

<https://doi.org/10.29289/259453942024V34S1072>

Breast cancer treatment delays in Brazil: an ecological study from 2017 to 2022

Marcelo Antonini^{1,2}, Sofia Naira Barbosa Freitas¹, Andre Mattar^{3,4}, Denise Joffily Pereira da Costa Pinheiro¹, Andressa Gonçalves Amorim³, Marina Diógenes Teixeira³, Odair Ferraro¹, Reginaldo Guedes Coelho Lopes¹

¹Hospital do Servidor Público Estadual, Mastology Department.

²Universidade Cidade de São Paulo, Preceptor of Mastology.

³Women's Health Hospital, Mastology Department.

⁴Breast Surgeon at Oncoclínicas.

Objective: This study aimed to evaluate the delay from diagnosis to treatment initiation for breast cancer in Brazil between 2017 and 2022, investigating the relationship between treatment delay, type of treatment, and cancer stage, alongside annual trends in the initiation times of treatment. **Methodology:** Utilizing a descriptive observational design, the research analyzed data from the Brazilian Unified Health System's Oncology Panel (DATASUS). The study encompassed female breast cancer cases across Brazil, focusing on the interval to treatment start, cancer stage, and treatment type. Statistical analyses included chi-square tests and joinpoint regression to discern temporal trends, measuring changes through annual percent change (APC). **Results:** From 237,073 cases identified, 24.4% began treatment within 30 days, whereas 37.2% experienced delays beyond 91 days. Radiotherapy showed the longest wait times, with notable delays across all treatment types ($p < 0.001$). Early-stage patients had longer wait times compared with advanced stages ($p < 0.001$). The trend analysis indicated a decrease in patients starting treatment after more than 121 days, but a concerning reduction in those commencing within 30 days (APC -1.15), and an increase in delays of 61–91 days (APC 4.03). **Conclusion:** The majority of Brazilian women faced substantial treatment initiation delays, with the most pronounced in radiotherapy and among early-stage patients. The trend analysis highlighted an increase in treatment delays, suggesting an urgent need to address these issues to improve the timeliness of breast cancer care in Brazil.

Keywords: breast cancer; treatment delay; Brazil; oncology trends; time to treatment.