

Comparing Early-Stage Breast Cancer and Survivorship Guidelines With Respect to the Management of Aromatase Inhibitor-Induced Arthralgia

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Introduction:

- Postmenopausal and high-risk premenopausal patients with hormone receptor-positive early-stage breast cancer are often recommended to receive aromatase inhibitors (AIs) adjuvant therapy.
- AIs may reduce cancer recurrence, but many patients experience AI-induced arthralgia (AIIA), which can cause joint pain and stiffness and reduce quality of life
- This pain can lead to interruption or discontinuation of AI use, leading to compromised long term breast cancer outcomes

Objective:

This study aimed to review regional and international early-stage breast cancer and general survivorship guidelines and assess recommendations for the management of AIIA.

Methods:

- A systematic search was performed using PubMed, without date restrictions.
- An additional Google search explored guidelines published by national and international cancer agencies.
- The most recent version of each guideline was reviewed.
- We evaluated whether recommendations for AIIA were provided and areas of agreement and discordance regarding suggested interventions.

Table 1:

	Any Mention	Pharm	Non-Pharm	Other
American Cancer Society (ACS)	✓	✓	✓	✓
National Comprehensive Cancer Network (NCCN)	✓	✓	✓	✓
National Cancer Institute (NCI)				
Cancer Australia				
National Institute for Health and Care Excellence (NICE)				
Canadian Family Physicians (CFP)				
European Society of Oncology (ESO)				
Cancer Care Ontario (CCO)				
British Columbia Cancer Agency (BCCA)	✓	✓		
German Gynecological Oncology Group (AGO)	✓		✓	✓
Ministry of Health New Zealand				
National Health Service (NHS) in England				
Spanish Society of Medical Oncology (SEOM) and multiple Spanish Breast Cancer Research Groups (GEICAM & SOLT1) (SEOM-GEICAM-SOLT1)				

Conclusion:

- Existing guidelines either do not have any information on the management of AIIA or have inconsistent recommendations.
- Further research should be promoted to develop evidence-based effective management strategies to be incorporated into future guidelines, as some of the current recommendations were based on evidence of low quality.

Results (Table 1):

Pharmacological Interventions:

- Pharmacological recommendations varied
- NCCN and BCCA both recommended acetaminophen as well as non-steroidal anti-inflammatory drugs (NSAIDs)
- ACS suggested that patients were usually not responsive to NSAIDs
- NCCN strongly recommended SNRIs such as duloxetine and recommended some other drugs such as tricyclic antidepressants, Cox-2 inhibitors, and anticonvulsants, in particular gabapentin and pregabalin.
- ACS and NCCN suggested switching to other anti-estrogen therapies

Non-Pharmacological Interventions:

- ACS, NCCN, and AGO all strongly recommended physical therapy as the primary non-pharmacological treatment for AIIA
- The types of physical therapy recommended were not clearly stated
- Acupuncture was a suggested, well-studied option in all of these three guidelines
- NCCN also recommended yoga and local therapies such as heat, cold packs, massages, ultrasonic stimulation, and aquatic therapy as other methods of treatment, the but strength of evidence behind these interventions is weak