

Διοργάνωση:

- Εταιρεία Ογκολόγων Παθολόγων Ελλάδας
- Ελληνική Εταιρεία Ακτινοθεραπευτικής Ογκολογίας

Σε συνεργασία με:

- Ελληνική Εταιρεία Χειρουργικής Ογκολογίας
- Εθνικό Σύνδεσμο Νοσηλευτών Ελλάδος – Τομέα Νοσηλευτικής Ογκολογίας

22° ΕΟΠΕ 15° 

# 3<sup>ο</sup> Ελληνικό Συνέδριο Ογκολογίας

Χτίζοντας γέφυρες, οικοδομώντας ελπίδα

3<sup>ο</sup> ΕΣΟ  
  
ΙΩΑΝΝΙΝΑ  
2016

## ακτινοθεραπεία πρώιμου καρκίνου μαστού: νεότερα δεδομένα

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# δήλωση συμφερόντων

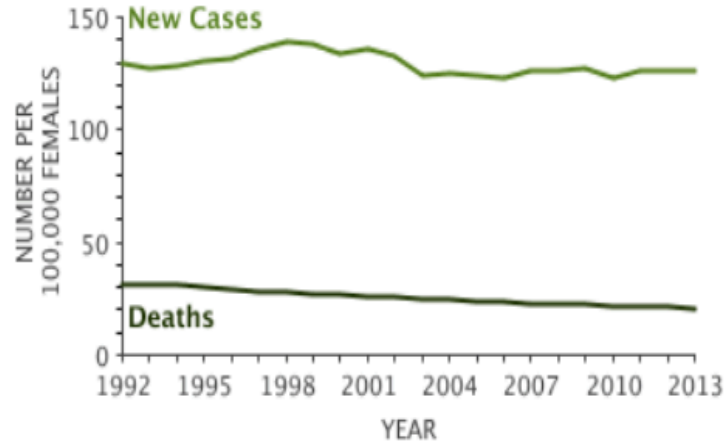
- δηλώνω ότι δεν έχω (προσωπικά ή ως μέλος εργασιακής/ερευνητικής ομάδας) ή μέλος της οικογένειάς μου οποιοδήποτε οικονομικό ή άλλου είδους όφελος από τις εταιρείες/επιχειρήσεις που διοργανώνουν/χρηματοδοτούν την άνω εκδήλωση κατά τη διάρκεια των τελευταίων 4 ετών

# outline

- general facts
- the evidence
  - RT: DCIS, BCT & mastectomy
  - Regional Nodal Irradiation (RNI)
- emerging data
- new treatment options of breast radiotherapy
  - hypofractionation
  - Accelerated Partial Breast Irradiation (APBI)
  - techniques of EBRT: Intensity Modulated Radiation Therapy (IMRT)
- predictive biomarkers in RT

# SEER data

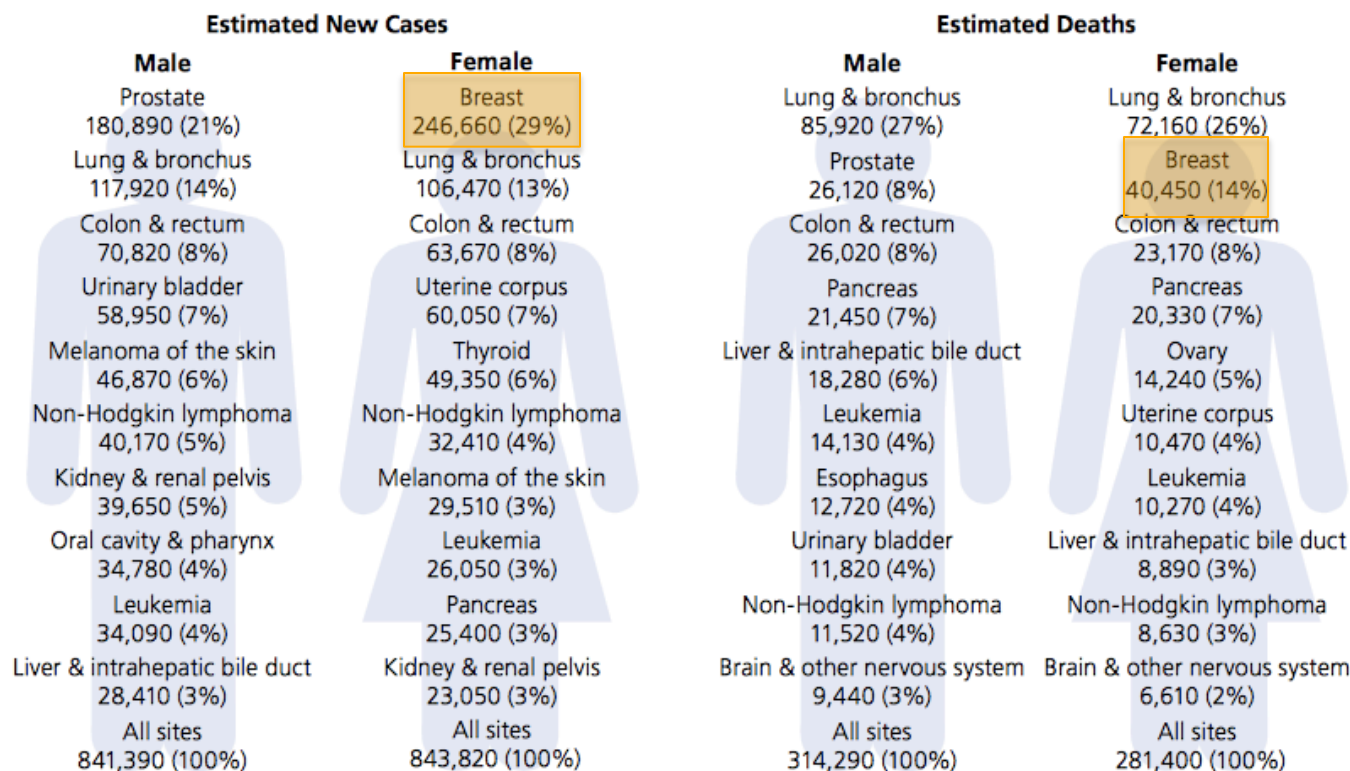
Estimated New Cases in 2016	246,660
% of All New Cancer Cases	14.6%
Estimated Deaths in 2016	40,450
% of All Cancer Deaths	6.8%



Percent Surviving 5 Years
<b>89.7%</b>
2006-2012

# Cancer Statistics 2016

## Leading Sites of New Cancer Cases and Deaths – 2016 Estimates



Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder.

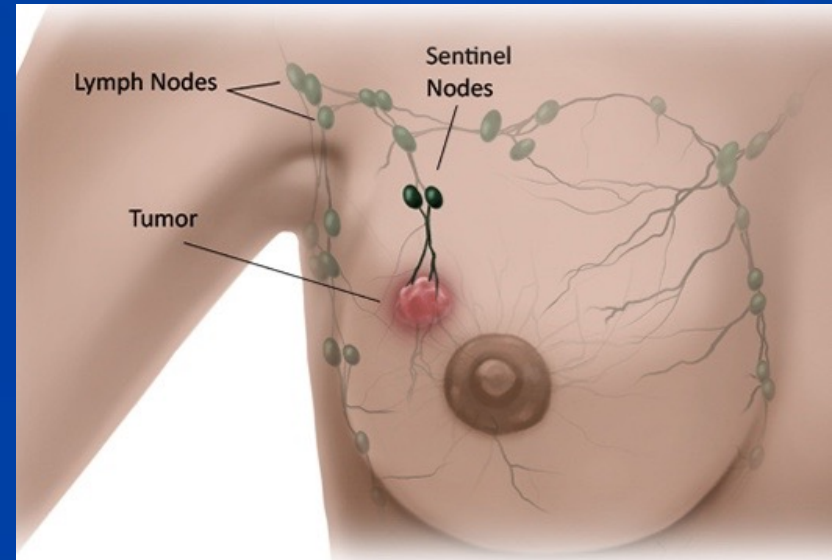
©2016, American Cancer Society, Inc., Surveillance Research

# sentinel lymph node biopsy (SLNB)

- evaluation of nodes became “easier”, less morbidity to patients and less extensive surgery
- false negative rate is similar to ALND (2-12%), likely not increased with neoadjuvant ChT

Buchholz et al. 2008

- very low rate of subsequent axillary recurrence (<5%)



# the evidence

- role of RT in DCIS, BCT & mastectomy
- Regional Nodal Irradiation (RNI)

# RT & DCIS

## EBCTCG meta analysis

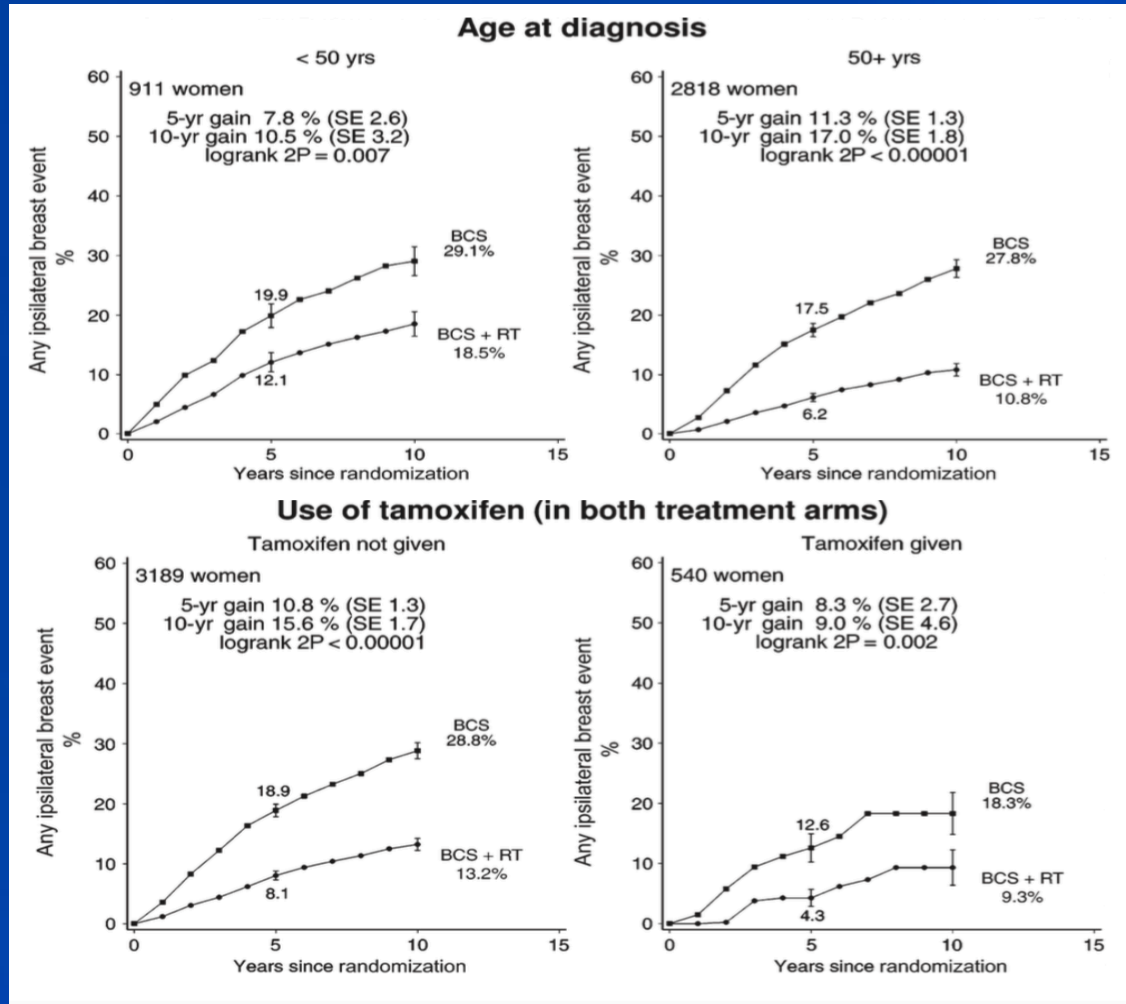


- 4 randomized trials
- 3729 pts



# RT & DCIS

## EBCTCG meta analysis



# RT & DCIS conclusions

## EBCTCG meta analysis

- 50% benefit across the randomized trials
- RT reduced the absolute 10-year risk of any ipsilateral breast event by 15.2% (SE 1.6%, 12.9% vs 28.1% 2  $P < .00001$ )
- effective regardless of the age at diagnosis, extent of breast-conserving surgery, use of tamoxifen, margin status, focality, grade, comedonecrosis, architecture, or tumor size

# RT & BCT

## EBCTCG meta analysis

Articles

### Effect of radiotherapy after breast-conserving surgery on 10-year recurrence and 15-year breast cancer death: meta-analysis of individual patient data for 10 801 women in 17 randomised trials

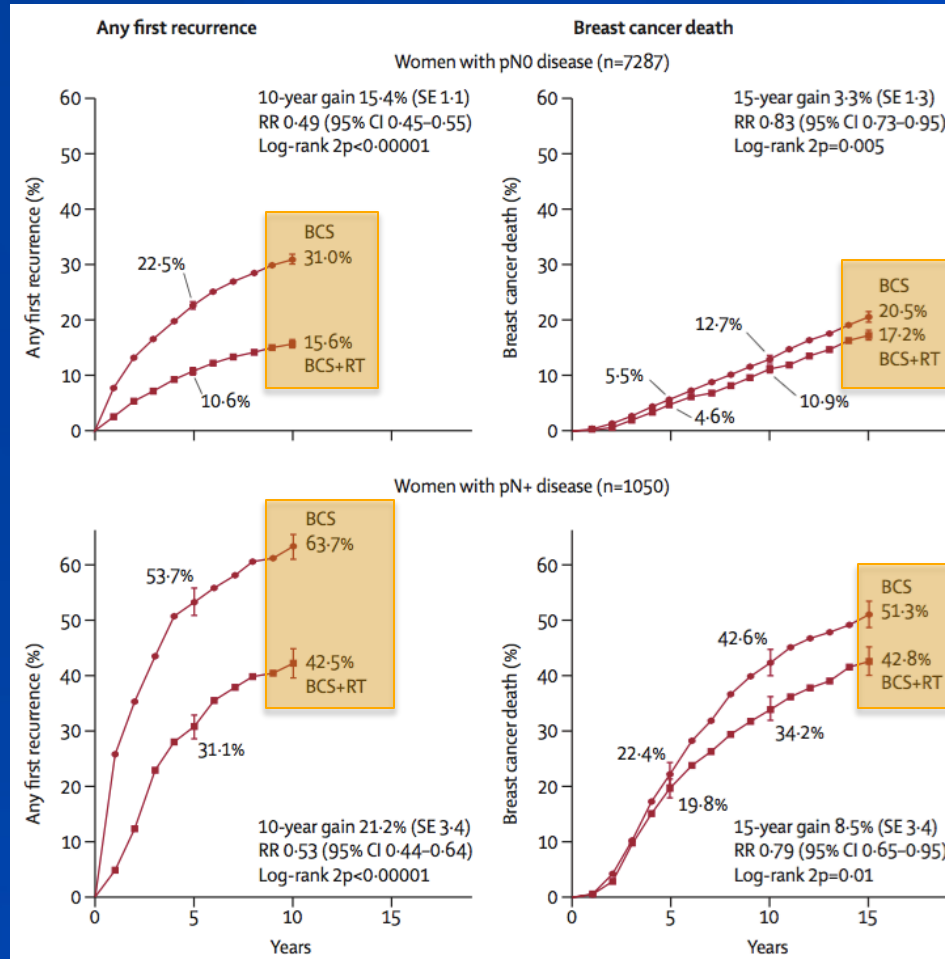


*Early Breast Cancer Trialists' Collaborative Group (EBCTCG)\**  
*Lancet 2011; 378: 1707-16*

- 17 randomized trials
- 10801 pts

# RT & BCT

## EBCTCG meta analysis



# RT & BCT conclusions

## EBCTCG meta analysis

- reduced the 10-year risk of any (ie, locoregional or distant) first recurrence from 35.0% to 19.3% (absolute reduction 15.7%, 95% CI 13.7–17.7,  $p < 0.00001$ )
- reduced the 15-year risk of breast cancer death from 25.2% to 21.4% (absolute reduction 3.8%, 1.6–6.0,  $p = 0.00005$ )
- RT to the conserved breast, halves the rate at which the disease recurs and reduces the breast cancer death rate by about a sixth

# RT & mastectomy

## EBCTCG meta analysis

Articles

Effect of radiotherapy after mastectomy and axillary surgery on 10-year recurrence and 20-year breast cancer mortality: meta-analysis of individual patient data for 8135 women in 22 randomised trials



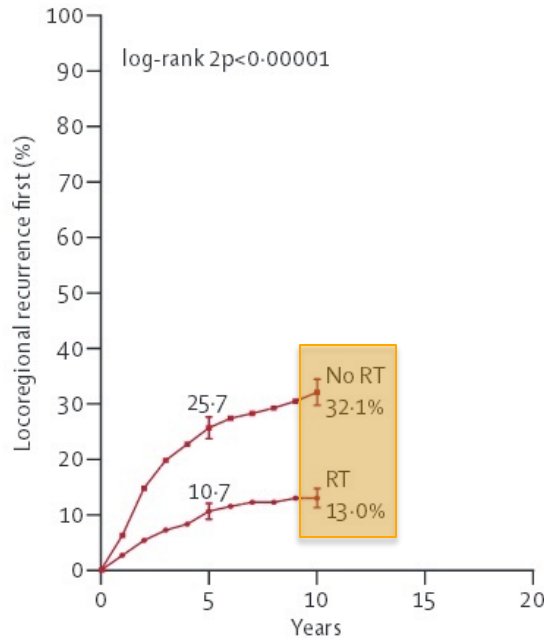
EBCTCG (Early Breast Cancer Trialists' Collaborative Group)\*  
*Lancet* 2014; 383: 2127-35

- 22 randomized trials
- 8135 pts

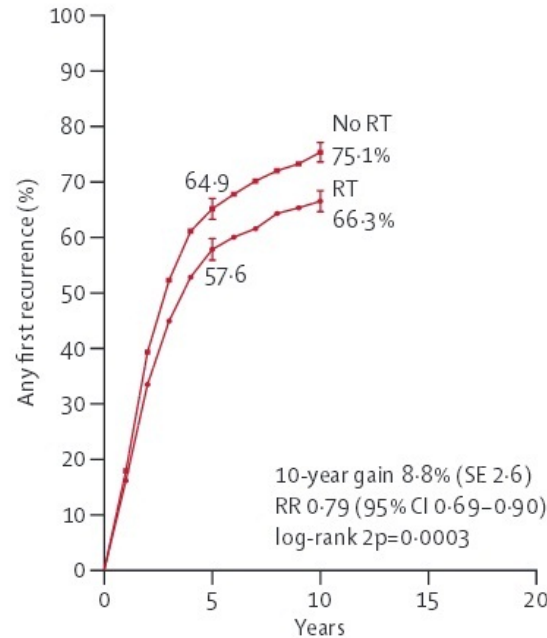
# RT & mastectomy EBCTCG meta analysis

1772 pN4+ women with Mast+AD

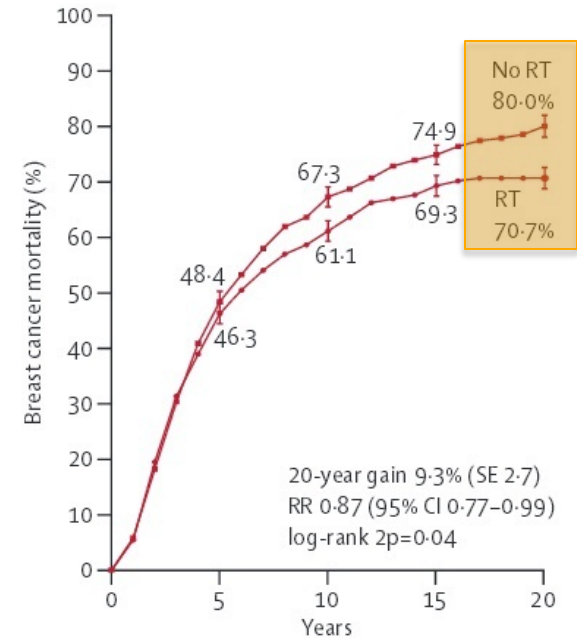
**D** Locoregional recurrence first



**E** Any first recurrence



**F** Breast cancer mortality



Effect of radiotherapy (RT) after mastectomy and axillary dissection (Mast+AD) on 10-year risks of locoregional and overall recurrence and on 20-year risk of breast cancer mortality in 1772 women with four or more pathologically positive nodes (pN4+)

## take home message

- RT beneficial in early breast cancer treatment management
- meta analysis data suggest benefit from RNI
- the beneficial effect of radiotherapy is offset by heart & lung toxicity
- new treatment options to optimize therapeutic effect
- several promising biomarkers on the horizon but require further clinical assessment





σας ευχαριστώ!