risk of LRR with 1–3 involved nodes after mastectomy and a 10 year risk of loco-regional recurrence of less than 15% is uncertain and is to be addressed in the SUPREMO trial.

An in-house Post Mastectomy Radiotherapy Index has been adopted to stratify patients for radiotherapy according to their known risk factors.

Score		
3	2	1
Nodes ≥4 Tumour size >50 mm/T4 Deep margin <1 mm or pectoral muscle involvement	Nodes 1–3 Tumour size 30–50 mm	Vascular invasion Tumour size 20–29 mm Grade III

Patients receive radiotherapy to the chest wall if score ≥3. (This score selects patients at higher risk of systemic relapse with a minimum Nottingham prognostic index >3.4 or 10 yr survival of <74% on adjuvant online.)

We have carried out an audit of breast cancer patients treated with chest wall radiotherapy registered in our database (JCIS).

Results: Between May 1999 and May 2003, 433 breast cancer patients treated with mastectomy have been found. The average age was 59 and the average duration of follow up was 32 months.

	No	Distal Recurrence	LRR
High Risk	104	16	4
Index score ≥3	107	6	1
Index score <3	144	0	0
DCIS/Prophylactic	78	0	0

All LRR were associated with systemic recurrences.

Conclusion: The selection of patients at higher risk of recurrence in the intermediate group who may benefit from CWRT is possible using an index as shown above.

O-65. Chromosome 16 tumour suppressor gene in breast cancer: where are we now?

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Loss of heterozygosity at the long arm of chromosome 16 is one of the most frequent genetic events in breast cancer, indicating the presence of one or more tumour suppressor genes (TSG). E-cadherin has been proved to be the TSG at 16q in lobular tumours. In search for the target gene (s) in the more frequent low grade ductal and tubular tumours, this region of the genome has been exhaustively studied to track down the smallest region of overlap (SRO). However, the results demonstrate remarkable complexity and a clear consensus of the boundaries of the SRO (s) could not be identified. Several genes located in the vicinity of these SROs have been examined as candidate TSGs in breast cancer, but so far, none of them was considered the target gene. In our effort to identify the target TSG, we have used a novel approach (MAPH) to minimise the SRO at the region 16q22.1 and examined several individual genes located in the vicinity of this region. We are currently analysing several other genes that showed differential expression between ductal and lobular tumours identified in gene expression analysis experiments incorporating 368 genes located on chromosome 16. In addition, a new approach using the tiling pathway array CGH to map chromosome 16 DNA copy number alterations in breast cancer with high resolution is currently underway. This is combined with gene expression analysis using a custom array chip that includes all genes encoded on chromosome 16. This approach will provide the most robust data about 16q TSG in breast-cancer.

The present article will discuss the complexity of the region 16q, the different approaches used for detection of the target gene in this area including our previous, current and future work.

O-66. Differences in presentation of lobular, ductal, mixed and special type breast cancer

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Lobular carcinoma (LC) of the breast accounts for 10% of all breast cancers and it has been suggested that it is more often bilateral and more difficult to diagnose when compared to ductal carcinoma (DC). We performed a 5 year retrospective audit (1998–2002) of all histologically proven breast cancers treated in this unit to ascertain whether there was indeed a difference in presentation of the different tumour types. In total 424 breast cancers were treated, 312 DC, 54 LC, 19 mixed (lobular and ductal) carcinomas (M) and 34 special types (ST).

Chi-squared testing showed no statistically significant difference in the frequency of bilaterality of the cancers (9% LC, 5% DC, 5% M, 3% ST) or their identification on mammography as suspicious of (M4) or diagnostic of (M5) malignancy (69% LC, 81% DC, 81% M, 66% ST). However, there was a statistically significant difference in the USS identification of these cancers as suspicious of (U4) or diagnostic of (U5) malignancy, $p = 0.001$. Interestingly, this was not due to a difference between LC and DC but between ST and all other cancers (94% LC, 93% DC, 80% M and 73% ST). This effect was maintained when considering those cancers which were not identified by any radiology as suspicious of malignancy (RI-R3 inclusive). 6% LC, 5% DC, 13% M and 23% ST fell into this category, $p = 0.003$.

Our data do not support widely held beliefs on lobular cancer but do suggest that special type breast cancers are more difficult to identify radiologically.

O-67. An audit of clinical and radiological characteristics of medullary carcinomas of the breast

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Medullary breast cancer may masquerade as a benign entity owing to its distinctive features. Records were retrieved for 59 patients from a continuous series of 75 medullary breast cancers from 1990 to 2005. The majority were symptomatic at presentation (lump-42 patients; pain-1 patient); 16 patients were detected at screening. Scores on clinical evaluation (P), mammography (R), and ultrasound (U) were evaluated.