

1254-P Prospective observational cohort study of the second-line chemotherapy administration after the first-line platinum-based chemotherapy for patients with advanced NSCLC in Japan (SAPPHIRE study): update

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Background

Standard care of advanced NSCLC

- First-line platinum-based chemotherapy (first-line CT)
- Second-line chemotherapy (second-line CT) after the progression of the first-line CT

Maintenance therapy after the first-line CT

- Recently, maintenance therapy has been reported to be beneficial.
- Its impact on overall survival appears to be marginal or negligible, when most patients could receive timely active second-line CT after progression.

Objective

- To investigate the proportion of patients who had progression during observation after CR/PR/SD of first-line CT actually received the second-line CT
- To elucidate factors associated with second-line CT administration in advanced NSCLC patients.

Methods

Study design

- Cohort (prospective observational) study

Primary endpoint

- Proportion of patients who received second-line CT after first-line CT

Patient inclusion

- Patients with advanced NSCLC who received platinum-based first-line CT
- From April 2010 to September 2011, at 30 institutions in Japan

Data collection

- Baseline characteristics (age, gender, ECOG-PS, smoking status, comorbidities, body mass index, histological subtype, EGFR/ALK status, CBC/chemistry at registration)
- Regimens and responses to the first/second/third-line CT (regimen, response)
- Administration of maintenance CT
- Reason for not receiving second-line CT (if it was not administered)
- Survival

Data cutoff

- Interim report describing patients with at least 6 months of follow up at April 2012

Support

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Results

- A total of 865 eligible patients with advanced NSCLC provided patient characteristics and details of the first-line CT.
- At the time of cut off, 797 patients were assessable for response of the first-CT. A total of 572 patients had CR/PR/SD.
- Administration of the second-CT was analyzed for 506 patients who had progression after first-line CT (primary study population)
- Maintenance therapy was administered to 144 patients. Of those,
 - 7 patients did not progress.
 - of 137 patients progressed, 25 patients (17.2%) could not receive second-line CT.
- Observation with no maintenance therapy was done in 362 patients. Of those,
 - 40 patients did not progress.
 - of 322 patients progressed, 89 patients (27.6%) could not receive second-line CT.
- Decline of PS was the principal reason for not receiving second-line CT in both patients with and without maintenance CT.

Figure 1

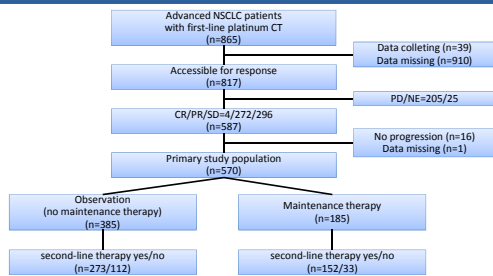


Table 1. Patient characteristics

Characteristics	No. of patients (n=865)	%
Sex male/female	628/237	73/24
Age median (range) 70 or more	65 (24-86) 250	29
Histology Adeno Squamous NSCLC (NOS) Others	602 174 73 16	70 20 8 2
PS 0/1/2/3-4/unknown	343/449/65/7/1	40/52/7/1/0
Smoking never/ever/unknown	173/687/5	20/79/1
Comorbidities none/any	654/211	76/24
EGFR status mutant/wild/unknown	87/515/263	10/60/30
ALK-EML translocation positive/negative/unknown	11/42/812	1.3/4.9/93.9

Table 2. Summary of first-line CT

	No. of patients	%
First-line platinum CT	865	
Cisplatin	331	38.3
Carboplatin	501	57.9
Nedaplatin	33	3.8
Accessible for response	817	
CR	4	0.5
PR	277	33.9
SD	306	37.1
PD	166	20.3
NE	39	4.8
Other	25	3.1
Maintenance therapy	204	31.6

Table 3. Characteristics of patients with or without maintenance therapy

	No maintenance therapy (n=392)		Maintenance therapy (n=184)	
	No. of patients	%	No. of patients	%
Sex male/female	300/92	76.5/23.5	115/79	59.3/40.7
Age median (range) 70 or more	67 (24-86) 138	35.2	62 (24-78) 35	18.0
Histology Adeno Squamous NSCLC (NOS) Others	242 108 34 8	61.7 27.6 8.7 2.1	175 7 12 0	90.2 3.6 6.2 0
PS 0/1/2/3-4	165/201/23/3	42.3/51.3/5.9/0.8	99/87/6/2	51.0/44.8/1.1/1.0
Smoking never/ever/smoking/unknown	72/111/205/4	18.4/28.3/52.3/1.0	59/42/93/0	30.4/21.6/47.9/0
EGFR status mutant/wild/unknown	25/218/149	6.4/55.6/38.0	35/128/31	18.0/66.0/16.0

Table 4. Summary of second-line CT patients with confirmed progression after CR/PR/SD in first-line CT

	No maintenance therapy (n=385)		Maintenance therapy (n=185)	
	No. of patients	%	No. of patients	%
None	112	29.1	33	17.8
2nd-line CT	273	70.9	152	82.2
Docetaxel	112	29.1	54	29.2
Pemetrexed	44	11.4	27	14.6
Erlotinib	22	5.7	19	10.3
TS-1	14	3.6	7	3.8
Other	74	19.2	34	18.4

Conclusions

- Preliminary results of this large observational study in Japan suggested that
 - Proportion of patients who did not received second-CT was 29.1% in patients who did not received maintenance therapy, and 17.8% who received maintenance therapy. Administration of maintenance therapy did not appear to compromise, rather increased the chance to receive second-line CT.
 - Even after adjusting with risk factors for not receiving second-line Ct, approximately 20% of patients with no maintenance therapy missed the opportunity to receive second-line CT. It seems to be difficult to prognosis patient who can receive second-line CT.
 - Response to first-line CT was not an associated factor for administration of second-line CT.

Table 5. Reasons for not receiving second-line CT after progression

Reasons	No maintenance therapy (n=112)		Maintenance therapy (n=33)	
	No. of patients	%	No. of patients	%
Declined PS	61	54.5	17	51.5
Patient refusal	19	17.0	6	18.2
Death of any cause	8	7.1	1	3.0
Loss of follow-up and others	24	21.4	9	27.3

Table 6. Association between baseline characteristics and administration of second-line CT yes/no (univariate analysis)

Characteristics	All Patient		No maintenance therapy		Maintenance therapy	
	No. of patients with Second CT (%)		No. of patients with Second CT (%)		No. of patients with Second CT (%)	
	Yes	No	Yes	No	Yes	No
Total	425	145	273	112	152	33
Sex						
male	296 (72.5)	112 (27.5)	0.68 (0.43-1.07)	205 (69.7)	89 (80.3)	0.78 (0.44-1.37)
female	129 (79.6)	33 (20.4)	p=0.09	68 (74.7)	23 (25.3)	p=0.43
Age						
<70	310 (77.1)	92 (22.9)	1.55 (1.02-2.36)	183 (73.2)	67 (26.8)	1.37 (0.85-2.21)
≥70	115 (68.5)	53 (31.5)	p=0.04	89 (66.4)	45 (33.6)	p=0.20
0	207 (80.9)	49 (19.1)	1.86 (1.23-2.81)	126 (77.8)	36 (22.2)	1.82 (1.19-2.97)
1	218 (69.4)	96 (30.6)	p=0.002	146 (65.8)	76 (34.2)	p=0.01
2	102 (83.6)	20 (16.4)	1.98 (1.17-3.33)	56 (78.9)	15 (21.1)	1.67 (0.90-3.10)
3	89 (66.4)	45 (33.6)	p=0.02	63 (63.0)	37 (37.0)	p=0.06
4	170 (80.6)	41 (19.4)	1.69 (1.10-2.60)	116 (78.4)	32 (21.6)	1.85 (1.12-3.06)
5	255 (71.0)	104 (29.0)	p=0.01	157 (66.2)	80 (33.8)	p=0.01
6	206 (75.7)	66 (24.3)	1.69 (0.76-1.68)	112 (71.8)	44 (28.2)	0.92 (0.56-1.49)
7	219 (73.5)	79 (26.5)	p=0.56	161 (70.3)	68 (29.7)	p=0.73
8	152 (82.2)	33 (17.8)	1.89 (1.20-2.99)	88 (80.3)	24 (19.7)	1.47 (0.60-4.69)
9	273 (70.9)	112 (29.1)	p=0.004			