

SUPPLEMENTARY MATERIALS

Replication datasets from the BCAC

Australian Breast Cancer Family Study (ABCFS) Breast cancer cases with histological confirmation, resident in Melbourne and Sydney, were identified through the state cancer registries.[1] Tumour characteristics and vital status were obtained from the pathology reports and relevant medical records.[2]

Spanish National Cancer Centre Breast Cancer study (CNIO-BCS) Cases were consecutive and unselected breast cancer patients recruited at the Hospital Monte Naranco, Oviedo, Spain.[3] Information for tumour characteristics and survival data was obtained from the treating physicians.[3]

Hannover Breast Cancer Study (HABCS) Breast cancer patients who received radiotherapy were recruited in the Department of Radiation Oncology of the Medical School Hannover during 1997-2003.[4,5] The histopathology and medical reports were reviewed to obtain the clinical characteristics of the cancer patients, and active follow-up was conducted for vital status.[6]

National Cancer Institute Breast Cancer Study in Poland (PBCS) Incident breast cancer patients with either histological or cytological confirmation were recruited through a rapid identification system at collaborating hospitals in the cities of Warsaw and Lodz during the period from 2000 to 2003, and were identified periodically through Cancer registries in both cities.[7] A total of 2126 cancer patients were included in the BCAC dataset. Medical records and surgical pathology reports were

examined to retrieve relevant characteristics for tumours, and vital status was confirmed by active follow-up every 5 years.[6]

Studies of Epidemiology and Risk Factors in Cancer Heredity (SEARCH) The

SEARCH study was launched from 1996 to the present, comprising 2 groups of cases.

Incident breast cancer patients were identified from the Anglian Breast Cancer

Registry after 1996 and prevalent patients with diagnosed age <55 from 1991-1996

was also included. A total of 4531 breast cancer patients were included in the BCAC

consortium.[8,5] Vital status for cases was retrieved by passive follow-up through

national death registrations and active follow-up by the cancer registry every 5

years.[6]

US Radiologic Technologist (USRT) Study Participants were drawn from a nested

case-control study of breast cancer conducted within the US radiologic technologist

cohort study. Mail surveys for the USRT were conducted between 1983 and 1998, and

biospecimens for the breast cancer study were collected between 1999 and 2004.

Breast cancers were confirmed by requesting medical records from the physicians or

hospitals.[9] There were 861 breast cancer patients in the BCAC consortium, and

tumour characteristics were not collected. Vital status was ascertained by the linkage

of social security mortality files and the National Death Index.[10]

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Supplementary figure legend

Supplementary Figure 1 Kaplan-Meier survival estimates by rs3218536 in pooled analysis