tation itself has independent poor prognostic significance. Work in several epithelial malignancies has suggested that advantage for paclitaxel may derive from its activity in patients with p53 mutant (or null) tumours.

ER-pos breast tumours benefit from both tamoxifen and chemotherapy. Whilst a proportion of ER-pos tumours also over-express p53, the data suggest that this has little or no bearing on tamoxifen-resistance and many ER-pos./p53-mutant tumours may remain sensitive to tamoxifen. Paclitaxel and tamoxifen may complement conventional adjuvant chemotherapy in a proportion of ER-neg and ER-pos tumours, respectively. This may explain why paclitaxel has failed to improve disease-free survival in ER-pos patients; p53 mutant tumours are less common in this subgroup and tamoxifen, fed to both arms of the trial, may mask the benefit of paclitaxel in ER-pos patients in the research arm. This effect, most marked in late-relapsing patients, may account for the modest convergence of the survival curves after 52.5-months' median follow-up in CALGB 9344.

O-4. THE BASO II TRIAL OF ADJUVANT RADIOTHERAPY. V. NONE AND TAMOXIFEN. V. NONE IN SMALL, NODE NEGATIVE, GRADE I TUMOURS

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BASO II began in Feb 1992, a four arm trial in tumours with excellent prognosis (≤2 cm, LN negative, Grade I), age < 70, treated by wide local excision (WLE) with histologically clear margins.

WLE only	WLE + RT
WLE + Tamoxifen (TAM)	WLE + TAM + RT

Centres could enter to all 4 arms (or) elect for RT or not and enter to the TAM comparison (or) elect for TAM or not and enter the RT comparison.

The trial closed in October 2000 with n = 1172. This analysis is of local (in breast) recurrences (LR) in the breast. 1122 analysed to follow up date 30 June 2000 (median 35 months, range 1–104). 33 have died: only 7 with or from breast cancer.

Randomised comparison

	RT	no RT	TAM	no TAM	RT + TAM	Neither
n	554	549	208	207	96	95
LR	7	20	2	8	0	6
LR% PA	0.4	1.2	0.3	1.3	0	2.1
	χ^2 5.14		Exact Test		Exact Test	
	p < 0.02		p 0.06		p 0.01	

Conclusion: In this excellent prognostic group although the LR rate without RT is satisfactory at 1.2% PA, it reaches 2% PA in cancers given neither RT nor TAM.

O-5. RANDOMISED STUDY OF AXILLARY CLEARANCE VERSUS FOUR NODE SAMPLING

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To compare the outcomes of axillary sampling and axillary clearance 855 women with operable women with T_1–T_3, N_0 N_1, M_0 breast cancer were enrolled in 2 consecutive studies of mastectomy (Mx), n = 401 or wide local excision (WLE) n = 454 and were randomised to 4 node sampling (NS) or full level III axillary clearance (NCl). All patients with involved nodes on node sampling had axillary radiotherapy (XRT). Systemic therapy was based on node status and was identical in both randomised groups. Mean follow up was 4429 days for Mx, 2538 days for patients undergoing wide local excision with the median follow up being 3434 days for the combined group. When the mastectomy group and the wide local excision group were analysed separately, there was no significant difference in axillary recurrence within node positive (+ve) or node negative (−ve) groups whether patients had a node sampling or an node clearance. When combined however there were significant differences in axillary recurrence.

Combined Group	Axillary Recurrence				Survival			
	n	5 y	10 y	p value	5 y	10 y	15 y	p value
NCl −ve	260	1.6	1.6	0.017	88.5	77.6	67.5	0.36
NS −ve	283	3.3	6.8		89.9	84.6	70.1	
NCl +ve	164	3.0	6.6	0.086	75.7	62.1	51.1	0.79
NS +ve	148	6.0	9.4		76.4	59.4	51.7	

Patients who were node negative on clearance had a significantly lower rate of axillary recurrence than patients who were node negative on sample. There was no significant influence of axillary treatment on long term survival. These data demonstrate that axillary node sampling is accurate in about 95% of patients. There is a small percentage in which it underestimates axillary node involvement. For the involved axilla, axillary clearance produces a lower (but non-significant) rate of local control compared with axillary radiotherapy.

O-6. PROSPECTIVE RANDOMISED STUDY COMPARING RADIO-GUIDED SURGERY (ROLL) TO WIRE-GUIDANCE FOR OCCULT BREAST LESIONS LOCALISATION

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The use of radioisotopes for occult lesion localisation has recently gained considerably interest. Patients undergoing therapeutic or diagnostic procedures for impalpable breast lesions were entered into this study and randomised to either ROLL or wire placement.

Both procedures were performed under stereotaxis or ultrasound. Correct positioning of the wire tip or isotope was confirmed with check mammography. Analysis of results included accuracy, duration and degree of difficulty (1–10), lesion concentricity, rate of immediate re-excision and second therapeutic operation. QOL questionnaires were administered to patients following each procedure to evaluate patient perceptions.

To date 62 patients have been entered, 32 randomised to ROLL and 30 to wire-guidance. Of the 32 who had ROLL, 1 had a failed technique.

Accurate marking was 99% for ROLL and 93% for wire. Mean time for imaging was 17 minutes for ROLL and 21 minutes for the wire group. ROLL scored a median of 2 for degree of difficulty compared to 3 for wire.

Specimen x-ray analysis showed centrality of the lesion in 90% for ROLL and 83% for wire. Re-excision was higher in ROLL (13 vs 9) but the need for a second therapeutic operation was lower (23% vs 28%). Duration of operation was longer in those undergoing wire placement (37 vs 31 minutes). The median for degree of difficulty for surgery was 2 for ROLL and 4 for wire. QOL assessments showed a greater preference for ROLL over wire.

ROLL appears to be acceptable to patients quicker and easier to perform for both radiologists and surgeons compared with wire guidance. Success rates are similar.

O-7. SCINTIMAMMOGRAPHY: DOES SIZE MATTER?

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One of the major factors which determine the accuracy of breast imaging is the size of the detected lesion. This may be a particular issue in those women with dense breast in whom a small lesion may be difficult to see on mammography. The aim of this study was to review the results of Tc-99m MIBI scintimammography and x-ray mammography and compare these results with lesion size. Comparisons in accuracy were performed by comparison of area under ROC curve analysis.

Data from 273 women were reviewed were a lesion had been identified by imaging and biopsied. The mean age of the women studied was 52 with a range of 26–84 years. All patients underwent x-ray mammography, Tc-99m MIBI Scintimammography. Results of the imaging were then compared to the final histology in three size groups. Firstly in the 74 lesions of less than 2 cm the sensitivity of mammography was 51% and scintimammography 70%. In the 104 lesions sized 2–4 cm the sensitivity of mammography was 70% and scintimammography 87%. In the 52 lesions greater than 4 cm mammography found 88% of cancers and scintimammography all cancers.

Both methods have an improved sensitivity with increasing lesion size. Scintimammography was always more sensitive than mammography, however the biggest difference was in tumours of less than 2 cm when the sensitivity of scintimammography was significantly better than mammography ($p < 0.05$, Wilcoxon matched pairs). Therefore scintimammography may be of help in all women with breast cancer irrespective of tumour size but offers the biggest advantage in the smallest cancers.

O-8. UK EXPANDED ACCESS PROGRAMME (EAP): HERCEPTIN® (TRASTUZUMAB) TREATMENT FOR WOMEN WITH HER2 POSITIVE METASTATIC BREAST CANCER (MBC)

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Herceptin is a humanised monoclonal antibody against the HER2 receptor. Between 15–20% of breast cancers over-express HER2 at high levels and these patients appear to benefit most from Herceptin.

This open, non-randomised study aimed to evaluate the safety of Herceptin (H) given alone or in combination with Docetaxel (Doc.) or Paclitaxel (Pac.) in patients with HER2 positive tumours. Herceptin treatment was continued for as long as patients showed clinical benefit. Response to treatment was not formally assessed but duration of therapy was considered to be a surrogate for time to disease progression/treatment failure. All patients were ECOG PS 0-2 and could receive H as 2nd or 3rd line as single agent or 1st, 2nd or 3rd line in combination with Doc. or Pac..

From Jan to Sept 2000, 32 UK centres recruited 168 patients of whom 85 received H + Doc., 4 received H + Pac. and 79 received H alone. At end March 2001 median duration of Herceptin therapy was 5.9 months. 61 patients were still ongoing of whom 21 had received more than 9 months treatment and 7 had received more than 12 months Herceptin treatment.

Of 33 drug related SAEs reported, 8 occurred with H alone, 24 with H + Doc. and 1 with H + Pac. 4 SAEs were due to cardiac toxicity; AF on H + Doc. (2), SVT on H alone (1) and clinically significant reduced EF on H alone (1). 17 cases of myelosuppression occurred with H + Doc. One patient had a severe infusion related reaction with hypotension. In this EAP study Herceptin was generally well tolerated. Recruitment has completed and patients continue to be followed up in the study.

O-9. CORRELATION BETWEEN IMMUNOHISTOCHEMICAL AND FISH ANALYSIS FOR HER-2 IN 441 BREAST CARCINOMAS FROM MULTIPLE HOSPITALS

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The monoclonal antibody Herceptin is clinically effective in metastatic breast cancer strongly over-expressing the HER-2 oncogene. Rigorous testing procedures are required for accurate diagnosis and appropriate usage of Herceptin. Substantial controversy has surrounded the relative value of IHC and FISH for diagnosis. In particular fixation techniques and subjective scor-