sequences of dynamic frames. Time-(radio)activity curve (TAC) analysis was performed when visual interpretation was problematic.

Critical study of the dynamic dataset showed all AO image information is present within the first 15 minutes post injection. In 90% of patients, the first 5 minutes imaging was adequate. In 8 patients, additional active foci were identified as second sentinel nodes (SN) or echelon nodes. This was achieved by interpreting the dynamic images alone (6) or by additional TAC analysis (2). In 6 patients, sites of uptakes were confirmed as transient.

Dynamic image acquisition does not required to extend beyond 15 minutes. 1 min. framing offers optimal imaging format. The role of dynamic imaging is to distinguish true SNs from transient hotspots and second echelon nodes.

O-52. INTRA-OPERATIVE FROZEN SECTION RELIABLY PREDICTS SENTINEL NODE STATUS IN PATIENTS WITH BREAST CANCER

M.E. MacLean, J.J. Going, C.R. Wilson, M.M. Flett, T.G. Cooke. *Glasgow Royal Infirmary, UK*

Aims: Routine histology of the sentinel lymph node (SLN) reliably predicts axillary node status in patients with breast cancer but a key clinical question is whether the technique can be used intra-operatively to decide if axillary node clearance (ANC) is required. We have performed frozen section analysis of SLNs to see if this can be used to reliably predict the necessity for ANC.

Methods: 114 SLN from 85 patients underwent frozen section analysis. A formal level I and II ANC was then completed and all harvested nodes including the remains of the sentinel node were analysed by routine paraffin histology.

Results: Frozen section was positive in 31 SLN from 27 patients and all of these were confirmed positive by paraffin histology. Frozen section was negative in 83 SLN from 58 patients but in 3 SLN from 3 patients the paraffin histology was positive, giving a false negative rate of 11% These results therefore represent a sensitivity of 90% (NPV 95%) and specificity of 100% (PPV 100%).

Conclusions: Intra-operative frozen section reliably predicted the status of the SLN in 96% of patients and based on these results, 68.2% of patients would have been spared an ANC with 3.5% requiring a delayed ANC due to a false negative result.

O-53. SENTINEL LYMPH NODE BIOPSY IN BREAST CANCER – IS LYMPHOSCINITIGRAPHY REALLY NECESSARY?

S.S. Upponi, S.A. McIntosh, G.C. Wishart, K.K. Balan, A.D. Purushotham. *Addenbrooke's Hospital, Cambridge, UK*

Aim: Lymphoscintigraphy is regarded as a useful tool in sentinel lymph node (SLN) biopsy in breast cancer. The aim of this study was to ascertain its value in axillary SLN detection.

Methods: Axillary SLN biopsy was undertaken using the combined method of patent blue dye and gamma probe detection. Lymphoscintigraphy was performed but the operating surgeon was blinded to the results of the lymphoscintigram. Following SLN biopsy and prior to closure of the axillary wound the lymphoscintigram was reviewed. Internal mammary node dissection is not performed in this unit.

Results: Of 52 patients who underwent lymphoscintigraphy, 42 (81%) had successful scans. Of these, 33 (79%) had axillary nodes, 4 (10%) internal mammary nodes and axillary nodes and 5 (12%) internal mammary nodes on lymphoscintigrams. All of these patients had axillary sentinel nodes identified intra-operatively by gamma probe or visual detection of blue-stained lymphatics and node(s). Review of the pre-operative lymphoscintigrams demonstrated that they would not have influenced intra-operative axillary SLN detection in any patient.

Conclusion: Lymphoscintigraphy does not contribute to axillary SLN biopsy in women undergoing surgery for breast cancer.

O-54. THE ALMANAC TRIAL – EARLY RESULTS FROM THE AUDIT PHASE

D. Clarke, R.E. Mansel. *On behalf of the Almanac Trials Group, UK*

The ALMANAC trial (Axillary Lymphatic Mapping Against Nodal Axillary Clearance) is a two-phased, multicentre, randomised trial in progress in the United Kingdom, comparing Sentinel Node Biopsy (SNB) with standard axillary treatment in the management of breast cancer.

We present our early data of the audit phase, which includes 11 surgeons who performed a SNB, followed by the standard axillary procedure in 40 consecutive patients. All the surgeons involved in this trial attended a course on SNB and in addition were proctored in the procedure by the Principal Investigator of the trial. The SN was localised using a standard protocol involving a combination of a radiopharmaceutical and patent blue V dye. A lymphoscintiscan was performed around 3 hours after the administration of the radiopharmaceutical (Nanocoll 40 MBq or 20 MBq). Peroperatively, a gamma probe was used to identify the sentinel node. Standard H&E staining was used to assess the SN.

Of the 440 patients (436 female and 4 male) in this study 365 patients had palpable lesions, of which 150 were screen detected. The mean tumour size was 21 mms (range 1.7–100 mms). On the scintiscan, 68% had axillary drainage and 8% had internal mammary drainage. A SN was successfully identified in 425 patients (96.6%) and the mean no of SN's removed was 2.2 (range 1–8). There were 125 patients (34.8%) with positive axillae, 9 of these patients had a false negative SN resulting in a false negative rate of 5.9%.

The above results confirm that the SN in breast cancer can be accurately localised with an acceptable false negative rate if surgeons are adequately instructed in the procedure. The above