Supporting Information

Table S1. Excel spreadsheet with details from the BCAC studies with breast cancer patients of European descent

Table S2. Cumulative observed vs predicted breast cancer deaths at up to 15 years follow up by ethnicity in the New Zealand cohort. Patients who underwent chemotherapy were assumed to have been treated with anthracycline-based regimen (second-generation regimen).
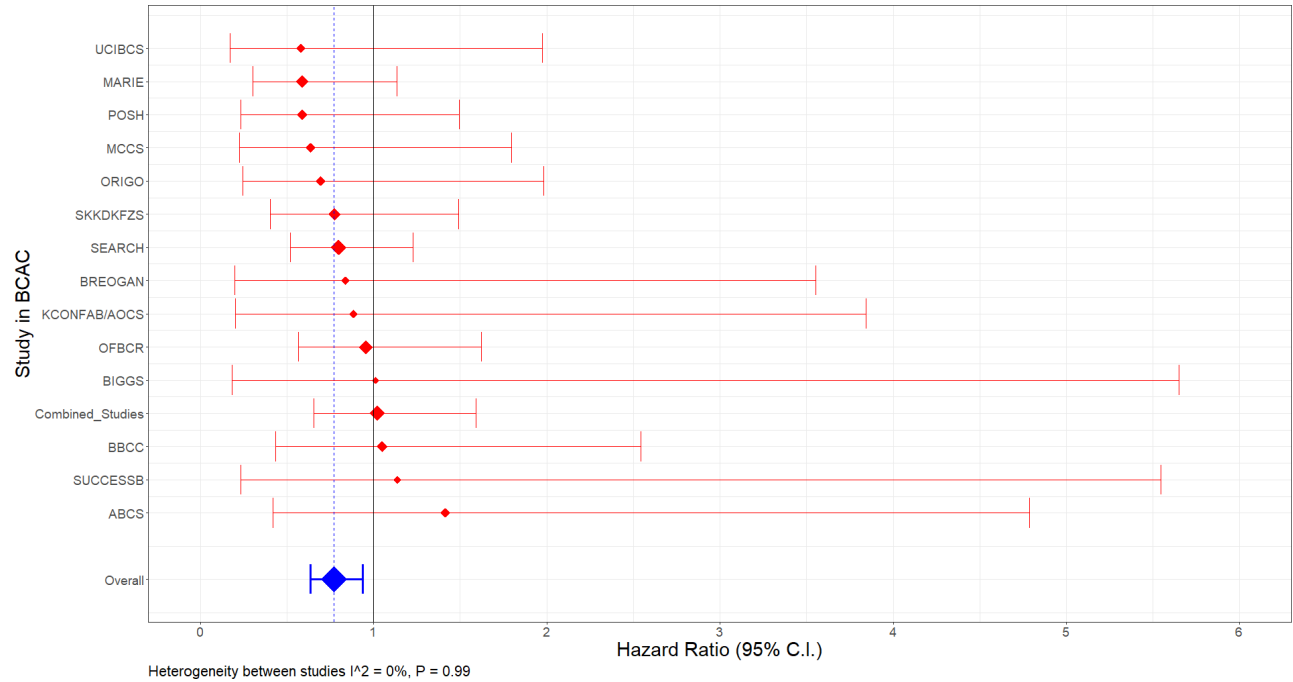
	Total number of breast cancer patients by ethnic group	Predicted breast cancer specific mortality		Observed breast cancer specific mortality
		Without PR status	With PR status	
Number of deaths				
Maori	1054	118	118	108
Pacific	666	92	92	70
European	8220	807	816	695
Other	1257	122	123	66
Missing	168	14	14	1
Total	11365	1153	1163	940
ER specific				
ER-				
Maori	177	53	53	44
Pacific	153	44	45	31
European	1576	368	371	281
Other	258	59	59	35
Missing	30	8	8	1
Total	2194	532	536	392
ER+				
Maori	877	65	65	64
Pacific	513	48	47	39
European	6644	439	445	414
Other	999	64	65	31
Missing	138	6	6	0
Total	9171	622	628	548

Table S3. Cumulative observed vs predicted breast cancer deaths at up to 15 years follow up by ethnicity in the New Zealand cohort. Patients with positive HER2 tumours were assumed to have been treated with trastuzumab.

	Total number of breast cancer patients by ethnic group	Predicted breast cancer specific mortality		Observed breast cancer specific mortality
		Without PR status	With PR status	
Number of deaths				
Maori	1054	111	111	108
Pacific	666	85	85	70
European	8220	767	776	695
Other	1257	115	116	66
Missing	168	13	13	1
Total	11365	1092	1101	940
ER specific				
ER-				
Maori	177	48	48	44
Pacific	153	39	40	31
European	1576	345	348	281
Other	258	54	54	35
Missing	30	7	7	1
Total	2194	494	498	392
ER+				
Maori	877	62	62	64
Pacific	513	46	45	39
European	6644	422	428	414
Other	999	62	62	31
Missing	138	6	6	0
Total	9171	598	603	548

Figure S1. Plot with the hazard ratio of PR status per study and adjusted for the prognostic index for studies with at least 2 PR-negative and 2 PR-positive breast cancer deaths

a. **ER-negative patients**

Heterogeneity between studies I^2 = 0%, P = 0.99

b. **ER-positive patients**

Heterogeneity between studies I^2 = 12.5%, P = 0.26
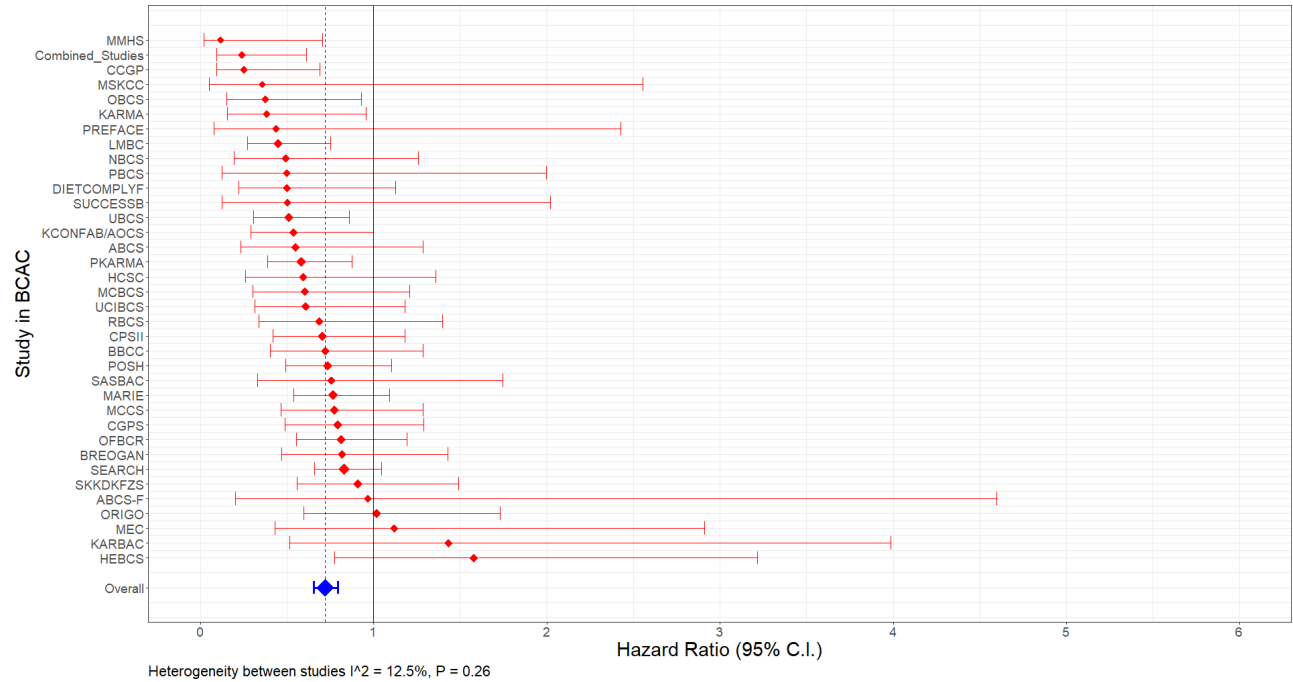
Figure S2. Assessment of the proportional hazard assumption using log-cumulative hazard plot for PR status stratified by ER status
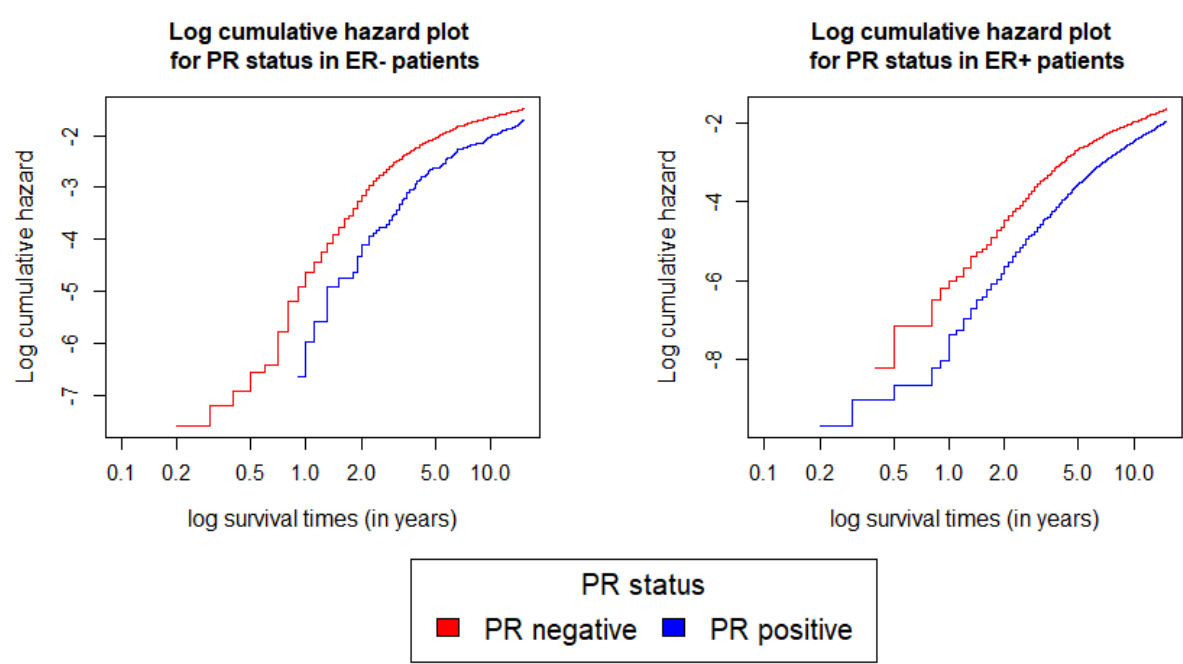
Figure S3. Assessment of the proportional hazard assumption using Schoenfeld Residuals plot for PR status stratified by ER status

a) *ER-negative patients*

b) *ER-positive patients*