

PRESENTATION: ORAL PRESENTATION (GENERAL SESSION)

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1180 – Net and overall survival of breast cancer patients by age group: a population-based study in Porto Alegre, Brazil

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Introduction: Overall survival (OS) is the most frequently reported endpoint in oncology; however, it can be confounded by cancer-related mortality. Net survival (NS) adjusts for background mortality, providing a cancer-specific survival estimate, though it is not routinely adopted in clinical research as it requires population-level data.

Objective: To estimate and compare 5-year OS and NS among women with breast cancer, stratified by age group.

Methods: A retrospective cohort study was conducted among women aged 15-99 years, diagnosed with breast cancer between 2016 and 2018 in Porto Alegre. Data were sourced from the Porto Alegre Population-Based Cancer Registry and medical records from the city's eight primary oncology hospitals. Patient follow-up was performed through medical record reviews and probabilistic linkage with the Rio Grande do Sul mortality database in August 2024, ensuring a minimum follow-up of five years for all patients. OS and NS were estimated using the Kaplan-Meier method and the Pohar-Perme estimator respectively, adjusted by Porto Alegre life tables.

Results: A total of 1,934 women were included in this study. For the entire cohort, the 5-year NS was 90.8% and OS was 83.9%. As expected, differences between NS and OS increase according to age group: 86.5% vs. 86.0% (ages 15–39), 91.2% vs. 90.0% (40–49), 91.0% vs. 85.1% (50–79) and 87.3% vs. 65.5% (80–99).

Conclusion: This study provides the first survival estimates for breast cancer among women diagnosed in Porto Alegre. Net survival estimates, which account only for cancer-specific mortality, were consistently higher than OS, with the difference increasing in older age groups. These findings highlight the importance of distinguishing between these two metrics in clinical and epidemiological research.

Ethics: UFRGS (66274522.0.0000.5347); PMPA (66274522.0.3003.5338); GHC (66274522.0.3004.5530); HCPA (66274522.0.3001.5327); HED (66274522.0.3007.5304); HMD (66274522.0.3005.5328); HMDV (66274522.0.2002.5330); HSL (66274522.0.3006.5336); ISCMPA (66274522.0.2001.5335).

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Keywords: breast neoplasms; survival analysis; Kaplan-Meier estimator.