gis ma | Gruppo Italiano Screening Mammografico

SCREENING E MASTECTOMIE: SONO CAMBIATE LE INDICAZIONI?

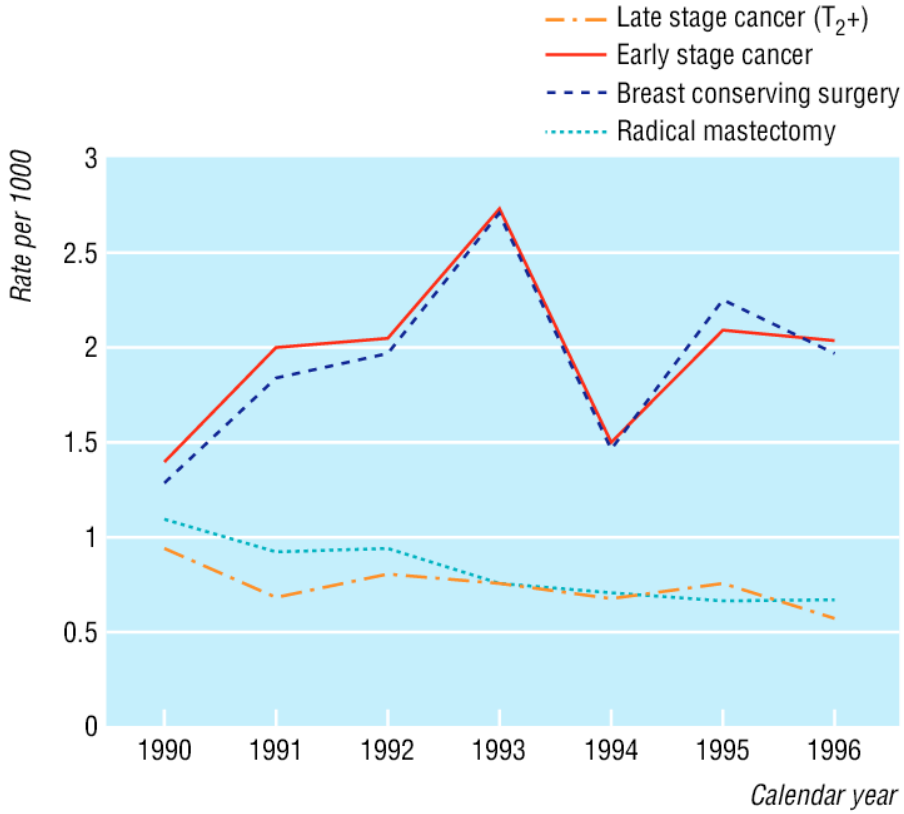
GISMA 2017

26 maggio

Massimiliano Bortolini
Unità di Senologia – ASL Città di Torino

Are breast cancer screening programmes increasing rates of mastectomy? Observational study

Eugenio Paci, Stephen W Duffy, Daniela Giorgi, Marco Zappa, Emanuele Crocetti, Vania Vezzosi, Simonetta Bianchi, Luigi Cataliotti, Marco Rosselli del Turco



No of mammograms per calendar year

1990	1991	1992	1993	1994	1995	1996
2018	8357	10 297	17 298	8965	16 766	10 774

Size of breast cancers and type of operation

ANZ J. Surg. 2005; **75**: 936–939

ORIGINAL ARTICLE

RATES FOR MASTECTOMY ARE LOWER IN WOMEN ATTENDING A BREAST-SCREENING PROGRAMME

NAEEM SAMNAKAY,* JILL TINNING,* ANGELA IVES,† PETER WILLSHER,* STEVE ARCHER,* ELIZABETH WYLIE* AND CHRISTOBEL SAUNDERS‡

**Breast Surgery Unit, Royal Perth Hospital, †School of Population Health, and ‡School of Surgery and Pathology, University of Western Australia, Perth, Western Australia, Australia*

Table 3. Distribution of invasive and *in situ* disease

	Screen (n = 397) %	Non-screen (n = 326) %
Invasive	72.0	79.6
Invasive + CIS	52.9	51.8
CIS only	27.2	9.8

CIS, carcinoma *in situ*.

Table 4. Reasons for mastectomy

Reason	Screen group mastectomies (n = 162) %	Non-screen group mastectomies (n = 184) %
Disease extent	37.7	46.7
Patient choice	35.8	22.8
Positive margins	23.5	16.8
Other	3.0	13.7

Chirurgia Conservativa (59,5%) vs Mastectomia (42,3%).

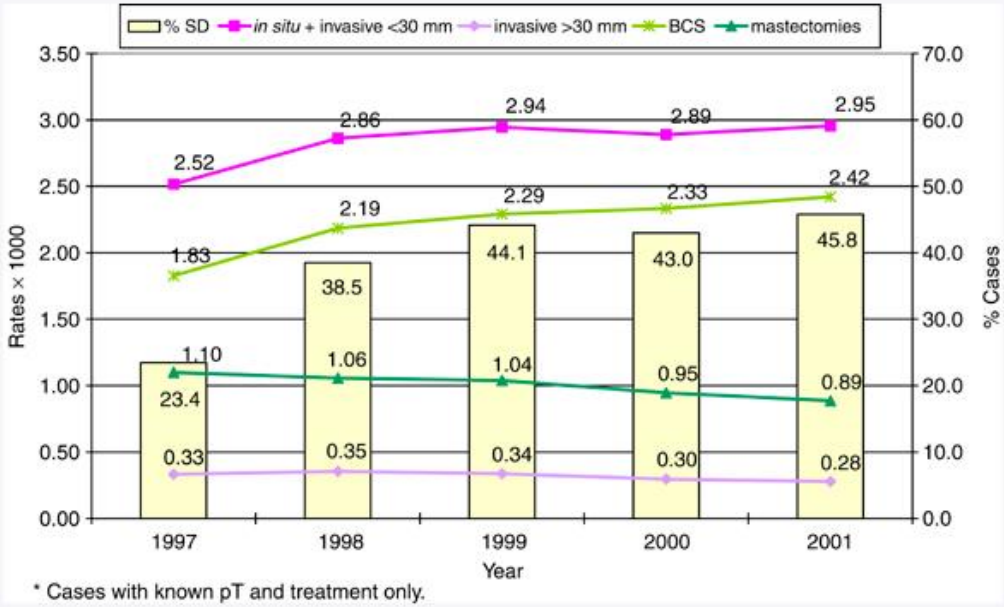
British Journal of Cancer (2006) 95, 1265 – 1268

www.bjcancer.com

Short Communication

Mastectomy rates are decreasing in the era of service screening: a population-based study in Italy (1997–2001)

M Zorzi[1], D Puliti[2], M Vettorazzi[1], V De Lisi[3], F Falcini[4], M Federico[5], S Ferretti[6], IF Moffa[7], L Mangone[8], MP Mano[9], C Naldoni[10], A Ponti[11], A Traina[12], R Tumino[13] and E Paci[*,2] for the IMPACT Working Group[14]



Women aged 50–69 years: trends of incidence rates (per 1000) of breast cancer cases and surgical interventions*. Proportion of SD cases (first and subsequent) by year.

Short communication

Breast screening has increased the number of mastectomies

J Michael Dixon

Breakthrough Research Unit, Edinburgh, Edinburgh Breast Unit, Western General Hospital, Edinburgh EH4 2XU, UK

Corresponding author: J Michael Dixon, mike.dixon@ed.ac.uk

Published: 18 December 2009
This article is online at
http://breast-cancer-research.com/supplements/11/S3/S19

Breast Cancer Research 2009, **11(Suppl 3)**:S19
(doi:10.1186/bcr2438)

Figure 1

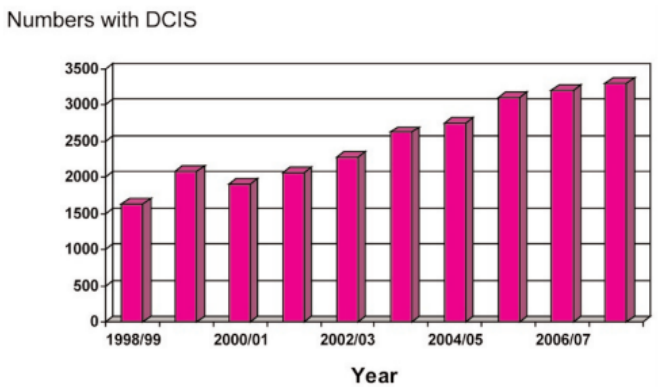


Figure 3

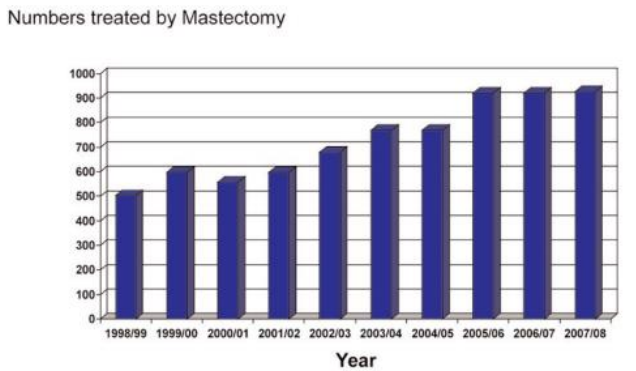
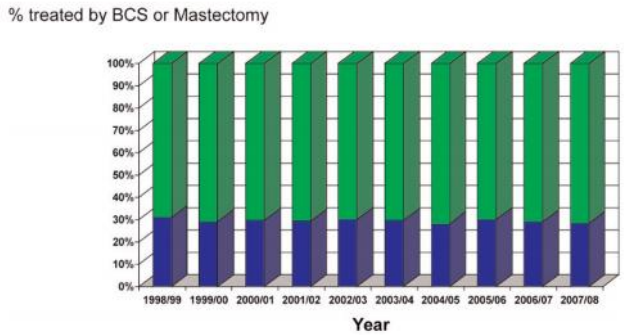
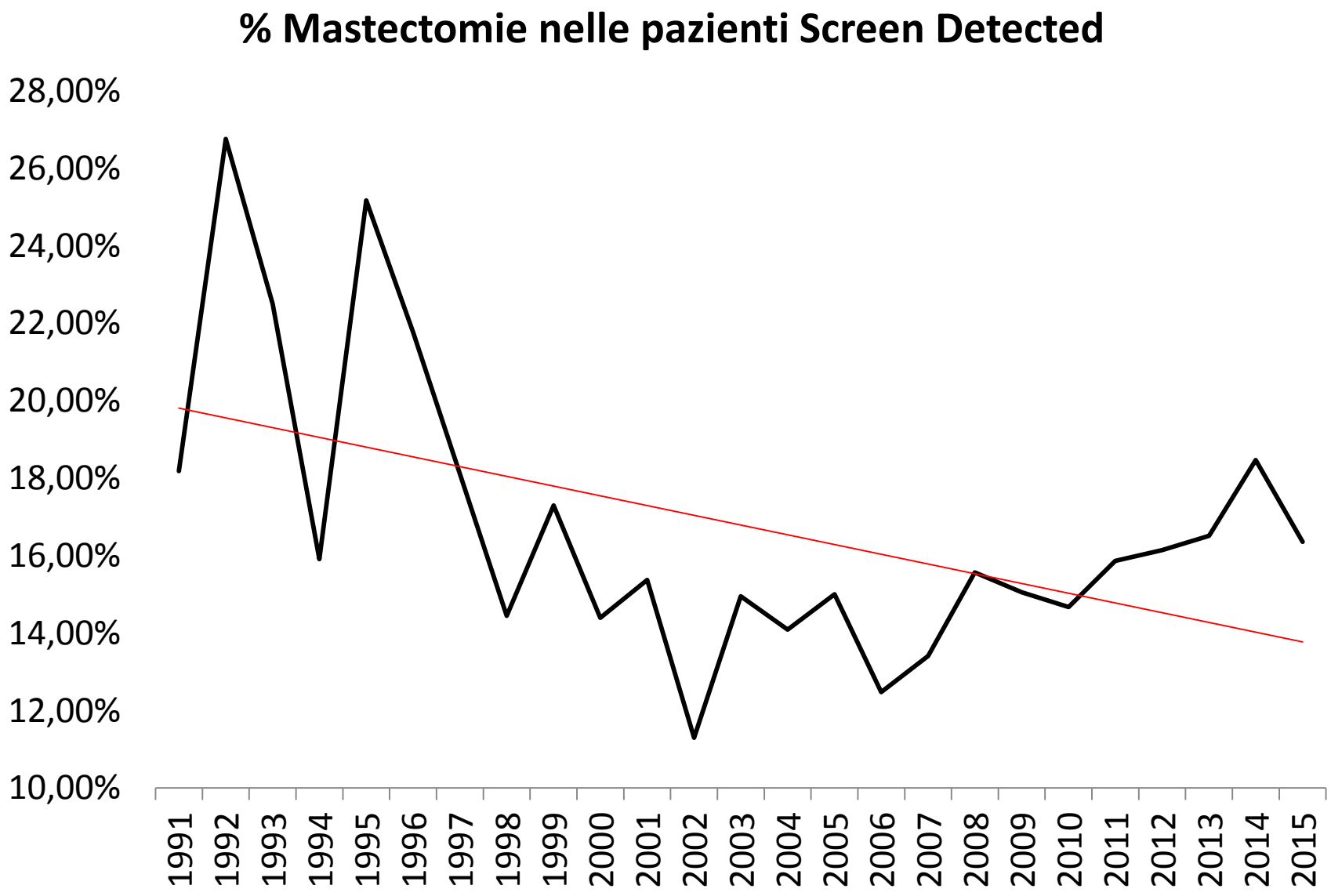


Figure 2




% Mastectomie nelle pazienti Screen Detected
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Available online at www.sciencedirect.com

ScienceDirect

EJSO 42 (2016) 1636–1641

EJSO
the Journal of Cancer Surgery

www.ejso.com

Review

Should patients with early breast cancer still be offered the choice of breast conserving surgery or mastectomy?

N. Johns, J.M. Dixon*

Edinburgh Breast Unit, Western General Hospital, Edinburgh, EH4 2XU, UK

Accepted 18 August 2016
Available online 31 August 2016

La scelta del trattamento chirurgico deve essere "modellata" sulla base

-tipo di lesione

-tipo di mammella

-tipo di persona

Questi aspetti devono portare a scelte che rispettino

i rischi oncologici

gli esiti estetici

esiti funzionali

OBIETTIVI TRATTAMENTO

- *EVITARE SOVRATRATTAMENTI*

- *RENDERE LE PROCEDURE DIAGNOSTICO-TERAPEUTICHE IL MENO COSTOSE POSSIBILE IN TERMINI ECONOMICI E UMANI*

- RISULTATO ESTETICO PIU' FACILMENTE ACCETTABILE
- LIVELLI DI ALTERAZIONE PSICOLOGICA PIU' BASSI
- MINOR ANSIA E SINDROMI ANSIOSO DEPRESSIVE
- MIGLIOR RAPPORTO CON LA SESSUALITA'
- AUTOSTIMA NON DANNEGGIATA

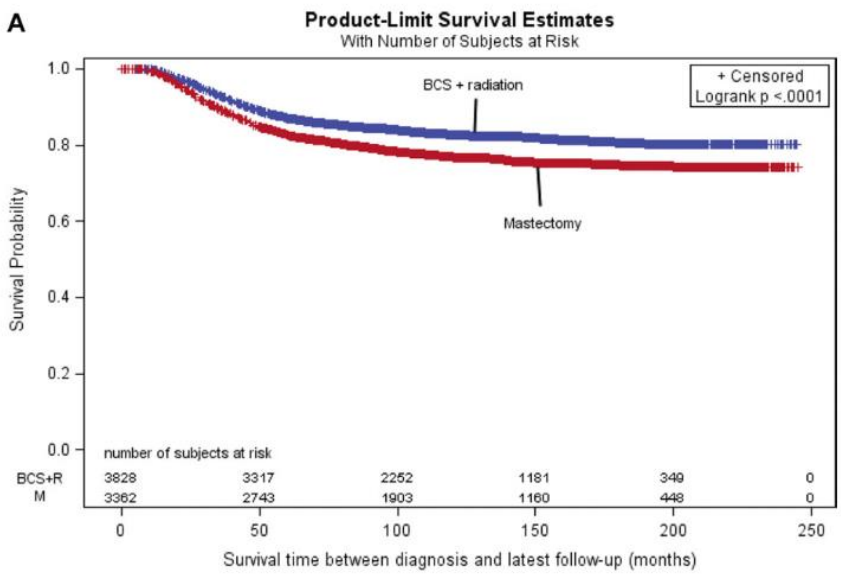
1. LA CHIRURGIA CONSERVATIVA HA SOPRAVVIVENZA MIGLIORE?^

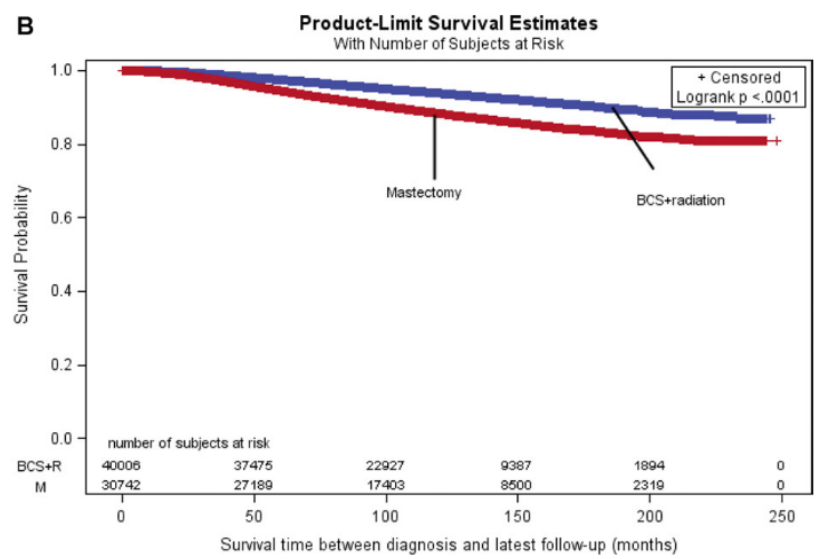
Original Article

Survival After Lumpectomy and Mastectomy for Early Stage Invasive Breast Cancer

The Effect of Age and Hormone Receptor Status

E. Shelley Hwang, MD, MPH[1]; Daphne Y. Lichtensztajn, MS[3]; Scarlett Lin Gomez, PhD[3]; Barbara Fowble, MD[2]; and Christina A. Clarke, PhD[3]





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ScienceDirect

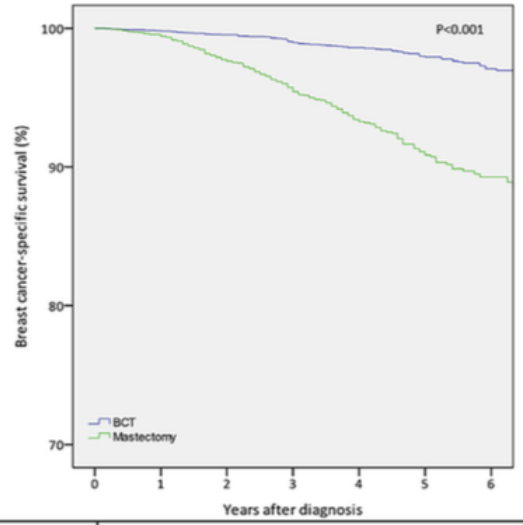
EJSO 41 (2015) 1417–1422

EJSO the Journal of Cancer Surgery

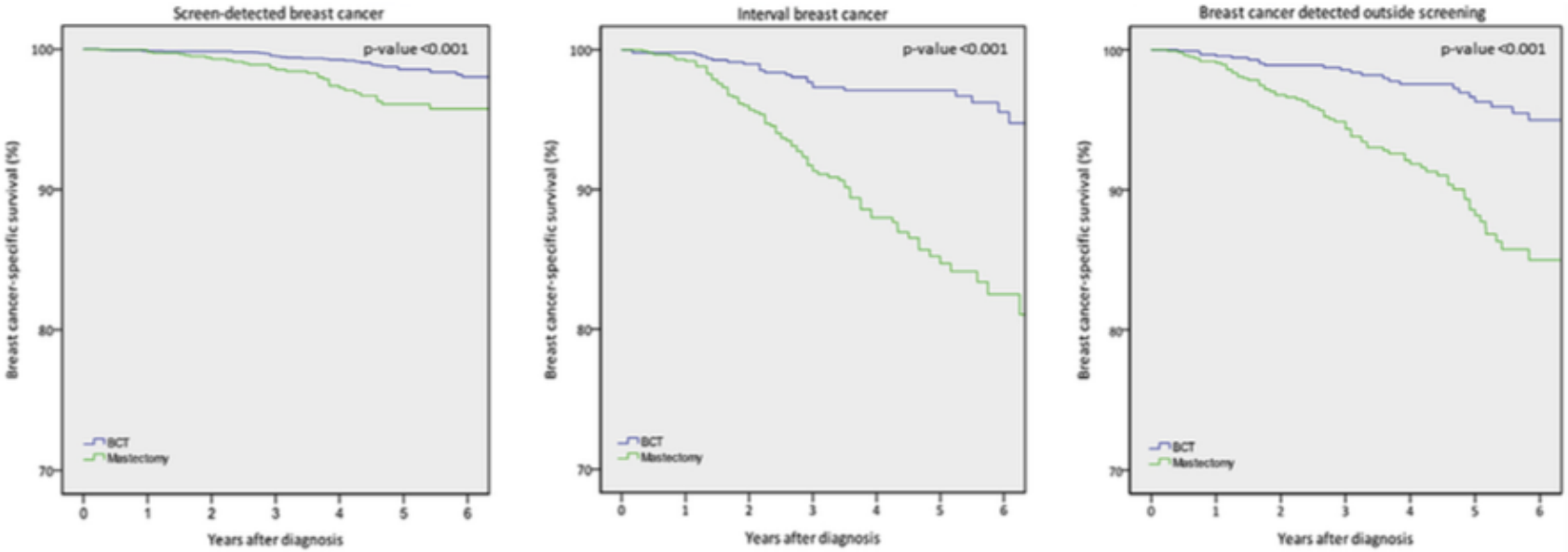
www.ejso.com

Women treated with breast conserving surgery do better than those with mastectomy independent of detection mode, prognostic and predictive tumor characteristics

S. Hofvind [a,b,*], Å. Holen [a], T. Aas [c], M. Roman [a,d], S. Sebuødegård [a], L.A. Akslen [e,f]



	Survival of breast cancer by surgical procedure			
	n	2 years (95% CI)	4 years (95% CI)	6 years (95% CI)
BCT	5906	99.5% (99.3-99.7)	98.6% (98.2-99.0)	97.1% (96.3-97.9)
Mastectomy	3641	97.7% (97.1-98.3)	93.4% (92.5-94.3)	89.3% (87.7-90.9)



	Survival of screen-detected breast cancer				Survival of interval breast cancer				Survival of breast cancer detected outside screening			
	n	2 years (95% CI)	4 years (95% CI)	6 years (95% CI)	n	2 years (95% CI)	4 years (95% CI)	6 years (95% CI)	n	2 years (95% CI)	4 years (95% CI)	6 years (95% CI)
BCT	3946	99.8% (99.6-100)	99.2% (98.8-99.6)	98.0% (97.2-98.8)	926	99.0% (98.2-99.8)	97.1% (95.8-98.4)	95.5% (93.5-97.6)	1034	98.9% (98.1-99.7)	97.5% (96.4-98.7)	95.0% (93.0-97.1)
Mastectomy	1613	99.3% (98.9-99.7)	97.4% (96.5-98.4)	95.7% (94.2-97.2)	943	95.8% (94.5-97.1)	88.0% (85.6-90.4)	82.2% (79.0-86.1)	1085	96.8% (95.7-97.9)	92.1% (90.1-94.1)	85.0% (81.7-88.4)

Figure 2. Breast cancer survival by surgical procedure, stratified by detection mode (screen-detected, interval cancer and outside the screening program) among Norwegian women aged 50−69 years old, diagnosed with breast cancer 2005−2011.

Ann Surg Oncol (2013) 20:3469–3476
DOI 10.1245/s10434-013-3011-9

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

ORIGINAL ARTICLE – BREAST ONCOLOGY

Breast-Conserving Therapy Achieves Locoregional Outcomes Comparable to Mastectomy in Women with T1-2N0 Triple-Negative Breast Cancer

Zachary S. Zumsteg, MD[1], Monica Morrow, MD[2], Brittany Arnold[1], Junting Zheng, MS[3], Zhigang Zhang, PhD[3], Mark Robson, MD[4], Tiffany Traina, MD[4], Beryl McCormick, MD[1], Simon Powell, MD, PhD[1], and Alice Y. Ho, MD[1]

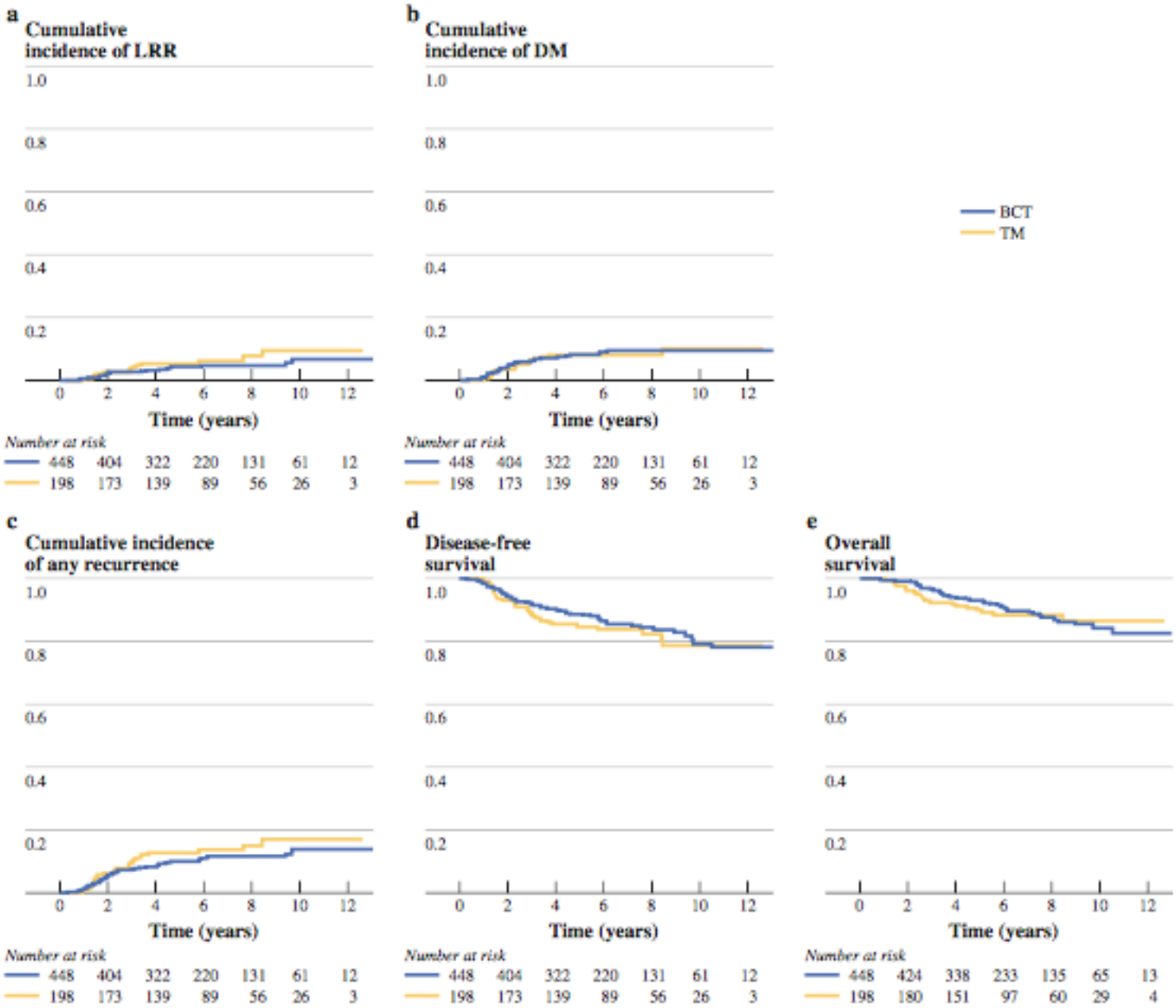


FIG. 1 Cumulative incidence of locoregional recurrence (**a**), cumulative incidence of distant metastasis (**b**), cumulative incidence of overall recurrence (**c**), disease-free survival (**d**), and overall survival (**e**) for patients undergoing breast-conserving therapy and mastectomy

2. LA CHIRURGIA DEMOLITIVA HA COSTI E COMPLICANZE MAGGIORI

OXFORD

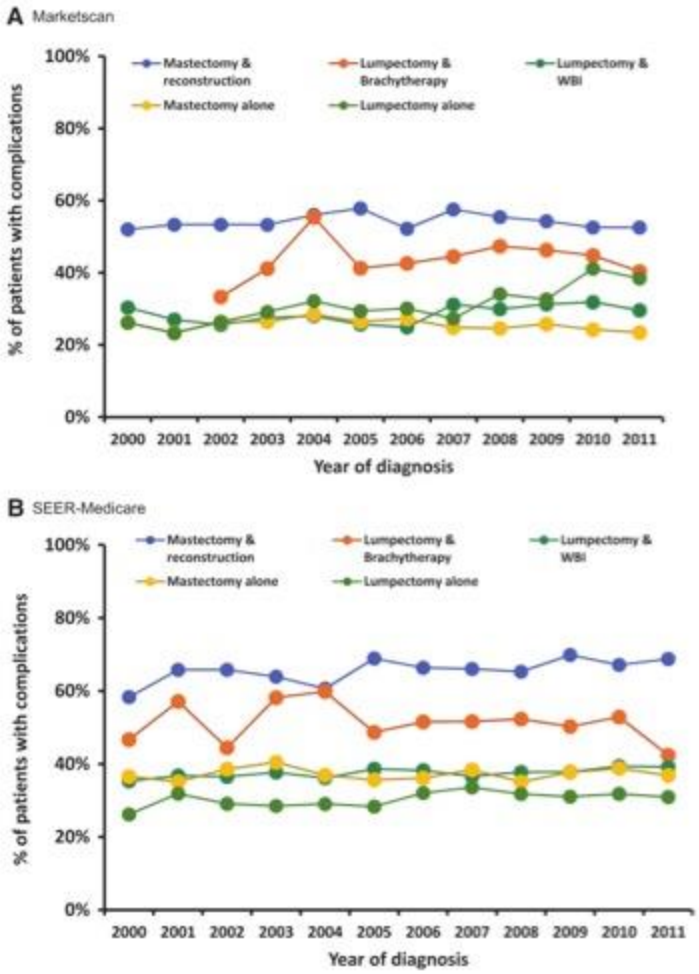
JNCI J Natl Cancer Inst (2017) 109(1): djw178

doi: 10.1093/jnci/djw178
First published online September 27, 2016
Article

ARTICLE

Cost and Complications of Local Therapies for Early-Stage Breast Cancer

Benjamin D. Smith, Jing Jiang, Ya-ChenTina Shih, Sharon H. Giordano, Jinhai Huo, Reshma Jagsi, Adeyiza O. Momoh, Abigail S. Caudle, Kelly K. Hunt, Simona F. Shaitelman, Thomas A. Buchholz, Shervin M. Shirvani


A Marketscan
Mastectomy & reconstruction
Lumpectomy & Brachytherapy
Lumpectomy & WBI
Mastectomy alone
Lumpectomy alone
% of patients with complications
100%
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20%
0%
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B SEER-Medicare
Mastectomy & reconstruction
Lumpectomy & Brachytherapy
Lumpectomy & WBI
Mastectomy alone
Lumpectomy alone
% of patients with complications
100%
80%
60%
40%
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2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
Year of diagnosis

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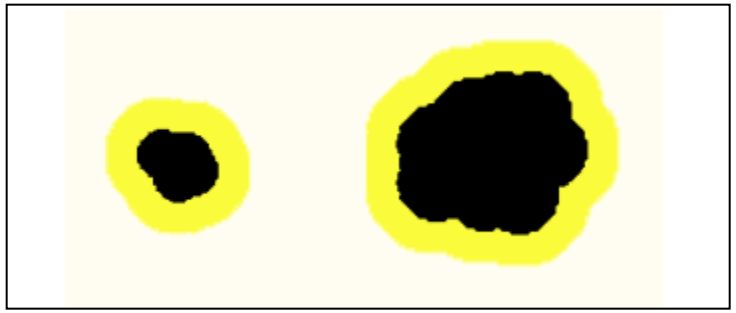
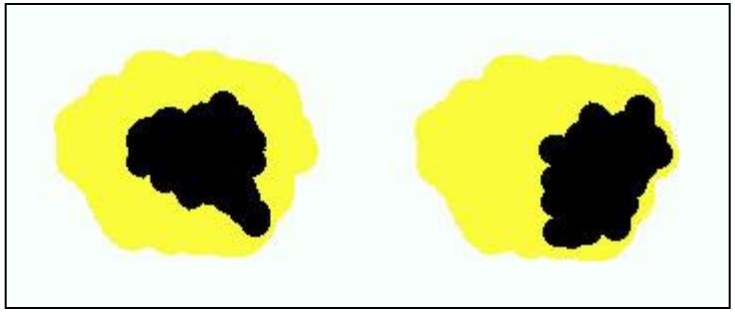
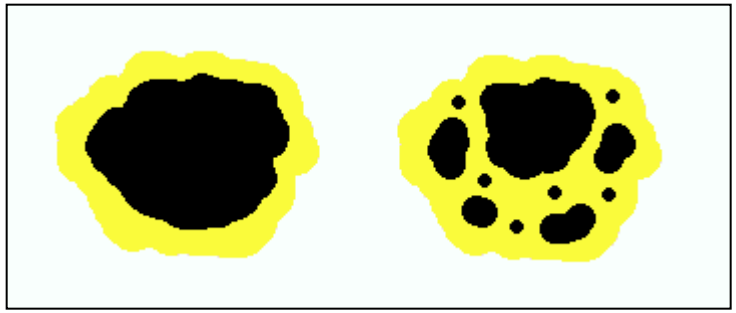
MARGINI INDENNI



DIAMETRO LESIONE



ESTENSIONE AREA A "RIDOSSO"



MULTIFOCALITA'

NO INK

st. gallen oncology conferences

Breast Conserving Surgery of the Primary (DCIS)

1. In women undergoing breast conserving surgery for DCIS and planned whole breast radiation treatment which **minimum** margin width is sufficient to avoid re-excision?

(1) No ink on DCIS? 34,6 %

(2) 2 mm clearance? 61,5 %

(3) 5 mm clearance? 0 %

(4) Margin is irrelevant? 0 %

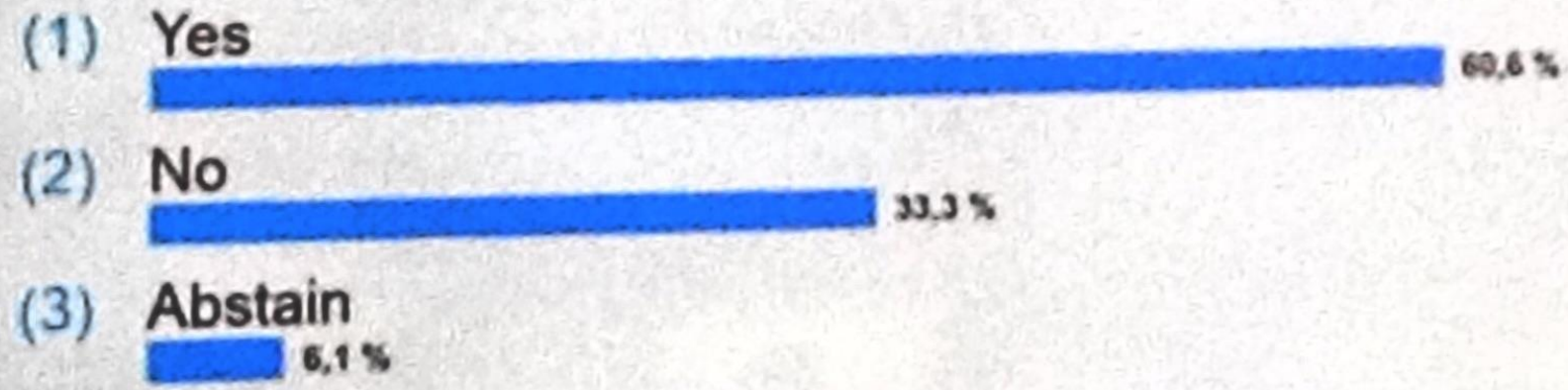
(5) Abstain 3,8 %

15th St.Gallen International Breast Cancer Conference 2017 Consensus

st. gallen oncology conference

Primary Surgery of Multi-focal/ Multicentric Disease

3. Tumor foci in more than one 'quadrant' of the breast (multicentric) can be treated with breast conservation, provided margins are clear and adequate RT is planned.



5. LA CHEMIOTERAPIA NEOADIUVANTE

ELSEVIER

Available online at www.sciencedirect.com

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EJSO 42 (2016) 1780–1786

EJSO
the Journal of Cancer Surgery

www.ejso.com

Review

Breast conservation following neoadjuvant therapy for breast cancer in the modern era: Are we losing the opportunity?

C. Criscitiello [a,*], G. Curigliano [a], H.J. Burstein [b], S. Wong [c], A. Esposito [a], G. Viale [a], M. Giuliano [d], U. Veronesi [a], M. Santangelo [e], M. Golshan [f]

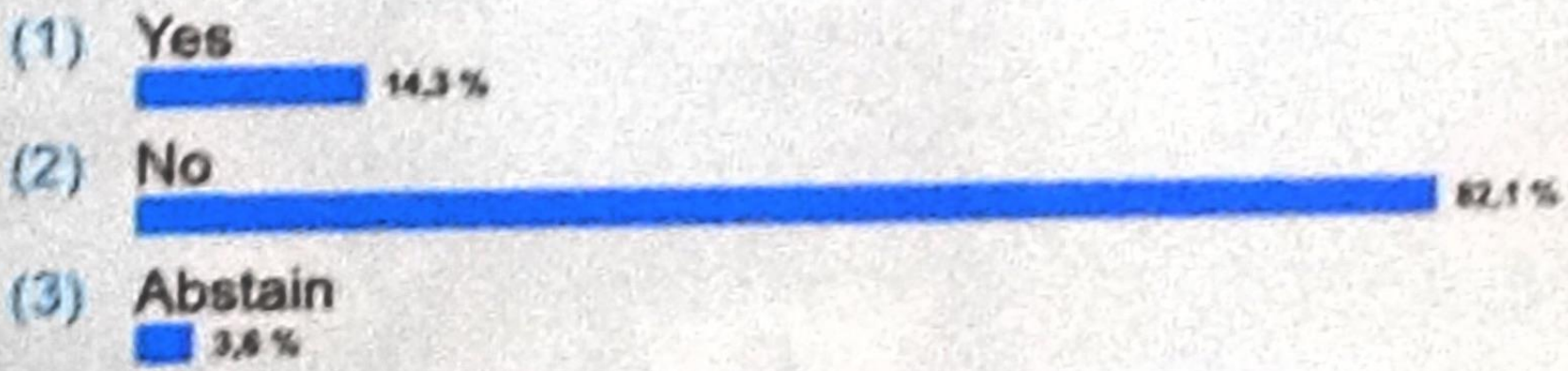
Table 1
Breast conservation rates across clinical trials.

Study title	Trial design	pCR definition	pCR rate	BCT rate	BCT conversion rate
NSABP B-18	Neoadjuvant AC × 4 vs Adjuvant AC × 4	ypT0/is ypN0	13%	68% vs 60%	NA
CALGB 40603 (stage II/III TNBC)	Neoadjuvant paclitaxel (P) × 12 weeks ± carboplatin (C) ± bevacizumab (B) followed by doxorubicin plus cyclophosphamide (AC) × 4 cycles ± bevacizumab	ypT0 ypN0	60% (candidate pre and post NST) 50% (candidate pre-NST only) 58% (candidate post-NST only) 41% (no candidate pre and post-NST)	47%	61% P 73% P + B > B 70% P + CB 68% P + CB + B > B
NeoALTTO (HER2+)	NeoAdjuvant Lapatinib (L) and/or Trastuzumab (T)	ypT0/is ypN0	24.7% L 29.5% T 51.3% L + T	42.9% L 38.9% T 41.4% L + T	30.8% L 27.7% T 26.4% L + T
NeoSphere (HER2+)	4 × NeoAdjuvant Docetaxel (D) and/or Trastuzumab (T) and/or Lapatinib (L)	ypT0/is ypN0	29% T + D 45.8% P + T + D 16.8% P + T 24% P + D		
NSABP-B41 (HER2+)	Trastuzumab (T) Plus Lapatinib (L) vs Trastuzumab vs Lapatinib with Weekly Paclitaxel (P) Following AC × 4	ypT0/is ypN0	49.1% AC × 4 + P + T 47.4% AC × 4 + P + L 60.4% AC × 4 + P + T + L		
TRYPHAENA (HER2+)	Pertuzumab (P) plus trastuzumab (T) in combination with chemotherapy: FEC followed by docetaxel (D) or taxane + carboplatin (TC)		61.6% ARM A 57.3% ARM B 66.2% ARM C		21.7% Arm A 16.7% Arm B 27.0% Arm C
GeparSixto (GBC 66) (HER2+, TNBC)	Addition of neoadjuvant carboplatin (C) to paclitaxel (P)+ non-pegylated liposomal doxorubicin (D) + target therapy: Bevacizumab (B) in TNBC; Trastuzumab + Lapatinib (TL) in HER2+	ypT0 ypN0	TNBC: 53.2% PD + B + C 36.9% PD + B HER2+: 32.8% PD + TL + C 36.8% PD + TL		
CHERLOB (HER2+)	NeoAdjuvant Lapatinib (L) and/or Trastuzumab (T)	ypT0/is ypN0	25% T 26,3% L 46,7% T + L	66,7% T 57,9% L 68,9 T + L	61,9% T 42,8% L 60% T + L

Surgery of the Primary (IBC) after Neo-Adjuvant Systemic Therapy

9. In women undergoing breast conserving surgery after neo-adjuvant chemotherapy and proceeding to standard radiation with or without additional adjuvant systemic therapy.

Should the entire area of the original primary be resected after downstaging?



st. gallen oncology conferences

BCC 2017

Surgery of the Primary (IBC) after Neo-Adjuvant Systemic Therapy

10. **In women undergoing breast conserving surgery after neo-adjuvant chemotherapy and proceeding to standard radiation with or without additional adjuvant systemic therapy.**

Which is the ***minimum*** acceptable surgical margin to avoid re-excision (with multifocal residual disease in the pathological specimen)?

(1) No ink on invasive tumor or DCIS? 55,2 %

(2) 2 mm clearance? 27,6 %

(3) > 2 – 5 mm clearance? 6,9 %

(4) > 5mm clearance? 3,4 %

(5) Margin is irrelevant? 0 %

(6) Abstain 6,9 %

5. LA CHIRURGIA ONCOPLASTICA (SICUREZZA E SOPRAVVIVENZA)

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Available online at www.sciencedirect.com

ScienceDirect

EJSO 43 (2017) 665–671

EJSO
the Journal of Cancer Surgery

www.ejso.com

Short term safety of oncoplastic breast conserving surgery for larger tumors

D.J. Wijgman [a,*], B. ten Wolde [b], N.R.A. van Groesen [a], M.E. Keemers-Gels [a], F.J.H. van den Wildenberg [a], L.J.A. Strobbe [a]

[a] *Department of Surgical Oncology, B58, Canisius Wilhelmina Ziekenhuis, Weg door Jonkerbos 100, 6532 SB Nijmegen, The Netherlands*

[b] *Department of Surgery, Radboud University Medical Center, Postbus 9101 (618), 6500 HB Nijmegen, The Netherlands*

Table 3
Postoperative complication rate, resection margins and re-excision rate.

	Oncoplastic group (n = 314)	Lumpectomy group (n = 528)	P-value
Wound complications – n (%)			
Hematoma or bleeding	31 (11.4)	59 (12.8)	0.572
Infection	11 (4.0)	12 (2.6)	0.281
Seroma	17 (6.2)	23 (5.0)	0.471
Pain – n (%)			
Yes	12 (4.4)	9 (1.9)	0.054
No	261 (95.6)	453 (98.1)	
Clavien Dindo classification – n (%)			
No complications	201 (64.0)	350 (66.3)	0.160
Grade I	56 (17.8)	101 (19.1)	
Grade II	13 (4.1)	11 (2.1)	
Grade III	6 (1.9)	3 (0.6)	
Mastectomy/Re-excision	38 (12.1)	63 (11.9)	
Resection margins – n (%)			
Radical excision	243 (77.4)	432 (81.8)	0.119
Positive surgical margins	71 (22.6)	96 (18.2)	
Re-excision – n (%)			
Breast conserving surgery	15 (4.8)	35 (6.6)	0.337
Mastectomy	27 (8.6)	35 (6.6)	
No re-excision	272 (86.6)	458 (86.7)	

ORIGINAL ARTICLE

Long-term Results After Oncoplastic Surgery for Breast Cancer

A 10-year Follow-up

Krishna B. Clough, MD, Raquel F. D. van la Parra, MD, PhD,* Helene H. Thygesen, PhD,† Eric Levy, MD,* Elisabeth Russ, MD,* Najeeb M. Halabi, PhD,‡ Isabelle Sarfati, MD,* and Claude Nos, MD**

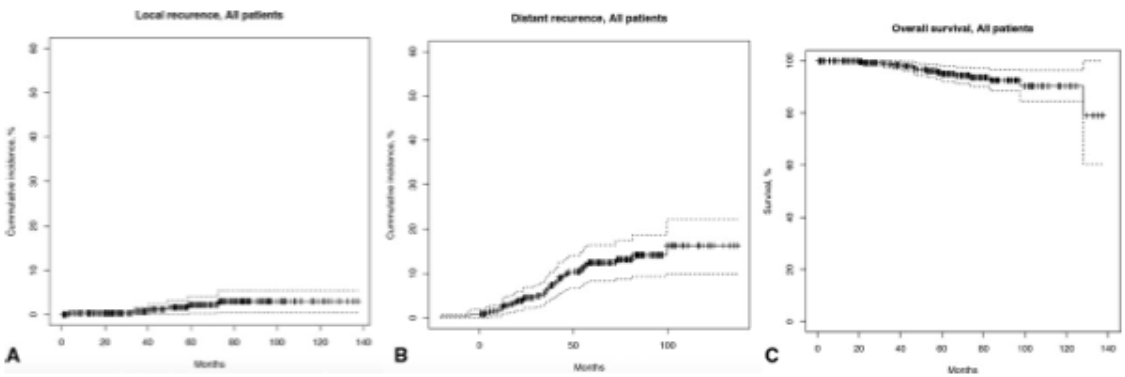
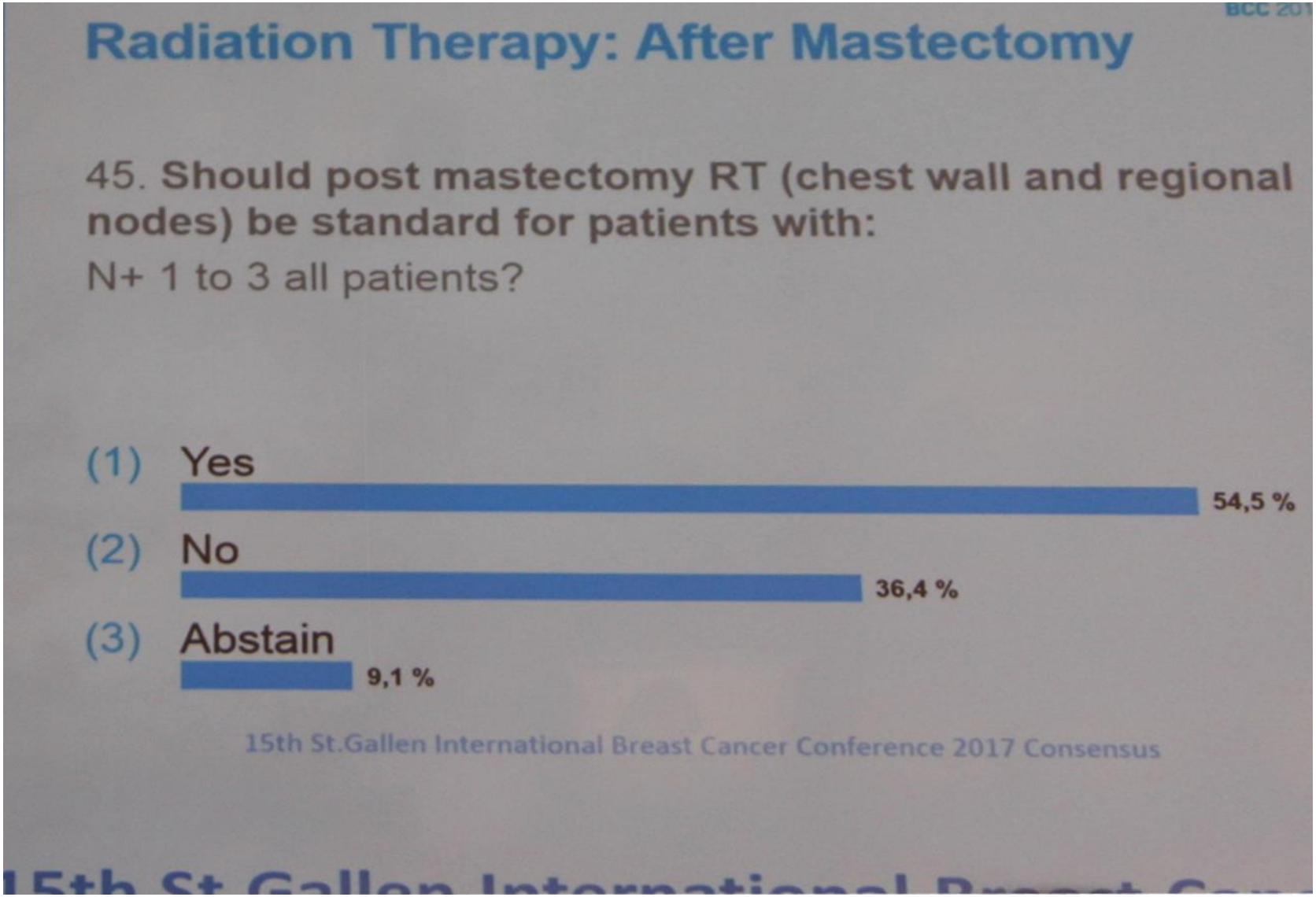


FIGURE 1. Cumulative incidence of local recurrence in the conserved breast, regional recurrence (axillary and supraclavicular), and Kaplan Meier estimates of overall survival with 95% confidence interval (dashed lines) after oncoplastic mammoplasties. A, Cumulative incidence curve for local recurrence. B, Cumulative incidence curve for distant recurrence. C, Overall survival curve.

Annals of Surgery. Apr 2017

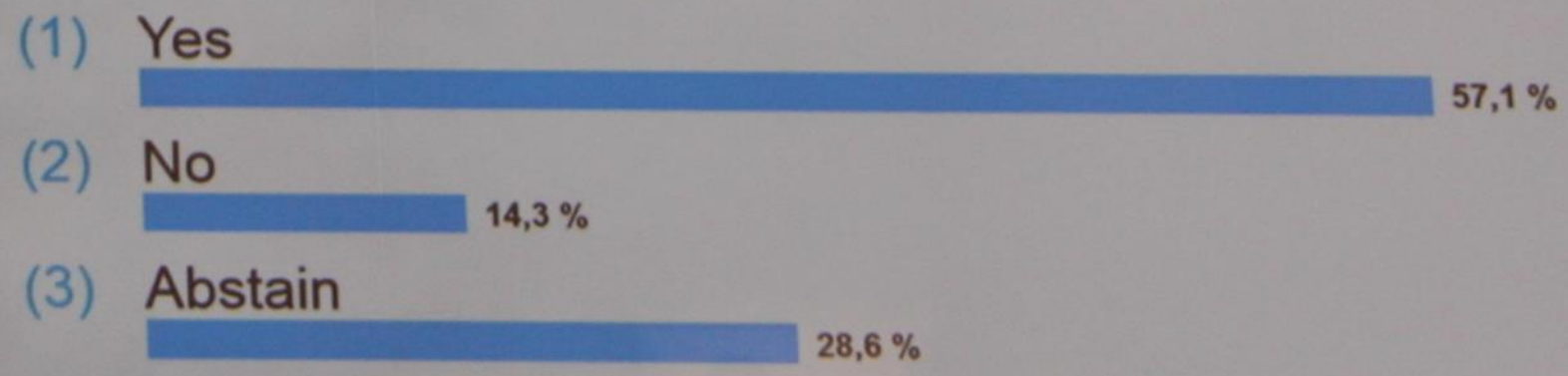
5. RADIOTERAPIA



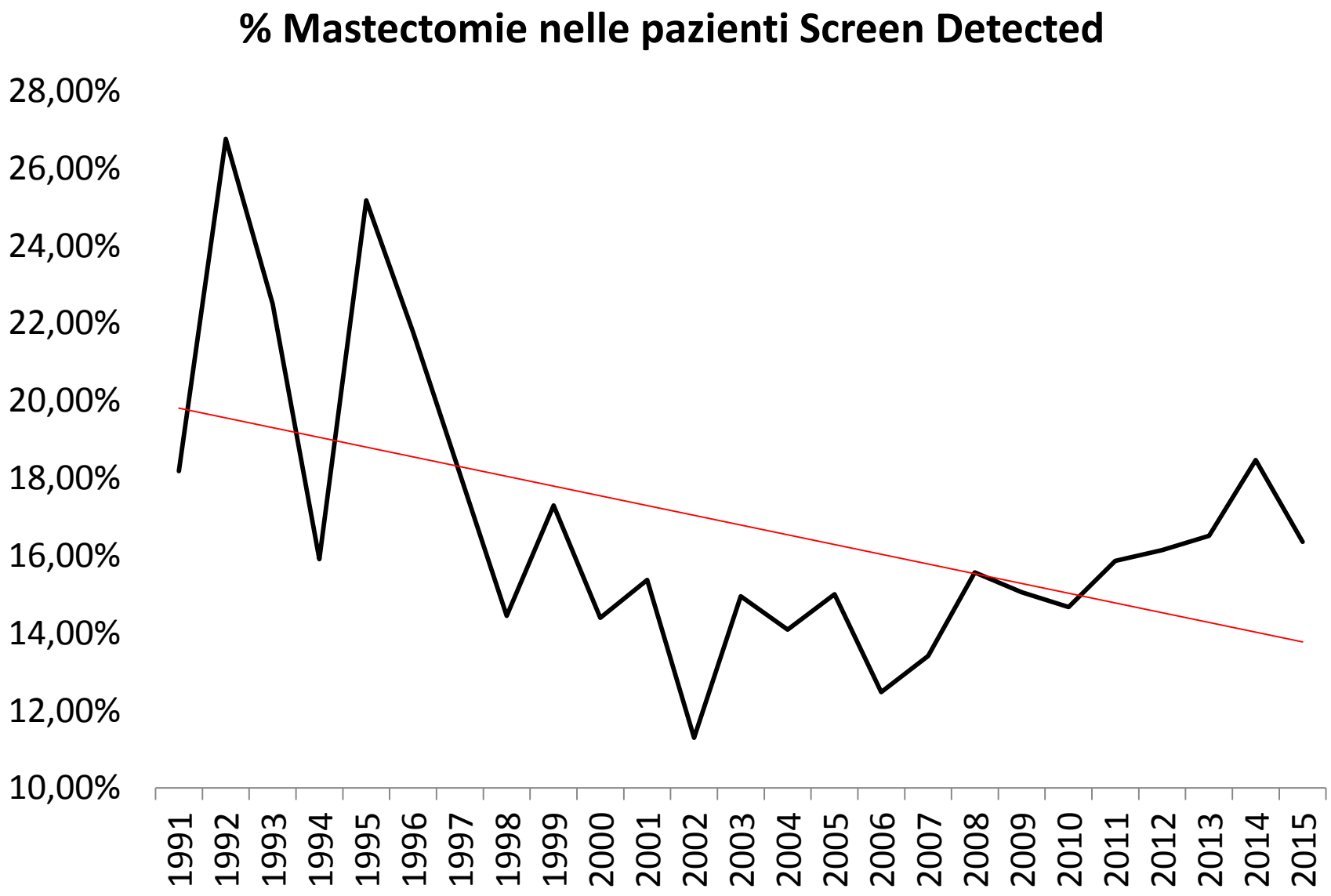
Radiation Therapy: After Mastectomy

48. **Should post mastectomy RT (chest wall and regional nodes) be standard for patients with:**

Positive sentinel node biopsy but no axillary dissection?



15th St.Gallen International Breast Cancer Conference 2017 Consensus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14,00%
12,00%
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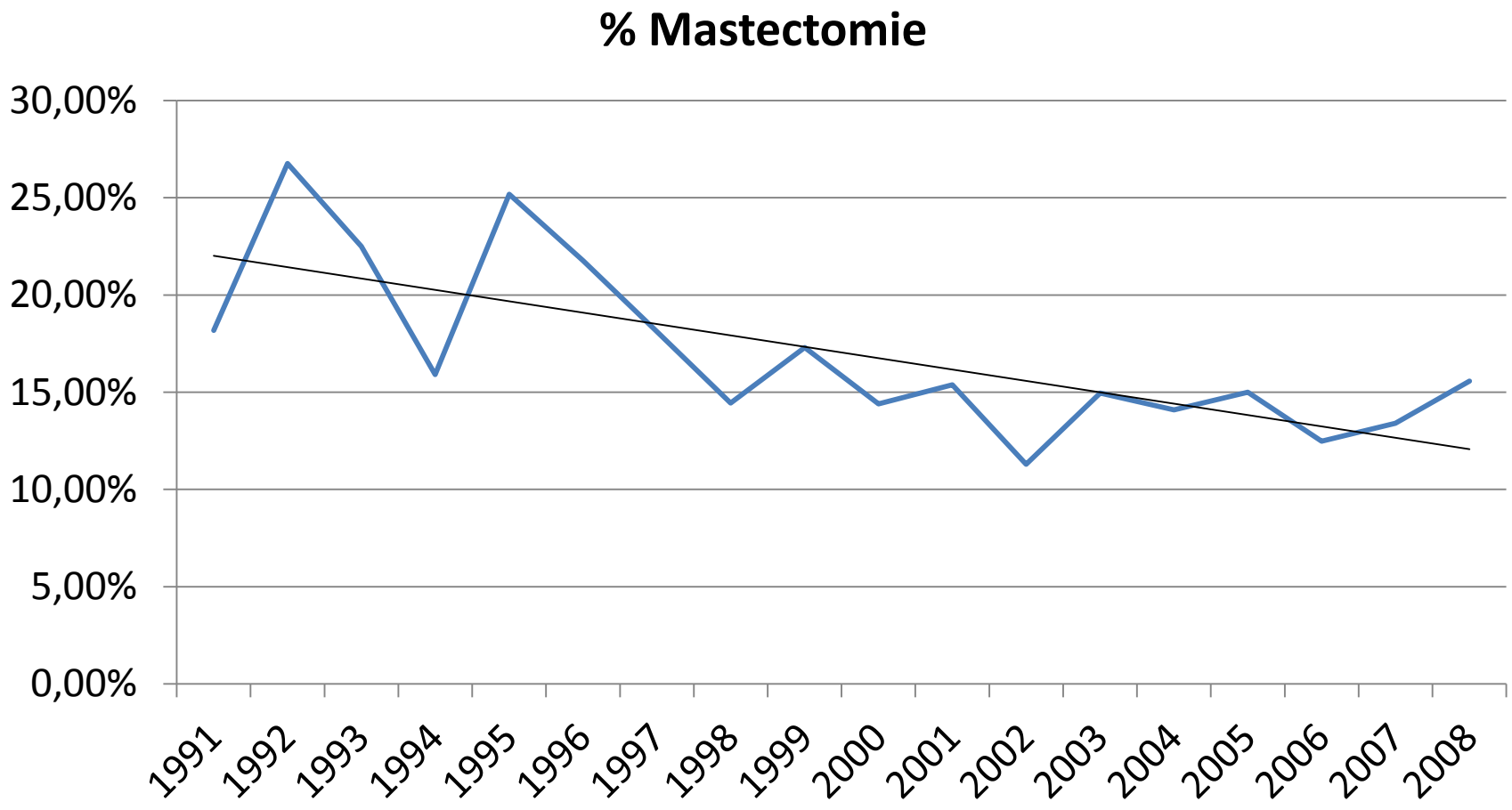
2010
2011
2012
2013
2014
2015


% Mastectomie
30,00%
25,00%
20,00%
15,00%
10,00%
5,00%
0,00%
1991
1992
1993
1994
1995
1996
1997
1998
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2000
2001
2002
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2004
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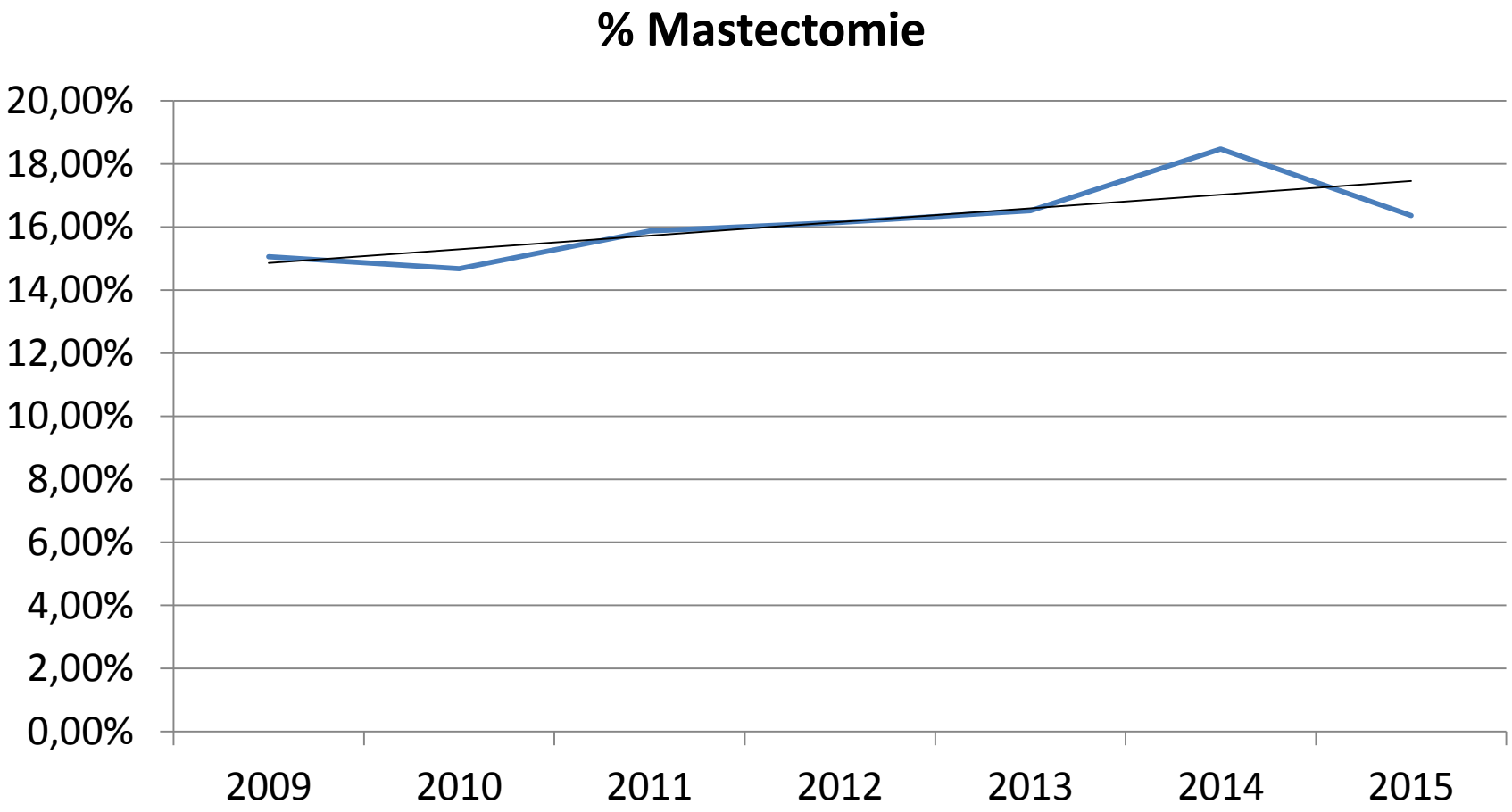
2006
2007
2008


% Mastectomie
20,00%
18,00%
16,00%
14,00%
12,00%
10,00%
8,00%
6,00%
4,00%
2,00%
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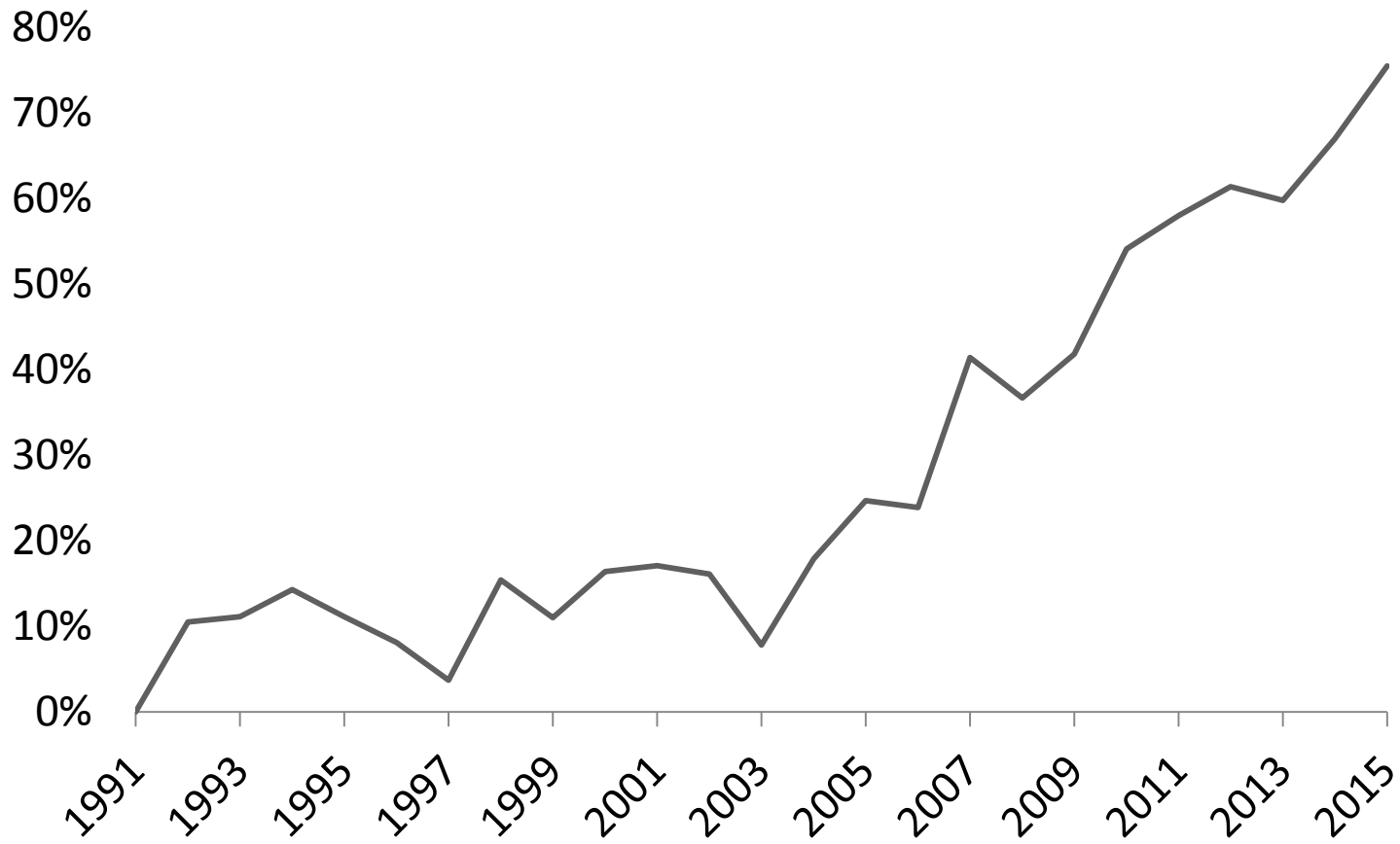
2009
2010
2011
2012
2013
2014
2015

Trend proporzione di mastectomie con ricostruzione (1991-2015)



Mastectomie

MastectomiaTotale **senza** ricostruzione

MastectomiaTotale **con** ricostruzione

Mastectomia Skin sparing

Mastectomia Nipple sparing

Tipo di ricostruzione (1° int.)	**E19**	Codificato	1 Espansore tissutale 2 Skin reducing+Protesi 3 Lembo 4 Lembo+Espansore o protesi 5 Skin Sparing 6 Nipple Sparing 7 Altro 9 Ignoto
Altro tipo di ricostruzione immediata	**E19B**	Testo	

CONCLUSIONI

- SCREENING NON AUMENTA LE MASTECTOMIE
- VALUTARE SEMPRE LA CHIRURGIA CONSERVATIVA
- SOPRAVVIVENZA ALMENO IDENTICA, SE NON MIGLIORE
- COMPORTA MENO COMPLICANZE E MENO COSTI
- RICHIEDE MARGINI MINIMI
- PUO' ESSERE ESEGUITA SU TUMORI DI GRANDI DIMENSIONI (ONCOPLASTICA)
- PUO' ESSERE ESEGUITA SU TUMORI MULTICENTRICI)
- EVITA LA CHIRURGIA ASCELLARE (RT)