Markus Joerger, MD, PhD‡



- ✓ SEER Database
- ✓ N= 16247
- ✓ 1998-2009

## THE IMPACT OF PRIMARY TUMOR SURGERY ON SURVIVAL IN HER2 POSITIVE STAGE IV BREAST CANCER PATIENTS IN THE CURRENT ERA OF TARGETED THERAPY



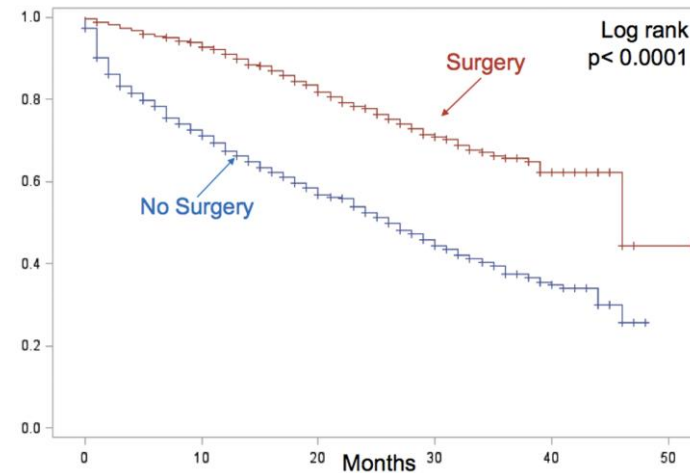
LOMA LINDA UNIVERSITY

School of Medicine

Ross Mudgway BS, Carlos Chavez de Paz Villanueva MD MPH, Ann C. Lin MD, Maheswari Senthil MD, Carlos A. Garberoglio MD, Sharon S. Lum MD



AACR American Association for Cancer Research  
FINDING CURES TOGETHER



- ✓ NCDB (2.807.541 casi)
- ✓ 58.867 NEU +
- ✓ 2010-2012
- ✓ 3231 pazienti stadio IV

E quindi.. ??



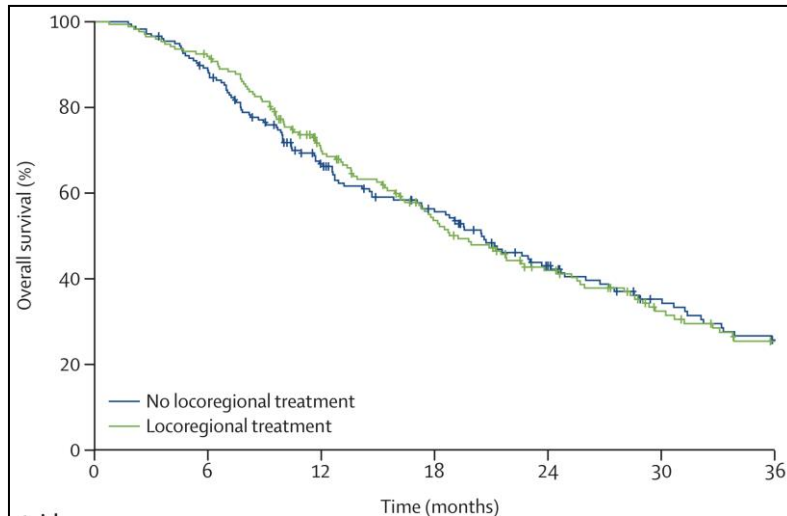
# Trials Randomizzati

Country	Accrual Period	N Projected	N Accrual	Initial Therapy	Status
India (Tata Memorial)	2005-12	350	350	Systemic Therapy	Published
Turkey (MF 07-01)	2008-12	271	274	Surgery	Published
USA and Canada ECOG 2108	2011-16	880	368	Systemic Therapy	Published
Japan JCOG 1017	2011-18	500	400	Systemic Therapy	Completed
Austria (ABCSG 28) (POSITIVE)	2010-15	254	90	Surgery	Early Stopped
Netherlands (SUBMIT)	2011-16	516	0	Surgery	Early Stopped

## Locoregional treatment versus no treatment of the primary tumour in metastatic breast cancer: an open-label randomised controlled trial



Rajendra Badwe, Rohini Hawaldar, Nita Nair, Rucha Kaushik, Vani Parmar, Shabina Siddique, Ashwini Budrukkar, Indraneel Mittra, Sudeep Gupta



- Randomized trial, N= 350
- Chemioterapia up-front
- randomizzate solo le pazienti "responders"
- Stratificazione per Numero e Sito delle metastasi, e recettori ormonali
- Nessun trattamento con Herceptin nelle pazienti HER2/neu +

Ann Surg Oncol  
https://doi.org/10.1245/s10434-018-6494-6

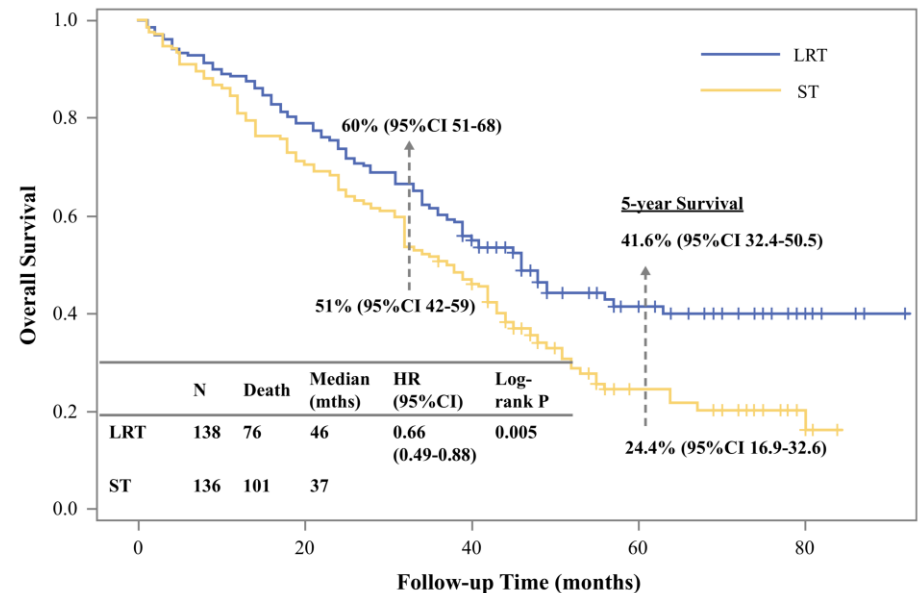
Annals of  
**SURGICAL ONCOLOGY**  
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – BREAST ONCOLOGY

## Randomized Trial Comparing Resection of Primary Tumor with No Surgery in Stage IV Breast Cancer at Presentation: Protocol MF07-01

Atilla Soran, MD, MPH, FNCBC, FACS<sup>1</sup>, Vahit Ozmen, MD, FACS<sup>2</sup>, Serdar Ozbas, MD<sup>3</sup>, Hasan Karanlik, MD<sup>4</sup>, Mahmut Muslimanoglu, MD<sup>5</sup>, Abdullah Ipci, MD<sup>6</sup>, Zafer Canturk, MD<sup>6</sup>, Zafer Utkan, MD<sup>7</sup>, Cihangir Ozaslan, MD<sup>8</sup>, Turkkan Evrensel, MD<sup>9</sup>, Cihan Uras, MD<sup>10</sup>, Erol Aksaz, MD<sup>11</sup>, Aykut Soyder, MD<sup>12</sup>, Umit Ugurlu, MD<sup>13</sup>,



- 274 pazienti valutabili, Età media 51 anni
- No stratification
- (ER + 85% in S - vs. 72% in ST)
- Mets ossee non confermate istologicamente
- Follow-up mediano 40 mesi



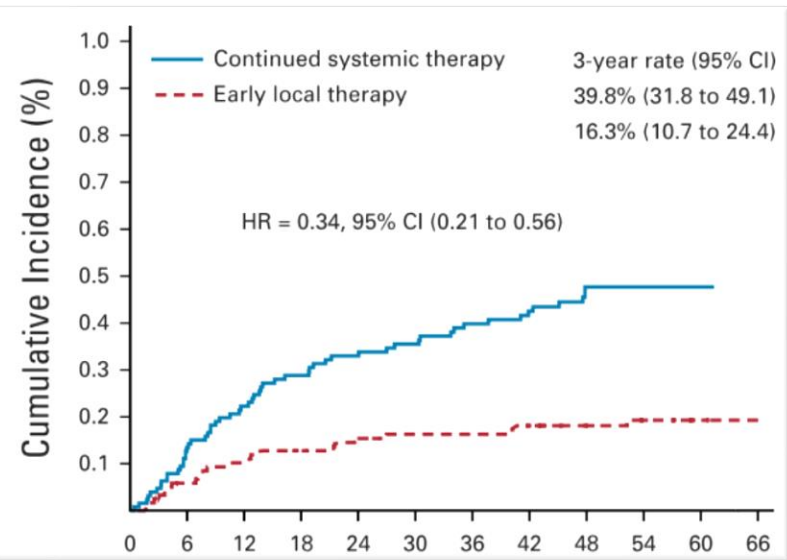
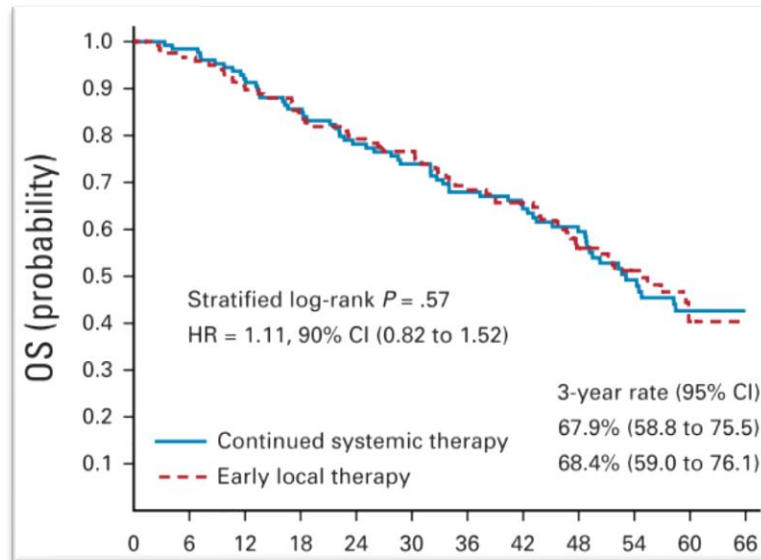
# ECOG 2108

original reports

## Early Local Therapy for the Primary Site in De Novo Stage IV Breast Cancer: Results of a Randomized Clinical Trial (EA2108)

Seema A. Khan, MD, MPH<sup>1</sup>; Fengmin Zhao, MS, MHS, PhD<sup>2</sup>; Lori J. Goldstein, MD<sup>3</sup>; David Cella, PhD<sup>4</sup>; Mark Basik, MD<sup>5</sup>; Mehra Golshan, MD, MBA<sup>6</sup>; Thomas B. Julian, MD<sup>7</sup>; Barbara A. Pockaj, MD<sup>8</sup>; Christine A. Lee, MD<sup>9</sup>; Wajeeha Razaq, MD<sup>10</sup>; Joseph A. Sparano, MD<sup>11</sup>; Gildy V. Babiera, MD<sup>12</sup>; Irene A. Dy, MD<sup>13</sup>; Sarika Jain, MD<sup>1</sup>; Paula Silverman, MD<sup>14</sup>; Carla S. Fisher, MD<sup>15</sup>; Amye J. Tevaarwerk, MD<sup>16</sup>; Lynne I. Wagner, PhD<sup>17</sup>; and George W. Sledge, MD<sup>18</sup>

N= 391 pazienti registrate  
2/3 randomizzate  
Free margins of resection  
Adjuvant RT  
ACOSOG Z11 criteria for SLN  
Primary endpoint: OS  
Secondary: QOL (FACT)  
Start 2011-Closed 2019



**CONCLUSION** Early locoregional therapy for the primary site did not improve survival in patients presenting with metastatic breast cancer. Although it was associated with improved locoregional control, this had no overall impact on quality of life.

# Metanalisi degli Studi prospettici

Ann Surg Oncol (2021) 28:5059–5070  
<https://doi.org/10.1245/s10434-021-09650-3>

Annals of  
**SURGICAL ONCOLOGY**  
 OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY

ORIGINAL ARTICLE – BREAST ONCOLOGY

## Clinical Evidence for Locoregional Surgery of the Primary Tumor in Patients with De Novo Stage IV Breast Cancer

Yunfang Yu, MD<sup>1</sup>, Huangming Hong, MD<sup>1</sup>, Ying Wang, MD<sup>1</sup>, Tuping Fu, MD<sup>2</sup>, Yongjian Chen, MD<sup>3</sup>, Jianli Zhao, MD<sup>1</sup>, Peixian Chen, MD<sup>4</sup>, Ruizhao Cai, MD<sup>2</sup>, Yujie Tan, MD<sup>1</sup>, Zifan He, MD<sup>1</sup>, Wei Ren, MD<sup>1</sup>, Lihuan Zhou, MD<sup>2</sup>, Junhao Huang, MD<sup>2</sup>, Jun Tang, MD<sup>2</sup>, Guolin Ye, MD<sup>4</sup>, and Herui Yao, MD<sup>1</sup>



Overall Survival

- ✓ Metanalisi di studi prospettici
- ✓ Propensity Score Matching
- ✓ 1110 pazienti
- ✓ 6 Studi



Loco-regional Progression-free Survival



# Conclusioni

- Non è dimostrato un beneficio consistente della chirurgia in studi randomizzati
- Studi retrospettivi sono inquinati da bias
- La chirurgia, quando ipotizzata, non dovrebbe avere come obiettivo l'aumento della sopravvivenza
- Pazienti con tumori triplo negativi o metastasi viscerali non dovrebbero essere considerate per chirurgia a meno di necessità palliative
- E' possibile considerare la chirurgia come trattamento "non-standard" in alcuni casi selezionati ?
- Practice Patterns ?

# Certificazione Europea

# Perché abbiamo bisogno di una Certificazione?



Progetto Internazionalizzazione presenta:

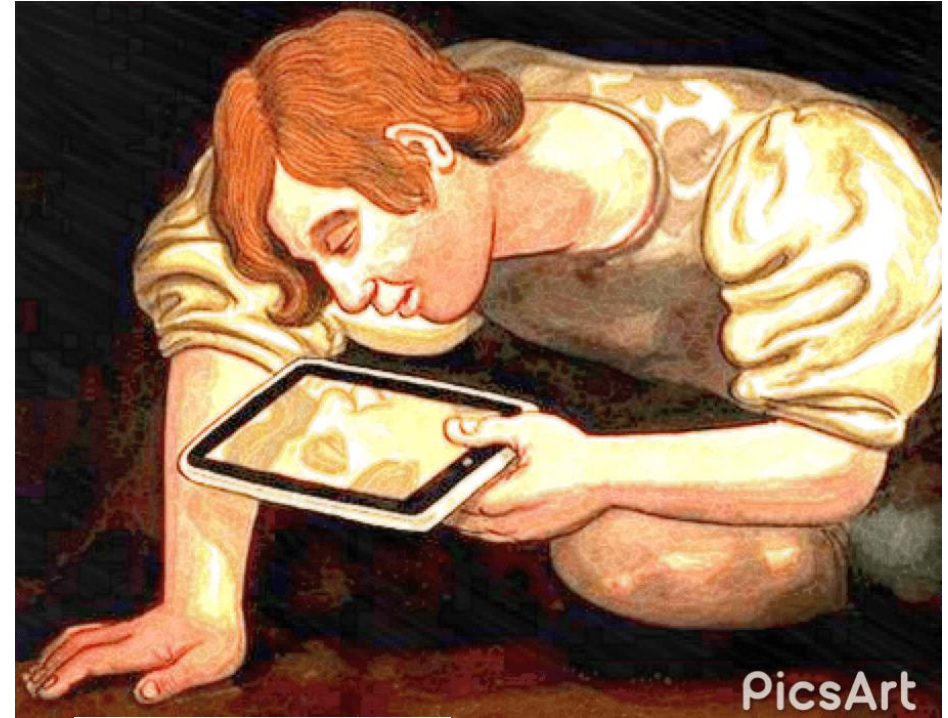
## Certificati!

5 buoni motivi per conseguire una certificazione linguistica

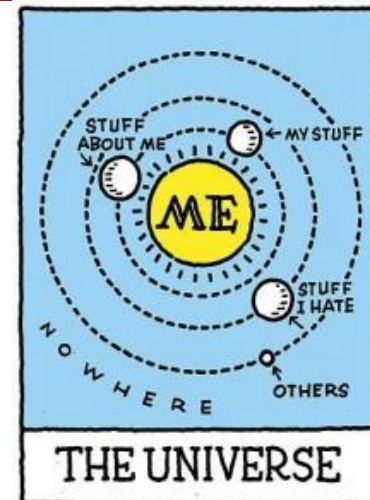
- Per ottenere** il CREDITO SCOLASTICO a fine anno e le ore di PCTO (ex alternanza)
- Per arricchire** il tuo CURRICULUM VITAE
- Per iscriversi** all'UNIVERSITÀ in ITALIA/ESTERO
- Per accedere** ai CONCORSI PUBBLICI
- Per riconoscere** il tuo IMPEGNO e il tuo STUDIO

Per informazioni vai sul sito della scuola oppure SCAN ME

# Auto-referenzialità



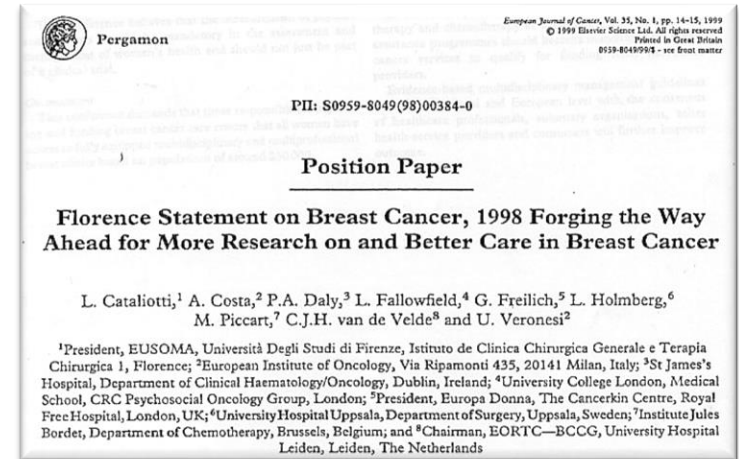
CI STIAMO  
PARLANDO ADDOSSO?





# Certificazione Europea


- Firenze, 1998: EBCC 1, Florence Statement
- Risoluzioni del Parlamento Europeo nel 2003-2006
- EUSOMA recommendations
  - Minimum 150 cases/year
  - Multidisciplinary approach, MDM
  - Mandatory Core Team
- Ente Certificatorio: BCCERT/Italcert
- Quality indicators
- Data warehouse



# In Italia

## 2014 - Rete dei Centri di Senologia Conferenza Stato-Regioni

## 2018 - Centri di Senologia - LEA



*Presidenza del Consiglio dei Ministri*  
CONFERENZA PERMANENTE PER I RAPPORTI  
TRA LO STATO, LE REGIONI E LE PROVINCE AUTONOME  
DI TRENTO E DI BOLZANO

Intesa, ai sensi dell'articolo 8, comma 6 della legge 5 giugno 2003, n. 131, sul documento recante  
"Linee di indirizzo sulle modalità organizzative ed assistenziali della rete dei Centri di Senologia".

Rep. Atti n. 185/CSE del 18 dicembre 2014


LA CONFERENZA PERMANENTE PER I RAPPORTI TRA LO STATO, LE REGIONI E LE PROVINCE  
AUTONOME DI TRENTO E BOLZANO

Nell' odierna seduta del 18 dicembre 2014:

VISTO l'articolo 8, comma 6 della legge 5 giugno 2003, n. 131, che prevede la possibilità per il  
Governo di promuovere, in sede di Conferenza Stato-Regioni o di Conferenza Unificata, la stipula di  
intese dirette a favorire l'armonizzazione delle rispettive legislazioni o il raggiungimento di posizioni  
unitarie o il conseguimento di obiettivi comuni;

VISTO l'art. 168 del trattato di Lisbona dell' Unione Europea, che prevede che debbano essere  
assicurati elevati livelli di protezione della salute nella definizione ed implementazione di tutte le  
politiche ed attività dell'Unione;

VISTO il decreto legislativo n.502 del 30 dicembre 1992 e successive modificazioni ed integrazioni,  
che indirizza le azioni del Servizio Sanitario Nazionale verso il rispetto del principio di appropriatezza  
e l' individuazione di percorsi diagnostici terapeutici e linee guida;



*Ministero della Salute*

Direzione Generale della Programmazione sanitaria  
Aggiornamento del Decreto 12 dicembre 2001 sul Sistema di  
Garanzie per il monitoraggio dei livelli di assistenza:  
valutazione dei percorsi diagnostico terapeutico assistenziali

*Estratto per all. 1 DPCM-NSG (23.7.2018)*

**NUOVO SISTEMA DI GARANZIA DEI  
LIVELLI ESSENZIALI DI ASSISTENZA**

**MONITORAGGIO E VALUTAZIONE DEI  
PERCORSI DIAGNOSTICO-  
TERAPEUTICO ASSISTENZIALI**



# Requisiti per la certificazione

The Breast 51 (2020) 65–84

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Original article

## The requirements of a specialist breast centre

Laura Biganzoli <sup>a,\*</sup>, Fatima Cardoso <sup>b,1</sup>, Marc Beishon <sup>c</sup>, David Cameron <sup>d</sup>, Luigi Cataliotti <sup>e</sup>, Charlotte E. Coles <sup>f</sup>, Roberto C. Delgado Bolton <sup>g</sup>, Maria Die Trill <sup>h</sup>, Sema Erdem <sup>i</sup>, Maria Fjell <sup>j</sup>, Romain Geiss <sup>k</sup>, Mathijs Goossens <sup>l</sup>, Christiane Kuhl <sup>m</sup>, Lorenza Marotti <sup>n</sup>, Peter Naredi <sup>o</sup>, Simon Oberst <sup>p</sup>, Jean Palussière <sup>q</sup>, Antonio Ponti <sup>r</sup>, Marco Rosselli Del Turco <sup>s</sup>, Isabel T. Rubio <sup>t</sup>, Anna Sapino <sup>u</sup>, Elzbieta Senkus-Konefka <sup>v</sup>, Marko Skelin <sup>w</sup>, Berta Sousa <sup>x</sup>, Tiina Saarto <sup>y</sup>, Alberto Costa <sup>z</sup>, Philip Poortmans <sup>z</sup>

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ABSTRACT

This article is an update of the requirements of a specialist breast centre, produced by EUSOMA and endorsed by ECCO as part of Essential Requirements for Quality Cancer Care (ERQCC) programme, and ESMO.

To meet aspirations for comprehensive cancer control, healthcare organisations must consider the requirements in this article, paying particular attention to multidisciplinarity and patient-centred pathways from diagnosis, to treatment, to survivorship.

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<sup>1</sup> Laura Biganzoli and Fatima Cardoso are both first authors and declare equal contribution to this article.

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journal homepage: [www.ejancer.com](http://www.ejancer.com)

Position Paper

## Quality indicators in breast cancer care: An update from the EUSOMA working group

Laura Biganzoli <sup>a,\*</sup>, Lorenza Marotti <sup>b</sup>, Christopher D. Hart <sup>a,c</sup>, Luigi Cataliotti <sup>d</sup>, Bruno Cutuli <sup>e</sup>, Thorsten Kühn <sup>f</sup>, Robert E. Mansel <sup>g</sup>, Antonio Ponti <sup>h</sup>, Philip Poortmans <sup>i</sup>, Peter Reginig <sup>j</sup>, Jos A. van der Hage <sup>m</sup>, Yvonne Wengström <sup>n</sup>, Marco Rosselli Del Turco <sup>o</sup>

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<sup>o</sup> Radiology, Rome, Italy

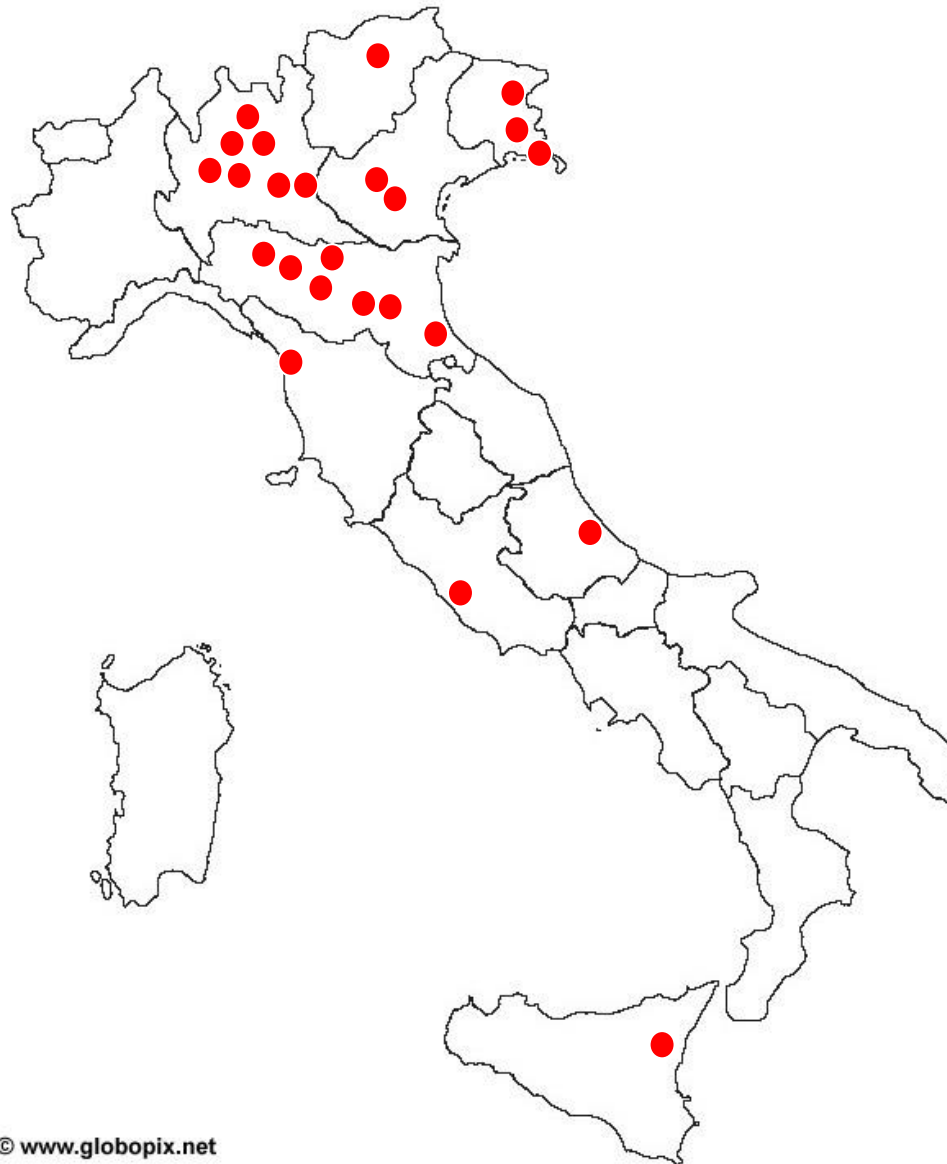
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KEYWORDS  
Quality indicators;  
Breast cancer care

Abstract In 2010, EUSOMA published a position paper, describing a set of benchmark quality indicators (QIs) that could be adopted by breast centres to allow standardised auditing and quality assurance and to establish an agreed minimum standard of care. Towards the end of 2014, EUSOMA decided to update the paper on QIs to consider and incorporate new scientific knowledge in the field. Several new QIs have been included to address the need for improved follow-up care of patients following primary treatments. With regard to the management of elderly patients, considering the complexity, the expert group decided that, for some specific quality indicators, if centres fail to meet the minimum standard, older patients will be excluded from analysis, provided that reasons for non-adherence to the QI are specified in the clinical chart and are identified at the review of the clinical records. In this way, high standards are promoted, but centres are able to identify and account for the effect of non-

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# Centri Certificati in Italia



**ITALCERT**  
Breast Centres  
Cert  
European Breast Centres Certification

ITALCERT Srl is a Certification Body accredited by ACCREDIA for management systems, products and services, inspection activities and notified body for conformity assessment according to CE Type-approval mark.

Bccert is a no profit Association aiming at promoting and diffusing an high quality standard of care in breast cancer and it is partner of Italcert for what concerns Certification scheme according to Eusoma guidelines

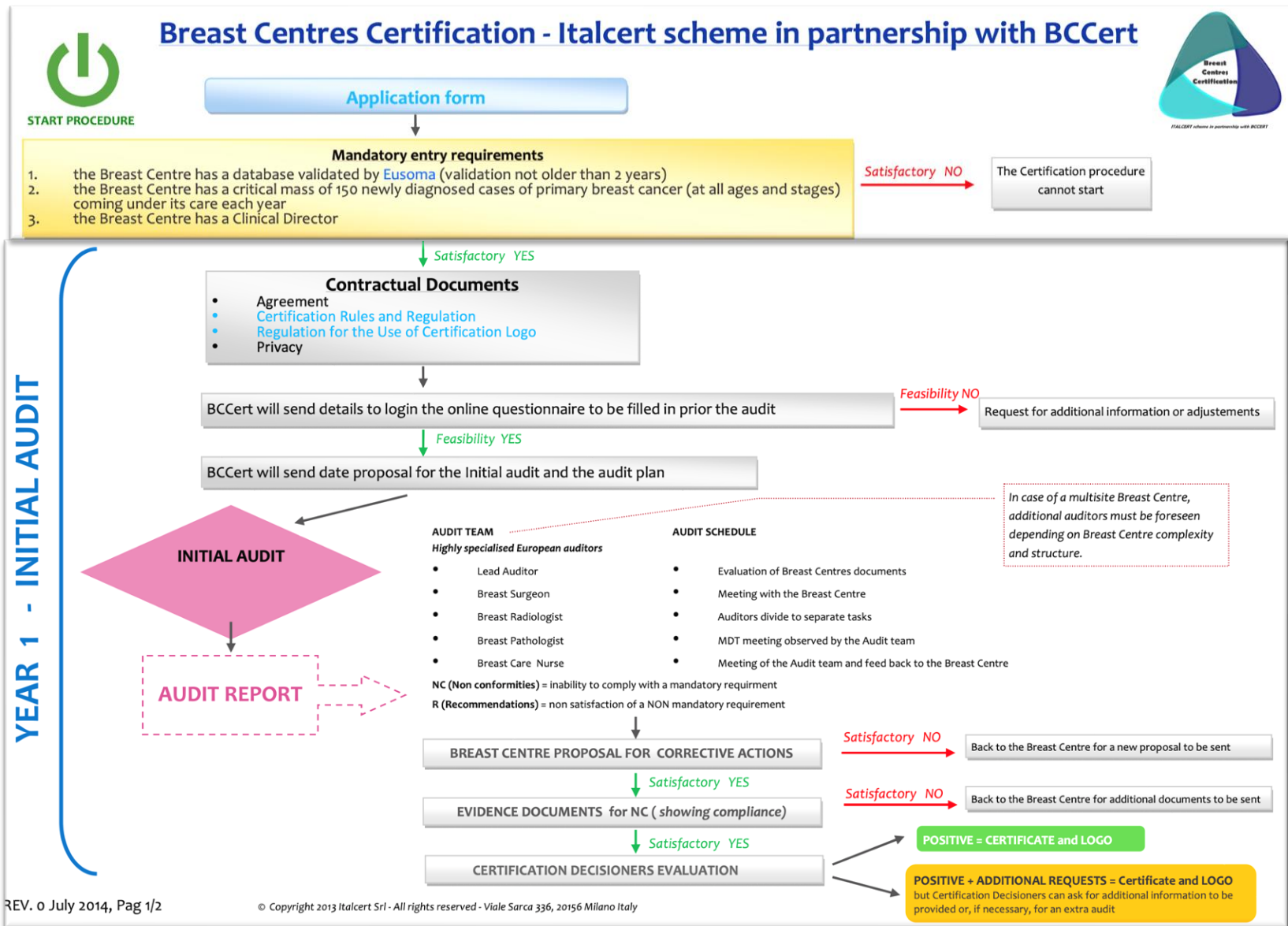


SGQ N° 023 A  
SGA N° 020D  
PRS N° 079C

PRD N° 122B  
SCR N° 041F  
ISP N° 075E

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# Certificazione Europea



# Indicatori di Qualità



## Eusoma Quality Indicators for Breast Centre Certification

based on "Quality indicators in breast cancer care: An update from the EUSOMA working group" EJC 86 (2017): 59-81

## Breast Centres Certification Procedure

According to the Eusoma guidelines "The requirements of a specialist breast centre"

Indicator	Recommended/ Mandatory	Minimum Standard	Target
1 Proportion of women with breast cancer (invasive or in situ) who had a pre-operative histologically or cytologically confirmed malignant diagnosis (B5 or C5)	M	85%	90%
2 Proportion of invasive cancer cases for which the following prognostic/predictive parameters have been recorded: histological type (according to WHO Classification of Tumours of the Breast), grading (according to WHO and EU Guidelines: Elston and Ellis modified Bloom and Richardson-Grading system Elston, CW et al. 1991), ER, PgR*, HER-2/neu, Proliferation index (Ki67)* *this marker is recommended but not mandatory, and does not need to be included in the calculation for compliance with the QI	M	95%	98%

For patients receiving primary systemic treatment (PST), characterization on core biopsy prior to therapy is mandatory. For patients receiving primary surgery, characterization may be performed on the surgical specimen only. In addition to the above parameters, the following parameters must be recorded after surgery:  
Pathological stage (pT and pN, or ypT and ypN in case of PST), Size in mm for the invasive component, Peritumoral vascular invasion (L,V), Distance to nearest radial margin

# Indicatori di Qualità



## Eusoma Quality Indicators for Breast Centre Certification

based on "Quality indicators in breast cancer care: An update from the EUSOMA working group" EJC 86 (2017): 59-81

		Recommended/ Mandatory	Minimum Standard	Target
3	Proportion of non-invasive cancer cases for which the following prognostic/predictive parameters have been recorded: Grading (according to WHO Classification of Tumours of the Breast), dominant histologic pattern, size in mm (best pathology or radiology estimate if 2 stage pathology), distance to nearest radial margin, ER.	M	95%	98%
4	Proportion of patients with invasive breast cancer (M0) who received post-operative radiation therapy (RT) after surgical resection of the primary tumor and appropriate axillary staging/surgery in the framework of BCT	M	90 %	95 %
5	Proportion of patients (BRCA1 and BRCA2 patients excluded) with invasive breast cancer not greater than 3 cm (total size, including DCIS component) who underwent BCT as primary treatment.	M	70%	85%
6	Proportion of patients with non-invasive breast cancer not greater than 2cm who underwent BCT	M	80%	90%
7	Proportion of patients with DCIS only who do not undergo axillary clearance	M	97%	99%



# Indicatori di Qualità

		Recommended/ Mandatory	Minimum Standard	Target
8	Proportion of patients with endocrine sensitive invasive cancer who received endocrine therapy	M	85%	90%
9	Proportion of patients with ER- (T > 1 cm or Node+) invasive carcinoma who received adjuvant chemotherapy	M	85%	95%
10	Proportion of patients (invasive cancer only) who received a single (breast) operation for the primary tumor (excluding reconstruction)	M	80%	90%
11	Proportion of patients (DCIS only) who received just one operation (excluding reconstruction)	M	70%	90%
12	Proportion of patients with invasive cancer and clinically negative axilla who underwent sentinel lymph-node biopsy (excluding patients who received PST)	M	90%	95%
13	Proportion of patients receiving immediate reconstruction at the same time of mastectomy	R	40%	NA
14	Proportion of patients with invasive cancer who underwent sentinel lymph-node biopsy with no more than 5 nodes excised	R	90%	95%
15	Proportion of patients with HER2 positive (IHC 3+ or in situ hybridisation positive FISH +) invasive carcinoma (T > 1 cm or N+) treated with chemotherapy who received adjuvant trastuzumab	M	85%	95%
16	Proportion of treated patients for which the breast centre collects data on life status and recurrence rate (for at least 5 years)	R	80%	90%
17*	Ratio of benign to malignant diagnoses based on definitive pathology report (surgery only, non-operative biopsies excluded) –	M	1:4	1:5



# Data base

EUSOMA Data Collection - Microsoft Internet Explorer fornito da CPO Piemonte

Google

EUSOMA Data Collection

Strumenti

## eusoma DB

Welcome to the EUSOMA database

Mariano Tomatis

Created by Mariano Tomatis for CPO Piemonte

beta version eusoma DB

Datawarehouse of the EUSOMA Network of certified Breast Units

Login: xxxxxxxx

Password: ●●●●●●

MySQL

→

Fine

Internet 100%

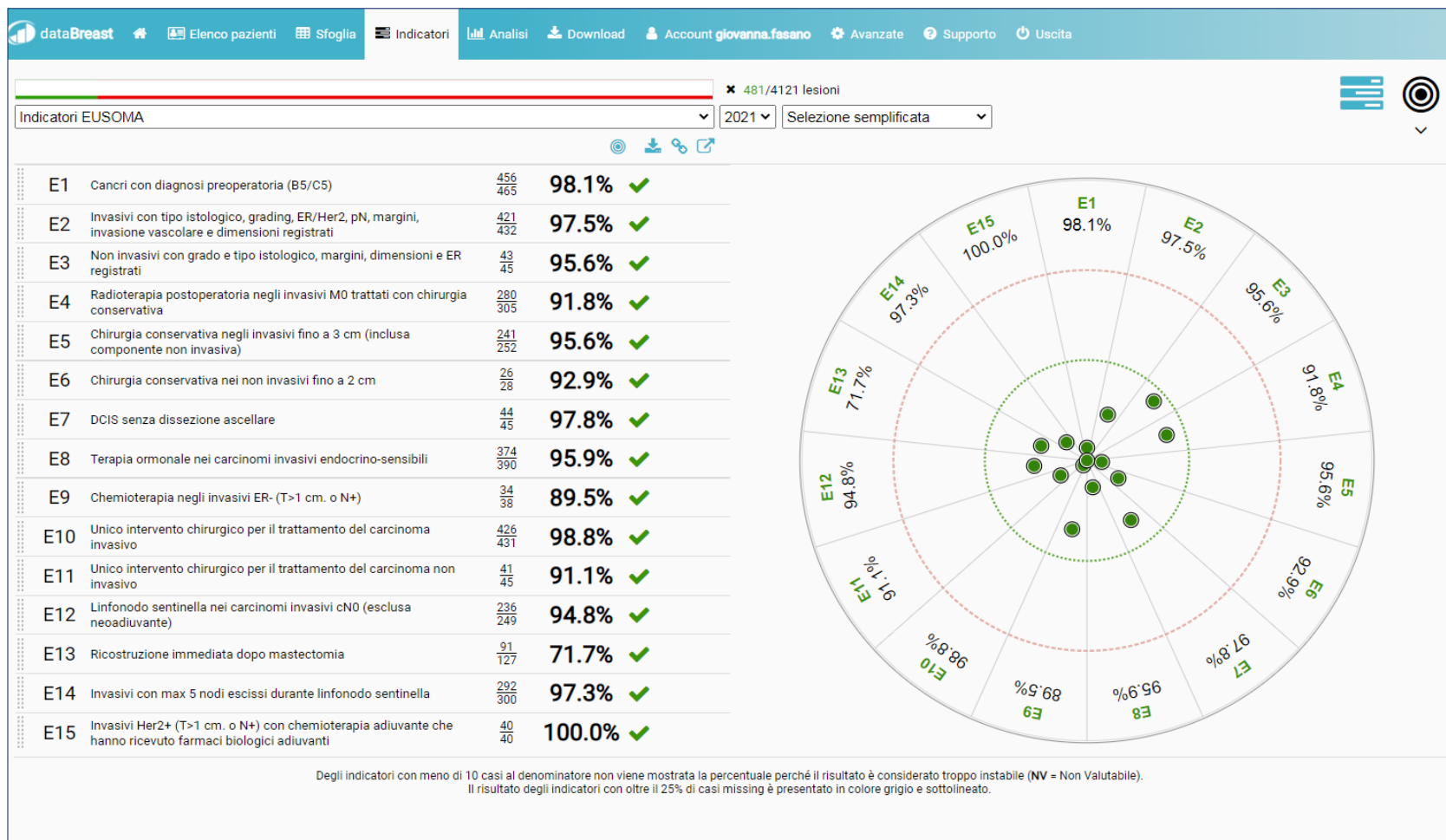
# 2021 EUSOMA Indicators



dataBreast		Elenco pazienti	Sfogli	Indicatori	Analisi	Download	Account giovanna.fasano	Avanzate	Supporto	Uscita
<div style="float: right;"> <span>481/4121 lesioni</span> </div> <div style="float: right;"> </div>										
Indicatori EUSOMA <span style="float: right;">2021 Selezione semplificata</span>										
E1	Cancri con diagnosi preoperatoria (B5/C5)	456/465	98.1%	✓	456	9				
E2	Invasivi con tipo istologico, grading, ER/Her2, pN, margini, invasione vascolare e dimensioni registrati	421/432	97.5%	✓	421	11				
E3	Non invasivi con grado e tipo istologico, margini, dimensioni e ER registrati	43/45	95.6%	✓	43	2				
E4	Radioterapia postoperatoria negli invasivi M0 trattati con chirurgia conservativa	280/305	91.8%	✓	280	25				
E5	Chirurgia conservativa negli invasivi fino a 3 cm (inclusa componente non invasiva)	241/252	95.6%	✓	241	11				
E6	Chirurgia conservativa nei non invasivi fino a 2 cm	26/28	92.9%	✓	26	2				
E7	DCIS senza dissezione ascellare	44/45	97.8%	✓	44	1				
E8	Terapia ormonale nei carcinomi invasivi endocrino-sensibili	374/390	95.9%	✓	374	16				
E9	Chemioterapia negli invasivi ER- (T>1 cm. o N+)	34/38	89.5%	✓	34	4				
E10	Unico intervento chirurgico per il trattamento del carcinoma invasivo	426/431	98.8%	✓	426	5				
E11	Unico intervento chirurgico per il trattamento del carcinoma non invasivo	41/45	91.1%	✓	41	4				
E12	Linfonodo sentinella nei carcinomi invasivi cN0 (esclusa neoadiuvante)	236/249	94.8%	✓	236	13				
E13	Ricostruzione immediata dopo mastectomia	91/127	71.7%	✓	91	36				
E14	Invasivi con max 5 nodi escissi durante linfonodo sentinella	292/300	97.3%	✓	292	8				
E15	Invasivi Her2+ (T>1 cm. o N+) con chemioterapia adiuvante che hanno ricevuto farmaci biologici adiuvanti	40/40	100.0%	✓	40					

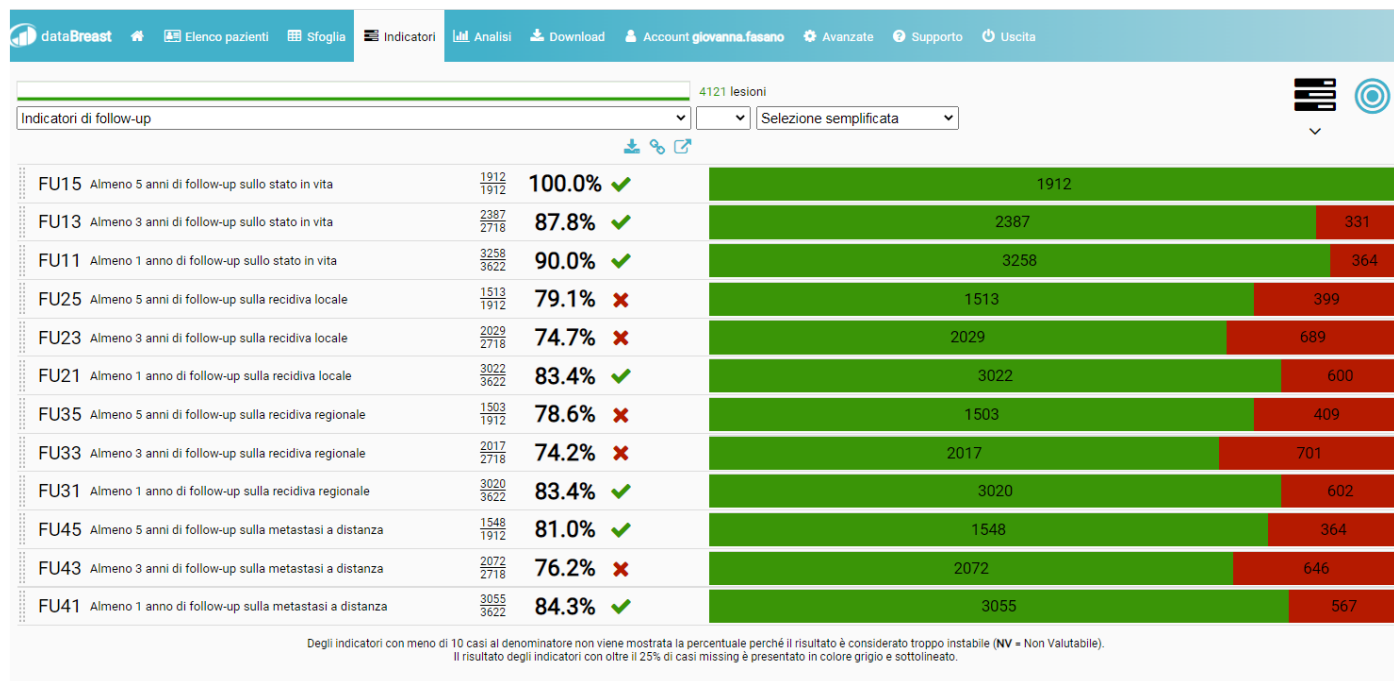
Degli indicatori con meno di 10 casi al denominatore non viene mostrata la percentuale perché il risultato è considerato troppo instabile (NV = Non Valutabile).  
 Il risultato degli indicatori con oltre il 25% di casi missing è presentato in colore grigio e sottolineato.

# 2021 EUSOMA Indicators



# Follow-up Indicators

2021



9/2/2021

RomaSG2020.htm

## Indicators 16 - Follow-up availability

2020

	1 year	3 years	5 years		Minimum	Standard
Overall survival available	74.4%	37.8%	28.0%	<	80%	90%
Recurrence free survival available	64.5%	32.3%	23.8%	<	80%	90%
Regional LN recurrences free survival available	64.5%	32.1%	23.4%	<	80%	90%
Distant metastases free survival available	63.5%	34.2%	25.5%	<	80%	90%
Malignant cases	3110	2265	1523			
Earliest date of diagnosis	10/03/2000	10/03/2000	10/03/2000			
Latest date of diagnosis	06/02/2020	08/02/2018	09/02/2016			

# Indicatori di Qualità - IV Stadio

## MDM IV Stadio

- Almeno il 50% dei casi metastatici devono essere discussi in Conferenza Multidisciplinare (obiettivo iniziale)
- Al MDM devono essere presenti
  - Oncologo medico
  - Radioterapista
  - Infermiera di senologia
  - Radiologo
  - Anatomo patologo
  - Medico Nucleare
  - Specialista in cure palliative
  - Datamanager
- Le decisioni devono essere formalmente registrate in un verbale
- Le decisioni devono essere poi condivise con la paziente in presenza di una infermiera di senologia

# Indicatori di Qualità - IV Stadio

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- Almeno 25 casi/anno dovrebbe avere conferma istologica del sito metastatico con rivalutazione recettoriale e HER2
- Deve essere presente un Team specializzato, che include:
  - Oncologo medico
  - Infermiera di senologia
  - Assistente Sociale
  - Fisioterapista
  - Psico-oncologo
  - Medici specialisti
  - Terapista del dolore
  - Care Spirituale
  - Dietista
- Deve essere garantito un supporto alle famiglie delle pazienti (Standard ESMO Designated Centres of Integrated Oncology and Palliative Care)



# Certificazione Europea

Roma

3 marzo 2017



SISTEMA SANITARIO REGIONALE  
**AZIENDA OSPEDALIERA  
SAN GIOVANNI ADDOLORATA**







## Surveillance Visit BCCert

Roma

29 Marzo 2018





## AUDIT REPORT

Page 4 of 8

### 7 NON-CONFORMITIES

N°	Requirement	Classification Major/Minor	Doc Ref.	Motivation (e.g. missing evidence, evidence that the requirements has not been satisfied, there is compliance with the requirement but registration is missing)
1	The quality control of the mammography reading monitors must be performed	Major	4	Quality control of mammography reading monitors is not performed



DONE

### 8 RECOMMENDATIONS ON NON MANDATORY REQUIREMENTS

N°	Requirement	Doc Ref.	Motivation
1	The Breast Center should consider to replace the mammography Unit (Fuji) older than 10 years	4	Seen radiologic equipment
2	The use of triple assessment on the same day on new patients should be increased from 65% towards 100%	5	Actually only the 65% of the new patients
3	The radiologists are reading less than 3000 mammograms. Double reading is recommended	5	seen radiologists workload
4	The radiographer team should be enlarged so that all the mammograms could be done by experienced radiographers	4	seen radiographers workload



IMPLEMENTED – ARRIVING



IMPLEMENTED



IMPLEMENTED



IMPROVED



ITALCERT scheme in partnership with BCCERT

## Breast Centres Certification

ITALCERT certification scheme, in partnership with BCCert  
[www.breastcentrescertification.com](http://www.breastcentrescertification.com)

### CERTIFICATE No. 1034/00

We hereby certify that

### Centro di Senologia

of

Complesso Ospedaliero San Giovanni Addolorata

Via dell'Amba Aradam, 9 - 00184 Roma

ITALY

Operative Units indicated in Annex 1 for the services listed

Is in compliance with the standard

### Eusoma guidelines

### *"The requirements of a specialist Breast Centre"*

This Certificate must be made public in integral form complete Annex 1

General Manager  
Dr. Ing. Roberto Cusolito

First Issue Date  
2017-05-19

Expire Date  
2020-05-18



SIG. N° 023A PRD N° 1228

SIG. N° 0230 ISP N° 0196

FAS N° 0100C

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ITALCERT scheme in partnership with BCCERT

## Annex 1 at Certificate No. 1034/00

- page 1 of 1 -

### Centro di Senologia

of

Complesso Ospedaliero San Giovanni Addolorata

### List of Operative Units / Services

Services	Location Operative Unit
Breast Surgery Breast Reconstructive Surgery Breast Radiologist Breast Medical Oncology Breast Radiation Oncology Breast Pathology Breast Care Nursing Other services MDM Meeting	Complesso Ospedaliero San Giovanni Addolorata Via dell'Amba Aradam, 9 - 00184 Roma

The validity of this Annex is bound to that of the 1034/00 certificate

General Manager  
Dr. Ing. Roberto Cusolito

2017-05-19



SIG. N° 023A PRD N° 1228

SIG. N° 0230 ISP N° 0196

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# Centro di Senologia

	2014	2015	2016	2017	2018	2019	2020	2021
N. Cancer Cases operated	327	357	411	428	492	459	522	572
Cases discussed at MDM	545	715	766	836	976	1075	1149	1228
Cases discussed at Stage IV MDM							39	102
Pre-Abilitation	0	46	236	310	363	229	2	
Genetic Consultation	0	71	97	178	304	405	323	303
BRCA tests	0	42	73	99	228	166	193	168
Psico-oncologist intervention	0	41	62	56	101	100	73	104
Dietitian (class and consultations)	0	0	62	66	216	242	110	120
Osteoporosis (Class and consultations)	0	0	23	49	59	102	40	40
Gynecology (Class and Consultations)	0	0	55	242	262	331	618	728
N. Patients in Trials	110	150	178	167	125	95	48	77
Ambulatory Visits at the Center	3283	3769	4390	5033	6128	6715	6993	7022







# Grazie!



# GRAZIE!



# Grazie

## Site Visit 2021

## Actions taken



### AUDIT REPORT

Page 5 of 8

#### 7 NON-CONFORMITIES

None

#### 8 RECOMMENDATIONS ON NON MANDATORY REQUIREMENTS

N°	Requirement	Doc Ref.	Motivation
1	Breast Centre is recommended to continue improving compliance with Eusoma QI 16	4	Eusoma data report dated 09/02/2021

(\*) *The non-compliance issued concerns the Eusoma Document edition 2020, but your Breast Centre is still certified with the Eusoma Document edition 2013: for this reason, if this finding is not managed correctly, your certification will not be suspended. However, we ask you to prepare for the transition and to better manage the improvement».*

#### 9 OBSERVATIONS

N°	Description	Doc Ref.	Motivation
1	Visitors observe that the Breast Centre does not have a cumulative list of MDM attendance for all core team members	4	Discussion with the team
2	Visitors observe that training in communication has not yet undertaken for all core team members	4	Discussion with the team

#### 10 POSITIVE ASPECTS

N°	Description
1	Visitors specially appreciated the way the Centre has prepared in advance for the 2020 requirements
2	Visitors specially appreciated the level of data management and bi-annual auditing
3	Visitors specially appreciate the sense of cohesion in the Breast Centre and the way they have continued development since start of certification process



IMPLEMENTED



IMPLEMENTED



IMPLEMENTED

# Indicatori di Qualità - IV Stadio

## Considerazioni

- In Europa, maggioranza delle pazienti al IV Stadio vengono ancora trattate fuori dai Centri di Senologia
- I Trattamenti oncologici sono complessi, spesso costosi, e la centralizzazione in Unità multidisciplinari può ottimizzare l'accesso e il rapporto costo-efficacia
- La Medicina Palliativa non può più essere considerata di secondo ordine, ma richiede spesso trattamenti integrati e coordinati

# Metastasi Linfonodali Ascellari Controlaterali e Sopraclaveari

Ann Surg Oncol (2021) 28:2146–2154  
https://doi.org/10.1245/s10434-020-09024-1

Annals of  
**SURGICAL ONCOLOGY**  
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – BREAST ONCOLOGY

## Treatment Patterns and Outcomes of Women with Breast Cancer and Supraclavicular Nodal Metastases

Nina P. Tamirisa, MD, MS<sup>1</sup>, Yi Ren, MS<sup>2</sup>, Brittany M. Campbell, MD<sup>3</sup>, Samantha M. Thomas, MS<sup>2,4</sup>, Oluwadamilola M. Fayanju, MS, MA, MPH<sup>2,4</sup>, Jennifer K. Plichta, MD, MS<sup>2,4</sup>, Laura H. Rosenberger, MD, MS<sup>2,4</sup>, Jeremy Force, DO<sup>2,5</sup>, Terry Hyslop, PhD<sup>2,5</sup>, E. Shelley Hwang, MD, MPH<sup>2,4</sup>, and Rachel A. Greenup, MD, MPH<sup>2,4</sup>

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### ABSTRACT

**Background.** In 2002, breast cancer patients with supraclavicular nodal metastases (cN3c) were downstaged from AJCC stage IV to IIIc, prompting management with locoregional treatment. We sought to estimate the impact of multimodal therapy on overall survival (OS) in a contemporary cohort of cN3c patients.

**Methods.** Women  $\geq 18$  years with cT1-T4c/cN3c invasive breast cancer who underwent systemic therapy were identified from the 2004–2016 National Cancer Database. We compared three patient cohorts: (a) cN3c + multimodal therapy (systemic therapy, surgery, and radiation); (b) cN3c + non-standard therapy; and, (c) cM1. Logistic regression identified factors associated with receipt of multimodal therapy and Kaplan–Meier was used to estimate unadjusted OS. The Cox proportional hazards model estimated effects of diagnosis and treatment on OS after adjustment.

**Results.** Overall, 1827 (3.7%) patients with cN3c disease and 46,919 (96.3%) cM1 patients were identified. Of cN3c patients, 74.5% ( $n = 1362$ ) received multimodal therapy and 25.5% ( $n = 465$ ) received non-standard therapy; receipt of multimodal therapy was associated with improved 5-year OS (multimodal: 59% vs. M1: 28% vs.

non-standard: 28%, log-rank  $p < 0.001$ ). Adjusting for covariates, non-standard therapy was associated with an increased risk of death compared with receipt of multimodal therapy (HR 2.20, 95% CI 1.71–2.83,  $p < 0.001$ ). Private insurance was the only patient characteristic associated with a greater likelihood of receiving multimodal therapy (OR 2.81; 95% CI, 1.64–4.82;  $p < 0.001$ ).

**Conclusion.** Women with cN3c breast cancer who received multimodal therapy demonstrated improved overall survival when compared with patients undergoing non-standard therapy and those with metastatic (M1) disease. Although selection bias may contribute to worse overall survival among cN3c patients undergoing non-standard therapy, national guidelines should encourage locoregional treatment in carefully selected patients.

Contemporary staging guidelines for breast cancer are used to categorize women for the purpose of prognostication and to guide oncologic therapy; however, in the clinical setting, patients present on a spectrum from early stage to metastatic disease.<sup>1–3</sup> Extensive ipsilateral nodal involvement without evidence of distant metastases presents a particular treatment challenge, as the value of locoregional therapy in these patients remains uncertain. In 2002, studies demonstrating an improved survival with receipt of comprehensive multimodal therapy prompted the American Joint Commission on Cancer (AJCC) to downstage breast cancer with supraclavicular nodal metastases (cN3c) from stage IV to IIIc disease.<sup>4–6</sup> Reflecting this change, the National Comprehensive Cancer Network (NCCN) guidelines recommended these individuals be

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Annals of  
**SURGICAL ONCOLOGY**  
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – BREAST ONCOLOGY

## Contralateral Axillary Lymph Node Metastases from Breast Carcinoma: Is it Time to Review TNM Cancer Staging?

Francesca Magnoni, MD, PhD<sup>1</sup> , M. Colleoni, MD<sup>2</sup>, D. Mattar, MD<sup>1</sup>, G. Corso, MD, PhD<sup>1,3</sup>, V. Bagnardi, PhD<sup>4</sup>, S. Frassoni, MSc<sup>4</sup>, G. Santomauro, Mrs<sup>5</sup>, B. A. Jereczek-Fossa, MD, PhD<sup>3,6</sup>, P. Veronesi, MD, PhD<sup>1,3</sup>, V. Galimberti, MD<sup>1</sup>, V. Sacchini, MD, PhD<sup>1,3</sup>, and M. Intra, MD<sup>1</sup>

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### ABSTRACT

**Background.** Contralateral axillary lymph node metastasis (CAM) is an infrequent clinical condition currently considered an M1, stage IV, disease. Due to the absence of shared data on CAM significance and on its therapeutic approach, be it curative or simply palliative, its management is still uncertain and undoubtedly represents a clinical challenge.

**Patients and Methods.** Patients with pathologically confirmed metachronous CAM were retrospectively evaluated. All patients had been managed at the European Institute of Oncology, Milan, Italy, from 1997. Patients with distant metastases at the time of CAM were excluded. Possible treatments included surgery, systemic therapy and RT (radiotherapy). Outcomes were evaluated as rates of disease-free survival (DFS) and of overall survival (OS).

**Results.** Forty-seven patients with CAM were included in the study. Metachronous CAM occurred 73 months (range 5–500 months) after diagnosis of the primary tumor. The median follow-up time was 5.4 years (interquartile range 2.9–7.0 years). The estimated OS was 72% at 5 years (95% CI 54–83), and 61% at 8 years (95% CI 43–75). The estimated DFS was 61% at 5 years (95% CI 44–74), and 42% at 8 years (95% CI 25–59).

**Conclusion.** These findings, together with those from previous studies, show that CAM outcome, particularly if measured as OS, appear better than at other sites of distant dissemination, when CAM is subjected to surgical and systemic treatments with a curative intent. Therefore, a new clinical scenario is suggested where, in the TNM system, CAM is no longer classified as a stage IV, but as an N3 disease.

Contralateral axillary lymph node metastasis (CAM) is an infrequent clinical condition with a reported incidence of between 1.9 and 6%.<sup>1</sup> It can originate from three different clinical conditions: (a) metastasis from extramammary sites, such as gynecological, gastrointestinal, pulmonary, and cutaneous primary cancer, or lymphoma and melanoma; (b) metastasis from an occult ipsilateral primary breast cancer; (c) contralateral dissemination from primary breast cancer.<sup>1–3</sup> This last condition can lead to two different types of CAM: synchronous, if CAM occurs at the same time of diagnosis of the index breast cancer; or metachronous, if CAM appears after the previous breast primitiveness has been subjected to adjuvant treatment. At times, metachronous CAM appears simultaneously with an ipsilateral breast cancer recurrence (IBCR), while in other cases it is not accompanied by IBCR.

The origin of CAM may vary in relation to the source of the metastatic disease. Especially in patients who have previously undergone breast or axilla surgery plus radiotherapy (RT), lymph drainage to contralateral nodal basins, such as contralateral axillae, internal mammary chain or

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Published online: 21 May 2020



# Metanalisi degli Studi prospettici



Contents lists available at ScienceDirect

The Breast

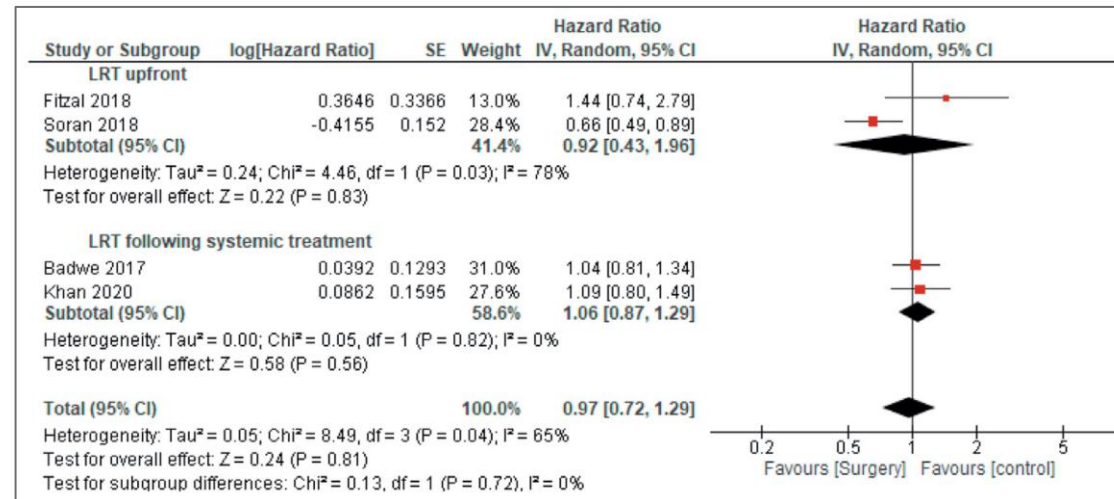
journal homepage: [www.elsevier.com/brst](http://www.elsevier.com/brst)



## Locoregional therapy in de novo metastatic breast cancer: Systemic review and meta-analysis

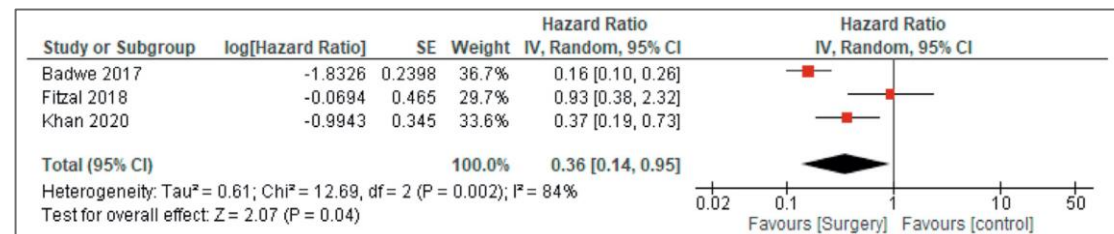
Daniel Reinhorn <sup>a</sup>, Raz Mutai <sup>a</sup>, Rinat Yerushalmi <sup>a, b</sup>, Assaf Moore <sup>a, b</sup>, Eitan Amir <sup>c</sup>, Hadar Goldvaser <sup>d, e, \*</sup>

Overall Survival



- ✓ Metanalisi di 4 trials prospettici
- ✓ 970 pazienti

Time to loco-regional Progression



# Studio NCDB- Propensity Score Matched

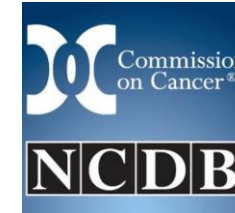
THE IMPACT OF PRIMARY TUMOR SURGERY ON SURVIVAL IN HER2 POSITIVE STAGE IV BREAST CANCER PATIENTS IN THE CURRENT ERA OF TARGETED THERAPY



LOMA LINDA UNIVERSITY

School of Medicine

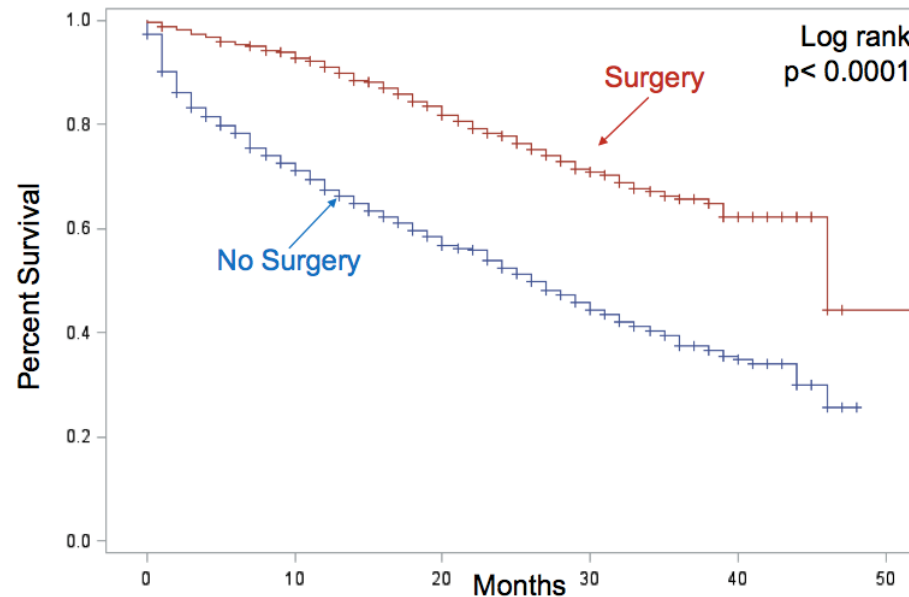
Ross Mudgway BS, Carlos Chavez de Paz Villanueva MD MPH, Ann C. Lin MD, Maheswari Senthil MD, Carlos A. Garberoglio MD, Sharon S. Lum MD



## Propensity matched overall survival

Surgery was associated with improved survival

- Median follow-up = 21.2 (0-52) months
- Median survival:
  - Surgery: 25 months
  - No Surgery: 18 months
    - $p = .0001$
- HR 0.56 (95% CI 0.40-0.77)
  - $p = 0.0004$



- ✓ NCDB (2.807.541 casi)
- ✓ 58.867 NEU +
- ✓ 2010-2012
- ✓ 3231 pazienti stadio IV include nello studio

# Meta-analisi studi retrospettivi

Breast Cancer Res Treat (2010) 120:9–16  
DOI 10.1007/s10549-009-0670-0

REVIEW

## Impact of breast surgery on survival in patients with distant metastases at initial presentation: a systematic review of the literature

Jetske Ruiterkamp · Adri C. Voogd ·  
Koop Bosscha · Vivianne C. G. Tjan-Heijnen ·  
Miranda F. Ernst

Received: 30 September 2009 / Accepted: 25 November 2009 / Published online: 13 December 2009  
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**Abstract** According to current treatment standards, patients with metastatic breast cancer at diagnosis receive palliative therapy. Local treatment of the breast is only recommended if the primary tumor is symptomatic. Recent studies suggest that surgical removal of the primary tumor has a favorable impact on the prognosis of patients with primary metastatic breast cancer. We performed a systematic review of the literature to weigh the evidence for and against breast surgery in this patient group. Ten retrospective studies were found in which the use of breast surgery in primary metastatic breast cancer and its impact on survival was examined. The hazard ratios of the studies were pooled to provide an estimate of the overall effect of surgery, and the results and conclusions of the studies were analyzed. A crude analysis, without adjustment for potential confounders, showed that surgical removal of the breast lesion in stage-IV disease was associated with a significantly higher overall survival rate in seven of the ten studies, and a trend toward a better survival in the three remaining studies. Surgery of the primary tumor appeared to be an independent factor for an improved survival in the multivariate analyses from the individual studies, with

hazard ratios ranging from 0.47 to 0.71. The pooled hazard ratio for overall mortality was 0.65 (95% CI 0.59–0.72) in favor of the patients undergoing surgery. This systematic review of the literature suggests that surgery of the primary breast tumor in patients with stage-IV disease at initial presentation does have a positive impact on survival. In order to provide a definite answer on whether local tumor control in patients with primary metastatic disease improves survival, a randomized controlled trial comparing systemic therapy with and without breast surgery is needed.

**Keywords** Surgery · Local therapy · Breast cancer · Primary metastatic

### Introduction

About 11% of all women in the western world will develop breast cancer. Of all breast cancer patients 3–10% has distant metastases at initial presentation [1]. Median survival of these patients is in the range of 16–24 months and is determined by several factors, including number and site of metastatic lesions, and tumor characteristics such as hormone receptor and HER2neu status [2, 3]. During the last decades, the treatment of metastatic breast cancer has undergone considerable changes, with taxanes and third-generation aromatase-inhibitors being introduced in the nineties of the previous century and, among others, trastuzumab and bevacizumab in the current decade [4–6].

Until now, we continue to adhere to the concept that metastatic breast cancer is an incurable disease. In line with this concept, aggressive local therapy is thought to provide no survival advantage, and the primary goals of local treatment are the prevention or palliation of symptoms. Therefore, local treatment of the primary tumor is only

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Springer

Med Oncol (2012) 29:3282–3290  
DOI 10.1007/s12032-012-0310-0

REVIEW ARTICLE

## Surgery of primary tumors in stage IV breast cancer: an updated meta-analysis of published studies with meta-regression

Fausto Petrelli · Sandro Barni

Received: 10 July 2012 / Accepted: 14 July 2012 / Published online: 28 July 2012  
© Springer Science+Business Media, LLC 2012

**Abstract** Systemic therapy is the mainstream treatment of stage IV breast cancer. Surgical excision of the primary breast cancer tumor in the presence of synchronous metastatic disease is debated, but a shared indication is not proposed by current guidelines. The purpose of this analysis is to aggregate the published survival data of surgery of an intact primary tumor in stage IV disease. The authors searched PubMed for publications reporting data about the survival benefit of surgery of the primary tumor in patients with metastatic breast cancer. Hazard ratios for survival when reported after multivariate analysis (with 95 % confidence intervals) were obtained from publications and pooled in a meta-analysis. A meta-regression weighted for the extent of disease, ER/HER2 status, age, visceral or bone disease, rate of radiotherapy, and systemic therapies offered was performed. A total of 15 publications were included in this meta-analysis. Surgery of the primary tumor appeared to be an independent factor for an improved survival in the multivariate analyses from the individual studies, with an HR of 0.69 ( $p < 0.00001$ ). According to meta-regression, the survival benefit was independent of age, extent, site of the metastatic disease, and HER2 status, but was directly proportional to the rate of patients exposed to systemic therapies and radiotherapy and inversely correlated with the ER+ status of the population included. Surgery of the primary tumor in stage IV breast cancer seems to offer a survival benefit in metastatic patients, in particular when it is offered in a multimodality treatment program.

F. Petrelli (✉) · S. Barni  
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**Keywords** Surgery · Primary tumor · Metastatic breast cancer · Survival

Metastatic breast cancer (MBC) is defined as the dissemination of tumor cells beyond the breast, chest wall, and regional lymph nodes. Treatment of MBC is not usually considered curative, but a small niche of patients, with limited and indolent sites of metastatic disease other than sensitivity to treatment, may experience very long survivals. This gain survival has been reached with better chemotherapy and targeted therapies in particular. The treatment goals in stage IV disease are prolongation of survival, control of burden of disease, reduction in cancer-related symptoms or complications, and maintenance of quality of life. These objectives are usually obtained with systemic therapies (e.g., endocrine therapy, chemotherapy, or biological agents) and in some circumstances with locoregional treatments (e.g., radiotherapy for painful bone lesions or surgery for solitary nodal, lung, or liver metastasis). There is a subset of women with MBC who have limited systemic tumor spread and a biologically indolent disease. Between 5 and 10 % of patients with stage IV disease survive five or more years, and 2–5 % become long-term survivors [1, 2]. These long-term survivors tend to be young, with an excellent performance status and limited metastatic (sometimes referred to as oligometastatic) disease. For such patients, combined modality approaches, often including surgery, appear to provide more hope for long-term progression-free survival than chemotherapy alone.

Primary breast cancer (BC) showing synchronous, distant metastases at presentation is present in a small percentage (3–4 %) in all BC patients, in which both the distant and locoregional controls of disease are endpoints

Accepted Manuscript

Primary Tumor Resection in Stage IV Breast Cancer: A Systematic Review and Meta-analysis

Weikui Xiao, MD, Yutian Zou, MD, Shaoquan Zheng, MD, Xiaojian Hu, BSc, Peng Liu, MD, Xinhua Xie, MD, Ping Yu, MD, Hallin Tang, MD, PhD, Xiaoming Xie, MD, PhD

PII: S0748-7983(18)31269-1

DOI: 10.1016/j.ejso.2018.08.002

Reference: YEJSO 5050

To appear in: *European Journal of Surgical Oncology*

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Accepted Date: 1 August 2018

	No. of studies	No. of patients	Hazard ratios	p	I <sup>2</sup> (%)
<b>RCTs</b>					
Trials with $\geq 3$ y of follow-up <sup>53</sup>	1	274	0.66 (0.49, 0.89)	0.006	/
Surgery after responding to chemotherapy <sup>6</sup>	1	350	1.04 (0.81, 1.34)	0.79	/
<b>Observational studies</b>					
Overall	30	67272	0.65 (0.61, 0.70)	<0.001	80
Studies with $\geq 2$ y of follow-up	19	31315	0.61 (0.54, 0.68)	<0.001	81
Studies with $\geq 3$ y of follow-up	10	29374	0.62 (0.55, 0.71)	<0.001	83
Studies with $\geq 4$ y of follow-up	2	848	0.56 (0.48, 0.64)	<0.001	0
Hormone-receptor positive	2	NA	0.65 (0.47, 0.91)	0.01	0
Hormone-receptor negative	2	NA	0.54 (0.32, 0.92)	0.02	0
No. of metastases = 1	4	NA	0.62 (0.48, 0.81)	<0.001	24
No. of metastases $\geq 3$	3	NA	0.98 (0.44, 2.15)	0.95	0
Bone-only metastases	3	NA	0.61 (0.37, 1.00)	0.05	31
Visceral-only metastasis	2	NA	0.58 (0.28, 1.20)	0.14	24
Negative margin	3	8379	0.61 (0.58, 0.65)	<0.001	0
Positive margin	3	7544	0.84 (0.67, 1.05)	0.13	60
Surgery prior to systemic therapy	2	18608	0.79 (0.57, 1.10)	0.16	94
Surgery following systemic therapy	1	19463	0.56 (0.52, 0.61)	<0.001	/



Ruiterkamp et al: Breast Cancer Res Treat 2010; 120: 9–16

Petrelli F et al: Med Oncol 2012; 29: 3382–3290

Xiao W et al: EJSO 2018; 44: 1504–1512

# Stadio IV »de novo»

- 5-6% dei tumori della mammella
- Circa 3500 donne /anno in Italia
- 25% dei casi allo stadio IV
- Metastasi ossee rappresentano il 50% delle lesion metastatiche concomitanti alla diagnosi

	Tema
1	Chirurgia e malattia al IV Stadio
2	Processo di Certificazione Europea
3	Indicatori di Qualità
4	Esperienza sul campo
5	Parametri per le donne al IV stadio
6	Conclusioni



# Trials Randomizzati

Country	Accrual Period	N Projected	N Accrual	Initial Therapy	Status
India (Tata Memorial)	2005-12	350	350	Systemic Therapy	Published
Turkey (MF 07-01)	2008-12	271	274	Surgery	Published
USA and Canada ECOG 2108	2011-16	880	368	Systemic Therapy	Published
Japan JCOG 1017	2011-18	500	400	Systemic Therapy	Completed
Austria (ABCSG 28) (POSITIVE)	2010-15	254	90	Surgery	Early Stopped
Netherlands (SUBMIT)	2011-16	516	0	Surgery	Early Stopped

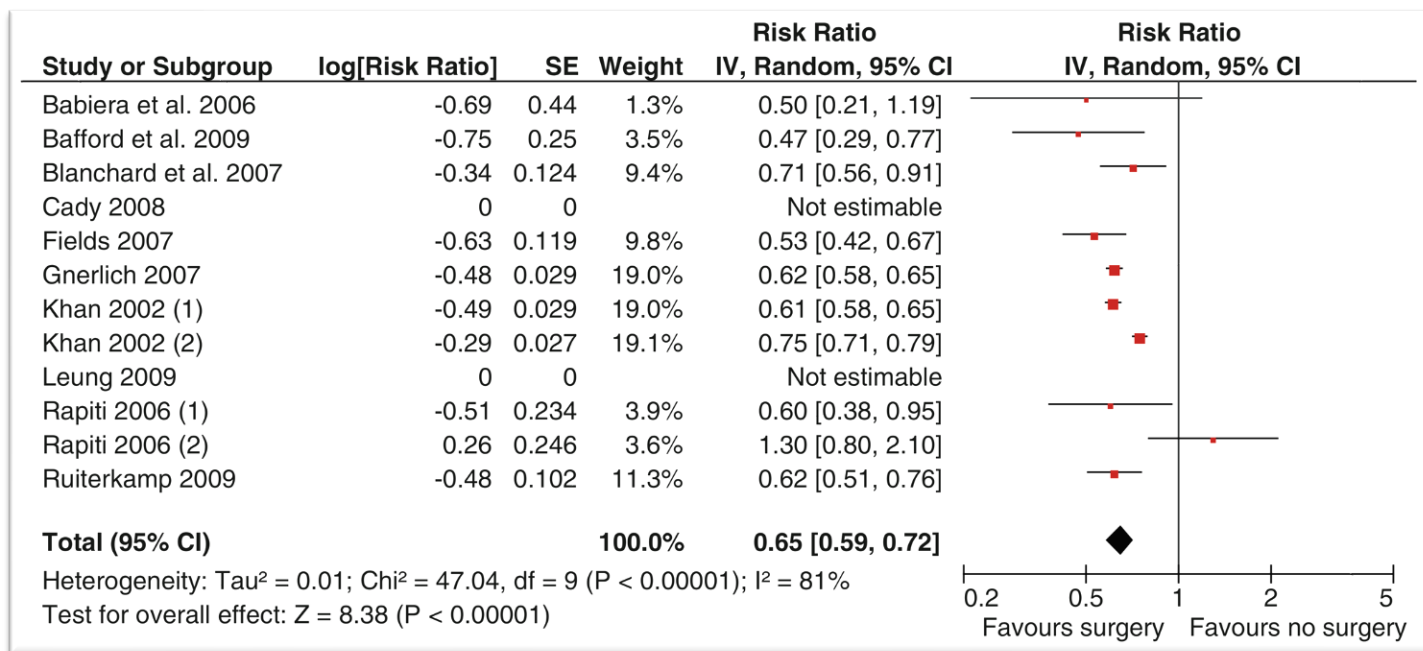
# Gli studi retrospettivi favoriscono la chirurgia

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REVIEW

## Impact of breast surgery on survival in patients with distant metastases at initial presentation: a systematic review of the literature

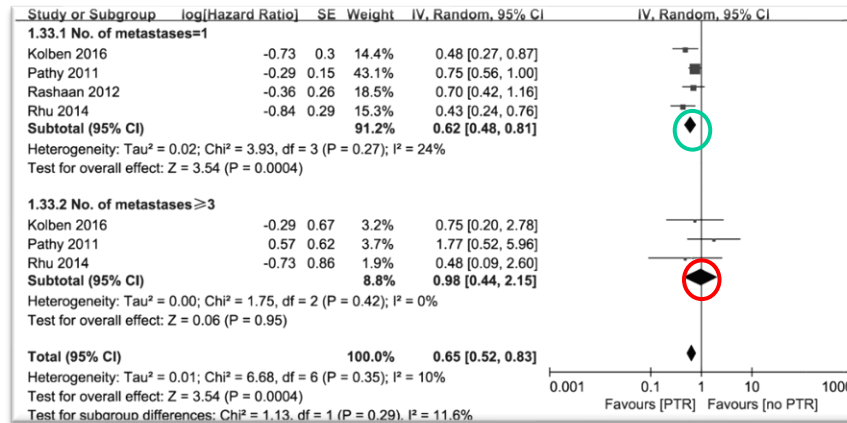
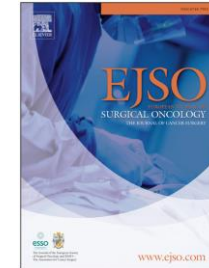
Jetske Ruiterkamp · Adri C. Voogd ·  
Koop Bosscha · Vivianne C. G. Tjan-Heijnen ·  
Miranda F. Ernst



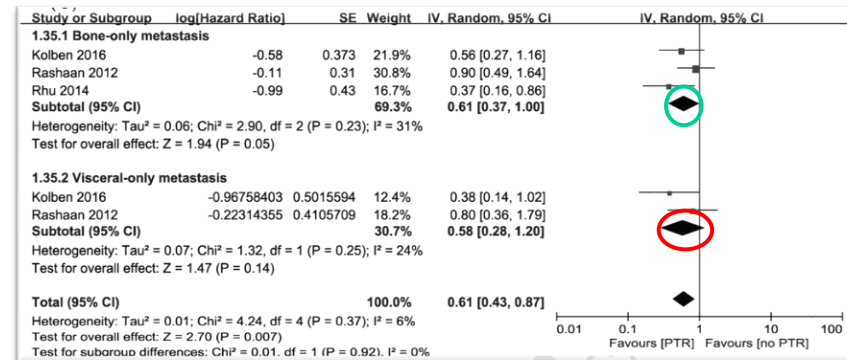
# Gli studi retrospettivi favoriscono la chirurgia

## Primary Tumor Resection in Stage IV Breast Cancer: A Systematic Review and Meta-analysis

Weikai Xiao, MD, Yutian Zou, MD, Shaoquan Zheng, MD, Xiaoqian Hu, BSc, Peng Liu, MD, Xinhua Xie, MD, Ping Yu, MD, Hailin Tang, MD, PhD, Xiaoming Xie, MD, PhD



Numero di Metastasi

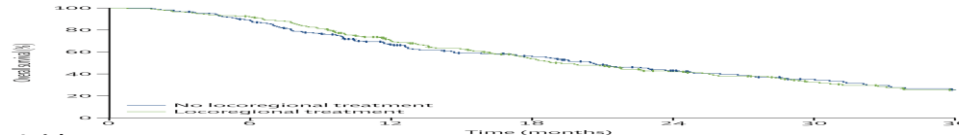


Tipo di Metastasi

# Conclusioni

- E' possibile considerare la chirurgia come trattamento "non-standard" in alcuni casi selezionati ?
  - ✓ Buona risposta nel sito metastatico/non risposta del primario
  - ✓ "At least One positive" (ER+/HER2+), in risposta
  - ✓ Minimal Stage IV
- Cosa succede per le donne con risposta completa
- Practice pattern per Margini, RT, linfonodi

# Turkish Trial MF07-01



**Randomized Trial Comparing Resection of Primary Tumor with No Surgery in Stage IV Breast Cancer at Presentation: Protocol MF07-01**

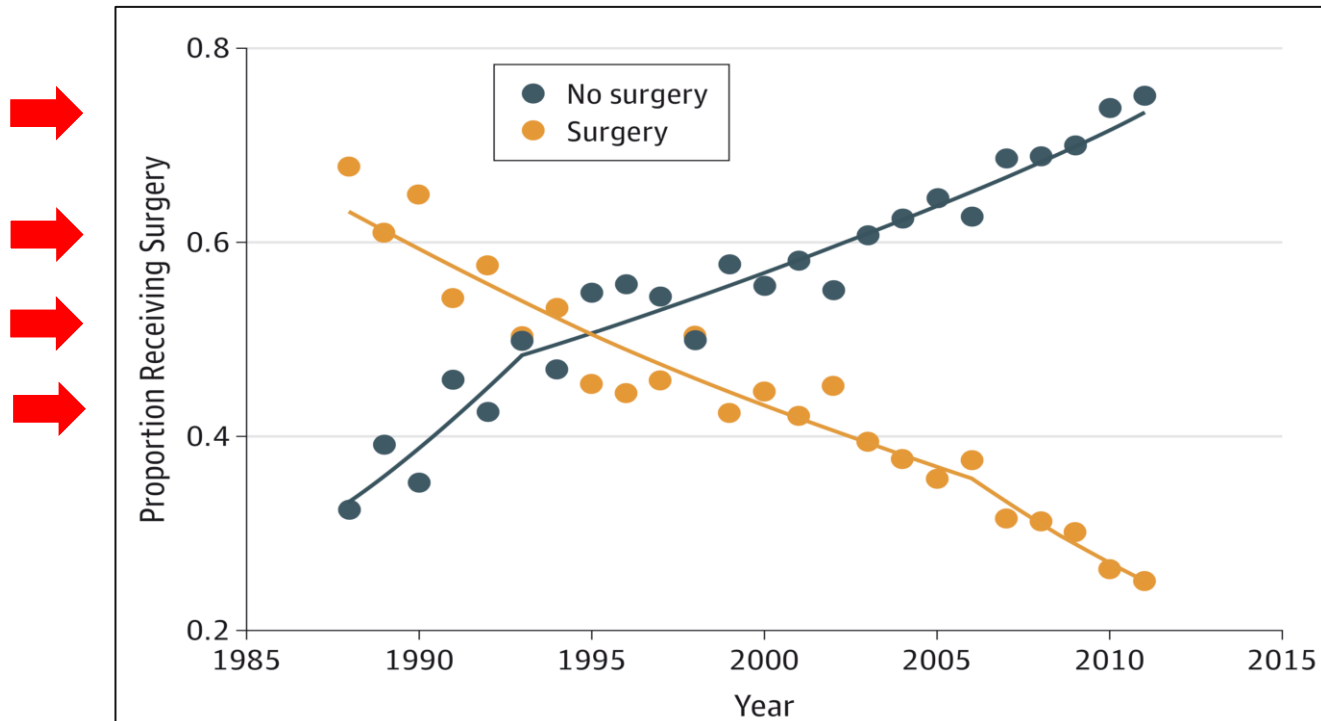
**Lancet Oncol 2015**

**Published Online**

**September 10, 2015**

[http://dx.doi.org/10.1016/](http://dx.doi.org/10.1016/S1470-2045(15)00135-7)

[S1470-2045\(15\)00135-7](http://dx.doi.org/10.1016/S1470-2045(15)00135-7)

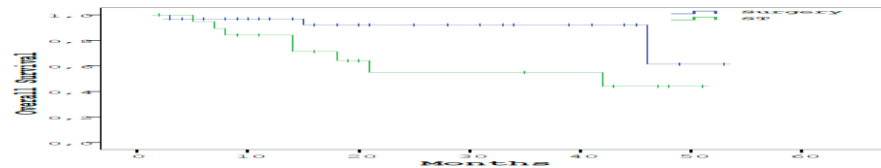




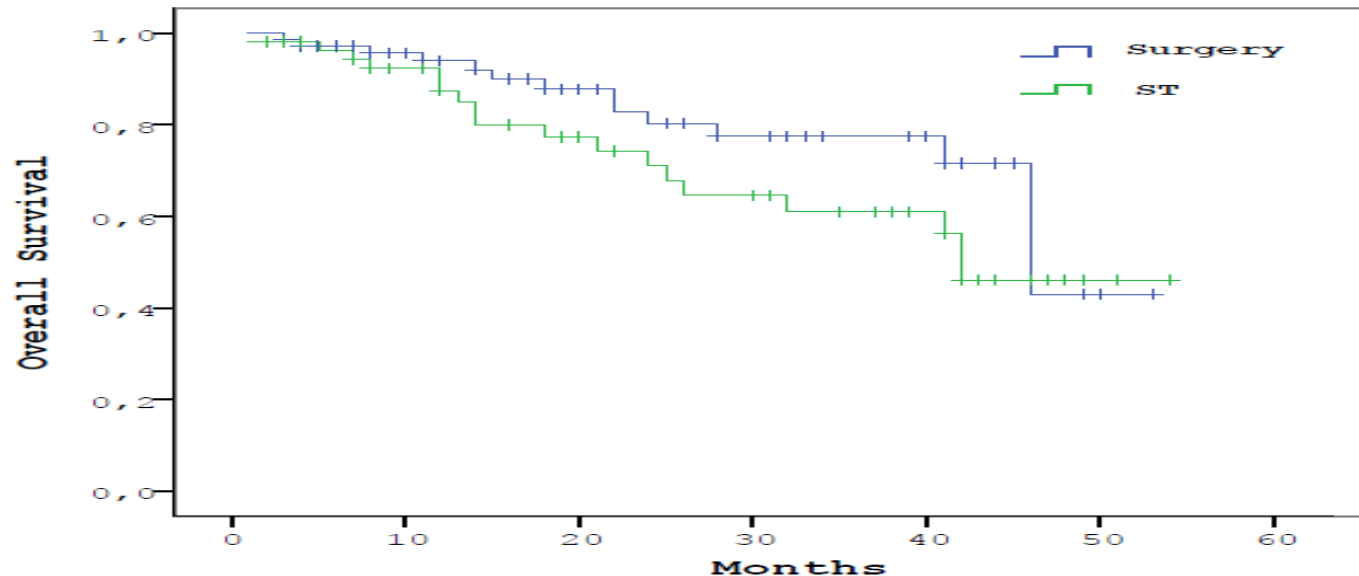
# Studio Propettico Turco (BOMET MF 14-01)

## Research

Metastatic Site	Number	No Surgery	Surgery	Median OS (months)	95% CI
Multiple Metastases	115	55	60	11.1	8.8-13.4
Brain Metastases	31	16	15	12.0	8.7-15.3
Multiple Bone Metastases	23	12	11	12.0	8.7-15.3
Soft Tissue Metastases	7	3	4	12.0	8.7-15.3
Adipose Tissue	20	10	10	12.0	8.7-15.3
Multiple Bone Metastases	30	15	15	12.0	8.7-15.3
Multiple Soft Tissue Metastases	14	7	7	12.0	8.7-15.3
Multiple Brain Metastases	2	1	1	12.0	8.7-15.3
Multiple Brain/Soft Tissue Metastases	2	1	1	12.0	8.7-15.3
Multiple Brain/Bone Metastases	2	1	1	12.0	8.7-15.3
Multiple Brain/Multiple Bone Metastases	2	1	1	12.0	8.7-15.3



## Bone Only Met.



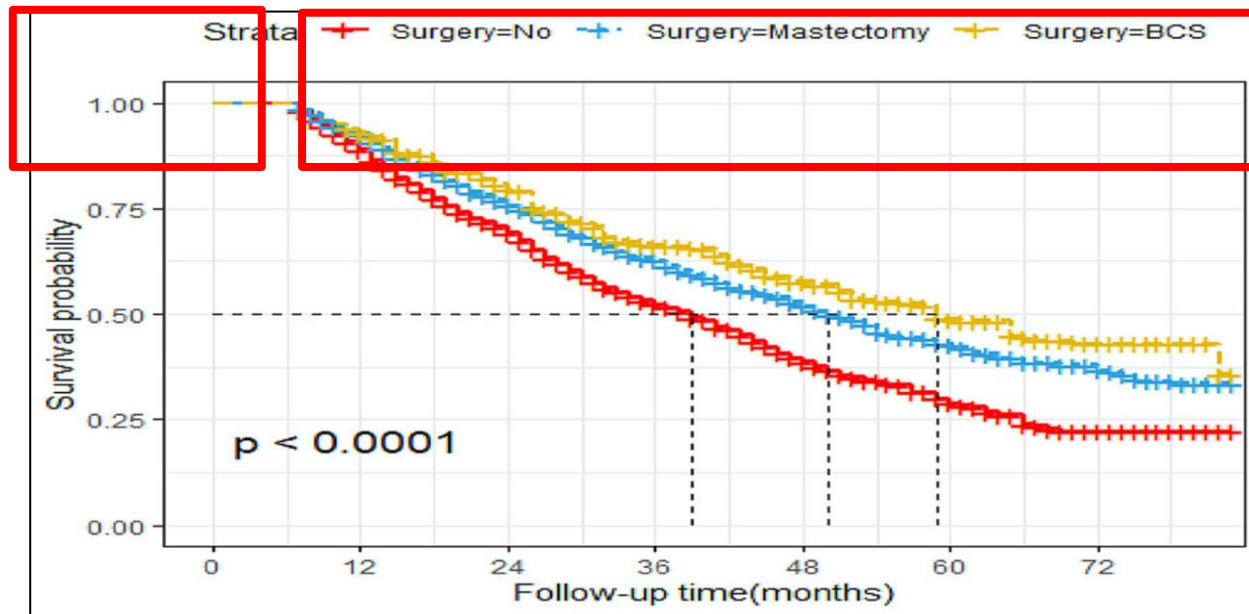
- ✓ Prospective, multicenter Registry Study
- ✓ 2014-
- ✓ 505 pazienti
- ✓ Stage IV de novo
- ✓ Bone Mets only
- ✓ Median F/U 34 months

# Studio Multicentrico Francese

<sup>1</sup> Department of Breast Surgery, First Affiliated Hospital, Xi'an Jiaotong University, Xi'an, China, <sup>2</sup> School of Medicine, Xi'an Jiaotong University, Xi'an, China

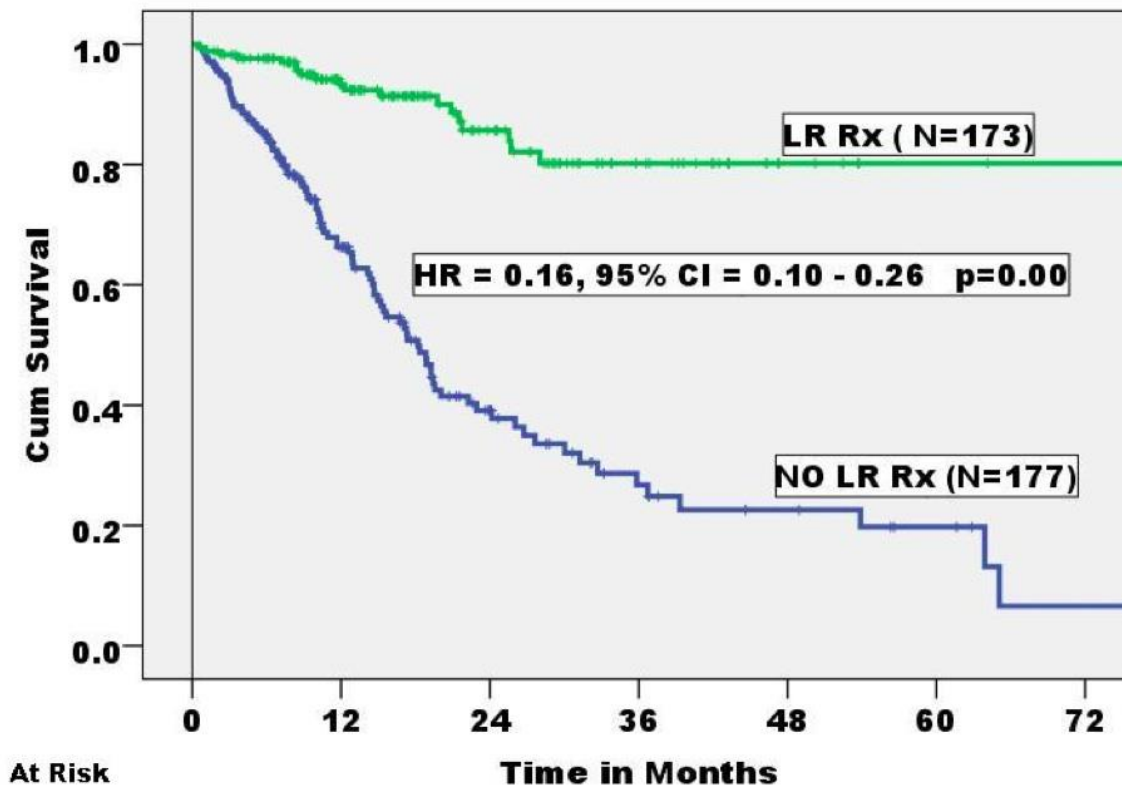
Kunlong Li<sup>1,2†</sup>, Can Zhou<sup>1†</sup>, Yan Yu<sup>1</sup>, Ligang Niu<sup>1</sup>, Wei Zhang<sup>1</sup>, Bin Wang<sup>1</sup>, Jianjun He<sup>1\*</sup> and Guanqun Ge<sup>1\*</sup>

## Metastatic Pattern Discriminates Survival Benefit of Type of Surgery in Patients With *De Novo* Stage IV Breast Cancer Based on SEER Database

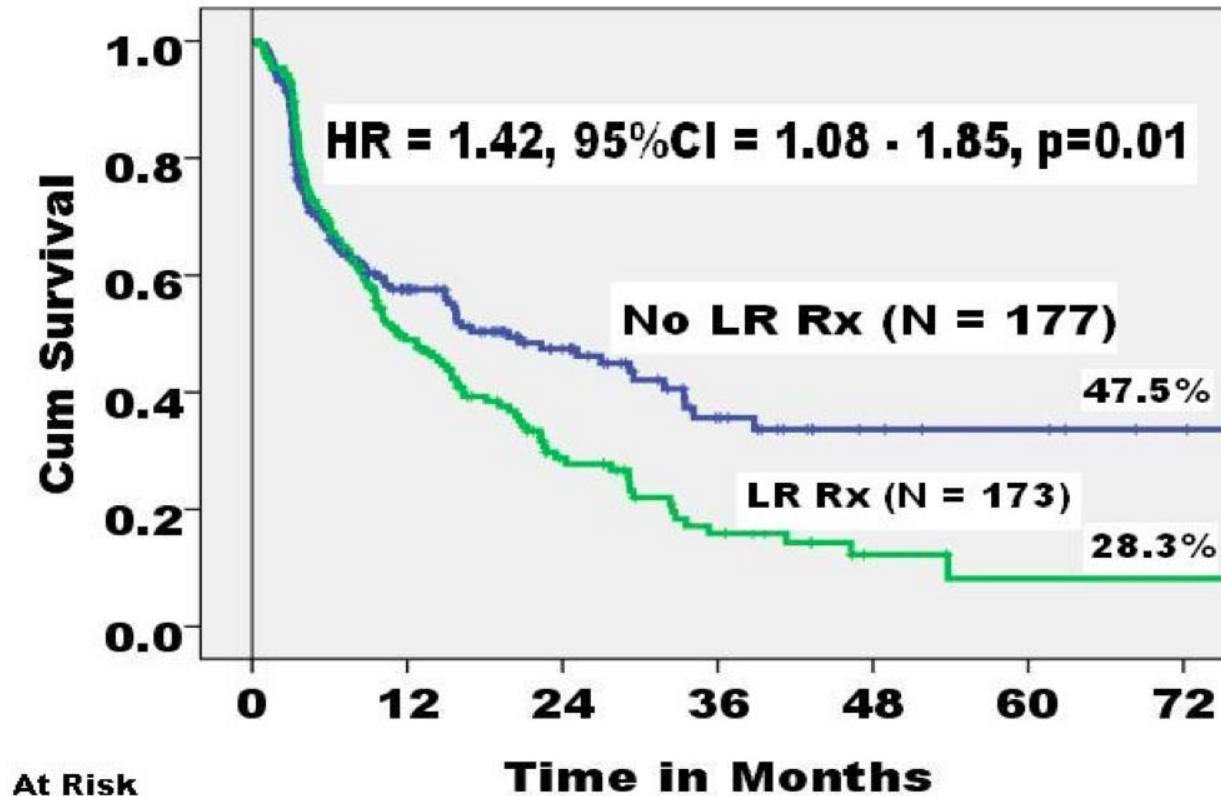


- ✓ French Metastatic DB
- ✓ N = 4276
- ✓ 2008-2014

# Local Progression-free Survival Tata Memorial Trial

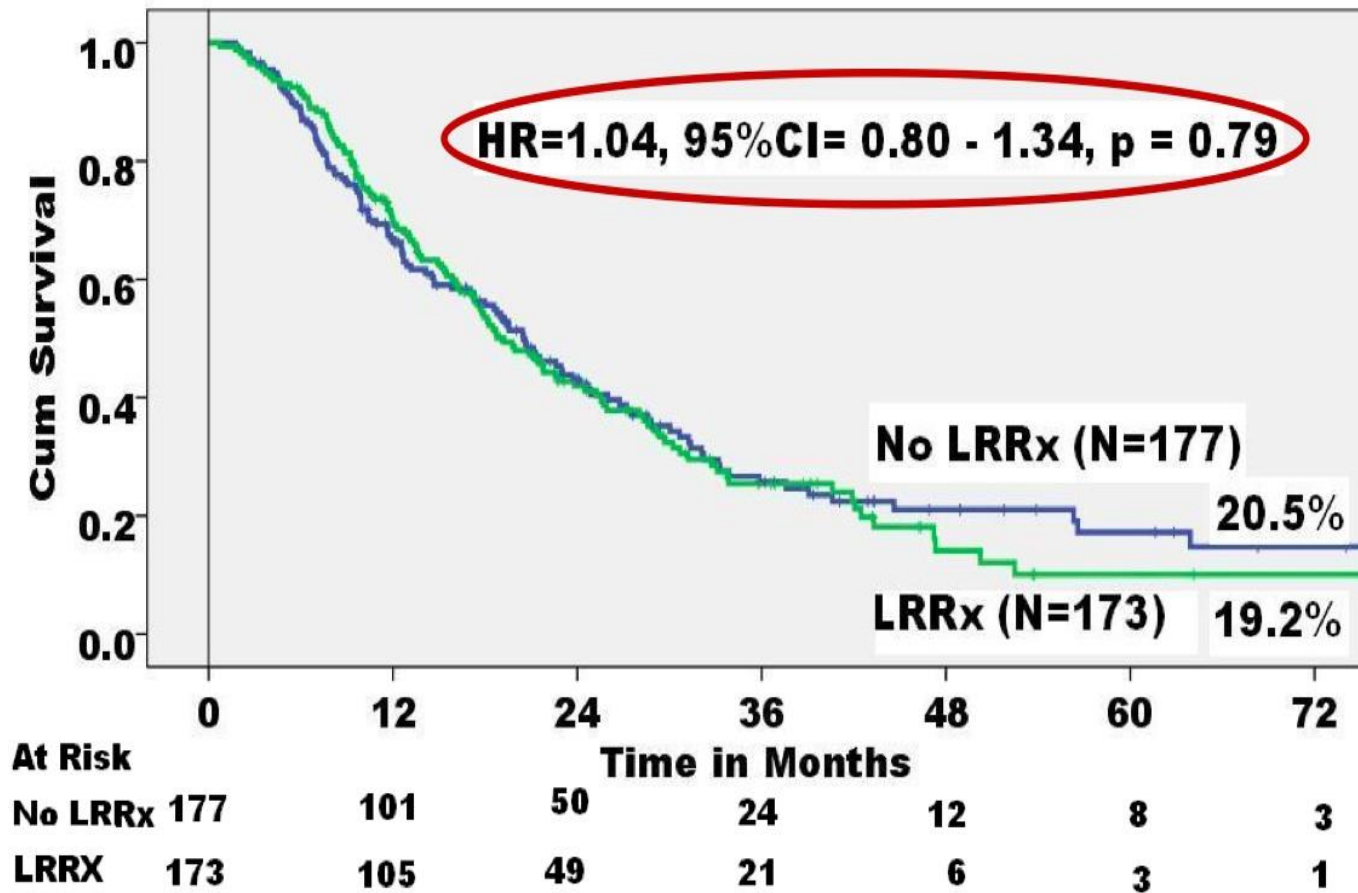


# Distant Progression-free Survival Tata Memorial Trial



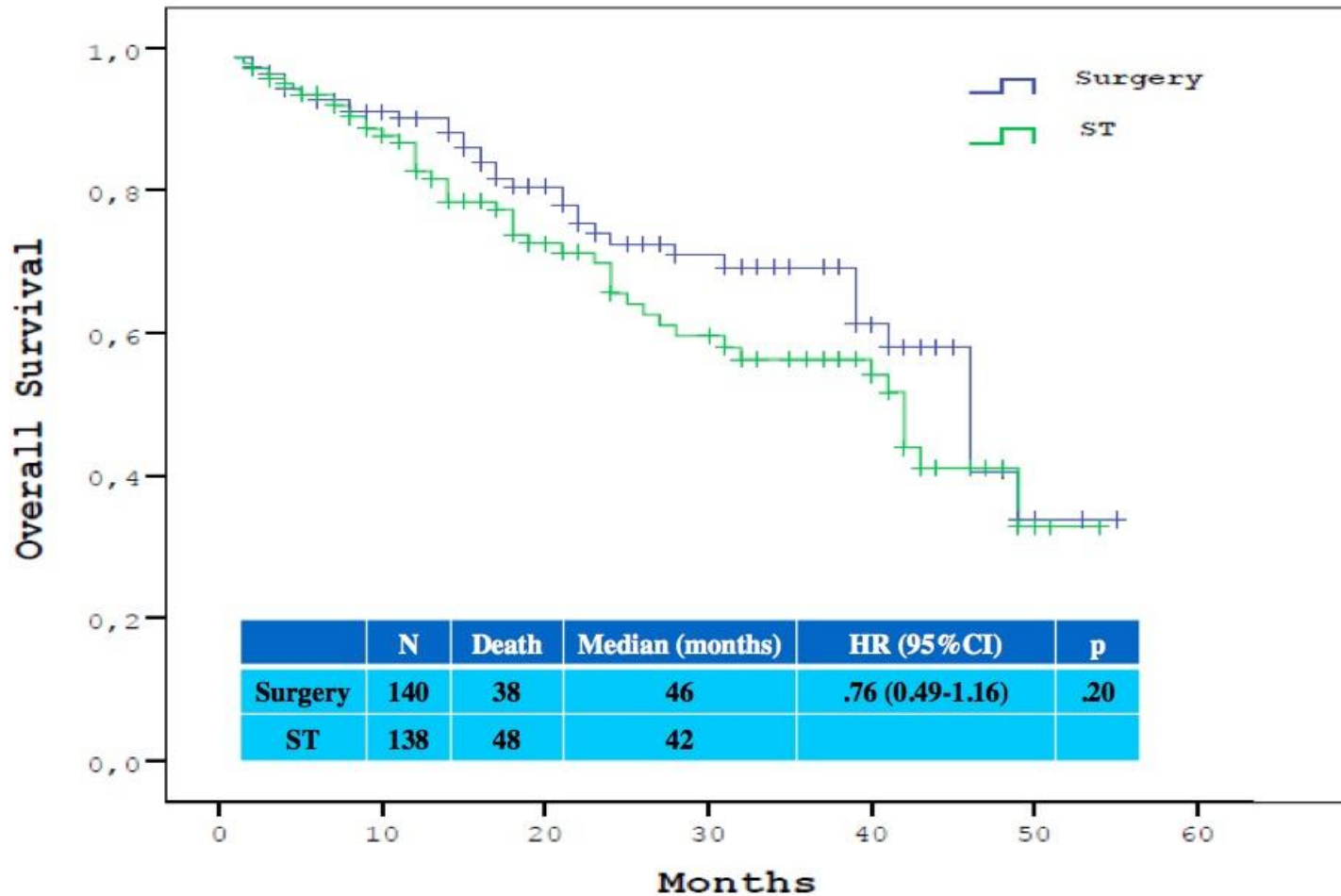
# Survival

## Tata Memorial Trial

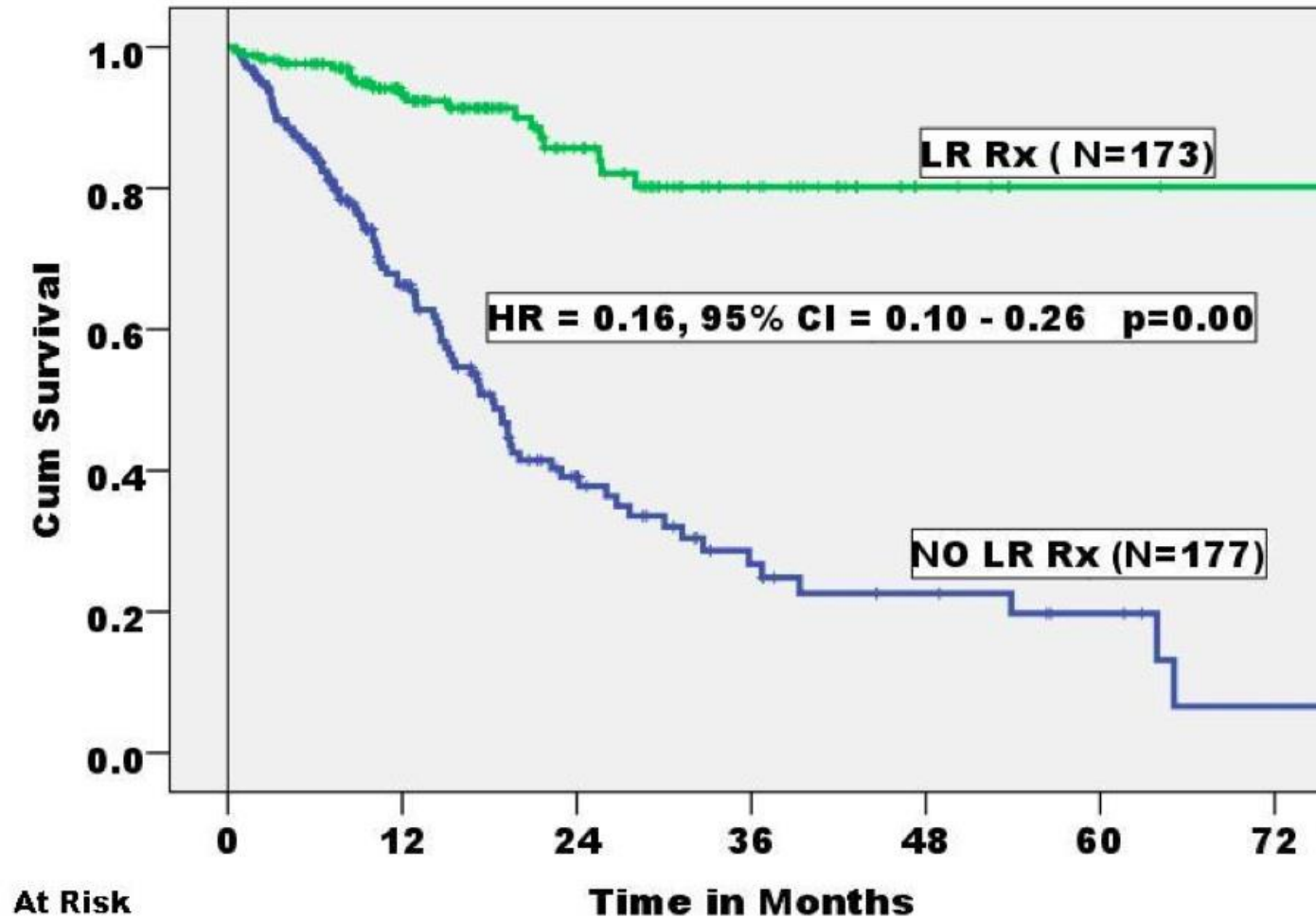




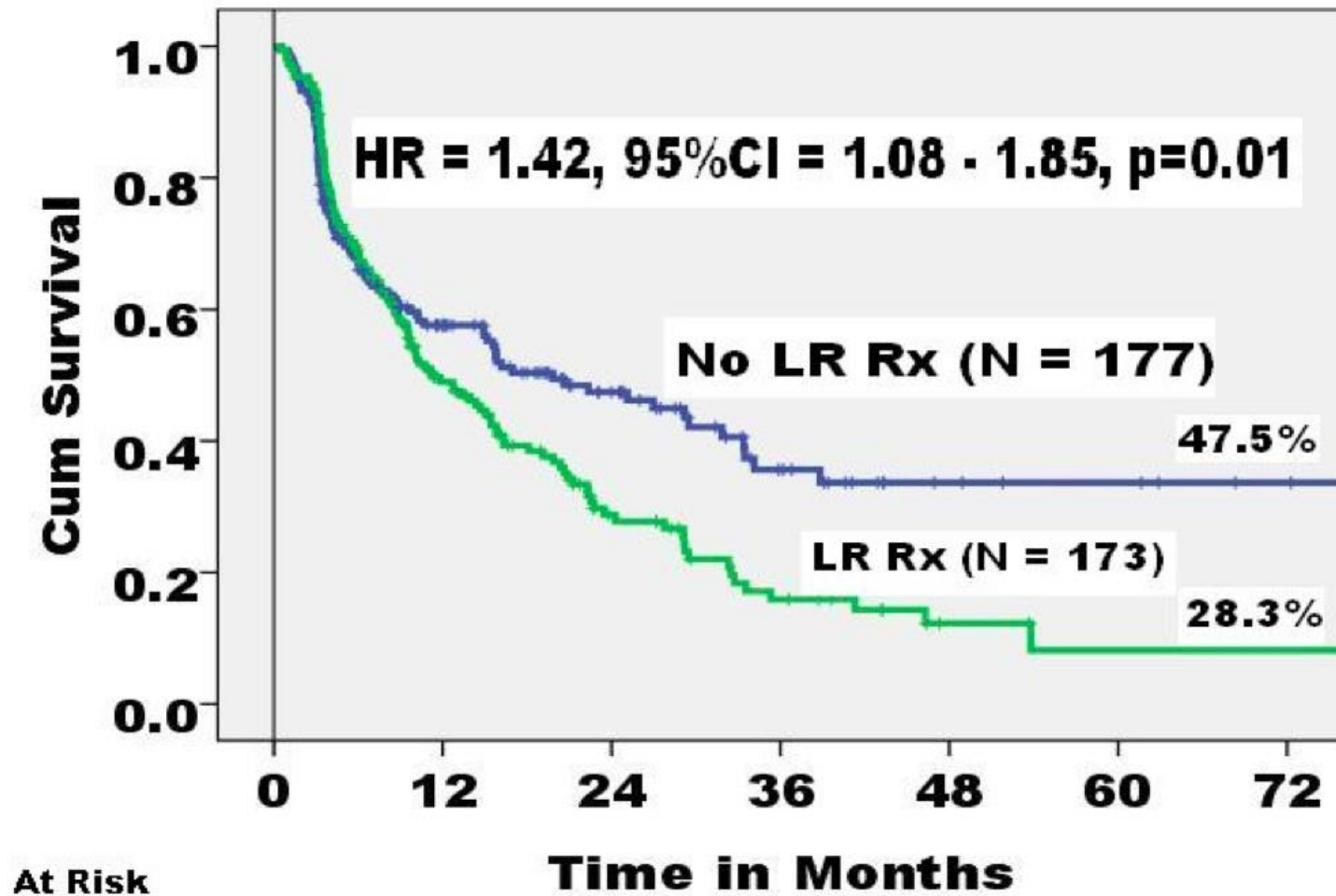
# Turkish Trial MF07-01



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# Turkish Trial MF07-01

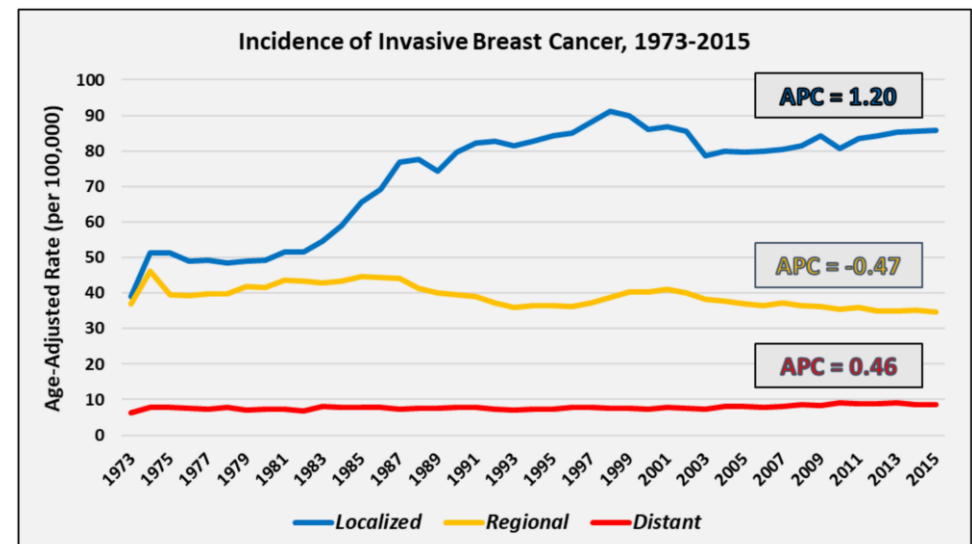
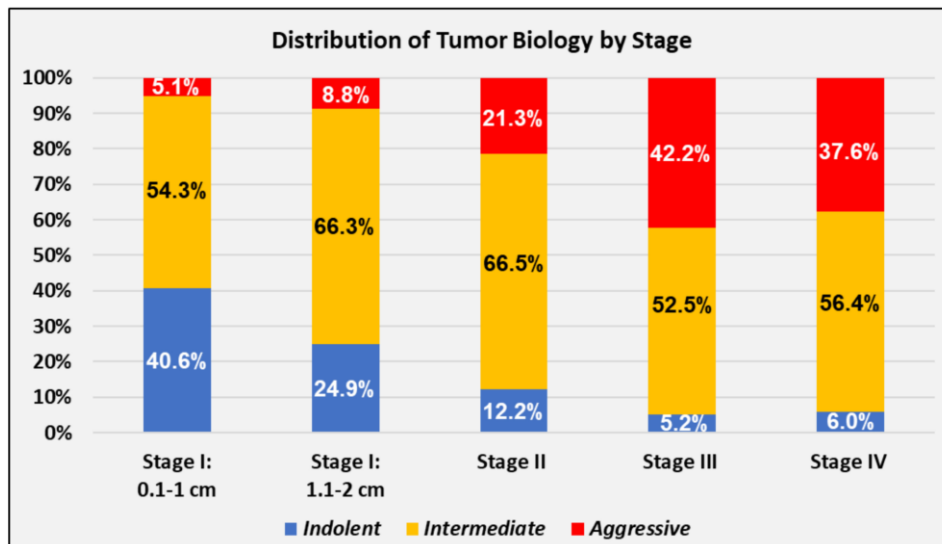




Article

# Why Has Breast Cancer Screening Failed to Decrease the Incidence of de Novo Stage IV Disease?

Danielle R. Heller<sup>1</sup>, Alexander S. Chiu<sup>1</sup>, Kaitlin Farrell<sup>2</sup>, Brigid K. Killelea<sup>2</sup> and Donald R. Lannin<sup>2,\*</sup>



# Metanalisi degli Studi prospettici

Ann Surg Oncol  
https://doi.org/10.1245/s10434-018-6494-6

Annals of  
**SURGICAL ONCOLOGY**  
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – BREAST ONCOLOGY

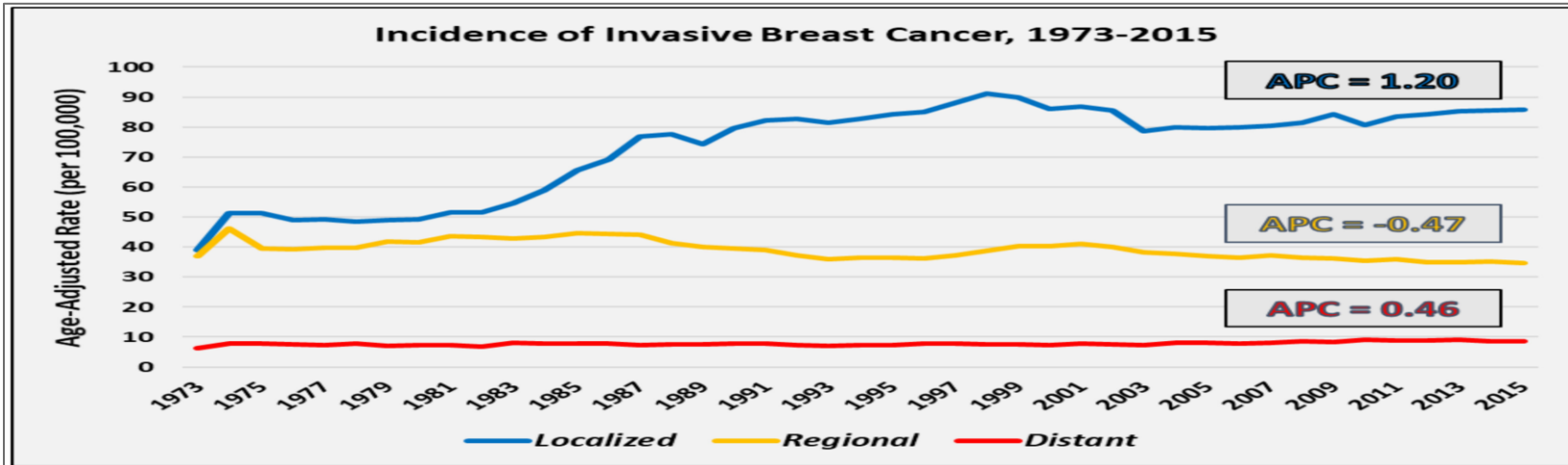
## Early Local Therapy for the Primary Site in De Novo Stage IV Breast Cancer: Results of a Randomized Clinical Trial (EA2108)

Seema A. Khan, MD, MPH<sup>1</sup>, Fengmin Zhao, MS, MHS, PhD<sup>2</sup>, Lori J. Goldstein, MD<sup>3</sup>, David Cella, PhD<sup>4</sup>, Mark Basik, MD<sup>5</sup>, Maria Gattuso, MD, MBA<sup>6</sup>, Thomas S. Julian, MD<sup>7</sup>, Barbara A. Pockaj, MD<sup>8</sup>, Christine A. Lee, MD, PhD, Wajeeha Razaq, MD<sup>9</sup>, Joseph A. Sparano, MD<sup>10</sup>, Shiv V. Subramanian, MD<sup>11</sup>, Irene A. Di Mico<sup>12</sup>, Sarika Jain, MD<sup>13</sup>, Paula Silverman, MD<sup>14</sup>, Catherine Fisher, MD<sup>15</sup>, Anne J. Forstmann, MD<sup>16</sup>, Lynne J. Wagner, PhD<sup>17</sup>, and George W. Sledge, MD<sup>18</sup>

Yunfang Yu, MD<sup>1</sup>, Huangming Hong, MD<sup>1</sup>, Ying Wang, MD<sup>1</sup>, Tuping Fu, MD<sup>2</sup>, Yongjian Chen, MD<sup>3</sup>, Jianli Zhao, MD<sup>1</sup>, Peixian Chen, MD<sup>4</sup>, Ruizhao Cai, MD<sup>2</sup>, Yujie Tan, MD<sup>1</sup>, Zifan He, MD<sup>1</sup>, Wei Ren, MD<sup>1</sup>, Lihuan Zhou, MD<sup>2</sup>, Junhao Huang, MD<sup>2</sup>, Jun Tang, MD<sup>2</sup>, Guolin Ye, MD<sup>4</sup>, and Herui Yao, MD<sup>1</sup>

Before Match

After Match



- ✓ Metanalisi di studi prospettici
- ✓ Propensity Score Matching
- ✓ 1110 pazienti
- ✓ 6 Studi



# Meta-analisi studi retrospettivi

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REVIEW

## **Impact of breast surgery on survival in patients with distant metastases at initial presentation: a systematic review of the literature**

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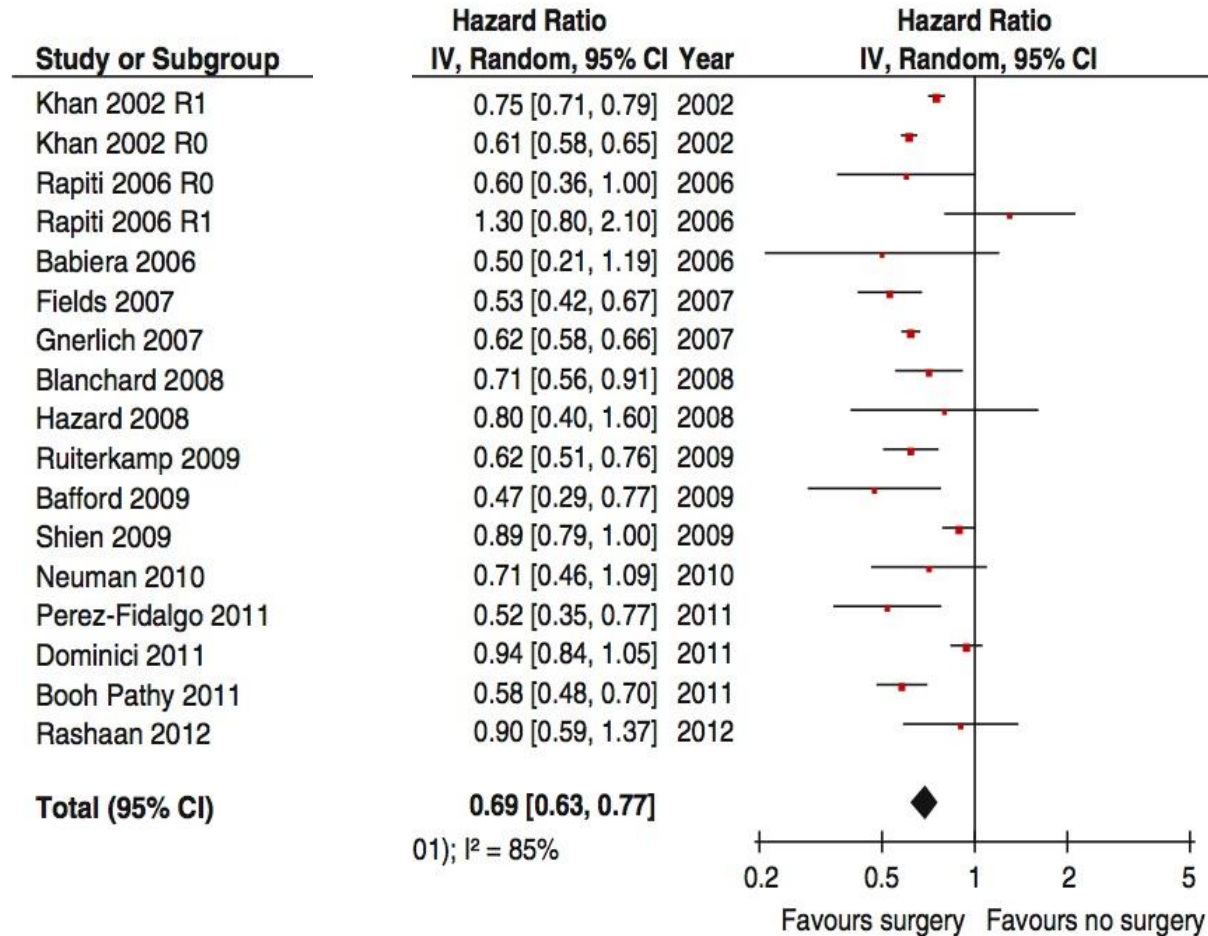
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REVIEW ARTICLE

## **Surgery of primary tumors in stage IV breast cancer: an updated meta-analysis of published studies with meta-regression**

**Fausto Petrelli · Sandro Barni**

# Meta-analisi studi retrospettivi



# Studi Retrospettivi: Analisi dei Sottogruppi

Age		T1-2 %		ER + %		One organ %		No-Visceral disease %	
Surgery	None	Surgery	None	Surgery	None	Surgery	None	Surgery	None
50*	55	40	43	51	65	82*	68	49**	23
51.4	51.5	56	45	57	64	33**	10	92	66
63.3*	57.1	19 (T1)*	7 (T1)	82*	72	81**	49	35**	63
55.9*	58.9	44**	27	NR	NR	NR	NR	66*	70
62**	66	58**	27	48**	35	NR	NR	NR	NR
52.7*	57.5	21	27	53**	78	72	53	57	66
62.5	62.5	61	NR	NR	NR	60**	35	52.7	NR
61.8**	71.6	39*	25	NR	NR	61*	41	43*	58
60.2*	64.8	60**	37	NR	NR	79**	63	53	60
53 (< 50)*	65 (< 50)	25	22	NR	NR	NR	NR	36**	63
69 (< 50)**	NR	49**	NR	49**	NR	41**	NR	NR	NR
49	50	10	10	41**	27	74	44	32	24
55.9	59.2	12 (T1)	6 (T1)	41	39	69**	46	42*	66
53.4*	56.3	NR	NR	72	71	69*	51	57	64
53	58	NR	NR	70	68	29**	3	52	64

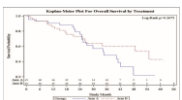
\*p=0.05 - 0.001 \*\*p<0.001 NR: not reported

# A Prospective Analysis of Surgery in Stage IV Breast Cancer

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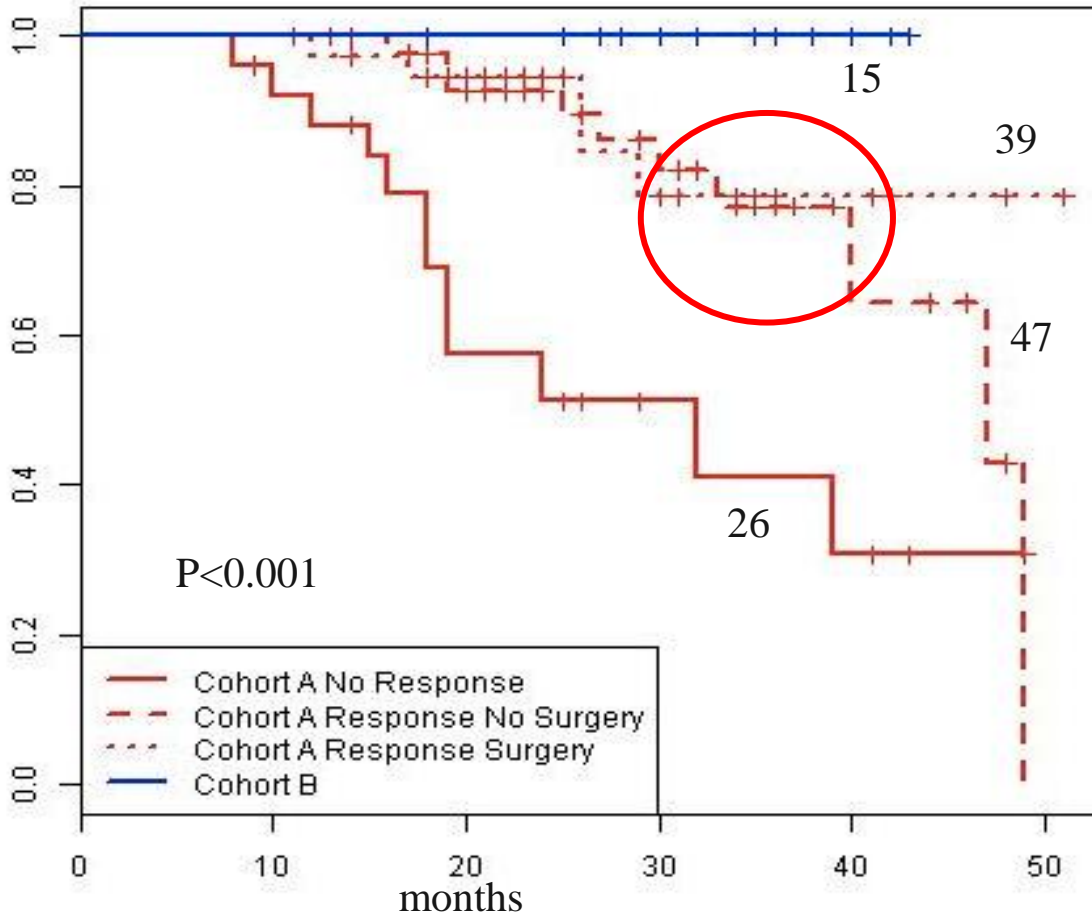
## Translational Breast Cancer Research Consortium (TBCRC 0013)

- Prospectively characterize patients presenting with stage IV breast cancer in the modern era while documenting clinical management and outcomes
  - establish a registry for the collection of patient demographics, clinical and pathological data, blood samples and tissue samples.



# TBCRC 013

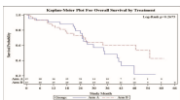
## Multivariate models for OS



Stepwise Cox regression including age, size, ECOG status, HR, Her2, cohort A/B, response and surgery.

	N	2yr OS (95%CI)
Cohort A, NR*	26	51% (33-80%)
Cohort A, R no S**	47	93% (85-100%)
Cohort A, R + S	39	95% (88-100%)
Cohort B	15	100% (76-100%)

\*median OS 32mos (19-NR); \*\*median OS 47mos(40-NR)  
R = responders, NR= Non-responders, S = surgery





# Trials Randomizzati

<b>Country</b>	<b>Accrual Period</b>	<b>N Projected</b>	<b>N Accrual</b>	<b>Initial Therapy</b>	<b>Status</b>
India (Tata Memorial)	2005-12	350	350	Systemic Therapy	Published
Turkey (MF 07-01)	2008-12	271	274	Surgery	Published
Austria (ABCSG 28) (POSITIVE)	2010-15	254	90	Surgery	Early Stopped
Netherlands (SUBMIT)	2011-16	516	0	Surgery	Early Stopped
Japan JCOG 1017	2011-18	500	400	Systemic Therapy	Completed
USA and Canada ECOG 2108	2011-16	880	368	Systemic Therapy	Completed

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# Bias degli studi retrospettivi

- Pazienti giovani
- Migliore accesso alle cure
- Tumori più piccoli (30-40% T1-T2)
- Tumori luminal-like
- Interessamento metastatico "single site"
- Prevalenza di metastasi ossee e tessuti molli

# Senonet



Il software che consente il monitoraggio della qualità della diagnosi, del trattamento e del follow-up del carcinoma mammario nei centri afferenti a Senonetnetwork.



2017-2021



58531  
PAZIENTI



61455  
LESIONI



20  
CENTRI

## Performance dei centri partecipanti in relazione agli Indicatori Senonetnetwork per gli anni 2017-2019

S1	Cancro con diagnosi preoperatoria (B5/C5)	26199 26243	92.8% ✓	78 miss. (0.3%)	26199	78	2044
S2a	Invasivi con tipo istologico, grading, ER/Her2, pN, margini, invasione vascolare e dimensioni registrati	20780 26538	78.3% ✗		20780		5758
S2b	Non invasivi con grado e tipo istologico, margini, dimensioni e ER registrati	1559 3206	48.6% ✗		1559		1647
S3	Invasivi con risonanza magnetica	6586 19995	32.9% ✓	4659 miss. (18.9%)	6586	4659	13409
S4	Rx pezzo nei casi con sole microcalcificazioni trattati con conservativa	1231 1537	80.1% ✗	206 miss. (11.8%)	1231	206	306
S5a	Trattamento entro 30 giorni dalla indicazione terapeutica	19907 25890	76.9% ✓	5944 miss. (18.7%)	19907	5944	5983
S5b	Trattamento entro 42 giorni dal primo esame di approfondimento diagnostico	9098 30443	29.9% ✗	1391 miss. (4.4%)	9098	1391	21345
S5c	Trattamento entro 60 giorni dalla mammografia di screening	606 2648	22.9%	3566 miss. (57.4%)	606	3566	2042
S6a	Unico intervento chirurgico per il trattamento del carcinoma invasivo	25110 26002	96.6% ✓	149 miss. (0.6%)	25110		149 892
S6b	Unico intervento chirurgico per il trattamento del carcinoma non invasivo	2985 3200	93.3% ✓	21 miss. (0.7%)	2985		21 215
S7	Almeno 10 linfonodi asportati nella dissezione ascellare (escluso sampling)	5495 6035	91.1% ✓	49 miss. (0.8%)	5495		49 540
S8	Esame solo del linfonodo sentinella nei casi che risulteranno pN0	14505 14988	96.8% ✓	44 miss. (0.3%)	14505		44 483
S9	No dissezione ascellare (di qualsiasi livello, sampling incluso) nei carcinomi non invasivi	2478 2566	96.6% ✓	3 miss. (0.1%)	2478		3 38
S10	Asportazione di max 3 linfonodi nell'esame dell'ascella con linfonodo sentinella	21353 23301	91.6% ✓	194 miss. (0.8%)	21353		194 1948
S11	Chirurgia conservativa negli invasivi fino a 3 cm (inclusa componente non invasiva)	13598 16619	81.8% ✓	63 miss. (0.4%)	13598	63	3021
S12	Chirurgia conservativa nei non invasivi fino a 2 cm	1863 2401	77.6% ✗	53 miss. (2.2%)	1863	53	538
S13	Radioterapia dopo intervento conservativo	15708 17475	89.9% ✓	1077 miss. (5.8%)	15708	1077	1767
S14	Radioterapia postmastectomia nei casi pN2a+	1245 1462	85.2% ✓	177 miss. (10.8%)	1245	177	217
S15	Radioterapia entro 12 settimane dall'intervento chirurgico nei casi senza CT adiuvante	3978 7811	50.9%	7733 miss. (49.7%)	3978	7733	3833
S16	Terapia ormonale nei carcinomi invasivi endocrino-sensibili	14038 15180	92.5%	6999 miss. (31.6%)	14038	6999	1142
S17	Chemioterapia negli invasivi ER- (T>1 cm. o N+)	1521 1746	87.1%	1113 miss. (38.9%)	1521	1113	225
S18	Invasivi Her2+ (T>1 cm. o N+) con chemioterapia adiuvante che hanno ricevuto Trastuzumab adiuvante	1086 1120	97.0% ✓	25 miss. (2.2%)	1086		25 34
S19	Chemioterapia neo-adiuvante nei casi di carcinoma infiammatorio	38 50	76.0%	91 miss. (64.5%)	38	91	12

Degli indicatori con meno di 10 casi al denominatore non viene mostrata la percentuale perché il risultato è considerato troppo instabile (NV = Non Valutabile).  
Il risultato degli indicatori con oltre il 25% di casi missing è presentato in colore grigio e sottolineato.

# Certificazione Europea

