Results: Lymphocyte count declines with successive cycles of accelerated (mean: baseline=2.2; final cycle=1.3, $p<0.001$) and conventional E-CMF (mean: baseline=2.0; final cycle=1.2, $p<0.001$). Mean decline did not differ significantly by E-CMF schedule.

Table: Highest grade lymphopenia per patient

	CTCAE (v3)		
	G2 ($<0.8\times10^9$/L)	G3 ($<0.5\times10^9$/L)	G4 ($<0.2\times10^9$/L)
Schedule A	7/21 (33%)	5/21 (23%)	0/21 (0%)
Schedule B	9/19 (47%)	4/19 (21%)	0/19 (0%)
Conventional E-CMF	9/40 (22%)	0/40 (0%)	0/40 (0%)

Weekly blood counts Day 1 only.

Conclusion: E-CMF is associated with progressive lymphopenia irrespective of schedule, the lymhpopenia observed is modest compared to accAC-P.

O-97 Attitudes towards neoadjuvant endocrine therapy and breast conserving surgery (BCS) in the elderly

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Introduction: There is little published information about the views of women aged over 70 with breast cancer regarding attitudes towards neoadjuvant endocrine treatment and breast conservation and factors that influence their choice of surgery.
Methods: A questionnaire was sent to 180 patients who were aged 70 or over when they had breast cancer surgery (122 mastectomy; 58 BCS). Responses were received from 111 (62%). Of these, 71 patients had a mastectomy (64%) and 40 had BCS (36%).
Results: 50% of patients who had mastectomy said they would have taken neoadjuvant endocrine therapy to facilitate BCS. 46% of them said that the possibility of local recurrence following BCS influenced their decision. Only 20% of patients felt that having to travel a long distance to attend for post operative radiotherapy put them off BCS. Nearly half the patients in both groups said that they were worried about the cosmetic and psychological effects of a mastectomy when they were told they had breast cancer. 98% of patients who had BCS said they were happy with their decision. Of these, 70% were happy/very happy with the cosmetic outcome.
Conclusions: Elderly patients with breast cancer are interested in considering breast conservation and half would be willing to take neoadjuvant endocrine therapy to facilitate this. Few patients are deterred by post-operative radiotherapy.

O-98 Role of the chemokine receptor CXCR4 in breast cancer metastasis

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Breast cancer cells express the chemokine (chemotactic cytokine) receptor CXCR4. There is compelling evidence that CXCR4 is a key mediator of breast cancer progression. Binding of the chemokine CXCL12 to this receptor stimulate cells to migrate out of the vasculature and establish metastasis. We aim to assess the metastatic potential of breast cancer cells by altering its expression of CXCR4.
LMD-MB-231, a low CXCR4 expressing rederived sub-line of the human breast cancer cell line MDA-MB-231, was transfected with CXCR4 by electroporation. Functional assessment of the receptor was performed with calcium flux and chemotaxis assays towards CXCL12. An *in vivo* model was used to evaluate the metastatic potential of the transfected cells (trasfectants) compared to the wild type cells. 200,000 cancer cells of either type was injected intravenously into 2 groups of SCID mice ($n=5$ each). On day 28, the mice were examined microscopically to assess tumour load in the lungs and liver.
Flow cytometry confirmed increased expression of CXCR4 on the stable transfectants. At 50 nM concentration of CXCL12, the transfectants fluxed calcium and demonstrated migration (chemotactic index 1.5) towards the chemokine. *In vivo*, the group injected with the transfectants initially demonstrated increased number of metastasis (haematoxylin and eosin staining). However, cytokeratin (epithelial cell marker) staining did not show any significant difference in metastasis.
We believe the basal levels of CXCR4 in the wild type cells may be enough to cause metastasis. We are now attempting to down-regulate this basal CXCR4 expression and will compare metastasis between the up-regulated and down-regulated cells *in vivo*.

O-99 The mTOR (mammalian target of rapamycin) inhibitor RAD001 (Everolimus) is safe and reduces proliferation in postmenopausal women with breast cancer

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Background: mTOR plays a key role in tumour cell cycle proliferation and survival. RAD001 (everolimus) is a rapamycin derivative that inhibits mTOR and its downstream substrates. This study explored, in vivo, RAD001 action in breast cancer.
Methods: 30 post-menopausal women with early breast cancer were given 5 mg RAD001 once daily for 14 days prior to surgery. Biopsies were taken at diagnosis and at surgery (post 14 days of treatment) and assessed for changes in proliferation (Ki67), pAkt (s473), pS6k (s235/236 and s240/244), p-mTOR, ER, and PgR.
Results: Five patients withdrew during the two week treatment period due to adverse events. All adverse events were grade 1 or 2 on the NCIC-CTC scale.
RAD001 treatment significantly decreased proliferation (Ki67, $p=0.024$). p-Akt was reduced in cases with high pre p-Akt scores but increased in patients with low pre pAkt scores. Pre p-Akt correlated significantly with reduction in proliferation (Ki67, $p=0.001$; Pearsons correlation coefficient 0.688). p-S6k staining was reduced independently of Ki67.
Discussion: RAD001 is safe and tolerable in postmenopausal early breast cancer patients. RAD001 inhibits the mTOR pathway and its downstream effectors, and significantly reduces tumour cell proliferation. High levels of p-Akt at diagnosis correlate with greater reductions in proliferation suggesting p-Akt activation as a predictive marker of mTOR activation and therefore RAD001 efficacy.

O-100 A brief review of the dermatological and gastro-intestinal toxicities of Lapatinib

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Background: Lapatinib is a dual (ErbB-1 and ErB-2) receptor tyrosine kinase inhibitor recently approved by FDA for Her2 positive metastatic breast cancer (MBC) patients (pts) pre-treated with anthracycline/taxane/trastuzumab