

PRESS INFORMATION

ABCSG 16 / S.A.L.S.A. Study results published in the New England Journal of Medicine

Vienna, 29 July 2021. In the prospective randomized phase III ABCSG 16 / S.A.L.S.A. study, postmenopausal patients with hormone receptor-positive breast cancer were randomized 1:1 to receive either an additional two or five years of extended adjuvant anastrozole therapy after the first five years of adjuvant endocrine therapy. Disease-free survival was the primary endpoint, and secondary endpoints included overall survival, time to contralateral breast cancer, time to a second primary cancer, and clinical fractures. The final study results have now been published in the New England Journal of Medicine under the title "*Duration of Adjuvant Aromatase-Inhibitor Therapy in Postmenopausal Breast Cancer*"¹.

A total of 3,486 women were enrolled in the studies at 75 centers in Austria. After a median follow-up of 118 months, 670 disease-free survival (DFS) events were recorded in the final analysis, 335 in each trial arm - no disease-free survival difference was found between the two treatment durations (HR=0.99, 95% CI 0.85 to 1.15; p=0.90). There was also no difference in secondary outcome endpoints, and subgroup analyses showed no difference in any particular subgroup. The risk of clinical bone fracture was higher in the 5-year group than in the 2-year group (HR=1.35, 95% CI, 1.00 to 1.84, p=0.05), with a NNH (Number Needed to Harm) of 63 (95% CI 32 to 953).

The principal investigator of the trial, Professor Michael Gnant, MD, FACS, from Medical University of Vienna, concludes from these results of the ABCSG 16 study: "We managed to include almost 3500 patients in this important study in a small country like Austria, which is a great achievement. With this large patient population, we were able to clearly demonstrate that postmenopausal patients with average-risk hormone receptor-positive breast cancer do not benefit from prolonged adjuvant hormone therapy with anastrozole beyond a total treatment duration of 7 years. They should therefore be spared the side effects and fracture risk associated with extending treatment beyond this duration. 7 years simply is the optimal duration of adjuvant endocrine therapy."

Luminal breast carcinoma is by far the most common molecular subtype of this most common malignancy in women,² with the majority of cases occurring after menopause. Despite significant improvements in outcome with adjuvant endocrine therapy³, the risk of disease recurrence in luminal breast carcinoma persists indefinitely, with more than 50% of recurrences occurring after the first 5 years.⁴ Therefore, extending the duration of adjuvant endocrine therapy seems compelling,⁵ and large clinical trials have investigated this concept.⁶ However, the optimal duration of such extension was unknown until ABCSG-16.⁷

¹ Gnant M, Fitzal F, Rinnerthaler G, et al. Duration of Adjuvant Aromatase-Inhibitor Therapy in Postmenopausal Breast Cancer. NEJM, 29 July 2021;385:395-405. DOI: 10.1056/NEJMoa2104162

² DeSantis C, Ma J, Bryan L, Jemal A. Breast cancer statistics, 2013. CA Cancer J Clin 2014;64(1):52-62. DOI: 10.3322/caac.21203.

³ Allemani C, Matsuda T, Di Carlo V, et al. Global surveillance of trends in cancer survival 2000-14 (CONCORD-3): analysis of individual records for 37 513 025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries. Lancet 2018;391(10125):1023-1075. DOI: 10.1016/S0140-6736(17)33326-3.

⁴ Pan H, Gray R, Braybrooke J, et al. 20-Year Risks of Breast-Cancer Recurrence after Stopping Endocrine Therapy at 5 Years. N Engl J Med 2017;377(19):1836-1846. DOI: 10.1056/NEJMoa1701830.

⁵ Krauss K, Sticker E. Endocrine Therapy in Early Breast Cancer. Breast Care (Basel) 2020;15(4):337-346. DOI: 10.1159/000509362.

⁶ Wimmer K, Strobl S, Bolliger M, et al. Optimal duration of adjuvant endocrine therapy: how to apply the newest data. Ther Adv Med Oncol 2017;9(11):679-692. DOI: 10.1177/1758834017732966.

⁷ Burstein HJ. Systemic therapy for es- trogen receptor-positive, HER2-negative breast cancer. N Engl J Med 2020;383: 2557-70.

In general, aromatase inhibitors are considered more effective than tamoxifen in the first 5 years of adjuvant therapy,⁸ but sequencing of tamoxifen and aromatase inhibitors represents an alternative.^{9,10} It has already been shown that after initial treatment with tamoxifen for 5 years, additional aromatase inhibitor therapy improves disease-free survival by approximately 40 percent compared with placebo /no further therapy).^{11,12,13} In contrast, the benefit of extending aromatase inhibitor therapy beyond 5 years is less well established.^{14,15}

This large study is the first to clearly demonstrate that prolonging aromatase inhibitor therapy beyond a total treatment duration of 7 years (5+2 years) does not improve disease-free survival (DFS) for postmenopausal patients with average-risk hormone receptor-positive breast cancer, but was associated with a greater risk of side effects such as bone fractures.

ABCSG (Austrian Breast & Colorectal Cancer Study Group)

For more than 30 years, Austria's largest academic study group, Austrian Breast & Colorectal Cancer Study Group (ABCSG), has independently conducted clinical trials on breast and colorectal cancer as well as pancreatic cancer. The results have received the greatest scientific recognition internationally and have contributed significantly to improving patients' chances of cure and survival. In Austria alone, the ABCSG works with numerous centers and hundreds of investigators; worldwide, the international collaboration is extensive. To date, more than 29,000 patients have participated in ABCSG clinical trials. Recent publications can be found at www.abcsbg.com.

Publication

Duration of Adjuvant Aromatase-Inhibitor Therapy in Postmenopausal Breast Cancer

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N Engl J Med, 29 July 2021;385:395-405. DOI: 10.1056/NEJMoa2104162

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⁸ Early Breast Cancer Trialists' Collaborative G. Aromatase inhibitors versus tamoxifen in early breast cancer: patient-level meta-analysis of the randomised trials. *Lancet* 2015;386(10001):1341-1352. DOI: 10.1016/S0140-6736(15)61074-1.

⁹ Dubsy PC, Jakesz R, Mlineritsch B, et al. Tamoxifen and anastrozole as a sequencing strategy: a randomized controlled trial in postmenopausal patients with endocrine-responsive early breast cancer from the Austrian Breast and Colorectal Cancer Study Group. *J Clin Oncol* 2012;30(7):722-8. DOI: 10.1200/JCO.2011.36.8993.

¹⁰ Ruhstaller T, Giobbie-Hurder A, Colleoni M, et al. Adjuvant Letrozole and Tamoxifen Alone or Sequentially for Postmenopausal Women With Hormone Receptor-Positive Breast Cancer: Long-Term Follow-Up of the BIG 1-98 Trial. *J Clin Oncol* 2019;37(2):105-114. DOI: 10.1200/JCO.18.00440.

¹¹ Jakesz R, Greil R, Gnant M, et al. Extended adjuvant therapy with anastrozole among postmenopausal breast cancer patients: results from the randomized Austrian Breast and Colorectal Cancer Study Group Trial 6a. *J Natl Cancer Inst* 2007;99(24):1845-53. DOI: 10.1093/jnci/djm246.

¹² Goss PE, Ingle JN, Martino S, et al. A randomized trial of letrozole in postmenopausal women after five years of tamoxifen therapy for early-stage breast cancer. *N Engl J Med* 2003;349(19):1793-802. DOI: 10.1056/NEJMoa032312.

¹³ Mamounas EP, Jeong JH, Wickerham DL, et al. Benefit from exemestane as extended adjuvant therapy after 5 years of adjuvant tamoxifen: intention-to-treat analysis of the National Surgical Adjuvant Breast And Bowel Project B-33 trial. *J Clin Oncol* 2008;26(12):1965-71. DOI: 10.1200/JCO.2007.14.0228.

¹⁴ Mamounas EP, Bandos H, Lembersky BC, et al. Use of letrozole after aromatase inhibitor-based therapy in postmenopausal breast cancer (NRG Oncology/NSABP B-42): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet Oncol* 2019;20(1):88-99. DOI: 10.1016/S1470-2045(18)30621-1.

¹⁵ Goss PE, Ingle JN, Pritchard KI, et al. Extending Aromatase-Inhibitor Adjuvant Therapy to 10 Years. *N Engl J Med* 2016;375(3):209-19. DOI: 10.1056/NEJMoa1604700.