

Differences in stage and treatment of breast cancer across Italy point to inequalities in access to and availability of proper care

Pamela Minicozzi¹, Claudia Cirilli², Massimo Federico², Riccardo Capocaccia³, Mario Budroni⁴, Pina Candela⁵, Fabio Falcini⁶, Mario Fusco⁷, Adriano Giacomini⁸, Francesco La Rosa⁹, Adele Traina¹⁰, Rosario Tumino¹¹, and Milena Sant¹

¹Department of Preventive and Predictive Medicine, Analytical Epidemiology Unit, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan; ²Modena Cancer Registry and Department of Oncology and Hematology, University of Modena and Reggio Emilia, Modena; ³National Center for Epidemiology, Surveillance and Health Promotion, Department of Cancer Epidemiology, Istituto Superiore di Sanità, Rome; ⁴Epidemiology Unit, Local Health Unit 1, Sassari; ⁵Trapani Cancer Registry, Erice (Trapani); ⁶Romagna Cancer Registry, IRST, Meldola (Forlì); ⁷Campania Cancer Registry, Local Health Unit 4, Bruscianno (Naples); ⁸Piedmont Cancer Registry, Province of Biella, Epidemiology Unit, Local Health Unit, Biella; ⁹Department of Surgical and Medical Specialities and Public Health, University of Perugia, Perugia; ¹⁰Palermo Breast Cancer Registry and Experimental Oncology, Department of Oncology, ARNAS Civic Hospital, Palermo; ¹¹Cancer Registry and Histopathology Unit, MP Arezzo Hospital, Ragusa, Italy

ABSTRACT

Aims and background. Population-based cancer registry studies of patterns of care can help elucidate reasons for differences in breast cancer survival across Italy documented by previous studies. The aims of the present study were to investigate across-country variation in stage at presentation and standard care for breast cancer cases diagnosed in Italy in the early 2000s.

Methods. Samples of adult (≥ 15 years) women with breast cancer diagnosed in 2003-2005 were randomly selected in 9 Italian cancer registries. Logistic regression models were used to estimate the odds of receiving breast-conserving surgery plus radiotherapy (BCS + RT) in each cancer registry, age group, and disease stage category compared with the entire sample (reference); the z test was used to evaluate differences in proportions of stage at diagnosis, employment of chemotherapy in node-positive (N+) disease, and use of endocrine treatment in estrogen-receptor positive (ER+) and negative (ER-) tumors across Italy.

Results. Stage at diagnosis was earlier in northern/central registries than in southern areas. Compared with the reference, the odds of receiving BCS + RT was significantly lower in Trapani, Sassari and Naples (southern Italy) after adjusting for age and stage at diagnosis. Among N+ patients, 73% received adjuvant chemotherapy (range, 51% [Biella, northern Italy] to 87% [Ragusa, southern Italy]). Eighty percent of ER+ cancers (range, 50% [Biella, northern Italy] to 97% [Ragusa, southern Italy]) and 18% of ER-cancers (range, 6% [Modena, northern Italy] to 28% [Umbria, central Italy]) were treated with hormonal therapy.

Conclusions. Disparities in stage distributions and conservative surgery in breast cancer persist across Italy. On a positive note, we found lower variations in the use of systemic treatment between Italian regions.

Key words: breast cancer, standard care, Italy, EUROCARE.

Acknowledgments: We thank Chiara Margutti for secretarial assistance, and Carlotta Buzzoni and the Italian Cancer Registry Association (AIRTUM) for supporting the project with data and contributing to the study design. We also thank Don Ward for help with the English.

Financial Disclosure: This research was funded by the Compagnia di San Paolo, Turin, Italy and by the Centro Nazionale per la Prevenzione e il Controllo delle Malattie (CCM) of the Italian Ministry of Health.

Conflict of interest statement: None declared.

Correspondence to: Pamela Minicozzi, MSc, Department of Preventive and Predictive Medicine, Analytical Epidemiology Unit, Fondazione IRCCS Istituto Nazionale dei Tumori, Via Venezian 1, 20133 Milan, Italy.
Tel +39-02-23903520;
fax +39-02-23903516;
email pamela.minicozzi@istitutotumori.mi.it

Received January 2, 2012;
accepted February 8, 2012.