Conclusions: Baseline post-surgery, pre-radiotherapy cosmesis is an important determinant of overall cosmesis at 2 years after radiotherapy. An important component of breast induration and shrinkage is actually due to surgery rather than radiotherapy. Larger breast volume, baseline surgical cosmesis, post-operative infection and smoking influence late radiotherapy toxicity. Modification of preventable risk factors such as post-operative infection and smoking may limit the development of late toxicity.

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O-50 TARGIT (TARGETED INTRA-OPERATIVE RADIOTHERAPY FOR EARLY STAGE BREAST CANCER): RESULTS FROM THE TARGIT A RANDOMIZED CONTROLLED TRIAL

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Background: After breast conserving surgery, 90% of recurrent cancer occurs within the index quadrant. Hence, restricting radiation therapy to the immediate area around the tumour bed after removal of the primary tumour may be adequate (Vaidya JS et al. Br J Cancer 1996;74:820–4).

Materials and methods: Using the technique of partial breast irradiation developed at UCL (Vaidya JS, Baum M, Tobias JS, et al. Ann Oncol 2001;12:1075–80) we launched the international TARGIT A randomized controlled trial in March 2000 comparing the policies of TARGIT versus standard whole breast external beam radiotherapy (EBRT) after breast conserving surgery with local recurrence as the main outcome measure (www.thelancet.com/protocol-reviews/99PRT-47). Accrual from 28 international centers reached 2232 in April 2010, with 80% power to detect a difference in relapse rate of 2.5% (the non-inferiority margin).

Results: Patient demographic and tumour characteristics are as follows: mean age 63 years (IQR 57–69), mean tumour size 12 mm (IQR 9–18 mm), N stage 17% +ve. We intend to present the unblinded data with an analysis of safety and efficacy.

Conclusions: If this analysis shows non-inferiority, then a clinically significant difference in early local recurrence between TARGIT and EBRT remains unlikely, making single session partial breast irradiation with TARGIT a plausible new standard of care in the near future.

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O-51 CLINICAL OUTCOME OF PATIENTS MANAGED IN A DEDICATED PRIMARY BREAST CANCER CLINIC FOR OLDER WOMEN (THE CLINIC)

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Background: The Clinic was established in 1973. Over the last decade, it has evolved into a combined surgical/oncology facility supported by dedicated breast care nurses. Also, surgery, with integral axillary staging, and adjuvant radiotherapy (RT) and systemic therapy have become standard for most patients though non-operative treatments (e.g. primary endocrine therapy (PET)) are used in others based on multi-disciplinary assessment in the Clinic. This study aimed to compare the clinical outcome across these periods.

Methods: Over 36 years (1973–2009), 1708 women $\geqslant$70 years with early operable primary breast cancer were managed in the Clinic according to a single set of clinical guidelines at any time point. Analysis was carried out based on retrospective review and continued update of patient records.

Results: As at 50-month median follow-up (maximum = 261):

	1973–1999	2000–2009	
N	917	791	
Treatment	*N* (%)	*N* (%)	
Surgery	392 (42.7)	446 (56.4)	
PET	510 (55.6)	324 (41.0)	
Primary RT	9 (1.0)	12 (1.5)	
No treatment	6 (0.7)	9 (1.1)	
Adjuvant endocrine therapy[a]	124 (31.7)	247 (55.5)	
Adjuvant RT[a]	15 (6.3)	155 (38.4)	
Outcome (% per annum)			*p*-value
Local recurrence[a]	2.2	0.5	<0.000
Regional recurrence[a]	1.8	0.4	<0.000
Contralateral cancer	0.7	0.4	0.091
Metastasis	2.9	1.9	<0.002
5-year breast cancer specific survival	80%	90%	<0.000
5-year overall survival	56%	68%	<0.000

[a] Surgery group only.

Conclusion: In this recent decade, while surgery became the predominant treatment, a significant proportion of patients (~40%) had non-operative therapies, selection of which was based on assessment in the Clinic. This management approach appears to produce excellent clinical outcome, which is significantly better than earlier period.

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O-52 EAST OF ENGLAND BREAST CANCER SURVIVAL CLOSE TO BEST IN EUROPE

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