



# Actualités en Oncologie Thoracique

Mardi 21 novembre 2023

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**Palais de la Bourse - Bordeaux**

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**Sophie Cousin – Institut Bergonié**

Les « Actus » de l'ESMO – Soirée Post-ESMO Bordeaux 2023



## Liens d'intérêts

Boards ou Housing: AstraZeneca, MSD, Abbvie, Bristol Myers Squibb, Sanofi, Novartis, Amgen, Lilly, Takeda, Pfizer

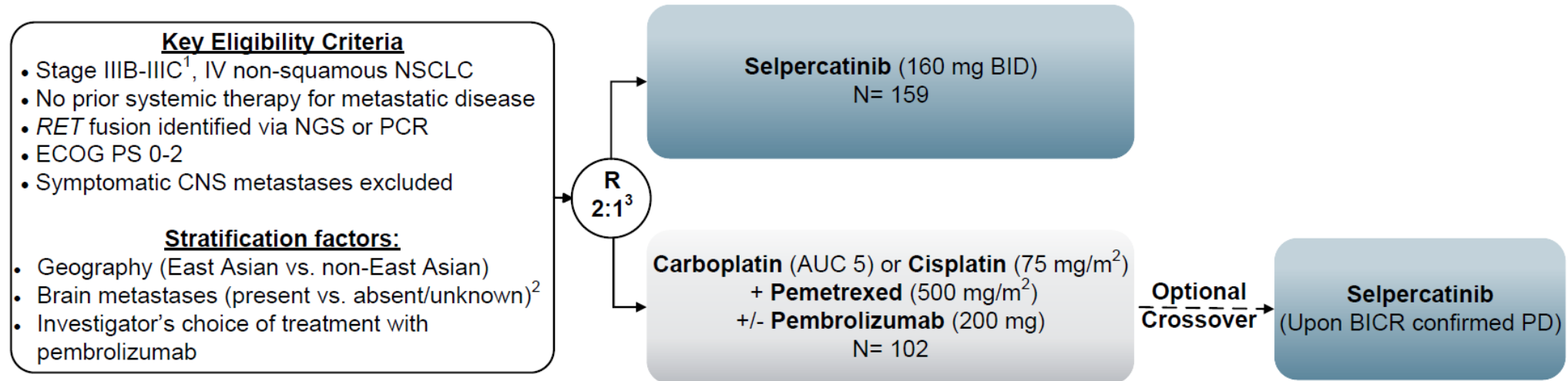


# Changements de standard dans le CBNPC de stade avancé ou métastatique



# Randomized Phase 3 Study of First line Selpercatinib versus Chemotherapy and Pembrolizumab in RET Fusion positive NSCLC

**LIBRETTO-431 (NCT 04194944), phase III randomisée**



**Gated Primary Endpoints:** PFS by blinded independent central review (BICR) in ITT-Pembrolizumab<sup>4</sup> and ITT population

**Secondary Endpoints:**

- **Efficacy** ([OS, ORR, DOR], CNS [ORR, DOR, time to progression]<sup>5</sup>)
- **Safety**
- **Patient Reported Outcomes** (NSCLC-SAQ [tertiary endpoint EORTC QLQ-C30])

<sup>1</sup> Not suitable for radical surgery or radiation therapy

<sup>2</sup> Investigator assessed

<sup>3</sup> The initial randomization ratio was 1:1, but amended to 2:1

<sup>4</sup> ITT-Pembrolizumab are patients stratified with investigator intent to receive chemotherapy with pembrolizumab and per protocol had to be at least 80% of the ITT population

<sup>5</sup> Baseline and longitudinal intracranial scans were required for all patients following an amendment. Prior to the amendment, longitudinal intracranial scans were required if patients had known CNS metastases at baseline

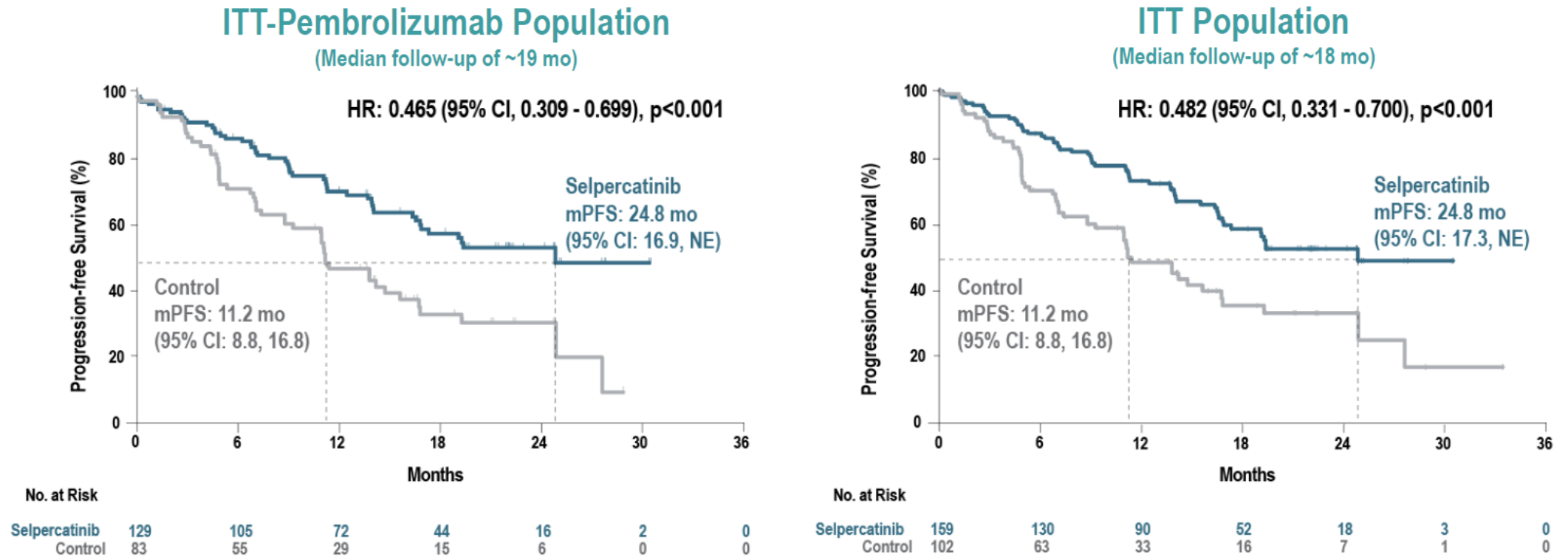


# Caractéristiques des patients

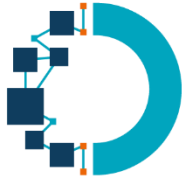
Characteristic		Selpercatinib N= 129	Control N= 83
<b>Age, years</b>	Median (range)	60.0 (31-84)	62.0 (31-83)
<b>Sex, no. (%)</b>	Female	65 (50.4)	48 (57.8)
	Male	64 (49.6)	35 (42.2)
<b>Smoking status, no. (%)</b>	Current/Former	44 (34.1)	24 (28.9)
	Never	85 (65.9)	59 (71.1)
<b>Race, no. (%)</b>	Asian	76 (58.9)	41 (51.9)
	White	49 (38.0)	37 (46.8)
	Other	4 (3.2)	1 (1.3)
<b>Region of enrollment, no. (%)</b>	East Asia	75 (58.1)	41 (49.4)
	Non-East Asia	54 (41.9)	42 (50.6)
<b>Disease stage, no. (%)</b>	Stage IIIB/C	7 (5.4)	7 (8.4)
	Stage IV	122 (94.6)	76 (91.6)
<b>ECOG PS, no. (%)</b>	0	45 (34.9)	27 (32.5)
	1	81 (62.8)	52 (62.7)
	2	3 (2.3)	4 (4.8)
<b>Brain metastases, no. (%)</b>	No/Unknown	104 (80.6)	65 (78.3)
	Yes	25 (19.4)	18 (21.7)
<b>PDL-1 expression, no. (%)</b>	Negative	31 (24.0)	12 (14.5)
	Positive (≥1%)	55 (42.6)	39 (47.0)
	Missing	43 (33.3)	32 (38.6)
<b>RET fusion partner, no. (%)</b>	<i>KIF5B-RET</i>	54 (41.9)	41 (49.4)
	<i>CCDC6-RET</i>	13 (10.1)	8 (9.6)
	Other	4 (3.1)	3 (3.6)
	Positive (partner undefined)	58 (45.0)	31 (37.3)



# Objectif I: Survie sans progression (par BICR)



The primary endpoints were met, as selpercatinib resulted in a statistically significant improvement in PFS in both pre-specified populations



# Données de réponse, dont réponse intra crânienne

## Systemic Outcomes

	Selpercatinib N= 129	Control N= 83
ORR, %	83.7	65.1
Median DOR, mo (95% CI)	24.2 (17.9, NE)	11.5 (9.7, 23.3)

Overall Survival immature (censoring rate ~80%) and confounded by crossover (75% effective rate)<sup>1</sup>:  
HR 0.961 (95% CI: 0.503, 1.835)

## Intracranial Outcomes<sup>2</sup>

	Selpercatinib N= 17	Control N= 12
Intracranial ORR, %	82.4	58.3
Intracranial CR, %	35.3	16.7
12-mo Intracranial DOR Rate, % (95% CI)	76.0 (42.2, 91.6)	62.5 (14.2, 89.3)
Median Intracranial PFS, mo (95% CI)	16.1 (8.8, NE)	10.4 (3.8, NE)

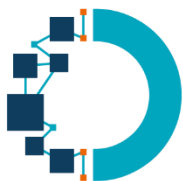
<sup>1</sup> Effective crossover rate: patients who discontinued from control treatment and received a selective RET inhibitor on or off study

<sup>2</sup> In patients with measurable CNS disease at baseline.

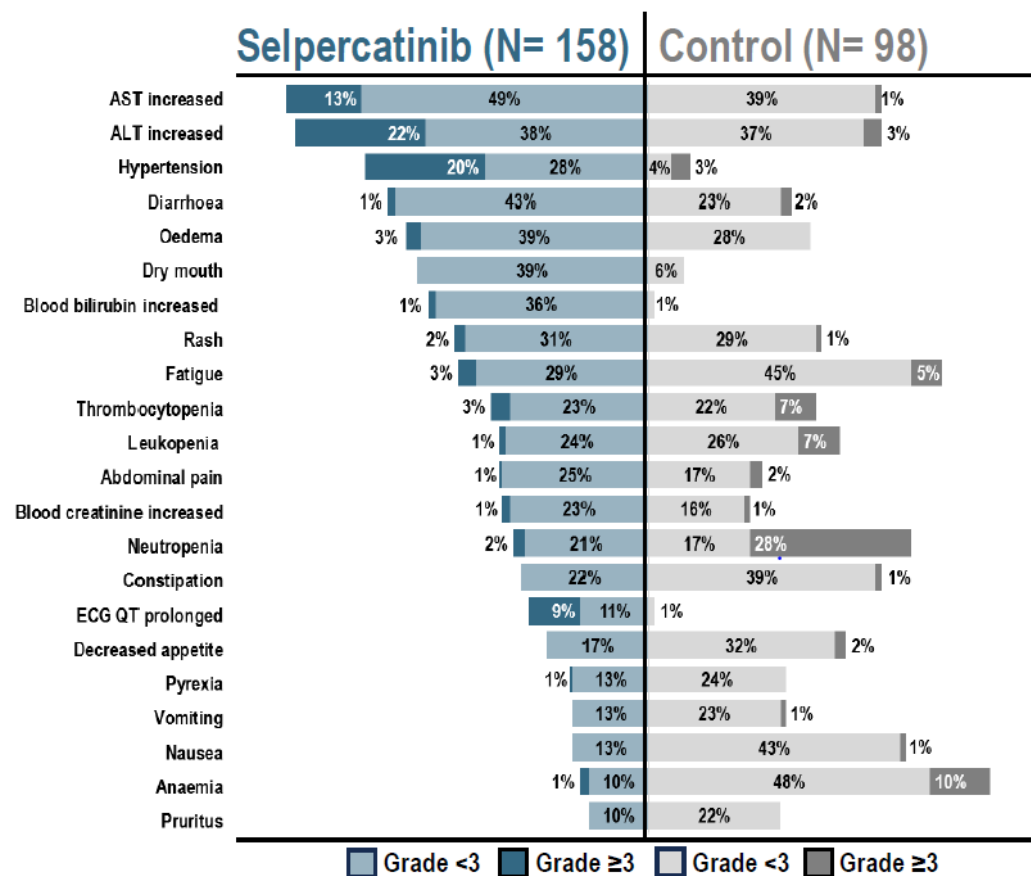
Meilleur taux de réponse selon RECIST 1.1 et réponse plus durable que le bras contrôle

Chez les patients avec de la maladie intra crânienne mesurable:

- Meilleur taux de réponse selon RECIST 1.1
- Meilleure survie sans progression intra crânienne



# Données de tolérance



Any grade treatment-emergent adverse events (TEAEs) occurring in ≥20% of patients in either study arm

Temps médian sous traitement plus long avec le selpercatinib: 16,7 mois vs 9,8 mois

Profil de tolérance similaire aux études précédentes, gérables avec réduction de dose

	Selpercatinib N= 158	Control N= 98
<b>Median time on treatment, months ± SD</b>	<b>16.7 ± 8.3</b>	<b>9.8 ± 7.2</b>
Any AE, n (%)	158 (100.0)	97 (99.0)
AE Grade ≥3	111 (70.3)	56 (57.1)
Deaths due to AE, n (%)	7 (4.4)	0
Related AE (malnutrition and sudden death)	2 (1.3)	0
AEs leading to discontinuation, n (%)	16 (10.1)	2 (2.0)
AEs leading to any dose adjustment, n (%)	123 (77.8)	74 (75.5)
AEs leading to dose reduction	81 (51.3)	28 (28.6)





## Conclusion sur Libretto-431

- Supériorité du Selpercartinib vers doublet à base de platine +/- Pembrolizumab
- Excellente efficacité intra crânienne
- Tolérance correcte et gérable

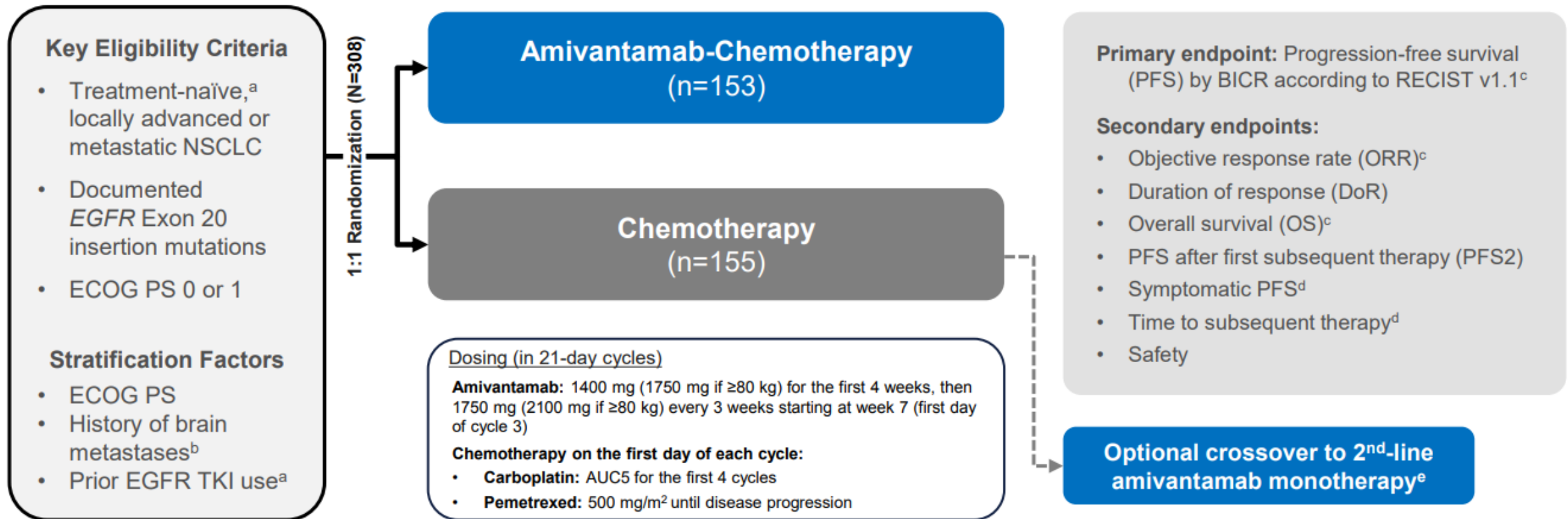
Selpercatinib doit devenir le standard en première ligne chez les patients avec mCBNPC présentant une fusion de RET

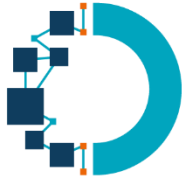
**IMPORTANTANCE du testing des fusions de RET au DIAGNOSTIC pour le choix de la 1ere ligne**



# Amivantamab Plus Chemotherapy vs Chemotherapy as First-line Treatment in EGFR Exon 20 Insertion–mutated Advanced Non-small Cell Lung Cancer (NSCLC)

**PAPILLON, phase III randomisée**





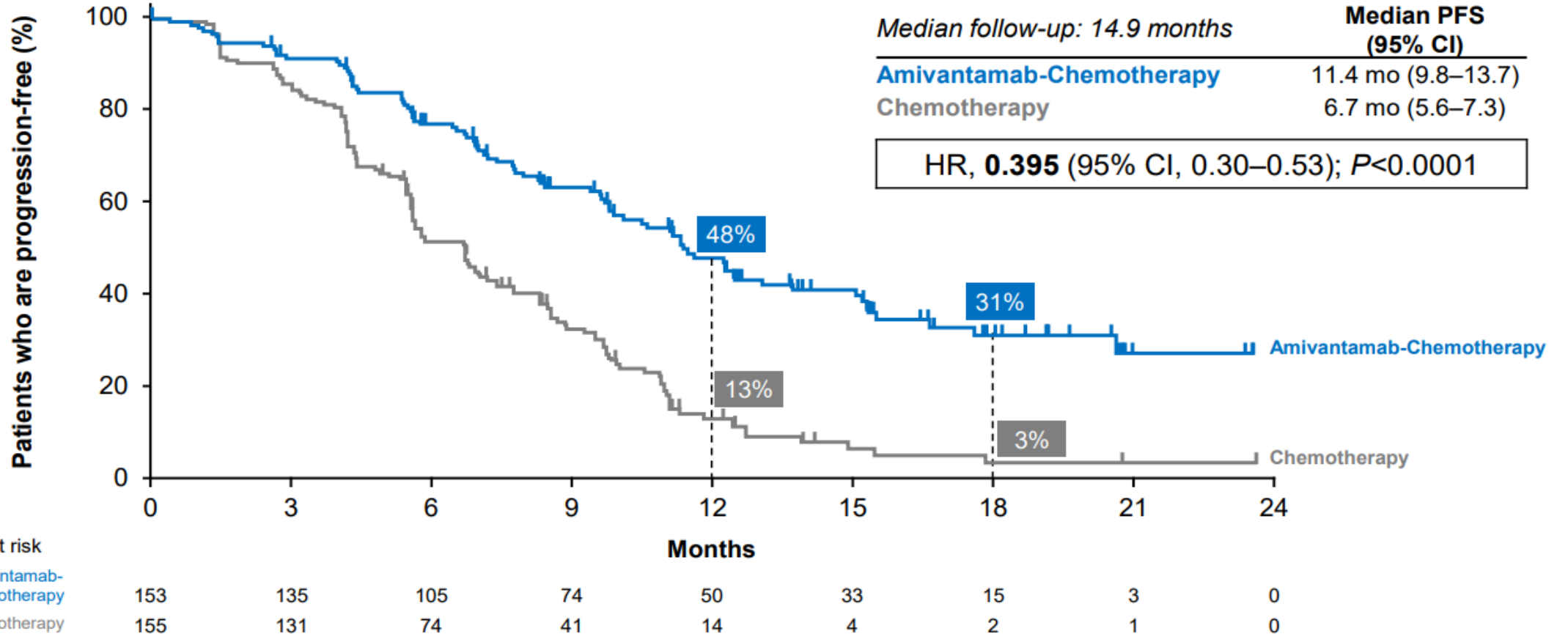
# Caractéristiques des patients

Characteristic, n (%)	Amivantamab-Chemotherapy (n=153)	Chemotherapy (n=155)
Median age, years (range)	61 (27–86)	62 (30–92)
Female / male	85 (56) / 68 (44)	93 (60) / 62 (40)
Race <sup>a</sup>		
Asian	97 (64)	89 (59)
White	49 (32)	60 (39)
Other <sup>b</sup>	5 (3)	3 (2)
ECOG PS 0 / 1	54 (35) / 99 (65)	55 (35) / 100 (65)
History of smoking: yes / no	65 (42) / 88 (58)	64 (41) / 91 (59)
History of brain metastases: yes / no	35 (23) / 118 (77)	36 (23) / 119 (77)
Prior EGFR TKI use: yes <sup>c</sup> / no	1 (1) / 152 (99)	3 (2) / 152 (98)
Histology: adenocarcinoma subtype / other <sup>d</sup>	151 (99) / 2 (1)	153 (99) / 2 (1)



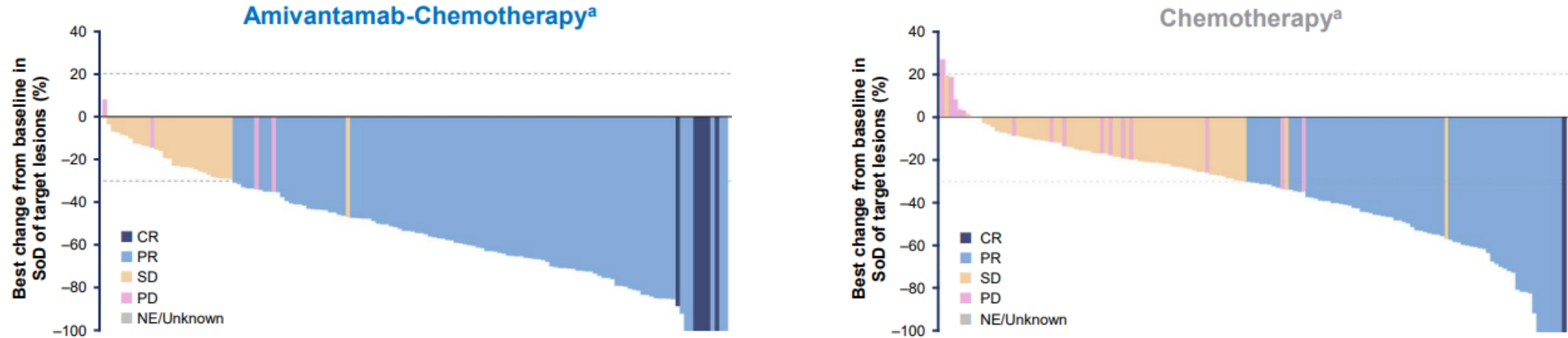
# Objectif I: survie sans progression

**Amivantamab réduit de 60% le risque de progression**





# Taux de réponse objective (par BICR)



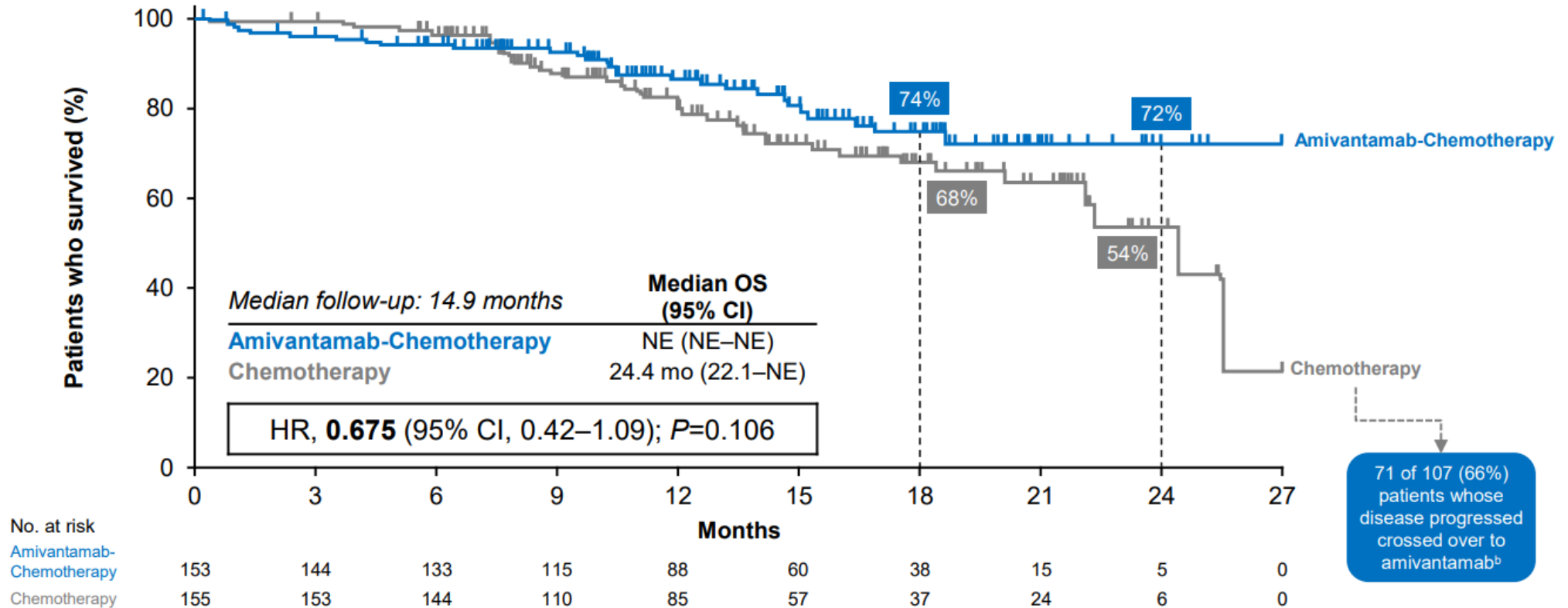
BICR-assessed response <sup>b</sup>	Amivantamab-Chemotherapy (n=153)	Chemotherapy (n=155)
Mean percent change of SoD	-53% <sup>c</sup>	-34%
ORR	73% (95% CI, 65–80)	47% (95% CI, 39–56)
Odds ratio	3.0 (95% CI, 1.8–4.8); <i>P</i> <0.0001	
Best response, n (%)		
Complete response	6 (4)	1 (1)
Partial response	105 (69)	71 (47)
Stable disease	29 (19)	62 (41)
Progressive disease	4 (3)	16 (11)
NE/Unknown	8 (5)	2 (1)
Median time to response	6.7 wk (range, 5.1–72.5)	11.4 wk (range, 5.1–60.2)

**Consistent results with investigator assessment: ORR of 66% vs 43% (OR, 2.6; *P*<0.0001)**



# Données de survie globale (immatures)

**Tendance à l'amélioration de la survie globale de 30%**





# Données de tolérance

Treatment-emergent AEs, n (%)	Amivantamab-Chemotherapy (n=151)	Chemotherapy (n=155)
Any AEs	151 (100)	152 (98)
Grade ≥3 AEs	114 (75)	83 (54)
Serious AEs	56 (37)	48 (31)
AEs leading to death	7 (5)	4 (3)
Any AE leading to treatment:		
Interruptions of any agent	104 (69)	56 (36)
Related interruptions of amivantamab	63 (42)	–
Reductions of any agent	73 (48)	35 (23)
Related reductions of amivantamab	54 (36)	–
Discontinuations of any agent	36 (24)	16 (10)
Related discontinuations of amivantamab	10 (7)	–
Discontinuations of all study agents due to AEs	12 (8)	12 (8)

Arrêt des traitements pour toxicités similaires  
 Plus de toxicités spécifiques EGFR/MET dans le bras chimio + Amivantamab  
 Hématotoxicité similaire sauf pour la neutropénie  
 3% de pneumonie dans le bras chimio + amivantamab

Most common AEs of any cause by preferred term (≥20%), n (%)	Amivantamab-Chemotherapy (n=151)		Chemotherapy (n=155)	
	All grades	Grade ≥3	All grades	Grade ≥3
<b>Associated with EGFR inhibition</b>				
Paronychia	85 (56)	10 (7)	0	0
Rash	81 (54)	17 (11)	12 (8)	0
Dermatitis acneiform	47 (31)	6 (4)	5 (3)	0
Stomatitis	38 (25)	2 (1)	9 (6)	0
Diarrhea	31 (21)	5 (3)	20 (13)	2 (1)
<b>Associated with MET inhibition</b>				
Hypoalbuminemia	62 (41)	6 (4)	15 (10)	0
Peripheral edema	45 (30)	2 (1)	16 (10)	0
<b>Other</b>				
Neutropenia	89 (59)	50 (33)	70 (45)	35 (23)
Anemia	76 (50)	16 (11)	85 (55)	19 (12)
Infusion-related reaction	63 (42)	2 (1)	2 (1)	0
Constipation	60 (40)	0	47 (30)	1 (1)
Leukopenia	57 (38)	17 (11)	50 (32)	5 (3)
Nausea	55 (36)	1 (1)	65 (42)	0
Thrombocytopenia	55 (36)	15 (10)	46 (30)	16 (10)
Decreased appetite	54 (36)	4 (3)	43 (28)	2 (1)
Alanine aminotransferase increased	50 (33)	6 (4)	56 (36)	2 (1)
Aspartate aminotransferase increased	47 (31)	1 (1)	51 (33)	1 (1)
COVID-19	36 (24)	3 (2)	21 (14)	1 (1)
Hypokalemia	32 (21)	13 (9)	13 (8)	2 (1)
Vomiting	32 (21)	5 (3)	29 (19)	1 (1)



## Conclusion sur PAPILLON

- Amélioration statistiquement significative de la survie sans progression de l'ajout de l'amivantamab à la chimiothérapie
- Amélioration du taux de réponse, de la durée de réponse
- Données de survie globale immature mais une tendance favorable
- Toxicité: pas de signal inattendu.

**Amivantamab associé à un doublet à base de platine représente le nouveau standard en cas de mCBNPC avec mutation d'insertion de l'exon 20 de l'EGFR**



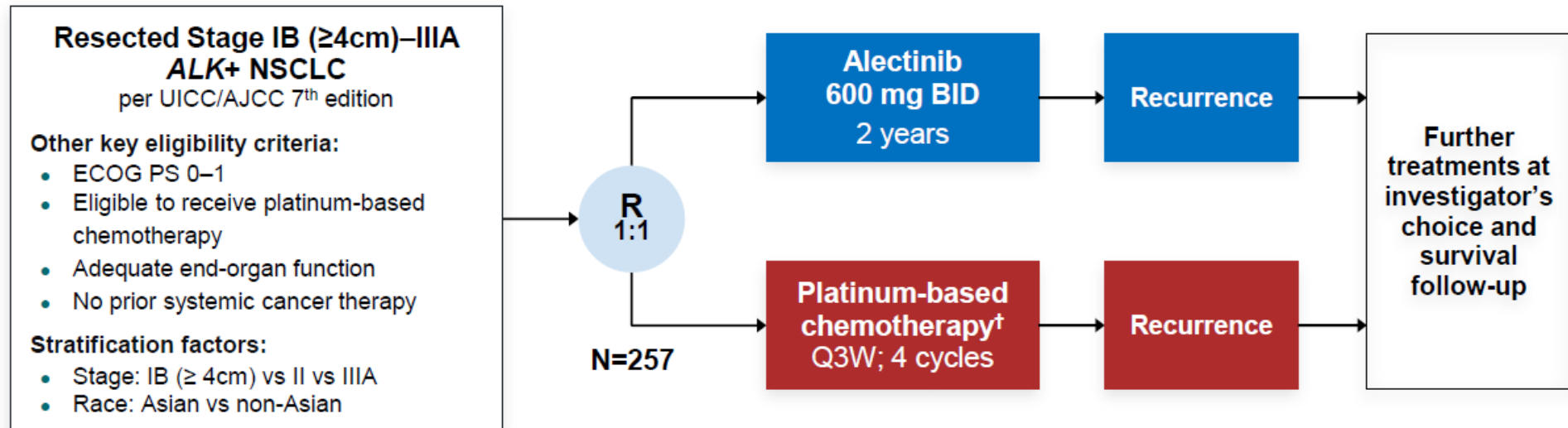


# Affaire à suivre



# Efficacy and safety of adjuvant alectinib versus chemotherapy in patients with early-stage ALK+ NSCLC

## ALINA, phase III randomisée



**Primary endpoint**

- DFS per investigator,‡ tested hierarchically:
  - Stage II–IIIA → ITT (Stage IB–IIIA)

**Other endpoints**

- CNS disease-free survival
- OS
- Safety

*Disease assessments (including brain MRI)§ were conducted: at baseline, every 12 weeks for year 1–2, every 24 weeks for year 3–5, then annually*

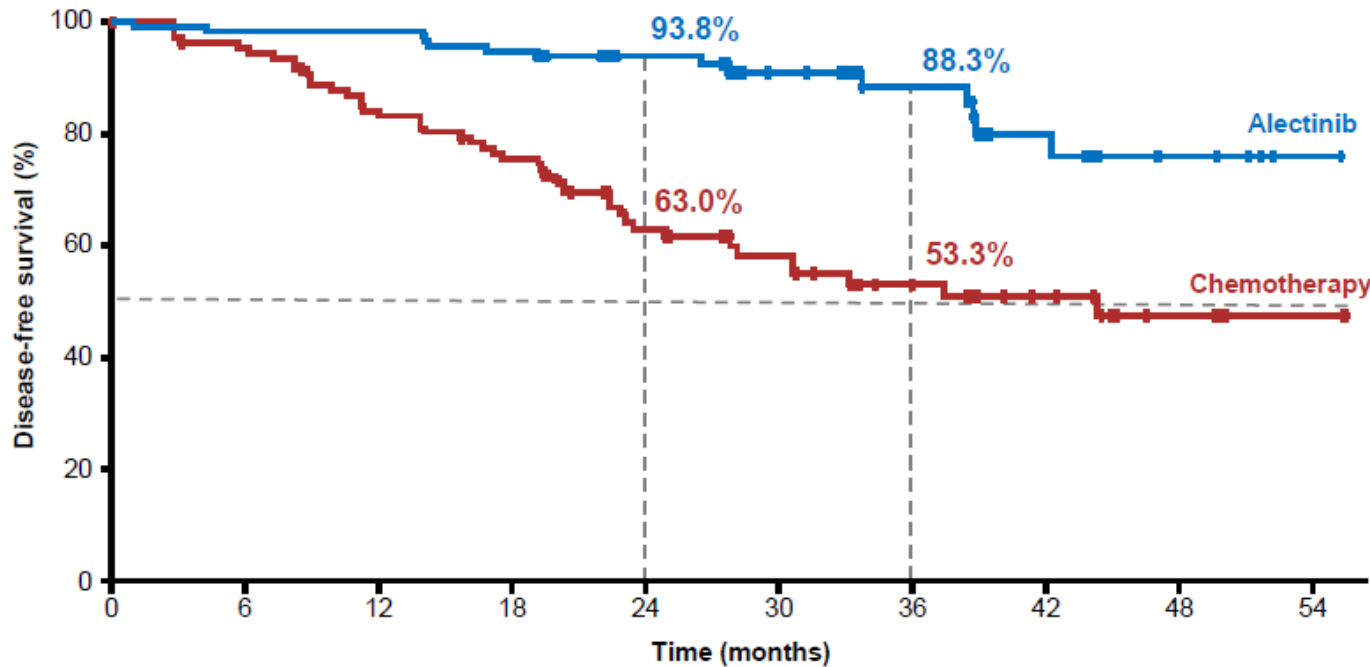


# Caractéristiques des patients

Characteristic	Alectinib (n=130)	Chemotherapy (n=127)
<b>Median age</b> <65 / ≥65 years, %	54 years 79 / 21	57 years 73 / 27
<b>Sex:</b> female / male, %	58 / 42	46 / 54
<b>Smoking status:</b> never / former / current, %	65 / 32 / 4	55 / 43 / 2
<b>Race:</b> Asian / non-Asian, %	55 / 45	56 / 44
<b>ECOG PS:</b> 0 / 1, %	55 / 45	51 / 49
<b>Stage at diagnosis*:</b> IB / II / IIIA, %	11 / 36 / 53	9 / 35 / 55
<b>Nodal status:</b> N0 / N1 / N2, %	16 / 35 / 49	14 / 34 / 52
<b>Histology:</b> squamous / non-squamous, %	5 / 95	2 / 98
<b>Surgical procedure:</b> Lobectomy / Other <sup>‡</sup> , %	97 / 3	92 / 8



# Survie sans maladie: stade II - IIIA

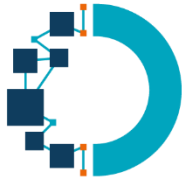


	Alectinib (N=116)	Chemotherapy (N=115)
Patients with event	14 (12%)	45 (39%)
Death	0	1
Recurrence	14	44
Median DFS, months (95% CI)	Not reached	44.4 (27.8, NE)
<b>DFS HR (95% CI)</b>	<b>0.24 (0.13, 0.45)</b> p†<0.0001	

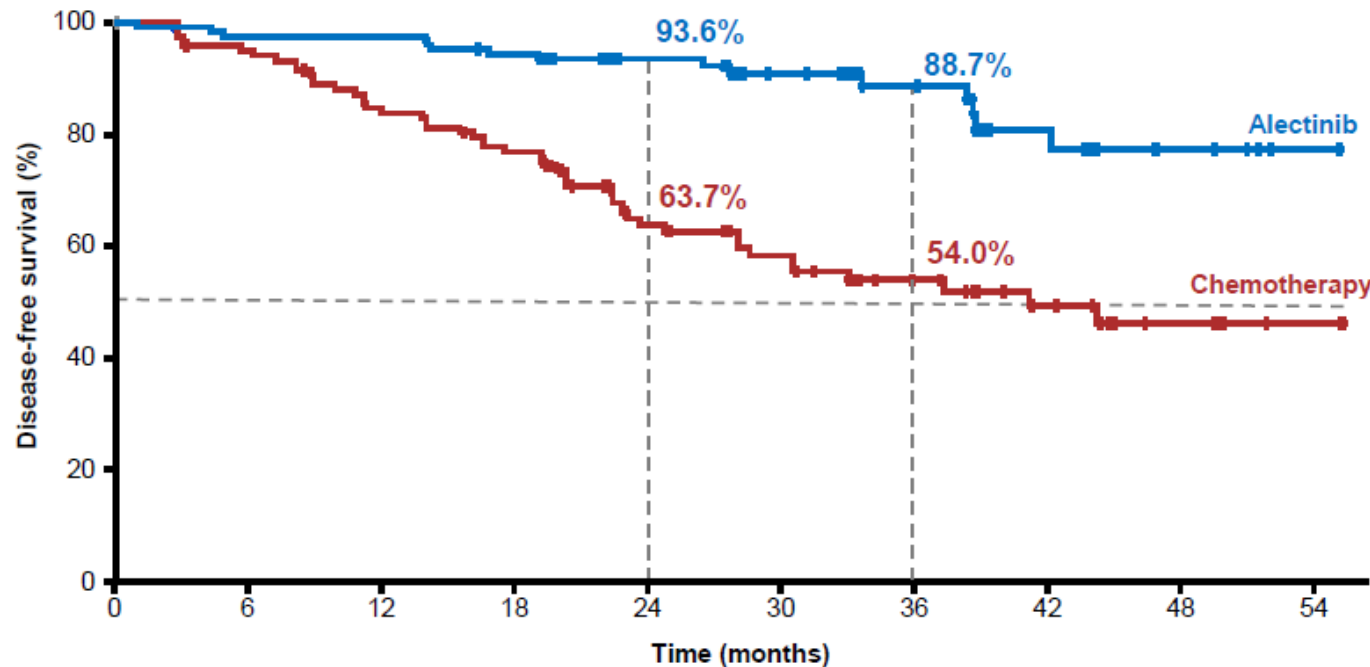
### No. at risk

	0	6	12	18	24	30	36	42	48	54
Alectinib	116	111	111	107	67	49	35	21	10	3
Chemo	115	102	88	79	48	35	23	17	10	2

Median survival follow up: alectinib, 27.9 months; chemotherapy, 27.8 months



# Survie sans maladie, population en intention de traiter (stade Ib – IIIA)



No. at risk	0	6	12	18	24	30	36	42	48	54
Alectinib	130	123	123	118	74	55	39	22	10	3
Chemo	127	112	98	89	55	41	27	18	11	2

	Alectinib (N=130)	Chemotherapy (N=127)
Patients with event	15 (12%)	50 (39%)
Death	0	1
Recurrence	15	49
Median DFS, months (95% CI)	Not reached	41.3 (28.5, NE)
DFS HR (95% CI)	<b>0.24</b> (0.13, 0.43) p†<0.0001	

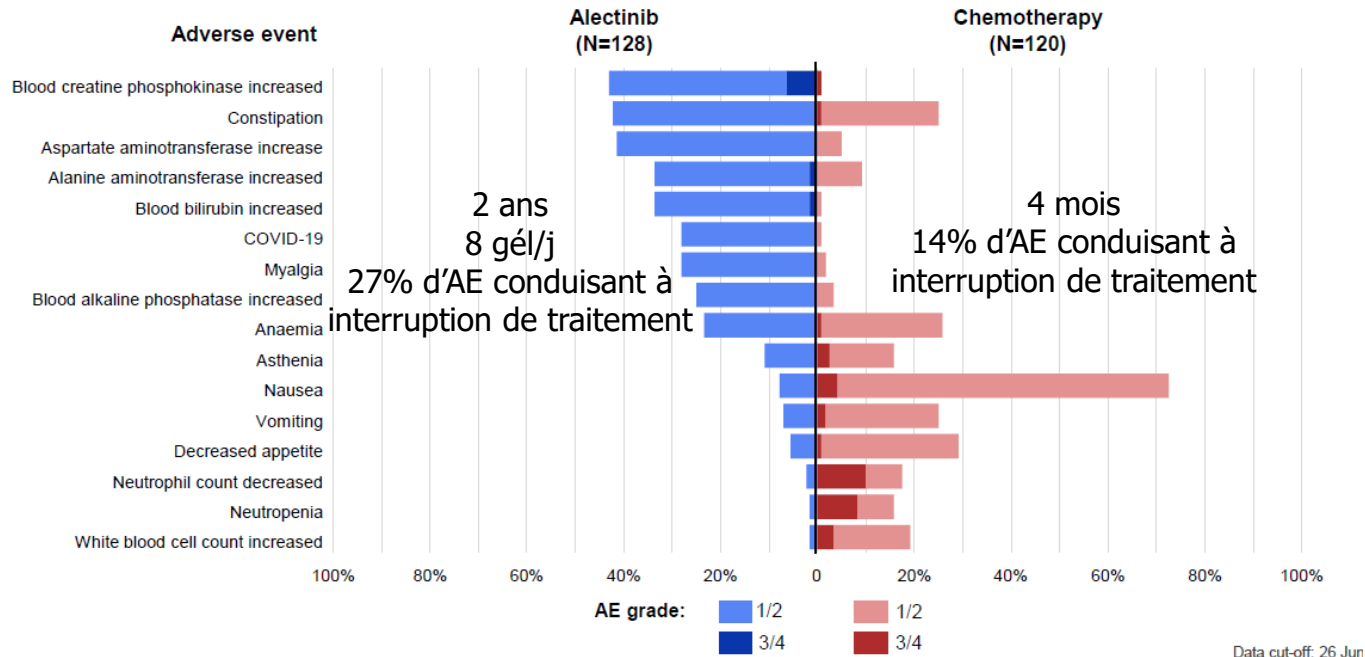
At the data cutoff date, OS data were immature with only 6 (2.3%) OS events reported†

Median survival follow up: alectinib, 27.8 months; chemotherapy, 28.4 months



# Toxicités et réflexion

Toxicités survenant chez > 15% des patients

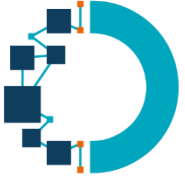


Sun sensitivity **AI?**      Neuropathy      Noticeable      Decreased Appetite

Asthenia      Ability to focus on large tasks is challenging

**Dose optimization?**      Hard      Morning      Difficult to focus      Soreness      Lower back muscle soreness

**ctDNA?**      Myalgia           **Biomarkers?**      Constipation

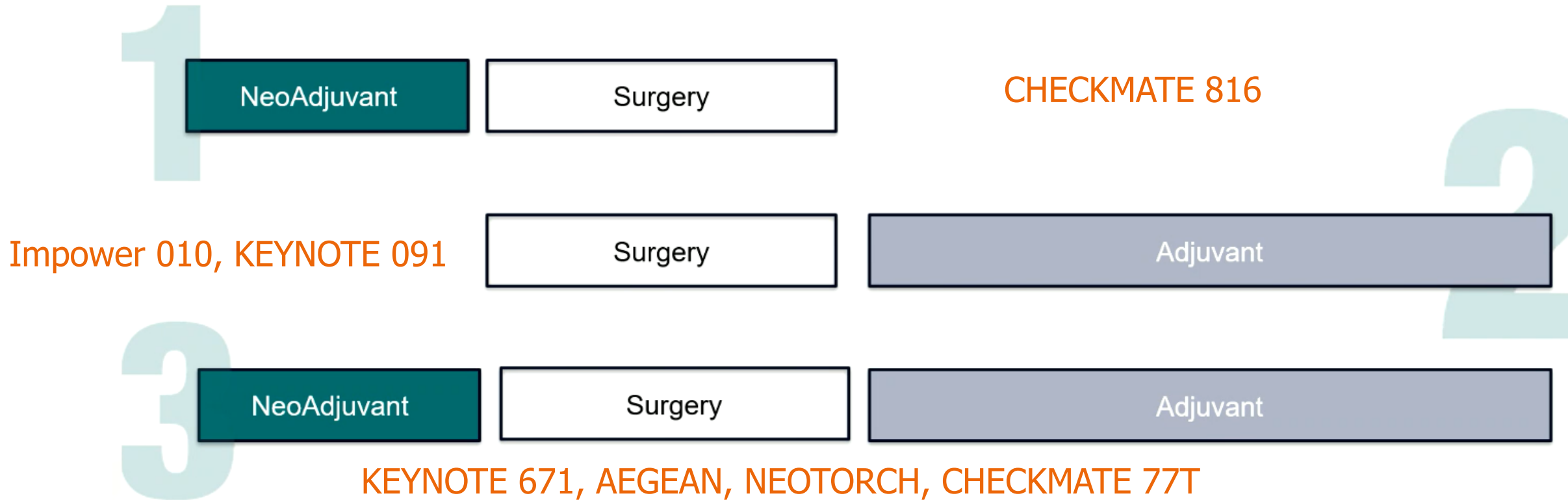


# Le péri opératoire en l'absence d'addiction oncogénique



# Stratégies péri opératoires

## TREATMENT STRATEGIES FOR PATIENTS WITH A RESECTABLE NSCLC IN 2023

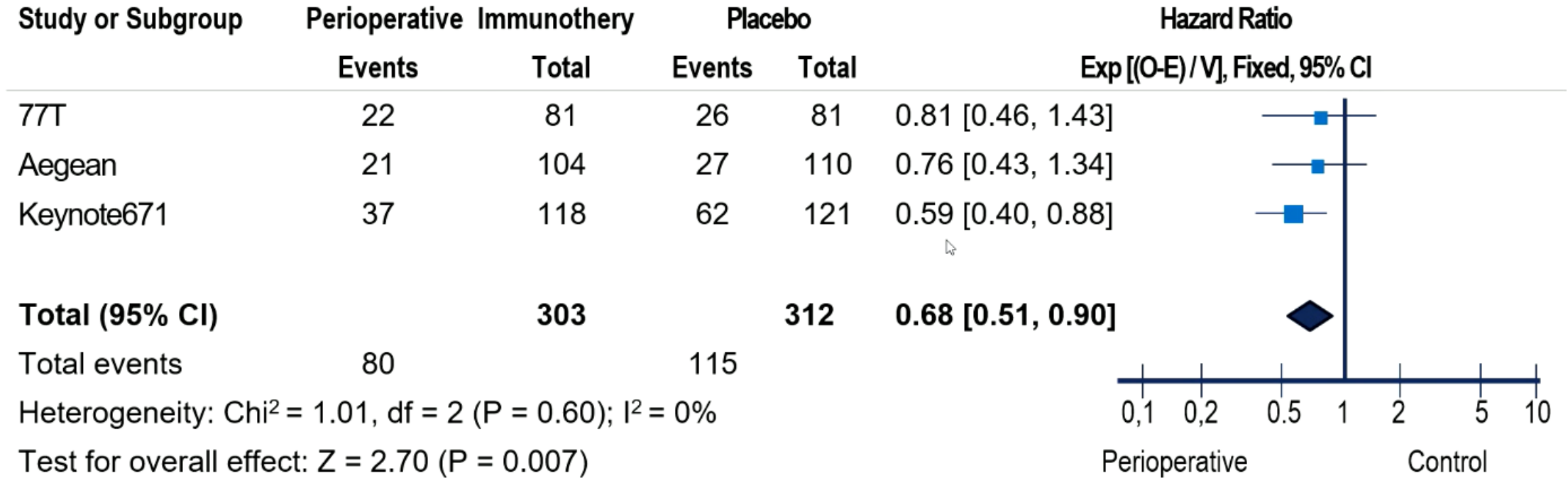






# Doit on traiter avec de l'IO péri opératoire les stades II?

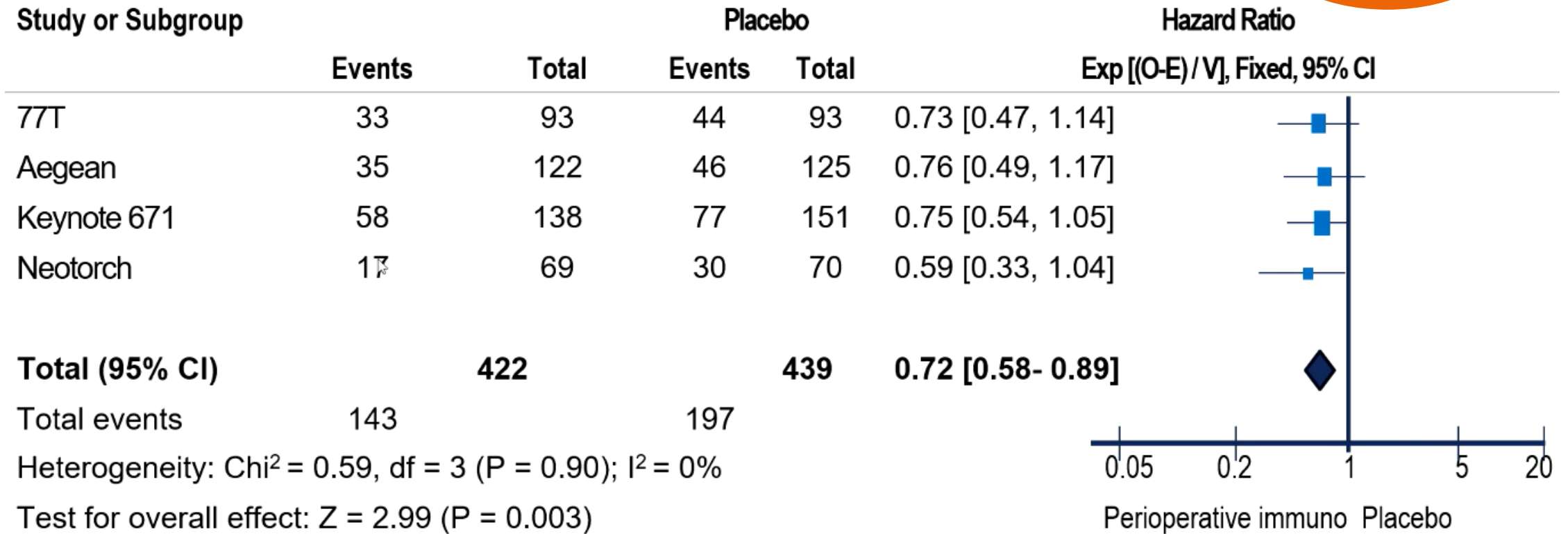
**OUI**





# Doit on traiter les patients dont la tumeur est PD-L1 négatif?

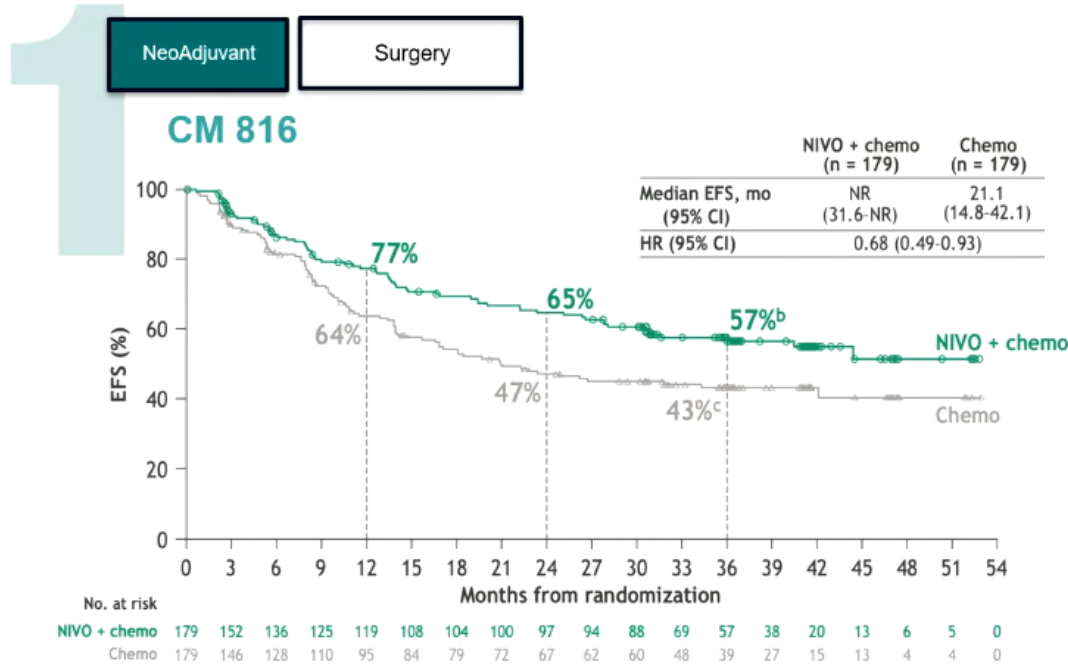
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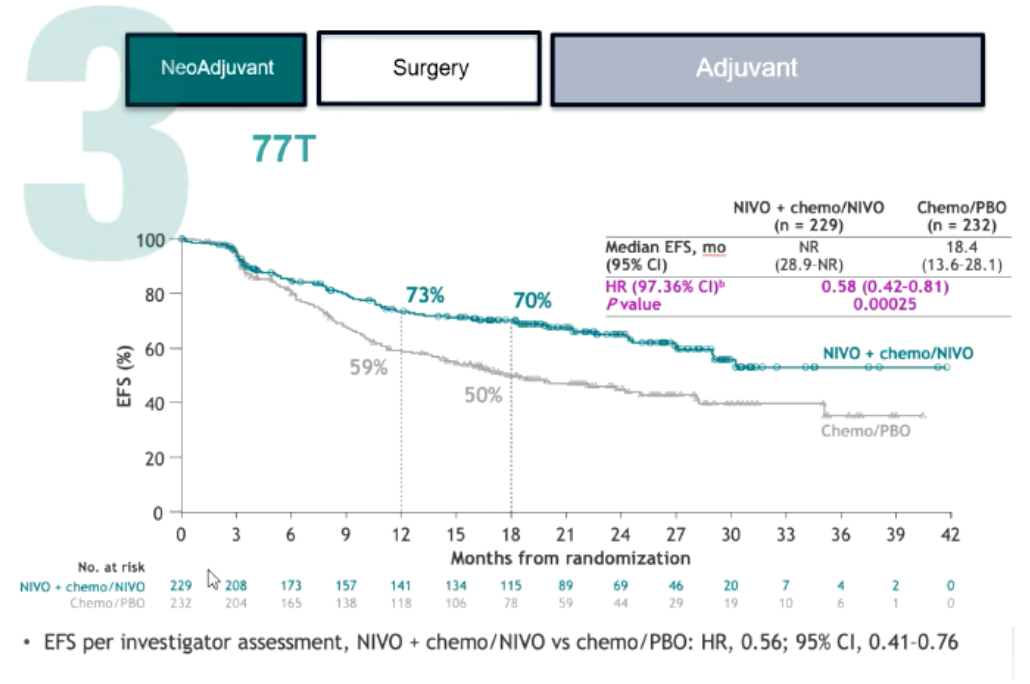


# Est-ce que le péri opératoire est supérieur au néo adjuvant?

NC



**HR 0.68 (0.49-0.93)**



**HR 0.58 (0.42-0.81)**



## CONCLUSION

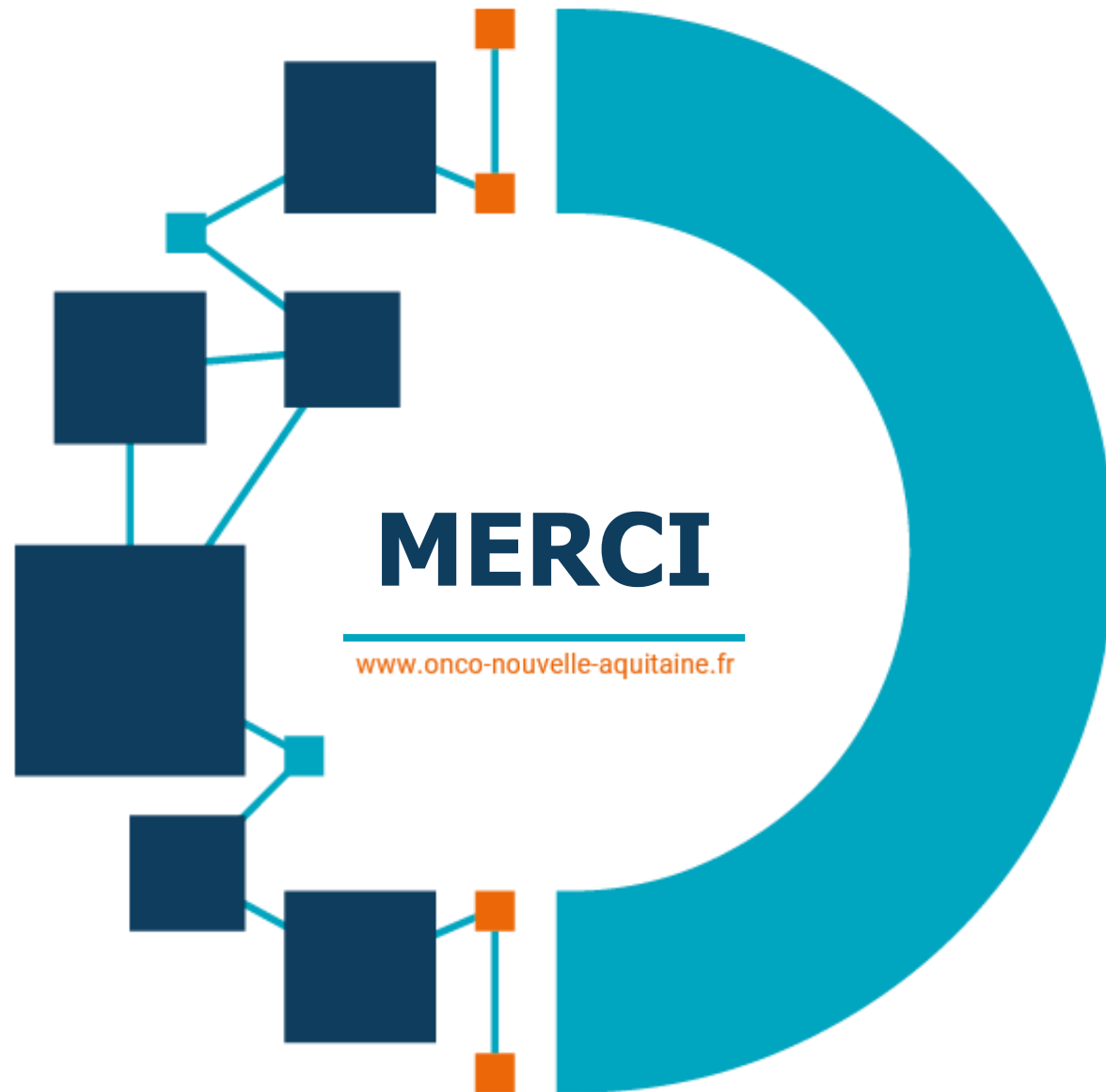
IMPORTANCE du testing des fusions de RET au DIAGNOSTIC pour le choix de la 1ere ligne:

nouveau standard avec le selpercatinib

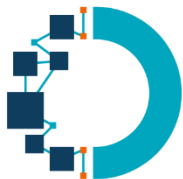
Nouveau standard en première ligne du mCBNPC avec mutation d'insertion de l'exon 20: amivantamab + chimio

WAIT AND SEE pour alectinib en adjuvant

Toujours plus de données en péri opératoire



# Amivantamab et mutations communes de l'EGFR



## MARIPOSA

**Titre: Amivantamab Plus Lazertinib Versus Osimertinib as First-line Treatment in EGFR-mutated Advanced NSCLC**

**Objectif I:** Survie sans progression (BICR)

**Résultats:**

- HR: **0.70** (95% CI, 0.58–0.85);  $P < 0.001$  (23,7 vs 16,6 mois)
- ORR: 86 vs 85%
- Durée médiane de réponse: 25,8 vs 16,8 mois

TEAE, n (%)	Amivantamab + Lazertinib (n=421)	Osimertinib (n=428)
Any AE	421 (100)	425 (99)
Grade ≥3 AEs	316 (75)	183 (43)

	Amivantamab + Lazertinib (n=421)	Osimertinib (n=428)
Any VTE, n (%)	157 (37)	39 (9)

## MARIPOSA2

**Titre: Amivantamab Plus Chemotherapy (With or Without Lazertinib) vs Chemotherapy in EGFR-mutated, Advanced NSCLC After Progression on Osimertinib**

**Objectif I:** Survie sans progression (SSP) des 2 bras expérimentaux (BICR)

**Résultats:**

- Ami + chimio vs chimio: HR= **0,48** (IC95%: 0.36–0.64,  $P < 0.001$ )
- Ami + lazertinib + chimio vs chimio: HR= **0,44** (IC95%: 0.35–0.56,  $P < 0.001$ )
- Taux de réponse objective: 36% vs 64% (bi) vs 63% (tri)
- SSP intracrânienne: statistiquement meilleure avec bithérapie (HR:0.55) ou triplette (HR: 0,58)

TEAE, n (%)	Chemotherapy (n=243)	Amivantamab-Chemotherapy (n=130)	Amivantamab-Lazertinib-Chemotherapy <sup>a</sup> (n=263)
Any AEs	227 (93)	130 (100)	263 (100)
Grade ≥3 AEs	117 (48)	94 (72)	242 (92)
Serious AEs	49 (20)	42 (32)	137 (52)

Most common TEAEs (≥25%) by preferred term, n (%)	Chemotherapy (n=243)		Amivantamab-Chemotherapy (n=130)		Amivantamab-Lazertinib-Chemotherapy <sup>a</sup> (n=263)	
	All grades	Grade ≥3	All grades	Grade ≥3	All grades	Grade ≥3
Neutropenia	101 (42)	52 (21)	74 (57)	59 (45)	181 (69)	144 (55)
Thrombocytopenia	72 (30)	22 (9)	57 (44)	19 (15)	158 (60)	96 (37)
VTE <sup>e</sup>	11 (5)	7 (3)	13 (10)	3 (2)	58 (22)	17 (6)