postoperative drainage from the back drains was significantly less in the quilted group (Median: 718 ml vs 1144 ml; P=0.016). Symptomatic seromas were drained in 95% (19/20) and 72% (13/18), respectively of the control and quilting patients (P>0.05). However, there was a significant decrease in seroma volume (Median: 72 ml vs 255 ml; P=0.024) and frequency of seroma aspiration (Median number of times: 1 vs 3) for patients in the quilting group (P=0.026). The quilting sutures did not lead to an increase in postoperative complications, or morbidity.

Conclusion: The study is ongoing and our preliminary analysis and results confirm the findings of the previous non-randomised trial and demonstrate the value of quilting the LD donor site. The technique is simple and reliable and we believe that it has a role in reducing the impact of postoperative seroma formation.

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Effect of anastrozole on bone mineral density and bone fractures: results from the 'Arimidex' (anastrozole), Tamoxifen, Alone or in Combination (ATAC) trial

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Background: Low oestradiol levels in women are associated with decreased bone mineral density (BMD) and increased fracture risk. Aromatase inhibitors, used to treat breast cancer, reduce oestrogen levels in postmenopausal (PM) women. The ATAC trial is a randomised, double-blind trial of 9366 PM women with early breast cancer. Patients received anastrozole (A) (1 mg/day), tamoxifen (T) (20 mg/day) or a combination of the two (C). Bone fractures, a more clinically relevant endpoint than BMD, were investigated in the main ATAC trial. ATAC also includes a BMD sub-protocol. Here we report BMD results after 2 years of therapy and fracture rates over time.

Materials and Methods: The effects of A, T and C on BMD in a subset of 308 women from the ATAC trial were measured by dual energy X-ray absorptiometry (DXA) at the lumbar spine (LS) and total hip (TH). Fracture incidence was assessed every 6 months (mths) up to 48 mths of treatment in the overall study population.

Results: Estimated % changes (95% confidence interval (CI)) from baseline in LS- and TH-BMD, following an ANOVA on log-transformed data, after 1 and 2 years of therapy are shown in Table 1. At 1 and 2 years, A was associated with bone loss at the spine and hip and T with an increase in BMD, the differences between A and T being statistically significant. The rate of bone loss with A was approximately constant over 1 and 2 years. Changes from baseline in LS- or TH-BMD (1 and 2 years) were not significantly different between T and C. The absolute T-score change (median) from baseline at 2 years for LS-BMD was −0.36 (−1.3–0.2) for A, 0.18 (−0.8–0.8) for T and 0.11 (−0.7–1.1) for C; and for TH-BMD was −0.30 (−1.1–0.5) for A, 0.09 (−0.7–0.9) for T and 0.06 (−0.4–0.5) for C.

Table 1.

		LS-BMD		TH-BMD	
		Year 1	Year 2	Year 1	Year 2
A	%	−2.6	−4.0	−1.7	−3.2
	95% CI	−3.3 to −1.8	−5.0 to −3.0	−2.3 to −1.0	−4.1 to −2.4
	n	71	58	71	58
T	%	1.2	1.9	0.8	1.2
	95% CI	0.4 to 2.0	0.9 to 2.9	0.1 to 1.6	0.3 to 2.0
	n	69	64	68	63
C	%	0.1	0.8	0.8	1.1
	95% CI	−0.7 to 1.0	−0.3 to 1.9	0.0 to 1.5	0.1 to 2.1
n	64	51	62	48	

At a median duration of therapy of 31 mths fracture incidence was 5.9% and 3.7% for A and T, respectively (relative risk [RR] A/T 1.59); following a safety update (median duration of therapy 37 mths) RR for fractures was very similar (1.60). Six-monthly fracture rates remained relatively stable for both A and T. After 24 mths, the 6-monthly fracture rates seen with A did not appear to increase over time with further treatment. Overall fractures of hip + spine + wrist showed similar patterns.

Conclusions: Therapy with A continues to be associated with a modest loss in BMD, while T was associated with a small increase in BMD at 2 years (due to its bone-sparing properties). The more clinically relevant and mature fracture data show that after an initial increase, relative risk of fracture has not increased further over time with A. Given the efficacy and numerous tolerability benefits of A compared with T, the overall risk:benefit favours A in early breast cancer therapy.

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Anastrozole has a protective effect on the endometrium: data from the ATAC ('Arimidex', Tamoxifen, Alone or in Combination) trial

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Background: Recent safety data from the ATAC trial have for the first time allowed a direct comparison of the endometrial effects of the aromatase inhibitor anastrozole (AN) with tamoxifen (TAM) in postmenopausal women. The side effects of tamoxifen on the endometrium are well known, and anastrozole showed clear benefits with respect to reduced incidence of endometrial cancer (EC) (0.1% vs 0.5% for AN vs TAM, p=0.007) [1]. It was, therefore, of interest to compare the EC incidence rates seen with anastrozole in the ATAC trial with those of an age-matched standard population, to determine whether or not anastrozole provides a protective effect relative to norm.

Material and Methods: In recognition of regional differences, age-specific EC rates (per 1000 patient years) were obtained for the USA from US SEER (Surveillance, Epidemiology and End Results) data (previously adjusted for the prevalence of hysterectomy [2]), and for Europe from the European cancer (EUCAN) registry [3], which were then adjusted for prevalence of hysterectomy [4]. Expected incidence of EC in each age-specific group from the ATAC trial (North American and European patients) and their duration of follow-up was calculated and compared with the observed incidence. From these a Standard Incidence Rate (SIR) was calculated (Table 1). ATAC data from Argentina, Australia, New Zealand and South Africa (4.3% of patients) were omitted from calculations as age-specific EC rates could not be established.

Results:

Table 1

Treatment	Observed incidence of EC (~5300 yrs patients)	Expected incidence of EC	SIR (95% confidence interval)
Anastrozole	3	4.14	0.73 (0.15–2.12)
Tamoxifen	11	4.10	2.68 (1.34–4.80)
Combination	5	4.10	1.22 (0.40–2.85)

Conclusions: EC rates with anastrozole were lower than the rates expected in a normal age-matched population. In agreement with previous findings, EC rates observed with tamoxifen were clearly higher than expected rates. These data indicate a probable protective effect of anastrozole versus endometrial cancer development, and support the initiation of randomized trials to assess the effectiveness of anastrozole as a treatment for EC.

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Cardiovascular mortality following breast cancer treatment

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We studied mortality from cardiovascular disease (CVD) in a group of 7600 patients who were treated in the NKI and the DDHK for early stage breast cancer between 1970 and 1987. In data collection, specific attention was given to the radiation fields used. In the analysis, we compared CVD mortality not only between irradiated and non-irradiated patients, but also between the study population and the general female population. For 92% of the patients medical status was complete up to at least January 1998. So far, we evaluated the patient group treated between 1970 and 1981 (n=3900). Median follow-up time was 12.6 years; for 34% of the patients follow-up time was longer than 20 years. Compared to the general female population, the number of cardiovascular deaths in the study population was within the range of normal expectancy. However, when we analyzed