

**Materials and Methods:** Patients completed a questionnaire to record lifestyle habits such as exercise, diet, smoking and alcohol consumption. In addition, the absence or presence of chemotherapy and radiotherapy were recorded. The BMD was measured before and at 1 year after starting AI treatment by dual-energy X-ray absorptiometry or quantitative computed tomography in 208 patients. The measured sites were as follows; the radius in 155 patients, lumbar spine in 43 patients and metacarpal bone in 10 patients, respectively.

**Results:** The median age of patients was 63 years (range 44–84 years). Anastrozole, letrozole and exemestane were used in 137, 59 and 12 patients, respectively. The BMD decreased by 3.4% from baseline at 1 year after the start of AI treatment. Osteoporosis and fractures were observed in 11 (5.3%) and 5 (2.4%) patients, respectively. The percent decrease in BMD was significantly smaller in patients who exercised at least once per week than in those who did not (–2.3% vs –4.4%;  $P = 0.005$ ). By contrast, the percent decrease in BMD was significantly greater in patients who received chemotherapy than in those who did not (–5.3% vs –2.7%;  $P = 0.001$ ). Smoking and alcohol consumption were not associated with changes in BMD.

**Conclusions:** Japanese postmenopausal women with hormone receptor-positive early-stage breast cancer on initial treatment with AIs are at high risk of bone mass reduction and fractures. Performing moderate exercise at least once per week may reduce this risk.

## References

- [1] The Breast International Group (BIG) 1–98 Collaborative Group. *N Engl J Med* 2005;353:2747–2757.
- [2] The ATAC (Arimidex, Tamoxifen Alone or in Combination) Trialists' Group. *The Lancet* 2002;359(9324):2131–2139.

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### Changes in Bone Mineral Density During Aromatase Inhibitor Therapy in Post-menopausal Breast Cancer Patients in Japanese

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**Background:** Currently, aromatase inhibitors (AIs) are the standard endocrine therapy for post-menopausal breast cancer patients, but they reduce bone mineral density (BMD) as a result of estrogen deficiency, leading to osteoporosis, increased risk of bone fracture, and thus decreased quality of life, which is the major concern of AI therapy. Changes in BMD during AI therapy in Japanese post-menopausal breast cancer patients have not been fully investigated.

**Materials and Methods:** In 142 post-menopausal breast cancer patients (age 40–89y, mean 62.5y, median 62y; 40 anastrozole, 36 exemestane, 66 letrozole), lumbar and/or femoral neck BMD was measured multiple times (2–5, mean 3.2, median 3) using dual energy X-ray absorptiometry before and/or during AI therapy more than 12 months apart. Data were analyzed using the paired t-test.

**Results:** In 110 patients who had BMD measured at the beginning of AI usage, 29 (26.4%) were <70% of the young-adult mean, and therefore osteoporotic. BMD significantly decreased using AI alone continuously over time. During AI therapy with combined use of vitamin D with/without calcium, BMD did not decrease at the second measurement, but decreased thereafter. During AI therapy, combined use of oral bisphosphonate significantly increased BMD at the second measurement, which was maintained thereafter. Ten patients experienced fractures; 2 fragile and 8 traumatic fractures.

**Conclusion:** In Japanese post-menopausal breast cancer patients, AI alone continuously decreased BMD. Combined use of vitamin D with/without calcium may delay AI-induced bone loss. Oral bisphosphonate can prevent AI-induced bone loss.

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### How Reliable is the Measurement of Pain in Oncological Day Hospital (DH) Patients?

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**Background:** The majority of cancer patients experience pain, but they are often reluctant to communicate the pain they feel.

The Pain Visual Analogic Scale (VAS) and the Happy Face Pain Rating Scale (PRS) are two useful, cost-effective and rapid means of measuring pain in every kind of patient. This study was carried out to measure the percentage of pain in our DH patients and to study any discrepancies between the results obtained.

**Material and Methods:** From January 2010 to February 2011, 154 patients were evaluated with an average number of 10 admissions per patient. 89 patients had advanced or metastatic disease and 65 were

undergoing adjuvant therapy. All patients were affected by solid cancers. 42/154 patients had attended high school and 8/154 had a degree. Pain was measured by both an oncologist and a nurse using VAS and by a nurse alone using PRS. The discrepancies were defined by at least 2 points of difference between these scores: VAS nurse/VAS oncologist or VAS nurse/PRS nurse.

**Results:** 70.8% patients reported pain in 31.4% of the 1,546 daily DH admissions. The VAS scores of 8/109 patients and 80/485 admissions could not be evaluated. The following discrepancies were observed: in 18/101 patients and 38/405 admissions the VAS score recorded by the oncologist was greater than that registered by the nurse; in 52/101 patients and 137/405 admissions the opposite was noted. In 71.3% patients and 76.8% DH admissions the discrepancy was noted between the VAS score and PRS score recorded by the nurse; in 257/311 admissions the PRS score was greater than the VAS score whereas in 54/311 admissions the opposite was observed. In 32/101 patients and 58/405 admissions the discrepancy was greater than 2 points.

**Conclusions:** The incidence of pain noted in our DH patients is as high as that mentioned in literature. One must take into consideration that these patients have active disease or recently undergone surgery. Our results appeared to confirm the reluctance of patients to reveal their pain, especially to the oncologist. Even the registration performed by the nurses using two different methods did not give the same results. One of the reasons could be due the median low level of education (67.5% patients). The measurement of oncological pain is essential, but it is not easy and the best instrument has yet to be found.

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### Copying Letter to Patients – Distress or Satisfaction?

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**Background:** Patients should be involved in decisions relating to their own treatment and care but it is perceived that patients may misunderstand the content of copy letters which could cause unnecessary distress; this perception needs to be explored.

**Materials and Methods:** All patients who attended the Breast Clinics in a District General Hospital over a period of one month were sent a postal questionnaire with their copy letter (unless the patient opted out of receiving a copy letter). 300 questionnaires were posted.

**Results:** 217 questionnaires were returned to the Breast Unit (72.3%). The study group included new patients, patients discharged with a benign diagnosis, cancer diagnosis, breast cancer follow up and Family History. The results showed that 90.6% understood the content of the letter with only 16 patients not understanding the medical terminology. 76% of the patients felt this practice was helpful to them. 130 patients understood their diagnosis better with this information and 114 patients understood their management. The free text section of the questionnaire contained comments which demonstrated some patients contacted the Breast Care Nurses if they did not understand some of the content within the letter.

**Conclusions:** The study clearly demonstrates that sending a copy letter to patients does help them to understand their condition better, contrary to the misconception amongst health professionals. Hence all hospital departments should consider implementing this useful practice.

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### Anxiety Disorder and Major Depressive Disorder in Women with Breast Cancer

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**Background:** The goal of this research was (1) to study the prevalence of anxiety disorders (AD) and major depressive disorders (MDD) in women with breast cancer (BC), and (2) to compare psychological distress, quality of life (QoL), and health status levels in breast cancer patients with and without a diagnosis of MDD or AD.

**Material and Methods:** Women with a breast problems referred to a Dutch outpatient clinic were recruited for this study. Participants completed an informed consent and a set of questionnaires before diagnosis (time0) and at one (time1), three (time2), six (time3), 12 (time4), and 24 months (time5) after surgical treatment. For this study only data of women with BC were used. The questionnaires assessed demographics, state anxiety, depressive symptoms, fatigue, QoL, and health status. At t4 lifetime diagnoses of anxiety disorders and MDD were administered with a diagnostic interview.

**Results:** Of the 143 BC patients, 25 (18%) had a MDD during their life and 21 (15%) an AD during their life. Six patients (4%) had both diagnoses. Patients with a diagnosis of AD during their life scored significantly higher