with NHR BC and evaluate overall outcome compared to younger post-menopausal pts also with NHR.

Methods: Retrospective study of postmenopausal pts admitted in our institution during Jan.2003–Jan.2005 with BC and NHR. Information collected from clinical records: demographic features, tumour characteristics, treatment choices, complications and results. SPSS 11.0 ® used for statistical analysis. Differences were considered statistically significant if $p < 0.05$.

Results: 98 pts with BC and NHR, about 15% of 647 pts admitted. 35 patients (35.7%) were ⩾65 years. Diagnosis more frequently based on symptoms for both group ages, but for pts ⩽65 yrs the percentage of asymptomatic mammography was higher ($p = 0.007$). All pts ⩽65 years had ECOG 0−1, for older pts 9.4% ECOG 2 ($p = 0.003$). More frequent comorbility in older pts ($p = 0.03$). Trend for more advanced TNM stage for older pts ($p = 0.03$). No difference between groups related to histologic type, grade or St. Gallen risk classification. Mastectomy most frequent in both groups, but conservative surgery in more younger pts. 4 pts (4.1%) not submitted to chemotherapy. In younger pts antracycline-based chemotherapy was preferred, for older pts chemotherapy not including an antracycline was more often chosen (($p < 0.0001$). Interruption of treatment more frequent after 65 yrs ($p = 0.03$). Significant toxicities did not vary between groups. After 50 months follow up 71.5% of all pts were alive, with significant difference between age groups [79.9% pts ⩽65 yrs and 45.8% ⩾65 yrs ($p = 0.04$)].

Conclusions: NHR BC is heterogeneous related to presentation and treatment according to age. Advanced age, worse performance status and comorbidity explain the less aggressive treatment. Advanced stage of diagnosis and less aggressive treatment relate to a higher mortality among older pts. Treatment of NHR BC in older pts is challenging, and target-therapies may have an important role.

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Clinico-pathological features and pathological Complete Responses (pCR) to primary chemotherapy (PC)

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Background: Primary chemotherapy (PC) is considered the standard of care for locally advanced or inflammatory breast cancer, but can be applied to all women who may require postoperative chemotherapy for early-stage breast cancer. Clinical and pathological responses (PR), in particular when complete, are good predictors of outcome.

Purpose: To correlate clinico-pathological features and pCR rates after PC, in a consecutive series of breast cancer (BC) pts.

Patients and Methods: Ninety four pts (median age 49 years) with stage 46 IIA (49%), 15 IIB (16%), 8 IIIA (8%), 25 IIIB (27%) BC were treated in our institution, from 2000 to 2007, with preoperative Doxorubicin 60 mg/m^2 and Taxol 175 mg/m^2 for 4 cycles, followed by 1.8 iv CMF for 4 cycles. Moreover, 11 pts with over-expressed or amplificated HER2 received concomitant trastuzumab for 8 cycles. A chi-2 test was used to evaluate the relationship between pCR rate and clinico-pathological presentation (age, menopausal status, histology, grade, ER, PgR, MIB-1, HER-2, p53).

Results: After PC, 45 Objective Remissions (7 CR and 38 PR) were observed (48%), while 1 pt had SD and 4 progressed. At the completion of the PC, 92 pts (98%) underwent breast conservation (64%) or mastectomy (34%); 2 pts (2%) died for causes no BC related. At definitive surgery, 16 pCR (17%) and 4 (4%) ~pCR (residual microinvasion ⩽0.1 cm) were reported, mostly in pts with rapid clinical response (after 1−2 cycles). A statistically significant correlation ($p < 0.01$) was shown between pCR+~pRC and ductal type, MIB-1 >20%, negative or low ER expression or HER2 overexpression, but not age, menopausal, stage, grading, p53 or PgR status. The pCR and ~pCR vs no pCR were significantly more frequent in ER/PR negative HER2 positive (56%) or ER/PR negative HER2 negative (33%) or ER/PR positive HER2 positive (35%) subsets, rather than in ER/PR positive HER2 negative (8%) pts. The 36 months DFS and OS are 94% and 84% respectively, with all pCR pts alive and relapse free and only 1 ~pCR pt relapsed and died.

Conclusions: In our study, as in the literature, pts with ductal histology and low or absent ER and/or positive HER-2 expression, appear to benefit more from PC. For pts with lobular histology and positive ER and negative HER2 expression, alternative strategies, such as a neoadjuvant hormone-therapy, should be considered.

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Anastrozole shows greater carryover effects compared with tamoxifen and resolution of fracture risk post-treatment – data from ATAC at 100 months' median follow-up

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Background: ATAC showed that anastrozole (A) is significantly more effective than tamoxifen (T) in preventing recurrences and is better tolerated but associated with a higher risk of fractures on treatment. Little data exist on whether effects persist after aromatase inhibitor (AI) treatment is completed. Data from ATAC at 100 months' median follow-up are presented.

Material and Methods: The primary endpoint, disease-free survival (DFS), and secondary endpoints, time to recurrence (TTR), incidence of new contralateral breast cancer (CLBC), time to distant recurrence (TTDR), overall survival (OS) and death after recurrence, were assessed in the total (ITT) and hormone receptor-positive (HR+ve) populations (84% of ITT). After treatment completion, fractures and serious adverse events (SAEs) continued to be collected in a double-blinded fashion.

Results: Significant improvements were seen for A over T for DFS, TTR, TTDR and CLBC. In the HR+ve group: DFS (HR 0.85; 95% CI 0.76, 0.94; $p = 0.003$), TTR (HR 0.76; 95% CI 0.67, 0.87; $p = 0.0001$) TTDR (HR 0.84; 95% CI 0.72, 0.97; $p = 0.022$), and CLBC (HR 0.6; 95% CI 0.42, 0.85; $p = 0.004$). Absolute benefit of A over T continued to increase over time (TTR 2.8% at 5 yrs; 4.8% at 9 yrs) and recurrence rates remained significantly lower on anastrozole compared with tamoxifen after treatment completion (HR 0.75; 95% CI 0.61, 0.94; $p = 0.01$). Deaths following recurrence were non-significantly fewer with A than T (245 vs 269) but there was no difference in OS (472 vs 477; HR 0.97; 95% CI 0.86, 1.11; $p = 0.7$). After treatment completion, fracture rates fell for the A-treated patients and post-treatment rates were similar in both groups (annual fracture rate A 146 [1.56%] vs T 143 [1.51%]). Treatment-related SAEs were lower on A during treatment and similar between A and T after treatment completion.

Conclusions: Analysis of ATAC at 100 months is the longest median follow-up for initial AI 5 years' treatment to date. The data shows that following completion of treatment, the efficacy benefit of A over T continues and there is statistically significant evidence of a greater carryover effect for A compared with T. These data represent the first demonstration of a carryover effect for an AI. Fracture rates for A and T are similar after cessation of therapy. No statistically significant difference in OS is observed in this study, in which there are competing causes of mortality.

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Comparison of the cost-effectiveness of upfront letrozole or anastrozole versus tamoxifen for early breast cancer in hormone receptor positive (HR+) postmenopausal women – the Cypriot perspective

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Background: The BIG 1-98 and ATAC randomized controlled trials demonstrated that, in postmenopausal women with hormone receptor positive (HR+) early breast cancer, initial adjuvant therapy for 5 years with the aromatase inhibitors (AIs) letrozole (LET) or anastrozole (ANA) is superior to tamoxifen (TAM). Previous economic analyses modelled constant hazard rates for recurrent events, which did not reflect the observed variation over the five year treatment period. This study reflects the observed time dependency in hazard rates by recurrence type to evaluate the incremental cost per quality-adjusted life year (QALY) gained with five years of initial adjuvant therapy with LET or ANA versus TAM in postmenopausal women with HR+ early stage breast cancer, from a Cypriot perspective.

Methods: The analysis used the same Markov model structure used in the independent assessment conducted for the National Institute for Clinical Excellence (NICE) in the. A pooled set of variable annual hazard rates for TAM were estimated, to which were applied variable annual hazard ratios for time to recurrence for the 5 year treatment period estimated from the BIG 1-98 and ATAC trials for LET and ANA, respectively. Probabilities of breast cancer event type (contralateral; locoregional; soft tissue, bone, and visceral metastases) and Adverse Events (endometrial cancer, hip fractures, stroke, thromboembolic events, and vaginal bleeding) were based on published results of the BIG 1-98 and ATAC trials and population-based studies as appropriate. Treatment costs for AEs, and health-state utilities (QALY weights) were obtained from primary studies. Resource use for treating recurrent breast cancer was informed by a survey of clinicians,