tion reflected the treatment policy previously discussed at the multi-disciplinary team meeting. Patients completed a standard questionnaire to assess their level of satisfaction with the way that their information had been presented and discussed.

32 (82%) patients returned a completed questionnaire. Of these 30 (94%) indicated that they had understood the results given to them. 28 (88%) recognized that further treatments had been discussed and that they had understood the discussion. All 32 (100%) patients felt they had been given an opportunity to ask questions of their BCN specialist and 97% felt that their questions had been adequately addressed. 30 (94%) patients felt that there had been sufficient time to cover the issues raised during the consultation. 72% of patients felt that they had been given a reasonable initial choice as to whether the BCN specialist or clinician were to give the results to them. In retrospect, only 4 (13%) patients felt they would have preferred to have their clinician inform them of their results.

This initial study has indicated that patients find receiving their results from their BCN specialist to be acceptable in the majority of cases and that such communication appears effective. Widespread adoption of this practice would release a significant amount of valuable clinical time.

O-21. A prospective investigation into venous changes and lymphoedema in breast cancer

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Introduction: This study aims to investigate the contribution of the axillary venous system to the development of breast cancer-related lymphoedema (BCRL) following axillary lymph node clearance for invasive breast cancer.

Methods: Patients with a new diagnosis of invasive breast cancer were invited to undergo arm volume measurement and Doppler ultrasound assessment of the axillary vein (measuring venous pulsatility index (VPI) and wall movement ratio (WMR)) on 4 separate occasions: before surgery, 3, 12, and 39–48 months post-operatively.

Results: A total of 50 patients were assessed both pre-operatively and at 39–48 months post-operatively, with a complete data set available for all 4 occasions in 42 patients. BCRL was observed in 28% of patients at 39–48 months follow up. In the BCRL group, VPI as assessed by Doppler ultrasound was significantly reduced at 39–48 months at the level IIII junction in the axilla compared with the non-BCRL group ($p = 0.04$). VPI had also been reduced in the BCRL group at 3 months ($p = 0.05$). The difference between the operated and contralateral arm for WMR at level I/II at 39–48 months did not reach significance ($p = 0.06$), and there was no difference in WMR on the operated side between the BCRL and non-BCRL groups.

Conclusion: Axillary clearance results in alterations of flow in the axillary vein. Alterations in flow occur early and are sustained, and are associated with the development of BCRL.

O-22. A randomised controlled trial: comparing the psychological effects of routine follow up versus point of need access only at 2 years post diagnosis of breast cancer

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There is little evidence for routine follow up in relation to overall improved survival however there remains a dearth of evidence in relation to the value of review in terms of wider patient implications.

Methods: 240 patient were randomised to either point of need access or routine 6 monthly review 2 years post diagnosis. Longitudinal measurements of quality of life, psychological morbidity, fear, shifts in health care, patient preference and recurrence rates are recorded at base line, 9 and 18 months.

Analysis: Interim data on 191 patients demonstrates no differences between groups. Investigation of psychological morbidity using GHQ scale show no significant differences with adjusted mean scores of 0.4 (CI=-1.1 to 1.3, $p = 0.944$). Scores for FACT-B plus endocrine subscale demonstrate equivalence between groups (FACT G, $p = 0.939$). Measurements examining fear and isolation suggest no detrimental effect to patients in the point of need access group. Patients utilise point of need access effectively with no excessive use of access via the specialist nurse. 3 recurrences in each group are observed to date with no evidence of patient compromise through lack of routine review.

18 month Adjusted mean scores ($n = 191$)	Point of need	Control – 6 monthly review	Adjusted Mean difference PON – Control (CI 95%)	P value
GHQ12	1.7	1.6	0.4 (−1.1 to 1.3)	0.944
QofL	86.1	85.0	0.2 (−4.1 to 4.4)	0.939
PWB	24.1	24.2		
SWB	20.8	20.2	0.5 (−1.2 to 2.3)	0.541
EWB	19.1	20.3	−1.1 (−2.6 to 0.3)	0.127
FWB	21.3	20.6	0.7 (−1.2 to 2.6)	0.449
ES	54.0	56.1	-2.5 (−5.9 to 0.8)	0.141
BS	24.0	25.0	-0.9 (−3.0 to 1.1)	0.376
Fear	5.6	5.1	0.5 (−0.5 to 1.4)	0.322

Analysis of covariance (adjusted for baseline score)

Summary: Interim results suggest that point of need access has no disadvantages. Rather than providing traditional routine care these findings advocate a more responsive flexible service determined by patient initiative. Health care resources may therefore be more appropriately targeted to the point of patient need.

O-23. Neoadjuvant letrozole is equally effective in Her 2 positive and negative breast cancers

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Background: The 024 studies showed that response rate to letrozole was significantly higher in Her 2 positive breast can-

cers than to tamoxifen. This study set out to further investigate the relationship of Her 2 positivity and response to letrozole.

Patients and Methods: 172 postmenopausal women with large operable or locally advanced ER rich (ER Allred score 6 or more) breast cancers were enrolled into a prospective audit assessing response to 3 months of neoadjuvant letrozole 2.5mg per day. Her 2 status was assessed using the Hercept test with FISH for 2+ samples. Response was assessed clinically and by ultrasound. % in tumour volumes were calculated.

Results: Of the 172 patients, 18 tumours were Her 2 positive and 154 were Her 2 negative.

Reductions in tumour area and volume during letrozole treatment (volume calculated using the formula $d^3/6$).

	Her 2 negative		Her 2 positive	
	Median	95% CI	Median	95% CI
Clinical area	64%	57–68	64%	45–91
Clinical volume	78%	73–84	68	52–92
Ultrasound area	52%	48–60	47%	41–70
Ultrasound volume	67%	62–72	66%	37–83

None of the differences between Her 2 negative and Her 2 positive cancers were significant.

Conclusion: Neoadjuvant letrozole in this series of ER + breast cancers was equally effective in both Her 2 positive and negative tumours. It reduced tumour volume at 3 months by at least 66% in both groups. The efficacy of letrozole does not appear to be influenced by Her 2 status.

O-24. Response to further endocrine therapies following *de novo* or acquired resistance to first line endocrine therapy for advanced breast cancer

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In a significant proportion of patients who have previously derived clinical benefit (CB) (objective response + stable disease for ≥6 months) from an endocrine therapy (ET), response to further ETs is seen, with subsequent development of acquired resistance (progressive disease after 6 months). For the remaining patients whose tumour has progressed within 6 months (*de novo* resistance), it is generally believed that the chance of achieving CB with further ETs is minimal.

According to our database of advanced breast cancer patients seen from 1994, 223 patients who had complete set of information and fulfilled the following criteria were studied: (1) oestrogen receptor positive tumour, (2) had initial treatment with ET; (2) disease assessable by UICC criteria; (3) on the respective ETs for ≥6 months unless they progressed prior.

About 70% of patients achieved CB and went onto subsequent ETs with further CB as shown below.

ET	1st line	2nd line	3rd line	4th line
N	223	68	13	5
N of CB (%)	159 (71.3)	43 (63.2)	6 (46.1)	1 (20.0)
Mean duration of response for patients with CB (months)	15.7+	16.4+	10.5	15.0
N still receiving treatment	50	14	0	0

Of these 223 patients, 64 (28.7%) had *de novo* resistance on first-line ET. Some of them were treated with further ETs with results shown below.

ET	2nd line	3rd line	4th line
N	17	9	4
N of CB (%)	5 (29.4)	2 (22.2)	0
Mean duration of response for patients with CB (months)	22.7+	14.0+	Not applicable
N still receiving treatment	1	1	0

The chance of further endocrine response continues to decrease with each line of therapy, yet CB is still seen with reasonable duration even with a fourth-line agent. In addition, further endocrine response, with long duration, can still be seen in a significant proportion of patients who have developed *de novo* resistance to first-line ET. The use of further ET should not be excluded under these circumstances. Detailed study of clinical and histopathological characteristics of these patients is underway to help selection.

O-25. High dose oestrogen (HDE) as an endocrine therapy option for advanced breast cancer (ABC)

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HDE was frequently used as an endocrine therapy prior to introduction of tamoxifen, which carries fewer side effects. With availability of more endocrine agents, further response to multiple agents is often seen. This has renewed interest in the use of HDE. We report our experience of using HDE (ethinylestradiol 1–2 mg daily) in ABC patients who progressed on available endocrine agents.

According to a database of ABC patients seen in our Unit from 1998, those who had complete set of information and fulfilled the following criteria were studied: (1) where endocrine therapy was deemed appropriate; (2) disease assessable by UICC criteria; (3) on ethinylestradiol for ≥6 months unless they came off treatment earlier due to adverse events or disease progression. Eleven patients with a mean age of 71 years (48–83 years) were identified. Majority ($N = 8$) had bony disease. They had ethinylestradiol as 4th ($N = 5$) to 7th ($N = 1$) line endocrine therapy.

One patient came off treatment early due to hepato-renal syndrome. Of the remaining 10 patients, clinical benefit (objective response + durable stable disease for ≥6 months) was seen in 3 of them (30%) with a mean duration of response of 17+ months. Ethinylestradiol is still continuing in 2 of these patients.

HDE remains a viable therapeutic strategy in patients who have run out of conventional endocrine therapy options. Although it tends to carry more side effects, they may not be comparable to those of chemotherapy.