

## **Online-Only Supplements**

Number of Tables: 2

Table E1. Patient Characteristics for All Patients and by Groups (Intervention and Control).

Table E2. Treatment schemas in all patients and by groups

**Table E1. Patient Characteristics for All Patients and by Groups (Intervention and Control)**

	All patients (n=802)	Control (1)	"at least one biomarker testing" intervention (n=647)	"at least KRAS testing" intervention (n=470)	P	P
<i>Strategies</i>					(1) vs. (2)	(1) vs. (3)
<b>Age, years</b> (mean (min-max))	62.1 (27–91)	63.1 (39–84)	61.8 (27–91)	62.1 (27–91)	0.173	0.296
<b>Gender</b>						
Male (n, %)	530 (66.1%)	110 (71.0%)	420 (64.9%)	296 (63.0%)	0.153	0.071
Female (n, %)	272 (33.9%)	45 (29.0%)	227 (35.1%)	174 (37.0%)		
<b>Ethnic origin</b>						
<u>Maternal</u>						
European non-Hispanic (n, %)	586 (73.1%)	113 (72.9%)	473 (73.1%)	352 (74.9%)	0.566	0.381
Hispanic (n, %)	11 (1.4%)	1 (0.6%)	10 (1.5%)	5 (1.1%)		
African or Middle East (n, %)	60 (7.5%)	13 (8.4%)	47 (7.3%)	27 (5.7%)		
Asian (n, %)	10 (1.2%)	0 (0.0%)	10 (1.5%)	8 (1.7%)		
Others (n, %)	135 (16.8%)	28 (18.1%)	107 (16.5%)	78 (16.6%)		

<b>Paternal</b>						
European non-Hispanic (n, %)	602 (75.1%)	119 (76.8%)	483 (74.7%)	358 (76.2%)	0.701	0.699
Hispanic (n, %)	13 (1.6%)	2 (1.3%)	11 (1.7%)	5 (1.1%)		
African or Middle East (n, %)	60 (7.5%)	11 (7.1%)	49 (7.6%)	30 (6.4%)		
Asian (n, %)	10 (1.2%)	0 (0.0%)	10 (1.5%)	7 (1.5%)		
Others (n, %)	117 (14.6%)	23 (14.8%)	94 (14.5%)	70 (14.9%)		
<b>BMI</b> (mean (min-max))	23.8 (12.4–46.8)	23.2 (12.4–36.1)	24.0 (13.5–46.8)	24.1 (13.6–46.9)	0.046	0.049
<b>Smoking history</b>						
Never (n, %)	109 (13.6%)	7 (4.5%)	102 (15.8%)	81 (17.2%)	0.001	<0.001
Former smoker (n, %)	466 (58.1%)	98 (63.2%)	368 (56.9%)	269 (57.2%)		
Current smoker (n, %)	227 (32.5%)	50 (32.3%)	177 (27.4%)	120 (25.5%)		
<b>Performance status</b>						
0 (n, %)	192 (24.0%)	25 (16.1%)	167 (25.9%)	122 (26.0%)		
1 (n, %)	441 (55.1%)	85 (54.8%)	356 (55.0%)	252 (53.7%)	0.007	0.016
2 (n, %)	137 (17.1%)	39 (25.2%)	98 (14.7%)	75 (16.0%)		
3 (n, %)	31 (3.9%)	6 (5.8%)	25 (3.9%)	20 (4.3%)		
<b>Stage TNM</b> (n, %)					0.154	0.114

IA-IIIA	30 (3.7%)	8 (5.2%)	22 (3.4%)	16 (3.4%)		
IIIB	48 (6.0%)	14 (9.0%)	34 (5.3%)	22 (4.7%)		
IV (M1a)	169 (21.1%)	27 (17.4%)	142 (21.9%)	103 (21.9%)		
IV (M1b)	555 (69.2%)	106 (68.4%)	449 (69.4%)	329 (70.0%)		
<b>Metastasis (n, %)</b>						
Pleural	159 (19.9%)	30 (19.5%)	129 (20.0%)	98 (20.9%)	0.891	0.706
Lung	280 (35.0%)	49 (31.8%)	231 (35.8%)	162 (34.5%)	0.357	0.536
Brain	237 (29.6%)	32 (20.8%)	205 (31.7%)	158 (33.7%)	0.007	0.003
Liver	126 (15.8%)	32 (20.8%)	94 (15.6%)	70 (14.9%)	0.057	0.088
Adrenal	173 (21.6%)	31 (20.1%)	142 (22.0%)	106 (22.6%)	0.616	0.521
Skin	12 (1.5%)	1 (0.6%)	11 (1.7%)	7 (1.5%)	0.334	0.420
Bone	286 (35.8%)	55 (35.7%)	231 (35.8%)	164 (35.0%)	0.982	0.880
Others	146 (18.3%)	28 (18.2%)	118 (18.3%)	84 (17.9%)	0.981	0.939
<b>Histology (n, %)</b>						
Adenocarcinoma	607 (75.7%)	61 (39.4%)	546 (84.4%)	418 (88.9%)	<0. 001	<0. 001
Squamous cell cancer	115 (14.3%)	74 (47.7%)	41 (6.3%)	15 (3.2%)		
Others	80 (10.0%)	20 (12.9%)	60 (9.3%)	37 (7.9%)		

BMI: body mass index; TNM: tumor, node, metastasis.

**Table E2. Treatment schemas in all patients and by groups**

	All patients (n=802)	Control (1) (n=155)	"at least one biomarker testing" (2) (n=647)	"at least KRAS testing " (3) (n=470)	P (1) vs (2)	P (1) vs (3)
<b>Treatment Schemas in First line</b>						
Carboplatin/Cisplatin alone or in combination with:	280 (34.9%)	97 (62.6%)	183 (28.3%)	119 (25.3%)		
Gemcitabine, Vinorelbine, Docetaxel, Etoposide, or Paclitaxel						
Carboplatin/Cisplatin in combination with:	453 (56.5%)	49 (31.6%)	404 (62.4%)	298 (63.4%)	<0.001	<0.001
Permetrexed ± Bevacizumab						
Targeted therapies	59 (7.3%)	4 (2.6%)	55 (8.5%)	49 (10.4%)		
Gefitinib, Erlotinib and Crizotinib						
Other schemas	10 (1.3%)	5 (3.2%)	5 (0.8%)	4 (0.9%)		
<b>Treatment Schemas in Second line</b>						
Carboplatin/Cisplatin alone or in combination with:	223 (44.5%)	40 (60.6%)	183 (42.1%)	117 (40.1%)		
Gemcitabine, Vinorelbine, Docetaxel, Etoposide, or Paclitaxel						
Carboplatin/Cisplatin in combination with:	116 (23.2%)	6 (9.1%)	110 (25.3%)	83 (28.4%)	0.011	0.004
Permetrexed ± Bevacizumab						
Targeted therapies	133 (26.3%)	16 (24.2%)	116 (26.7%)	76 (26.0%)		
Gefitinib, Erlotinib and Crizotinib						
Other schemas	30 (6.0%)	4 (6.1%)	26 (6.0%)	16 (5.5%)		