Supplemental Text 1. Sample size calculation

According to previous studies, the prevalence of g*BRCA* mutations in patients with ovarian cancer ranges from 12% to 15%.[1] Assuming a prevalence of 10% in Japan, with a 95% confidence interval (CI) of ± 2.5%, the minimum sample size required was estimated to be 554 cases. Taking into consideration potential issues such as loss of patients due to treatment issues or withdrawal of consent, the target sample size was estimated to be 600 cases.

Reference:

1. Alsop K, Fereday S, Meldrum C, et al. BRCA mutation frequency and patterns of treatment response in BRCA mutation-positive women with ovarian cancer: a report from the Australian Ovarian Cancer Study Group. *J Clin Oncol* 2012;30:2654–2663.

Supplemental Table 1. Patient demographic and clinical characteristics

	N=634
Patient characteristics	
Age, years; mean (SD), range	56.9 (11.5), 24–89
Menopausal	
Postmenopausal	462 (72.9)
Premenopausal	169 (26.7)
Unknown	3 (0.5)
Preoperative chemotherapy	
Performed	75 (11.8)
Not performed	486 (76.7)
Unknown	73 (11.5)
CA-125; median (range)	327.5 (4.0–52525.0)
Ovarian cancer characteristics	
Primary debulking surgery performed	
Performed	561 (88.5)
Not performed	73 (11.5)
Chemotherapy	
Performed	575 (90.7)
Not performed	59 (9.3)
Diagnosis (attending physician)	
Epithelial ovarian cancer	534 (84.2)
Primary peritoneal cancer	52 (8.2)
Fallopian tube cancer	48 (7.6)
Histological classification	
High-grade serous carcinoma	274 (43.2)
Low-grade serous carcinoma	5 (0.8)
Clear-cell carcinoma	187 (29.5)
Endometrioid carcinoma	120 (18.9)
Mucinous carcinoma	19 (3.0)
Seromucinous carcinoma	4 (0.6)
Other	25 (3.9)
FIGO stage	
I	236 (37.2)
II	71 (11.2)
III	244 (38.5)
IV	80 (12.6)
Other	3 (0.5)

Values are n (%), unless otherwise stated.

Abbreviations: CA-125, cancer antigen 125; FIGO, International Federation of Gynecology and Obstetrics; SD, standard deviation.

Supplemental Table 2. Type or site of cancer suffered by relatives and prevalence of *BRCA1/2* mutations in ovarian cancer patient

Type or site of cancer suffered by relatives	n	g*BRCA* mutation prevalence					
		Present n (%) [95% CI]	g*BRCA1* mutation only n (%)	g*BRCA2* mutation only n (%)	g*BRCA1* and g*BRCA2* mutations n (%)	Absent n (%)	Variant of uncertain significance n (%)
Pancreas	53	12 (22.6) [12.3, 36.2]	8 (15.1)	4 (7.5)	0 (0.0)	40 (75.5)	1 (1.9)
Breast	118	37 (31.4) [23.1, 40.5]	26 (22.0)	11 (9.3)	0 (0.0)	74 (62.7)	7 (5.9)
Ovary	36	23 (63.9) [46.2, 79.2]	20 (55.6)	3 (8.3)	0 (0.0)	10 (27.8)	3 (8.3)
Prostate	32	6 (18.8) [7.2, 36.4]	4 (12.5)	2 (6.3)	0 (0.0)	22 (68.8)	4 (12.5)

Abbreviations: CI, confidence interval; g*BRCA*, germline *BRCA*.

Supplemental Table 3. Evaluation of patient's satisfaction with explanation of germline *BRCA* test, classified by person responsible for initial pre-test genetic counseling

Question	With clinical genetics specialist or certified genetic counselor (N=319)			Without clinical genetics specialist or certified genetic counselor (N=231)		
	Yes* n (%)	No† n (%)	No response n (%)	Yes* n (%)	No† n (%)	No response n (%)
Did you understand the details of the *BRCA* genetic test?	314 (98.4)	4 (1.3)	1 (0.3)	225 (97.4)	5 (2.2)	1 (0.4)
Did you understand that you would be given "positive", "negative" or "unknown" as the *BRCA* genetic test result?	314 (98.4)	5 (1.6)	0 (0.0)	225 (97.4)	6 (2.6)	0 (0.0)
Did you discuss any uncertainties about the *BRCA* genetic test sufficiently with the explaining person (healthcare professional)?	317 (99.4)	2 (0.6)	0 (0.0)	222 (96.1)	8 (3.5)	1 (0.4)
Did you understand that personal information associated with the BRCA genetic test, including results, would be kept confidential?	319 (100.0)	0 (0.0)	0 (0.0)	227 (98.3)	3 (1.3)	1 (0.4)
Did you understand that the *BRCA* genetic test results would have the potential to affect your family members?	319 (100.0)	0 (0.0)	0 (0.0)	227 (98.3)	4 (1.7)	0 (0.0)

Did you understand about your rights relating to receipt of the *BRCA* genetic test results, including that you were free to receive or not receive the results, and to refuse to hear about the results from a healthcare professional?	318 (99.7)	0 (0.0)	1 (0.3)	228 (98.7)	3 (1.3)	0 (0.0)
With respect to the *BRCA* genetic test, did you understand that, even after the test, you could undergo genetic counseling if you wished?	314 (98.4)	4 (1.3)	1 (0.3)	222 (96.1)	4 (1.7)	5 (2.2)
Were you satisfied with the explanation you were given about the *BRCA* genetic test?	316 (99.1)	2 (0.6)	1 (0.3)	224 (97.0)	3 (1.3)	4 (1.7)

Items were answered using 5-point Likert scale from 1 (totally disagree) to 5 (totally agree).
*Patients who answered as score 3, 4, or 5. †Patients who answered as score 1 or 2.

Supplemental Table 4. List of study sites and investigators who participated in the CHARLOTTE Study

Study sites	Investigators
Sapporo Medical University	Mizue Teramoto
National Hospital Organization Hokkaido Cancer Center	Yukiharu Todo
Hokkaido University Graduate School of Medicine	Hidemichi Watari
Hirosaki University Graduate School of Medicine	Masayuki Futagami
Iwate Medical University	Hiroaki Itamochi
Tohoku University Hospital	Hideki Tokunaga
Yamagata University Hospital	Satoru Nagase
Fukushima Medical University School of Medicine	Takafumi Watanabe
University of Tsukuba Hospital	Toyomi Sato
Jichi Medical University Hospital	Shizuo Machida
Gunma University Hospital	Takashi Hirakawa
The Jikei University Kashiwa Hospital	Hirokuni Takano
Keio University Hospital	Akira Hirasawa, Fumio Kataoka
Juntendo University	Yasuhisa Terao
National Cancer Center Hospital	Tomoyasu Kato
The Jikei University School of Medicine	Aikou Okamoto
Japanese Red Cross Musashino Hospital	Satoshi Umezawa
Kitasato University Hospital	Takashi Onda
Tokai University Hospital	Masako Shida
St. Marianna University School of Medicine Hospital	Nao Suzuki
Yokohama City University Hospital	Yoshinobu Sugo
Niigata University Graduate School of Medical and Dental Science	Takayuki Enomoto
Nagoya City University Hospital	Ryutaro Nishikawa

Mie University Hospital	Tsutomu Tabata
Kyoto University Hospital	Masaki Mandai
Osaka City University Hospital	Toshiyuki Sumi
Osaka University Hospital	Tadashi Kimura
Osaka International Cancer Institute	Shoji Kamiura
Kindai University Hospital	Hidekatsu Nakai
Osaka Medical College Hospital	Yoshito Terai
Kansai Rosai Hospital	Kimihiko Ito
Hyogo Cancer Center	Shoji Nagao
Nara Medical University Hospital	Emiko Niiro
Tottori University Hospital	Tetsuro Oishi
Shimane University Hospital	Satoru Kyo
National Hospital Organization Shikoku Cancer Center	Kazuhiro Takehara
Kyushu University Hospital	Kiyoko Kato
Kurume University Hospital	Shin Nishio
Saga University Hospital	Satomi Aihara
Kumamoto University Hospital	Fumitaka Saito, Nao Yamamoto
University of the Ryukyus Hospital	Yoichi Aoki
Shinshu University Hospital	Hiroyasu Kashima
Tohoku Medical and Pharmaceutical University	Yoh Watanabe
Gifu University Hospital	Ken-ichirou Morishige
National Hospital Organization Kyoto Medical Center	Kenji Takakura
National Hospital Organization Kyushu Cancer Center	Toshjiaki Saito
National Hospital Organization Sendai Medical Center	Kousuke Yoshinaga
Ibaraki Prefectural Center Hospital	Akinori Oki
Tochigi Cancer Center	Isao Sekiguchi

Saitama Cancer Center	Katsuyuki Adachi
Kameda Medical Center	Takuto Matsuura
Tokyo Medical and Dental University	Noriko Oshima
Tokyo Women's Medical University	Hideo Matsui
Nagoya University Hospital	Fumitaka Kikkawa
Kitano Hospital	Toshihiro Higuchi
Kobe City Medical Center General Hospital	Shinya Yoshioka
Tokushima University Hospital	Minoru Irahara
Ehime University Hospital	Takashi Matsumoto
Kanagawa Cancer Center	Hisamori Kato
Kawasaki Medical School General Medical Center	Atsushi Hongo
Nagasaki University Hospital	Kiyonori Miura
Akita University Hospital	Naoki Sato
National Hospital Organization Kyushu Medical Center	Yasuyuki Hasuo