

Regional node irradiation: Meta-analysis of 13,500 women in 14 trials

Early Breast Cancer Trialists' Collaborative Group (EBCTCG)

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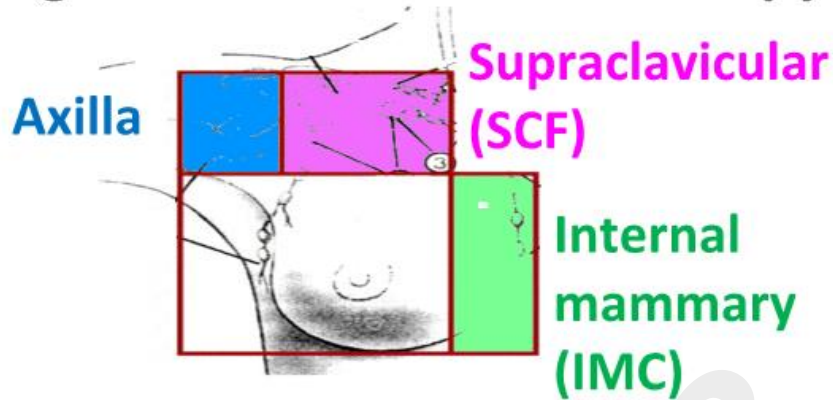
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Dr. Dodwell has no relevant financial relationships with commercial interests to disclose.

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Regional node radiation therapy (RT)



Same treatment to breast

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Regional node RT versus not 14 trials, ~13,500 women

Comparison:	No. trials	No. women
Node RT versus not		
Axilla SCF	2	652
IMC	3	4683
IMC SCF axilla	9	8069
All trials	14	13,404

Data analysis plan: regional node RT

1. All trials together
2. Separate older & newer trials

Target coverage better in newer trials

Heart dose: Older trials >8 Gy

Newer trials <8 Gy

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Older trials (began 1961-1978) Total with data available ≈2,500

Year began	Name	Women	RT sites randomised
1961	NSABP B-03	1103	IMC, SCF, axilla
1968	Oslo	542	IMC, SCF, axilla
1969	Heidelberg	142	IMC, SCF, axilla
1972	WSSA	217	SCF, axilla
1973	Milan 1	56	IMC, SCF
1974	Piedmont	160	IMC, SCF
1974	Mayo	241	IMC, SCF
1978	Toronto	74	'regional'

Median FU (IQR): 9.2 (3.4 – 17.5) years

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Newer trials (began 1989 onwards) Total with data available ≈11,000

Year began	Name	Women	RT sites randomised
1989	Tampere	270	IMC
1991	French IM*	1407	IMC
1995	Italian Senology	435	axilla
1996	EORTC 22922	4004	IMC, SCF
2000	MA.20	1832	IMC, SCF, axilla
2003	DBCG-IMN**	3089	IMC

*Data available only on overall mortality

**RT allocated by tumour laterality

Median FU (IQR): 9.1 (7.0 – 11.0) years

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Data analysis plan: regional node RT

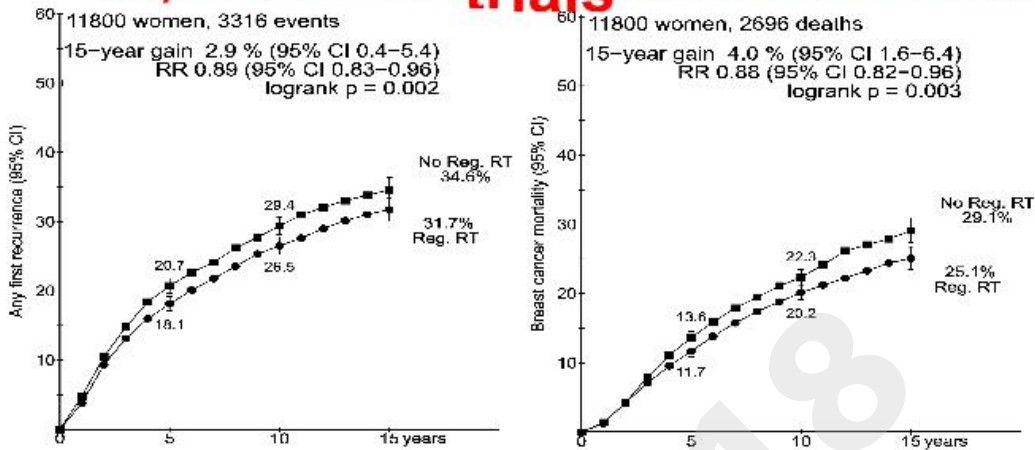
1. All trials together

2. Separate older & newer trials

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1. All regional node RT

Any recurrence trials Breast cancer mortality



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Data analysis plan: regional node RT

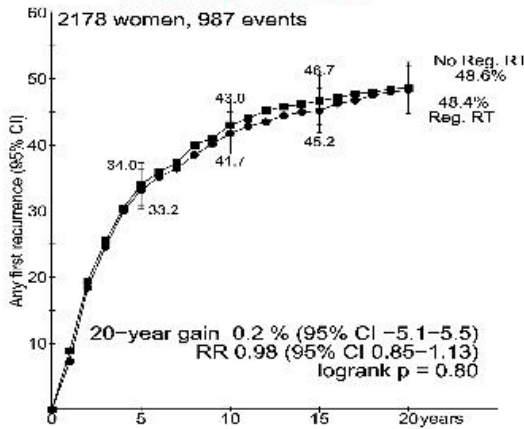
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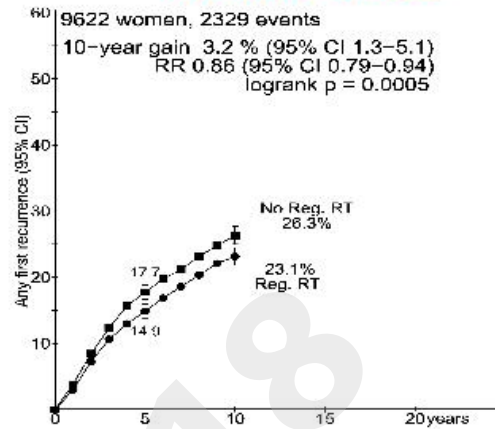
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Any recurrence

Older trials



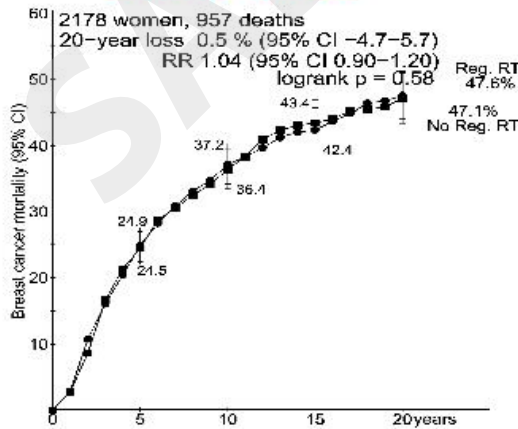
Newer trials



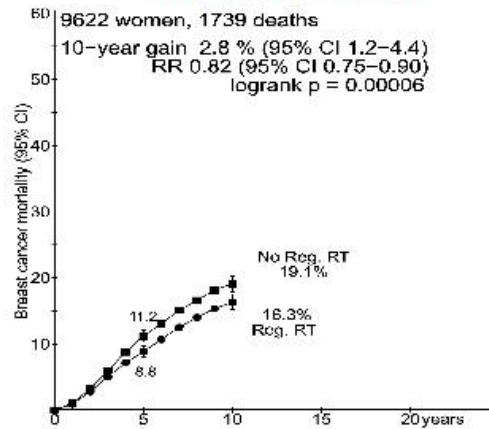
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Breast cancer mortality

Older trials



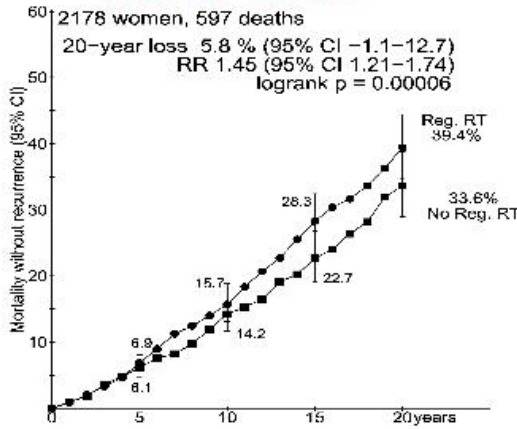
Newer trials



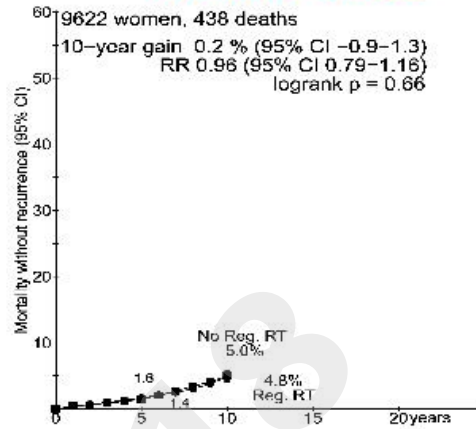
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Non-breast-cancer mortality

Older trials



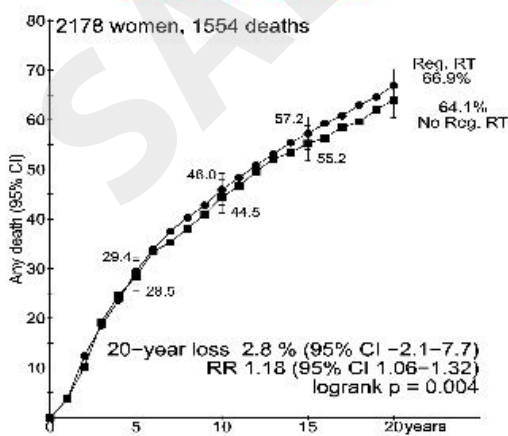
Newer trials



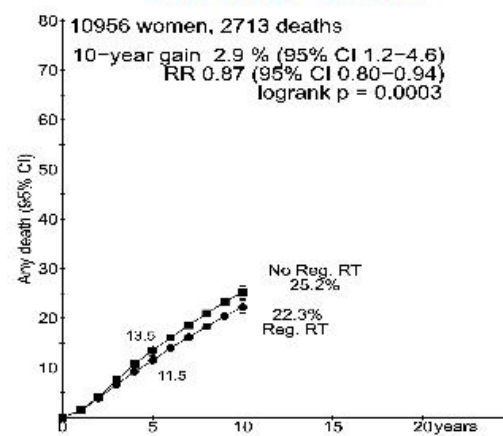
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Overall mortality

Older trials

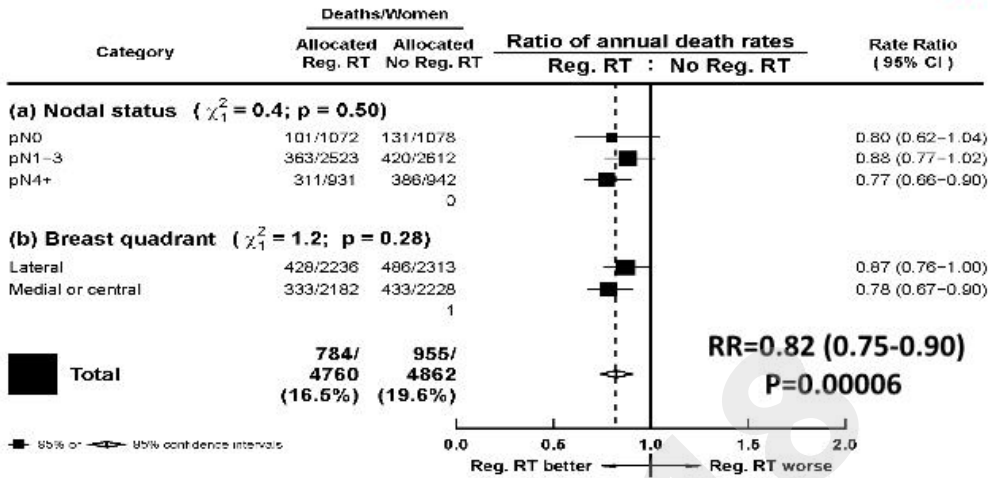


Newer trials



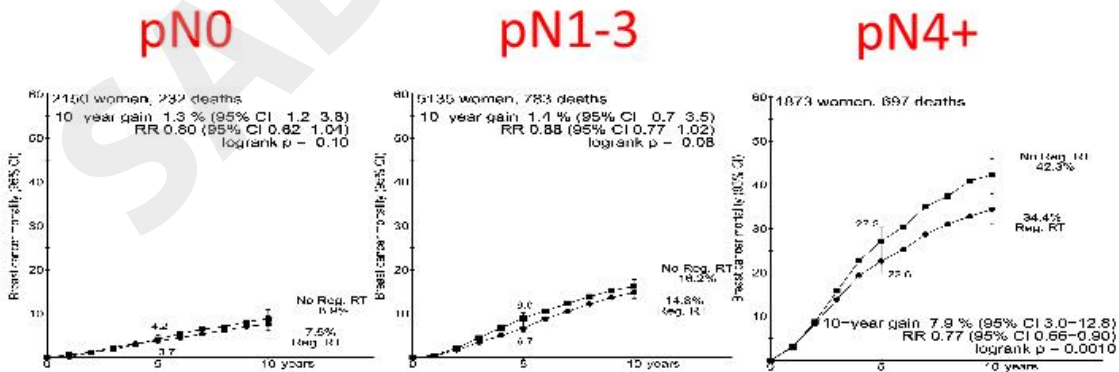
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Newer trials: Breast cancer mortality



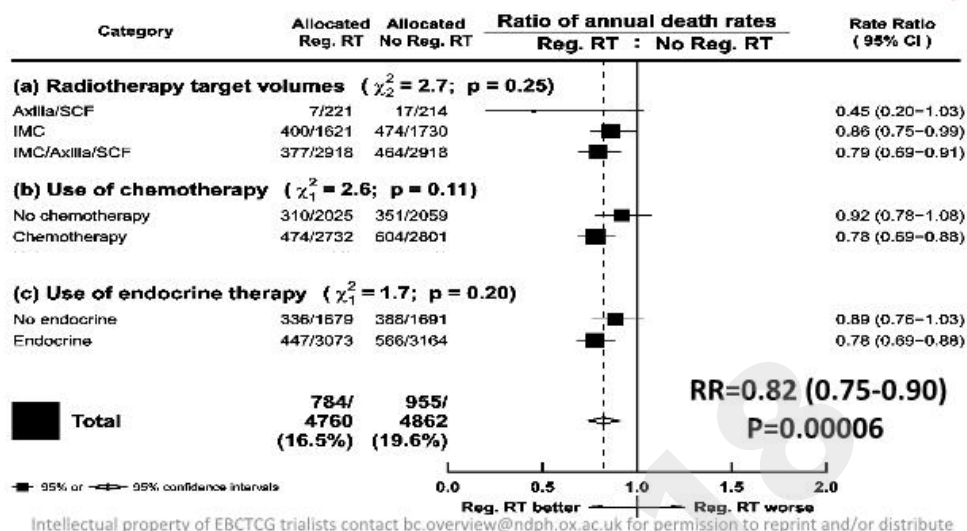
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Newer trials: Breast cancer mortality



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Newer trials: Breast cancer mortality



Conclusions: regional node irradiation

- **Older trials (began 1961-1978)**
 - Breast cancer mortality – little effect
 - Overall mortality – significantly increased
- **Newer trials (began 1989+)**
 - Breast cancer mortality – significantly reduced
 - Overall mortality – significantly reduced
 - Absolute mortality reduction greatest in N4+

