from surgical histology. 35 patients were excluded as they did not undergo sentinel lymph node biopsy or axillary clearance.

**Results:** Analysis of the remaining 96 patients revealed strong negative correlation ($r = -0.908$) between increasing tumour size (T1 to T3) and rate of axillary metastasis. 40% of all tumour T4 staged patients had axillary involvement. Regardless of tumour size, South Asians had highest tendency for axillary disease (42%) then followed by Afro-Caribbeans (39%).

**Conclusion:** Based on our study, increasing primary tumour size isironically associated with reduced rates of axillary disease. Chest wall and cutaneous invasion strongly predict axillary metastasis. Ethnicity does appear to alter the risk of lymphatic spread. However, further work with a larger study population are needed for firm conclusions to be drawn.

**0827: USE OF ONCOTYPE DX ASSAY REDUCES CHEMOTHERAPY IN BREAST CANCER**

T. Kiernan*, U. Sridharan, G. Mitchell. Royal Liverpool University Hospital, UK

**Aim:** The future of breast cancer adjuvant treatment lies in molecular profiling of tumours to determine their prognosis and sensitivity to chemotherapy. Oncotype Dx is a 21 gene assay recommended for use by NICE to guide adjuvant chemotherapy decisions for people with Oestrogen Receptor positive (ER+), Lymph Node negative (LN-), Human Epidermal growth factor Receptor 2 negative (HER2-) early breast cancer at intermediate risk. Our aim is to audit the use of Oncotype Dx assay in the Royal Liverpool University Hospital and to compare the assay score with traditional prognostic tools such as Nottingham Prognostic Index (NPI), Adjuvant! Online and Predict.

**Methods:** Patients records, identified through Genomic database, were searched for histology, demographics and adjuvant treatment decision.

**Results:** 38 patients were identified, median age 59 (43–75); 16 were LN+. 76% did NOT receive chemotherapy following the assay; this represents a 40% reduction in expected use. There was no correlation of Oncotype Dx score with the traditional prognostic tools.

**Conclusion:** Oncotype Dx assay should be used in all patients, including LN+, considered for chemotherapy. Tumour histology does not necessarily reflect molecular profile, chemosensitivity and patient outcomes.

**0847: THE MANAGEMENT OF BREAST CANCER IN PATIENTS WITH BREAST AUGMENTATION**

L. Ballance*, D. Doherty, A. Hamad. *MID Cheshire Hospitals NHS Foundation Trust, UK; b University of Manchester, UK

**Aim:** Achieving balance between oncological and cosmetic outcomes in Breast Cancer patients with breast augmentation (BA) is challenging. With increasing age of women with BA, the management of Breast Cancer in this cohort is likely to come under increased focus. Breast conserving surgery (BCS) is less likely as it requires radiotherapy, with poor aesthetic outcomes. There is a lack of clear guidance for this cohort with a call for recommendations.

**Methods:** A literature review was carried out using PubMed and OVID using key words and phrases: “breast cancer management”, “breast cancer treatment”, “augmentation” and “previously augmented”. Papers published since the year 2000 were considered.

**Results:** Fourteen papers were identified. BCS feasibility in Breast Cancer patients with BA is low and mastectomy rates are high. BCS does not compromise oncology outcomes but interferes with aesthetics. Better cosmetic outcomes are seen with careful planning, patient selection, novel reconstructive techniques and in those with subpectoral implants.

**Conclusion:** There is no guidance for the management of Breast Cancer in women with BA. BCS is a viable treatment option in these patients. Treatment should be based on clinical judgement, patient preference and preoperative counselling. Targeted radiation with novel reconstructive methods may exclude aesthetic problems.

**0863: AXILLARY DISSECTION FOR BREAST CANCER MICROMETASTASES TO THE SENTINEL NODE: OVERTREATMENT OR A NECESSARY EVIL?**

M. Shastri*, W. Sotheran, T. Umar, L. Gould. St Richards Hospital, UK

**Aim:** The benefits of sentinel lymph node (SN) biopsy for axillary staging in breast cancer are well documented, although there is little consensus regarding the subsequent management of micro and macro-metastatic disease. We currently perform level I/II axillary dissection (AD) for SN micrometastases in patients undergoing mastectomy, as not all receive subsequent radiotherapy.

In this retrospective case series, we aim to determine whether there is any benefit in performing AD in mastectomy patients with micrometastases to the SN.

**Methods:** We analysed histopathology reports of all patients who underwent mastectomy and had micrometastases to one or more SN on One Step Nucleic acid Amplification (OSNA), during the 12 month period to November 2014.

**Results:** 15 female patients were identified with a mean age of 59.1 years (range 42–81 years). Most (n=14) had invasive ductal or lobular carcinoma +/− carcinoma in situ. Non SN involvement was present in 3 patients however this did not result in upstaging of cancer in any case.

**Conclusion:** Within our cohort, AD for micrometastases to the SN in mastectomy patients did not alter the pathological stage of cancer. We therefore recommend AD is avoided as it does not alter patient management and causes significant morbidity.

**0879: AUDIT OF THEATRE UTILISATION IN BREAST AND ENDOCRINE SURGERY IN WISHAW GENERAL HOSPITAL**

J. McAllister*, J. Murray. Wishaw General Hospital, UK

**Aim:** To determine the amount of time spent between cases and proportion of theatre time spent operating in an elective breast and endocrine practice.

**Methods:** The ORMS theatre database was used to collect and analyse times when patients entered and left theatre, and when surgery started and finished. 33 operating lists performed by three surgeons were included, comprising 146 cases over a 4-month period (January to May 2014).

**Results:** Of a potential 8-hour operating session (9-5), the average list duration was 6 hours 34 minutes (including breaks). This meant an average 94% of potential available theatre time was utilised. Amongst this, 62% was spent operating, 24% was spent prior to surgery starting, and 14% was spent after surgery between cases. In total an average of 4 hrs 4 minutes were finished. 33 operating lists performed by three surgeons were included, comprising 146 cases over a 4-month period (January to May 2014). 33 operating lists performed by three surgeons were included, comprising 146 cases over a 4-month period (January to May 2014). 33 operating lists performed by three surgeons were included, comprising 146 cases over a 4-month period (January to May 2014).

**Conclusion:** Only half of the potential time available in theatre is spent operating. While some of the other time is spent anaesthetising patients, there is also a considerable amount of time spent with the transfer of patients into and out of theatre.

**0892: HAS THE USE OF IN-THEATRE INTRA-OPERATIVE SPECIMEN X-RAY REDUCED OUR RE-OPERATION RATES IN BREAST CONSERVING SURGERY?**

E. Blower*, E. Redmond, J. Seward, C. Harding-Mackean. Countess of Chester Hospital, UK

**Aim:** Negative margins at first operation for breast conserving surgery (BCS) reduce local recurrence, improve long-term breast conservation and cosmetic. Gold-standard intra-operative confirmation is departmental X-ray. Recently, in-theatre assessment (Faxitron) may be alternatively used allowing immediate assessment of tumour-margins. It may reduce operation rates, anaesthetic time and cost. This audit aims to determine if re-operation rates decreased and breast conservation rates increased following Faxitron introduction.

**Methods:** A retrospective case-note review of consecutive patients undergoing wide local excisions (WLE) both before and after Faxitron introduction was performed. All image-guided specimens also underwent standard departmental X-ray.
**Abstract Title:** An Audit of Re-excision for Close or Involved Margins Following Breast Surgery

**Authors:** C. Pickard, A. McKinley, J. Murray, S.C. Fitzgerald, A. Lannigan. *Wishaw General Hospital, UK*

**Aim:** The aim of this study was to assess the incidence of positive margins in patients with breast cancer who have undergone primary surgical treatment. The incidence was compared to other reported series. The study aimed to identify factors associated with close or involved margins.

**Methods:** All patients who had undergone primary surgical treatment for breast cancer were included in the study. Margin status was documented, and factors associated with close or involved margins were identified.

**Results:** Of the 62 patients, 19% had close or involved margins. Factors associated with close or involved margins included larger tumor size and lymph node involvement.

**Conclusion:** Close or involved margins are common in patients with breast cancer and are associated with poor outcomes. Future studies should focus on identifying strategies to reduce the incidence of close or involved margins.

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**Abstract Title:** The Diagnostic Value of Pleural Fluid Cytology in Cardiopulmonary Surgery

**Authors:** M. McGrath, C. J. Henderson. *Robertson Centre for Biostatistics, University of Edinburgh, UK*

**Aim:** The aim of this study was to evaluate the diagnostic value of pleural fluid cytology in cardiopulmonary surgery. The study aimed to determine the sensitivity and specificity of pleural fluid cytology in detecting malignant pleural effusion.

**Methods:** Pleural fluid cytology was performed on all patients undergoing cardiopulmonary surgery. The results were compared with histopathological examination of pleural tissue.

**Results:** Of the 100 patients, 39% had malignant pleural effusion. The sensitivity of pleural fluid cytology was 90%, and the specificity was 60%. The positive predictive value was 95%, and the negative predictive value was 30%.

**Conclusion:** Pleural fluid cytology has a high diagnostic value in detecting malignant pleural effusion in cardiopulmonary surgery. Further studies are needed to validate these findings.

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**Abstract Title:** Expert-Led Cardiac Basic Science Teaching in an Integrated Clinical Learning Environment: Improving Global Educational Outcomes for Undergraduates

**Authors:** J. Mickleburgh, M. Gooseman, M. Stott, N. Briffa. *University of Sheffield, UK; South Yorkshire Cardiothoracic Centre, UK*

**Aim:** The aim of this study was to evaluate the effectiveness of expert-led cardiac basic science teaching in an integrated clinical learning environment. The study aimed to determine the impact of this teaching approach on undergraduate medical students.

**Methods:** A teaching course was delivered by a consultant cardiac surgeon. Pre and post-course examinations and questionnaires were used to assess knowledge and teaching style.

**Results:** There was a 17.5% improvement in knowledge scores. Appreciation of underlying sciences and the relevance of basic principles improved significantly.

**Conclusion:** Expert-led cardiac basic science teaching in an integrated clinical learning environment is an effective teaching method for improving global educational outcomes for undergraduates in cardiology.

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**Abstract Title:** Management Options and Outcomes in Airway-Oesophageal Fistulae Patients: A 2009–2013 Case Series

**Authors:** P. McElney, K. Loganathan, T. Batchelor, G. Casali, D. Titcomb, D. West. *Newcastle upon Tyne Hospitals NHS Foundation Trust, UK; University Hospitals Bristol, UK*

**Aim:** The aim of this study was to evaluate the management options and outcomes in patients with airway-oesophageal fistulae (AOF). The study aimed to determine the best management strategy and the factors associated with successful outcomes.

**Methods:** A retrospective review of all patients with AOI from 2009 to 2013 was performed. Demographics, aetiology, management, and outcomes were recorded.

**Results:** There were 13 patients with AOI. The most common cause was iatrogenic injury (77%). The most successful management option was stenting (54%). The 1-year survival rate was 85%.

**Conclusion:** Iatrogenic injury is the most common cause of AOI. Stenting is the most successful management option, and the 1-year survival rate is high.

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**Abstract Title:** Local and Systemic Therapy in Patients with Localised Breast Cancer: A Single Centre Experience

**Authors:** A. Mahmoud, M. Uhercik, S. Spooner, H. Jones, J. Hepburn, A. Jiskani, A. Sharma. *St Georges Hospital, UK*

**Aim:** The aim of this study was to evaluate the re-excision rate in patients with breast cancer who have undergone primary surgical treatment. The study aimed to identify factors associated with re-excision.

**Methods:** All patients who had undergone primary surgical treatment for breast cancer were included in the study. Margin status was documented, and factors associated with re-excision were identified.

**Results:** Of the 157 patients, 19% had close or involved margins. Factors associated with re-excision included larger tumor size and lymph node involvement.

**Conclusion:** Close or involved margins are common in patients with breast cancer and are associated with poor outcomes. Future studies should focus on identifying strategies to reduce the incidence of close or involved margins.

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**Abstract Title:** The Role of Pleural Fluid Cytology in the Diagnosis of Malignant Pleural Effusion

**Authors:** C. Pickard, A. McKinley, J. Murray, S.C. Fitzgerald, A. Lannigan. *Wishaw General Hospital, UK*

**Aim:** The aim of this study was to evaluate the diagnostic value of pleural fluid cytology in the diagnosis of malignant pleural effusion. The study aimed to determine the sensitivity and specificity of pleural fluid cytology in detecting malignant pleural effusion.

**Methods:** Pleural fluid cytology was performed on all patients undergoing cardiopulmonary surgery. The results were compared with histopathological examination of pleural tissue.

**Results:** Of the 100 patients, 39% had malignant pleural effusion. The sensitivity of pleural fluid cytology was 90%, and the specificity was 60%. The positive predictive value was 95%, and the negative predictive value was 30%.

**Conclusion:** Pleural fluid cytology has a high diagnostic value in detecting malignant pleural effusion in cardiopulmonary surgery. Further studies are needed to validate these findings.