



RÉSEAU RÉGIONAL  
DE CANCÉROLOGIE  
BOURGOGNE FRANCHE-COMTÉ

# Nouvelles thérapeutiques dans les cancers du sein

## Journée des Formateurs



Centre Hospitalier Universitaire  
Dijon Bourgogne

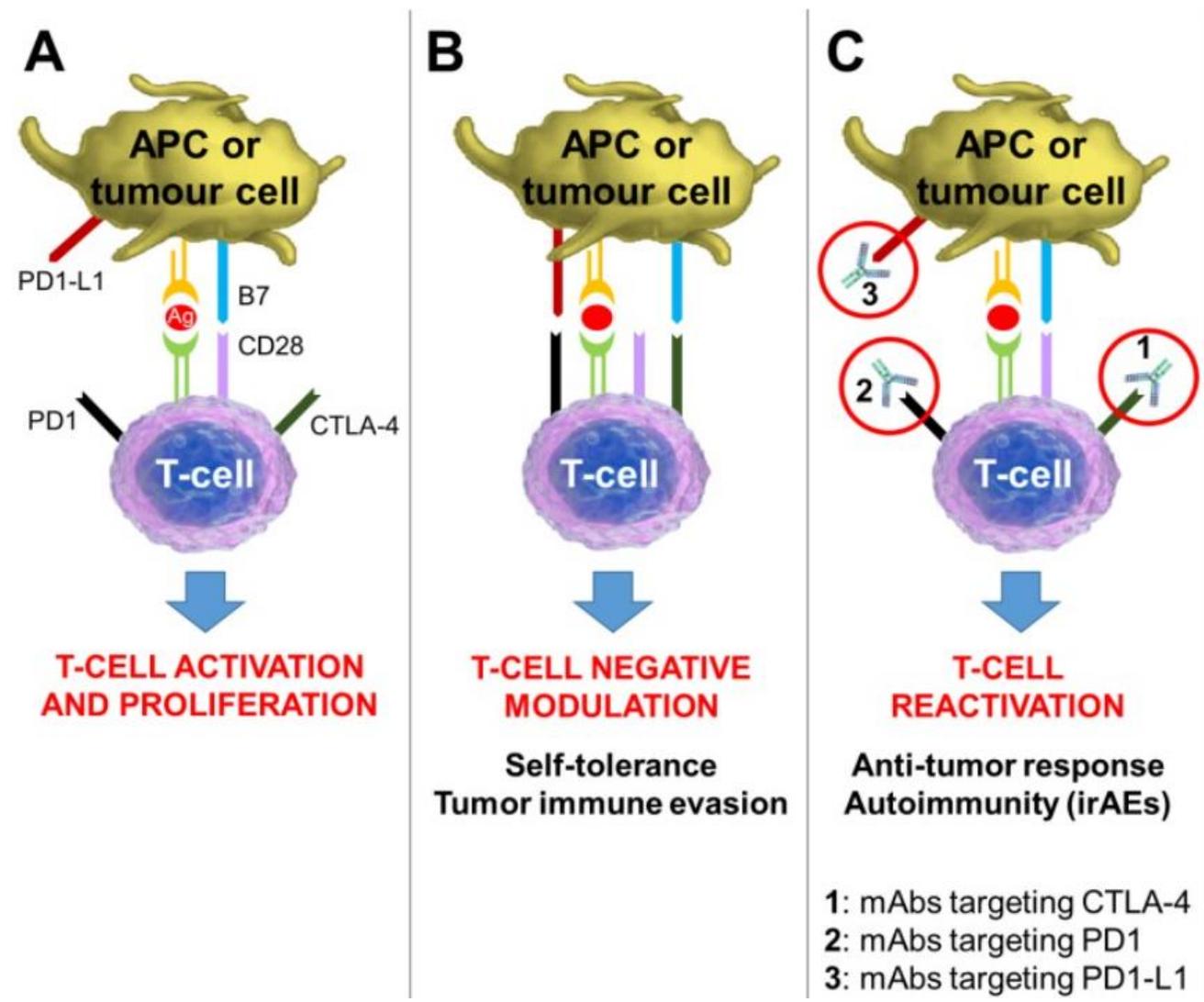
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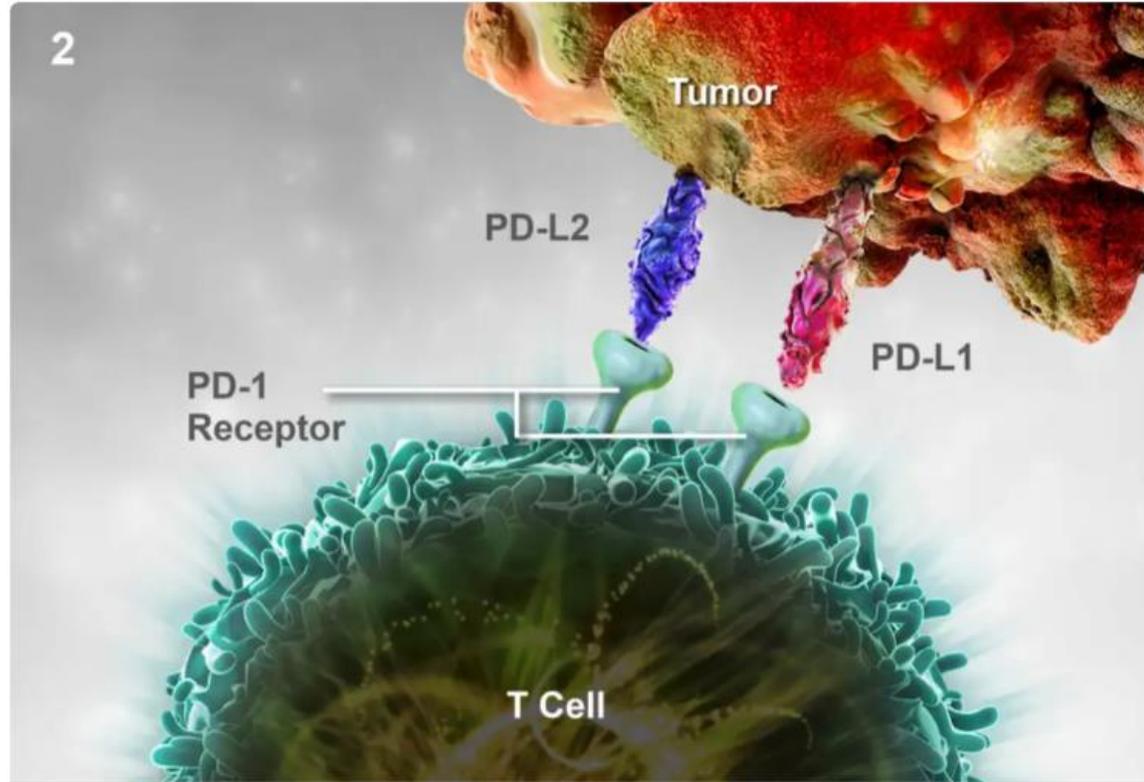
Dole

Dr NIOGRET Julie



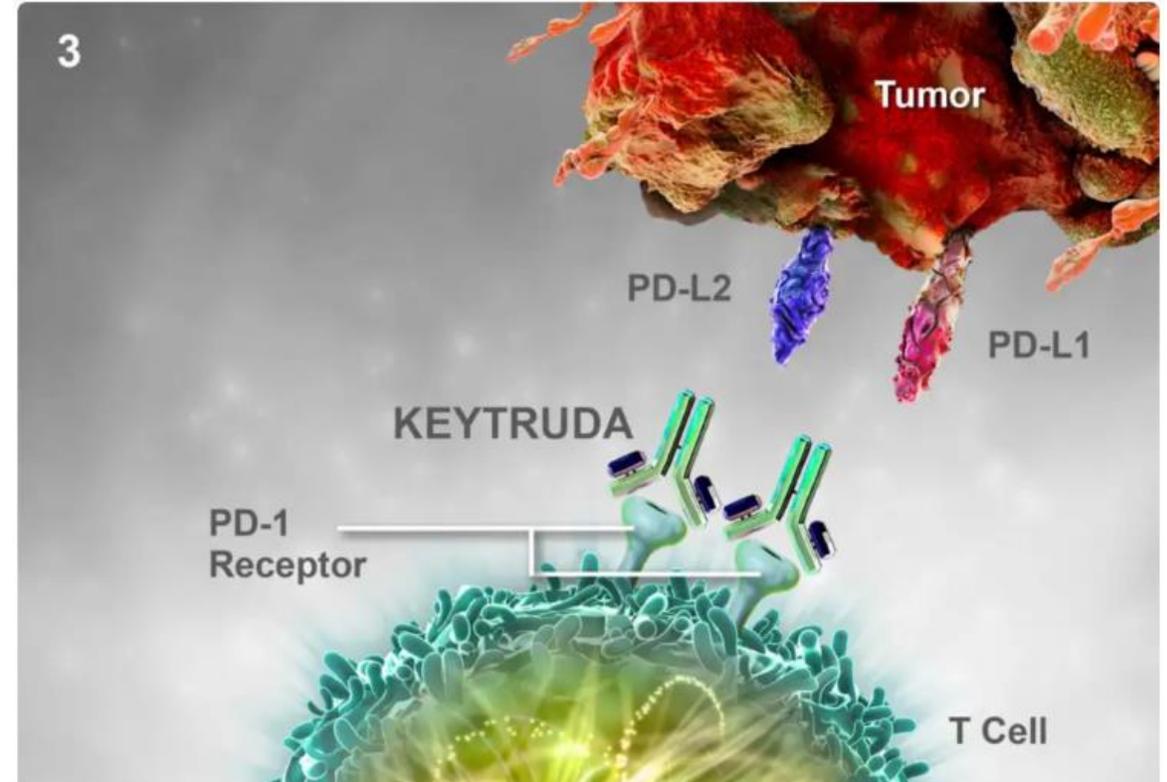
PEMBROLIZUMAB  
KEYTRUDA®





## Tumor evasion and T-cell deactivation

Some tumors can evade the immune system through the PD-1 pathway. The PD-L1 and PD-L2 ligands on tumors can bind with PD-1 receptors on T cells to inactivate the T cells.

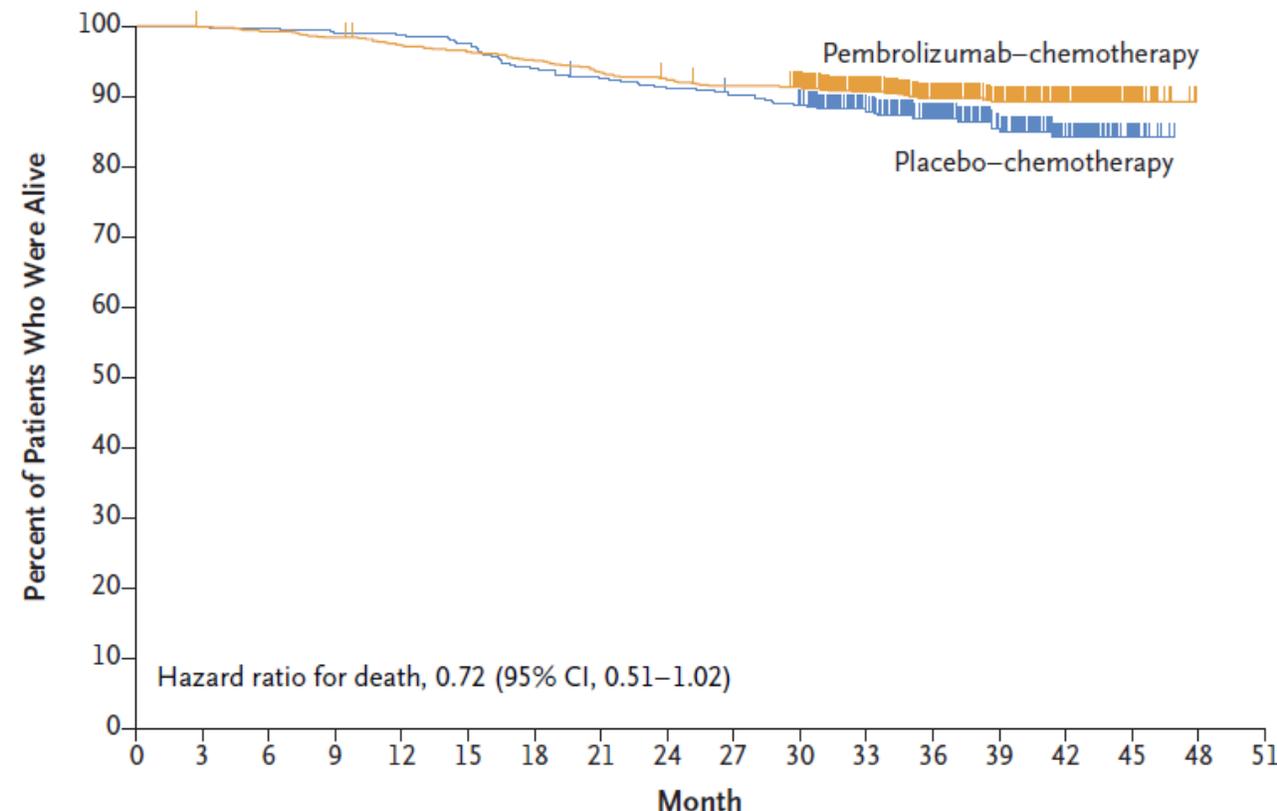
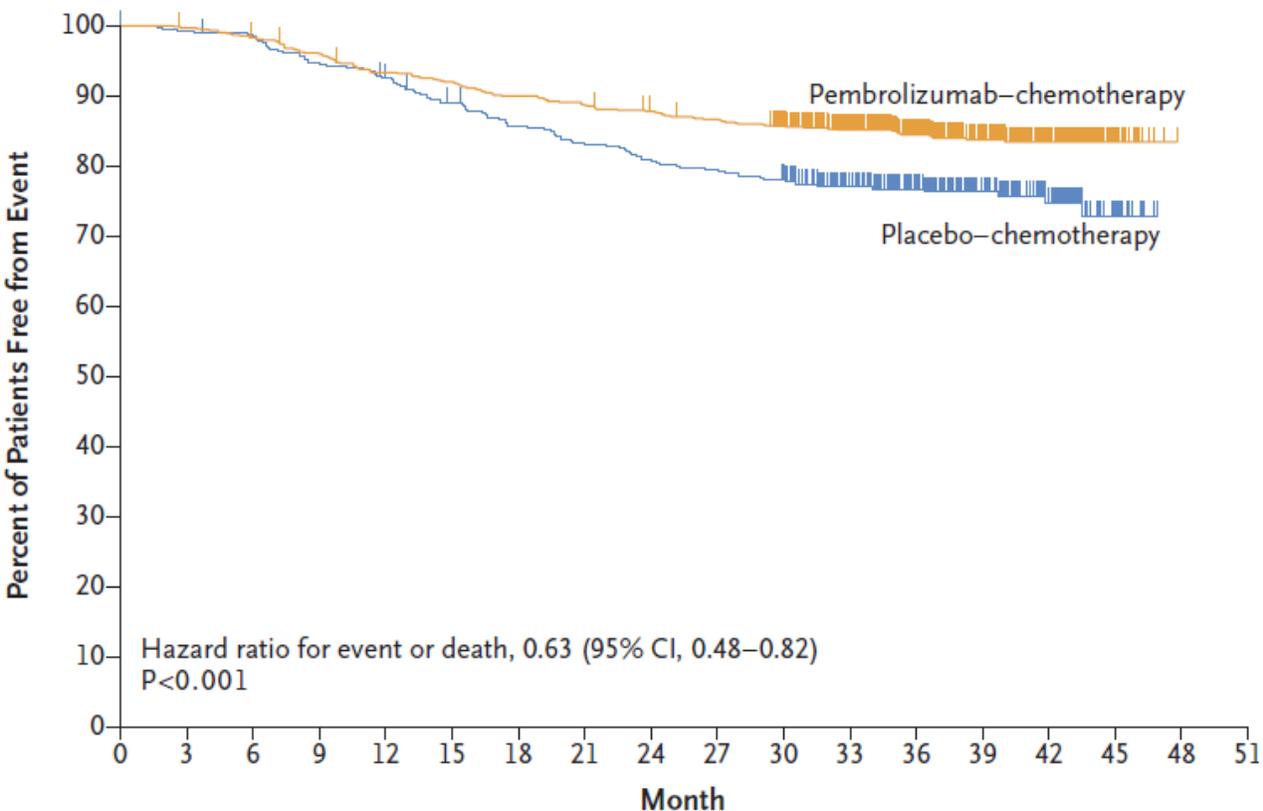


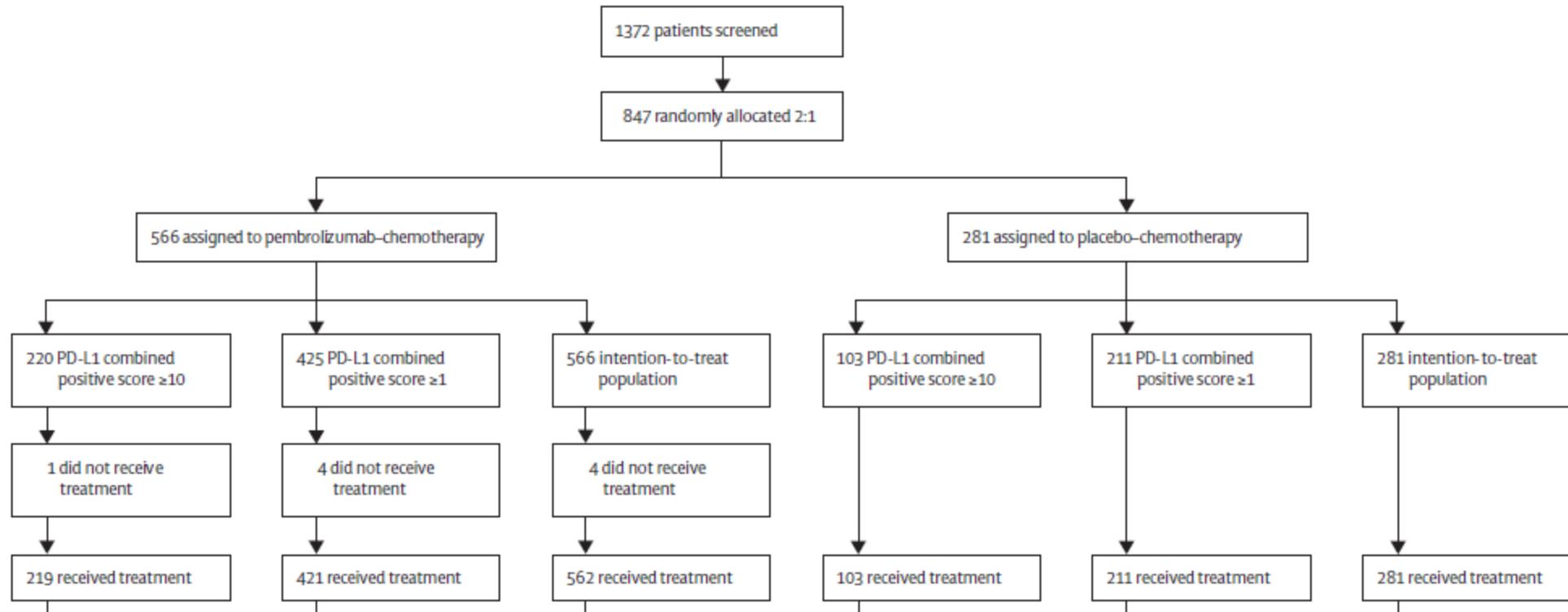
## T-cell reactivation with KEYTRUDA

KEYTRUDA binds to the PD-1 receptor and blocks its interaction with PD-L1 and PD-L2, which helps restore the immune response. While having an effect on the tumor, this could also affect normal healthy cells.

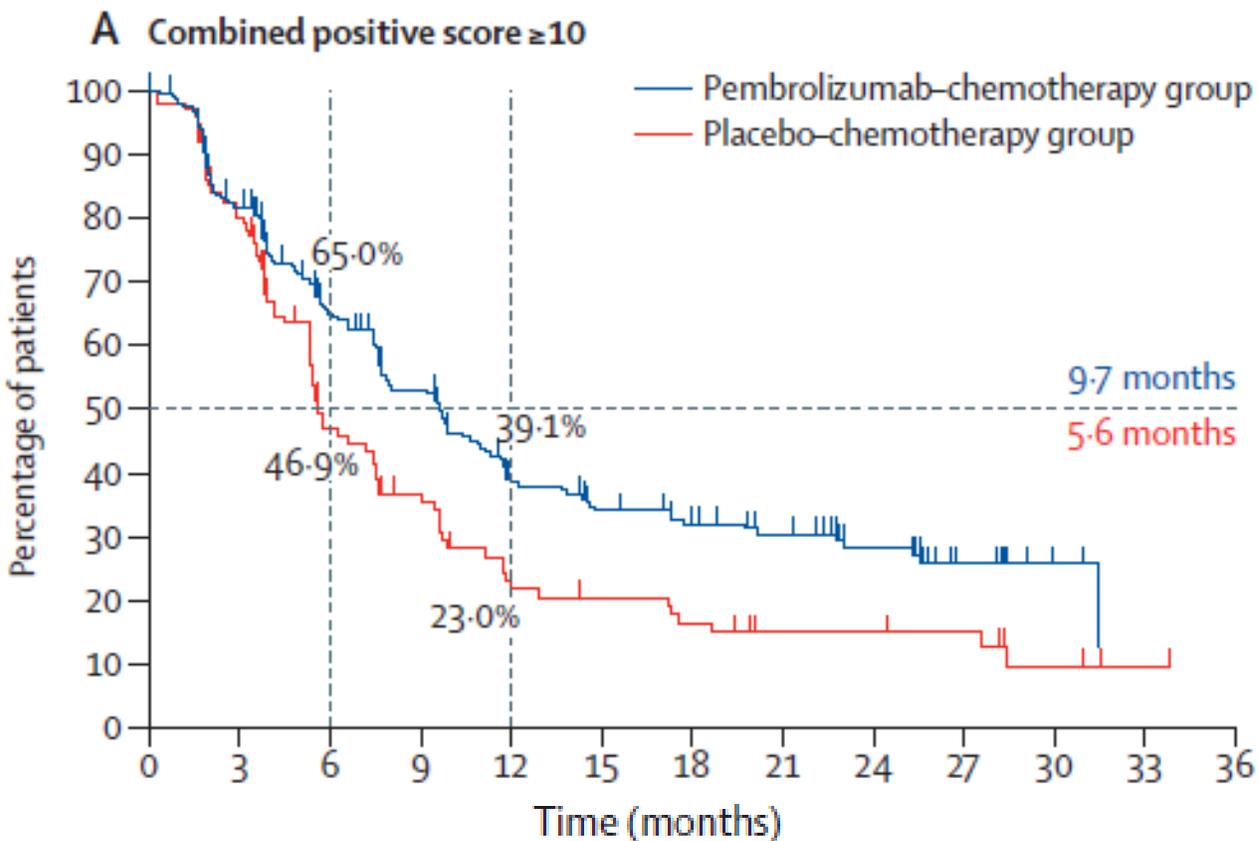
**Table 2. Pathological Complete Response, According to Pathological Stage.\***

Variable	Pembrolizumab–Chemotherapy (N=401)	Placebo–Chemotherapy (N=201)	Estimated Treatment Difference† percentage points (95% CI)	P Value
Pathological stage ypT0/Tis ypN0				
No. of patients	260	103		
Percentage of patients with response (95% CI)	64.8 (59.9–69.5)	51.2 (44.1–58.3)	13.6 (5.4–21.8)	P<0.001

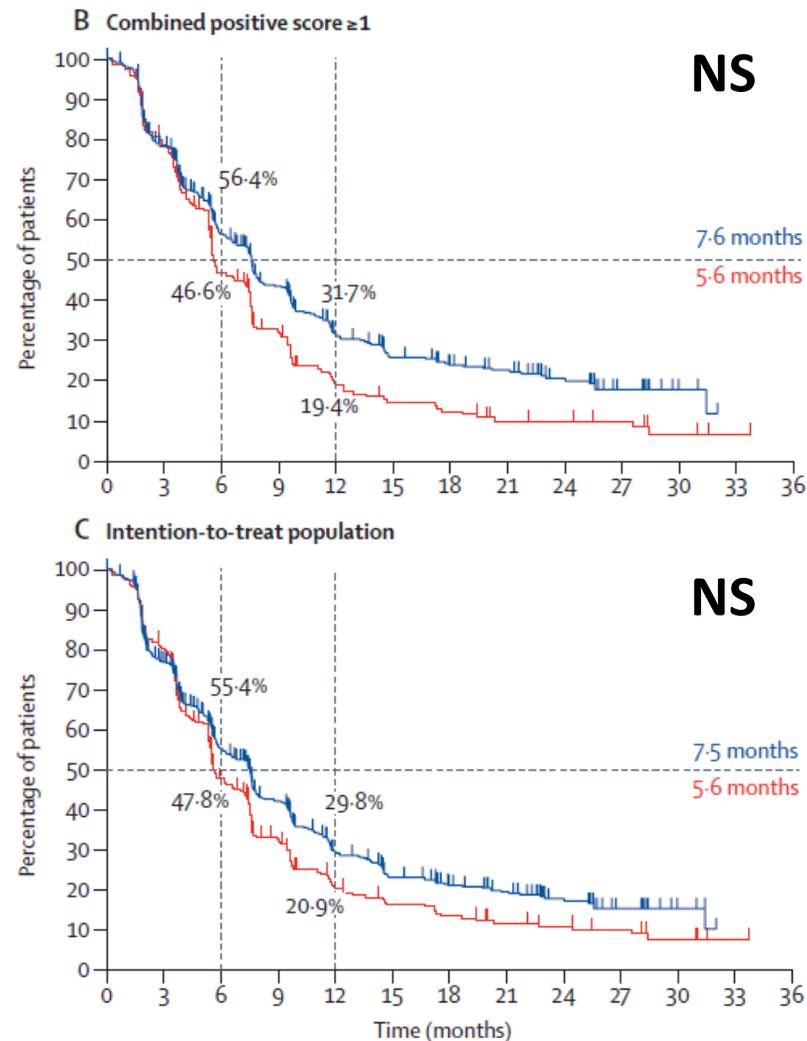


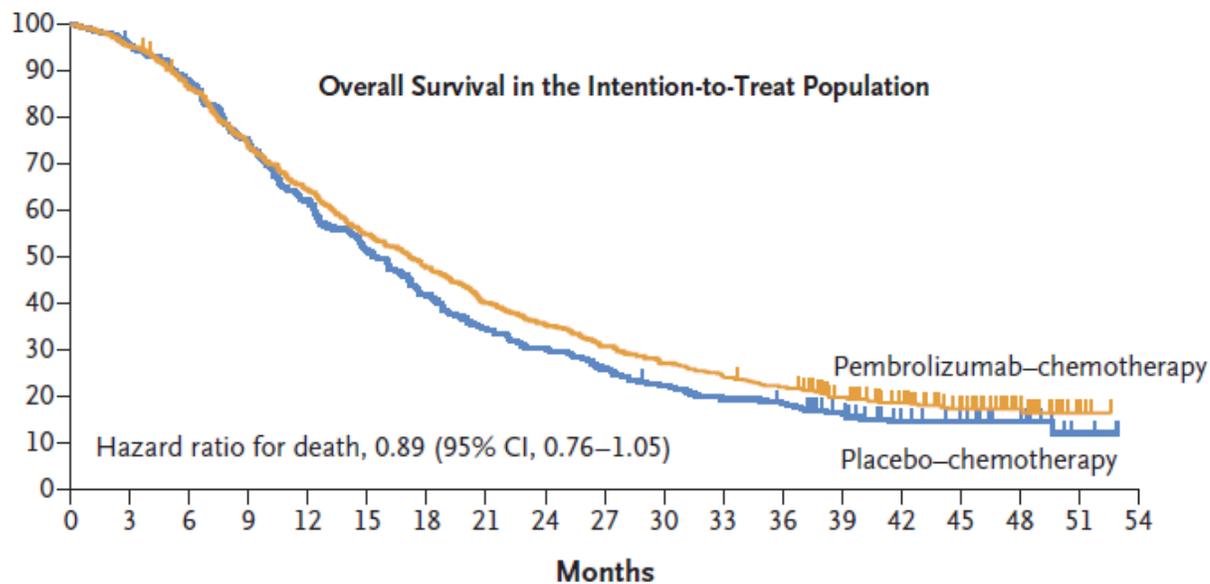
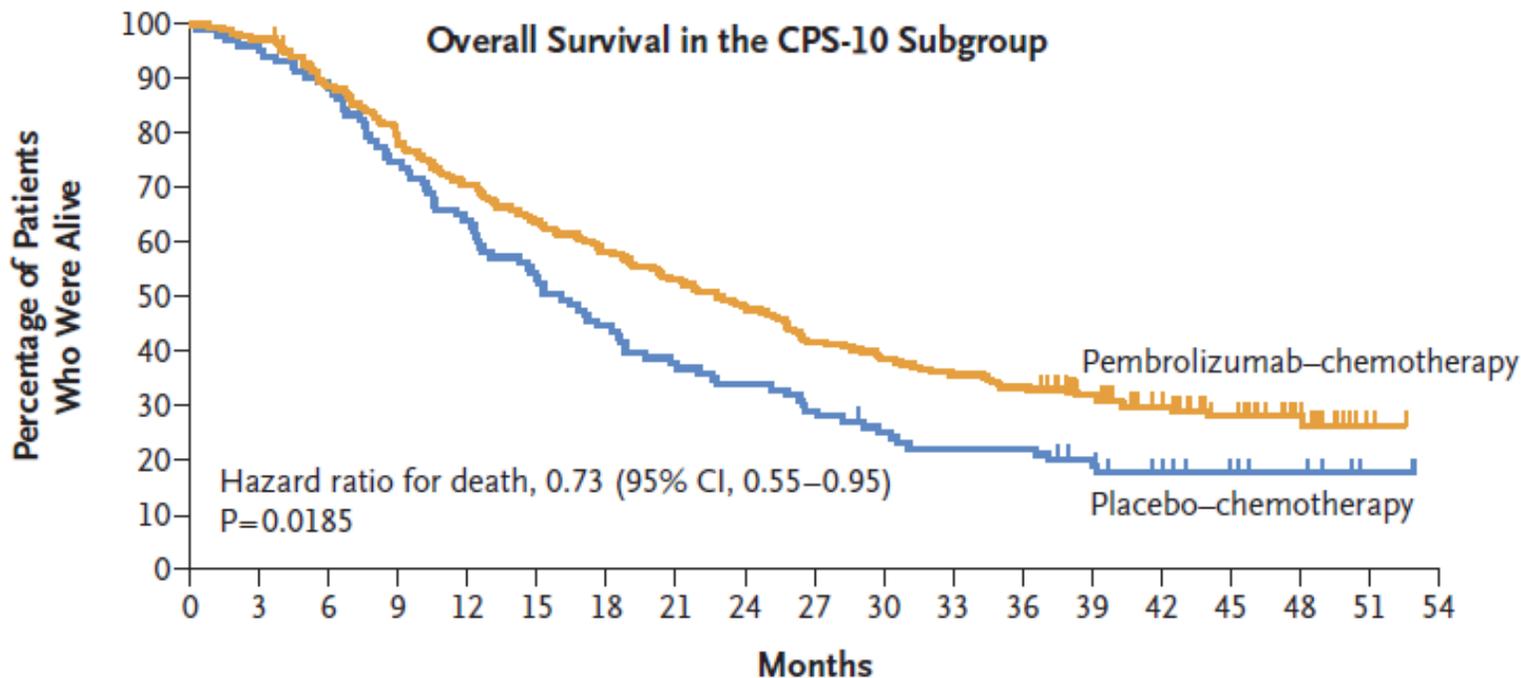


Stratification selon expression PD-L1 par la tumeur



**HR = 0,65 IC95 [0,49 – 0,86] p=0,0012**





Subgroup	No. of Patients	Median Overall Survival Pembrolizumab- chemotherapy mo	Median Overall Survival Placebo- chemotherapy mo	Hazard Ratio for Death (95% CI)
Overall	847	17.2	15.5	0.89 (0.76–1.05)
PD-L1 CPS cutoff of 1				
CPS ≥1	636	17.6	16.0	0.86 (0.72–1.04)
CPS <1	211	16.2	14.7	0.97 (0.72–1.32)
PD-L1 CPS cutoff of 10				
CPS ≥10	323	23.0	16.1	0.71 (0.54–0.93)
CPS <10	524	14.7	15.2	1.04 (0.85–1.26)
PD-L1 CPS cutoff of 20				
CPS ≥20	204	24.0	15.6	0.72 (0.51–1.01)
CPS <20	643	15.9	15.5	0.96 (0.80–1.14)

0.25 0.50 1.00 2.00 4.00

Pembrolizumab–Chemotherapy Better    Placebo–Chemotherapy Better

**Table 1. Immune checkpoint blockade (ICB) toxicities**

**Frequent (>10%) ICB toxicities**

Ipilimumab (anti-CTLA4): diarrhea, rash, pruritus, fatigue, nausea, vomiting, decreased appetite and abdominal pain

Nivolumab (anti-PD1): fatigue, rash, pruritus, diarrhea and nausea

Pembrolizumab (anti-PD1): diarrhea, nausea, pruritus, rash, arthralgia and fatigue

**Rare (<10%) life-threatening ICB toxicities**

Colitis and risk of gastrointestinal perforation

Pneumonitis including acute interstitial pneumonia/acute respiratory distress syndrome

Infusion reaction and anaphylactic shock

Type 1 diabetes and risk of diabetic ketoacidosis

Severe skin reactions, DRESS, Stevens Johnson syndrome

Hemolytic anemia or immune thrombocytopenia and hemorrhagic risk

Neutropenia and sepsis risk

Encephalopathy and neurological sequelae

Guillain-Barré syndrome and respiratory risk

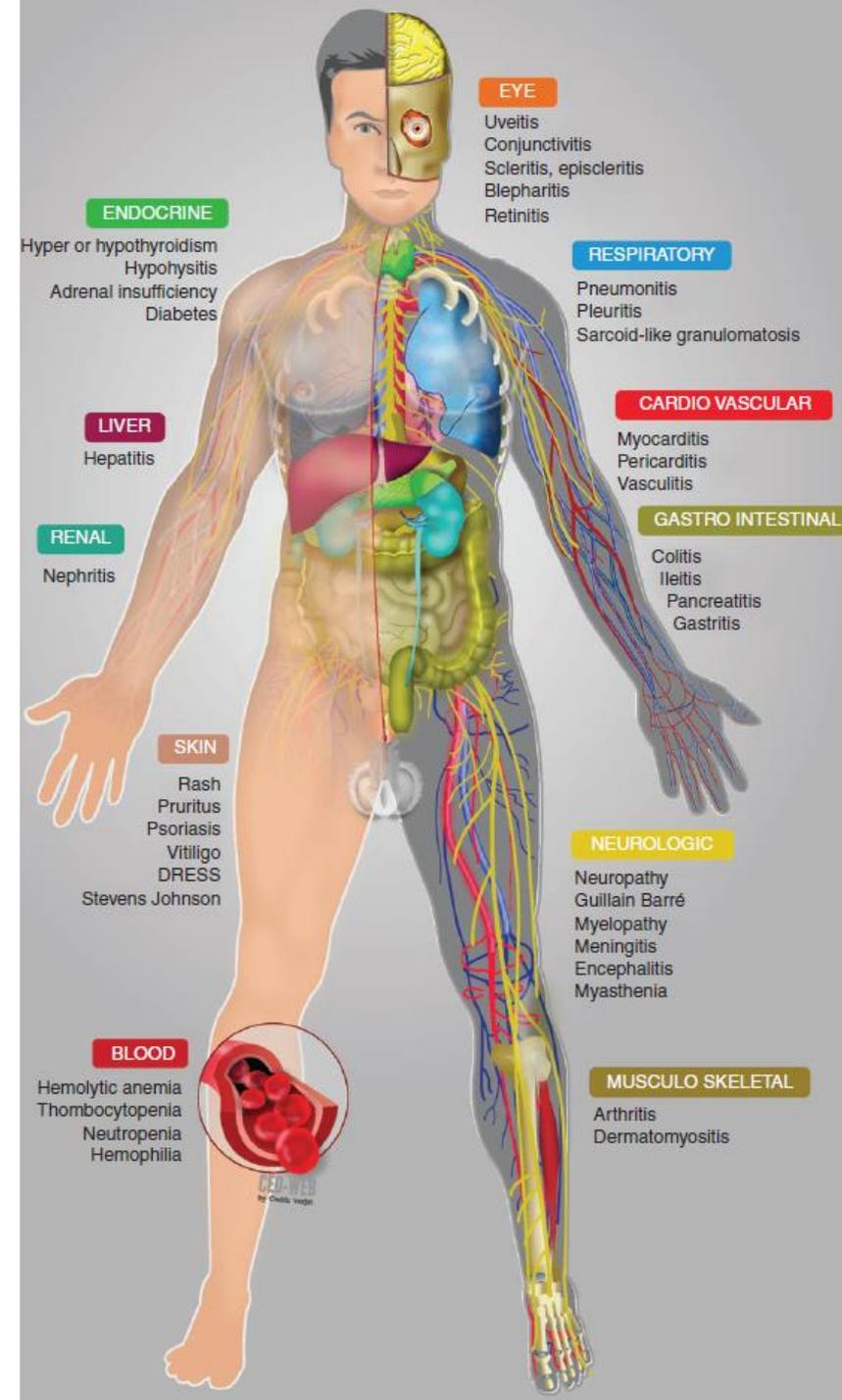
Myelitis and motor sequelae

Myocarditis and cardiac insufficiency

Acute adrenal insufficiency and hypovolemic shock

Pleural and pericardial effusion

Nephritis



# Tolérance

Event	Pembrolizumab–Chemotherapy (N = 781)		Placebo–Chemotherapy (N = 389)	
	Any Grade	Grade ≥3	Any Grade	Grade ≥3
	<i>number of patients (percent)</i>			
Any adverse event	777 (99.5)	633 (81.0)	389 (100.0)	295 (75.8)
Treatment-related adverse event†	773 (99.0)	600 (76.8)	388 (99.7)	281 (72.2)
Nausea	490 (62.7)	26 (3.3)	246 (63.2)	5 (1.3)
Alopecia	471 (60.3)	14 (1.8)	220 (56.6)	8 (2.1)
Anemia	430 (55.1)	142 (18.2)	215 (55.3)	58 (14.9)
Neutropenia	365 (46.7)	270 (34.6)	183 (47.0)	129 (33.2)
Fatigue	321 (41.1)	27 (3.5)	147 (37.8)	6 (1.5)
Diarrhea	230 (29.4)	17 (2.2)	92 (23.7)	5 (1.3)
Elevated alanine aminotransferase level	199 (25.5)	41 (5.2)	96 (24.7)	9 (2.3)
Vomiting	199 (25.5)	18 (2.3)	85 (21.9)	6 (1.5)
Asthenia	191 (24.5)	25 (3.2)	99 (25.4)	9 (2.3)
Constipation	185 (23.7)	0	82 (21.1)	0
Decreased neutrophil count	185 (23.7)	146 (18.7)	112 (28.8)	90 (23.1)
Rash	170 (21.8)	7 (0.9)	59 (15.2)	1 (0.3)
Peripheral neuropathy	154 (19.7)	15 (1.9)	82 (21.1)	4 (1.0)
Adverse event of interest‡	304 (38.9)	101 (12.9)	71 (18.3)	7 (1.8)
Infusion reaction	132 (16.9)	20 (2.6)	43 (11.1)	4 (1.0)
Hypothyroidism	107 (13.7)	3 (0.4)	13 (3.3)	0
Hyperthyroidism	36 (4.6)	2 (0.3)	4 (1.0)	0
Severe skin reaction	34 (4.4)	30 (3.8)	4 (1.0)	1 (0.3)
Adrenal insufficiency	18 (2.3)	10 (1.3)	0	0

Event	Pembrolizumab–Chemotherapy (N = 562)		Placebo–Chemotherapy (N = 281)	
	Any Grade	Grade 3, 4, or 5	Any Grade	Grade 3, 4, or 5
	<i>number of patients (percent)</i>			
Any adverse event	554 (98.6)	438 (77.9)	276 (98.2)	207 (73.7)
Adverse events that were attributed to the trial regimen†	541 (96.3)	383 (68.1)	267 (95.0)	188 (66.9)
Anemia	276 (49.1)	93 (16.5)	129 (45.9)	41 (14.6)
Neutropenia	231 (41.1)	167 (29.7)	107 (38.1)	84 (29.9)
Nausea	221 (39.3)	9 (1.6)	116 (41.3)	4 (1.4)
Alopecia	186 (33.1)	5 (0.9)	94 (33.5)	3 (1.1)
Fatigue	161 (28.6)	16 (2.8)	84 (29.9)	7 (2.5)
Neutrophil count decreased	126 (22.4)	98 (17.4)	74 (26.3)	57 (20.3)
Alanine aminotransferase increased	115 (20.5)	34 (6.0)	46 (16.4)	13 (4.6)
Immune-mediated adverse events‡	149 (26.5)	30 (5.3)	18 (6.4)	0
Hypothyroidism	89 (15.8)	2 (0.4)	9 (3.2)	0
Hyperthyroidism	24 (4.3)	1 (0.2)	3 (1.1)	0
Pneumonitis	14 (2.5)	6 (1.1)	0	0
Colitis	10 (1.8)	2 (0.4)	4 (1.4)	0
Severe skin reactions	10 (1.8)	10 (1.8)§	1 (0.4)	0

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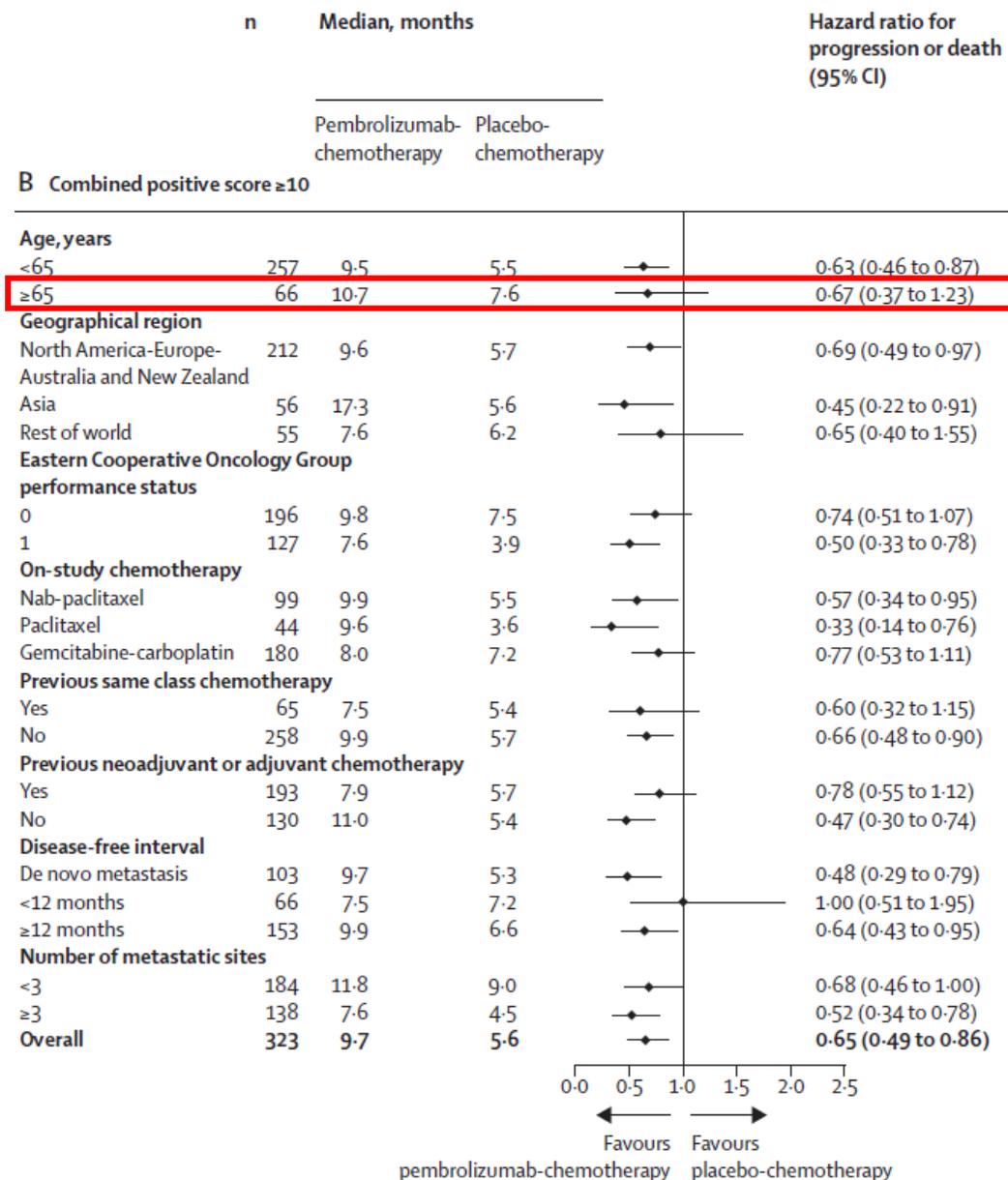
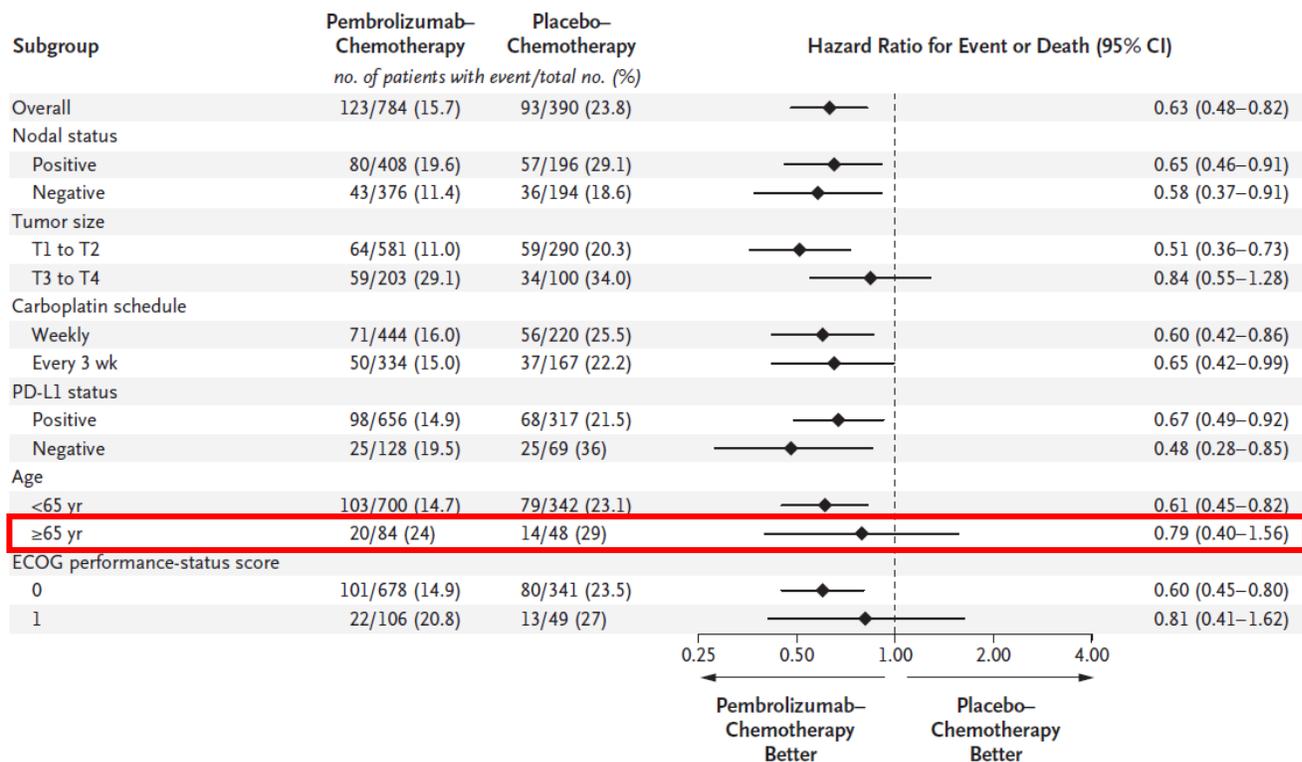
Autorisation d'accès précoce octroyée le 17 mars 2022 à la spécialité KEYTRUDA (pembrolizumab) dans l'indication « en association à une chimiothérapie comme traitement néoadjuvant, puis poursuivi après la chirurgie en monothérapie comme traitement adjuvant, dans le traitement des patients adultes atteints d'un cancer du sein triple négatif localement avancé, inflammatoire ou de stade précoce à haut risque de récurrence ».

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KEYTRUDA (pembrolizumab) en association à une chimiothérapie, est un traitement de première ligne du cancer du sein triple négatif localement récurrent non résécable ou métastatique, dont les tumeurs expriment PD-L1 avec un CPS  $\geq 10$ .

Faute de comparaison, la place de cette association en première ligne par rapport aux inhibiteurs de PARP en cas de tumeur avec mutation BRCA1/2, reste à déterminer.

# Données chez les personnes âgées



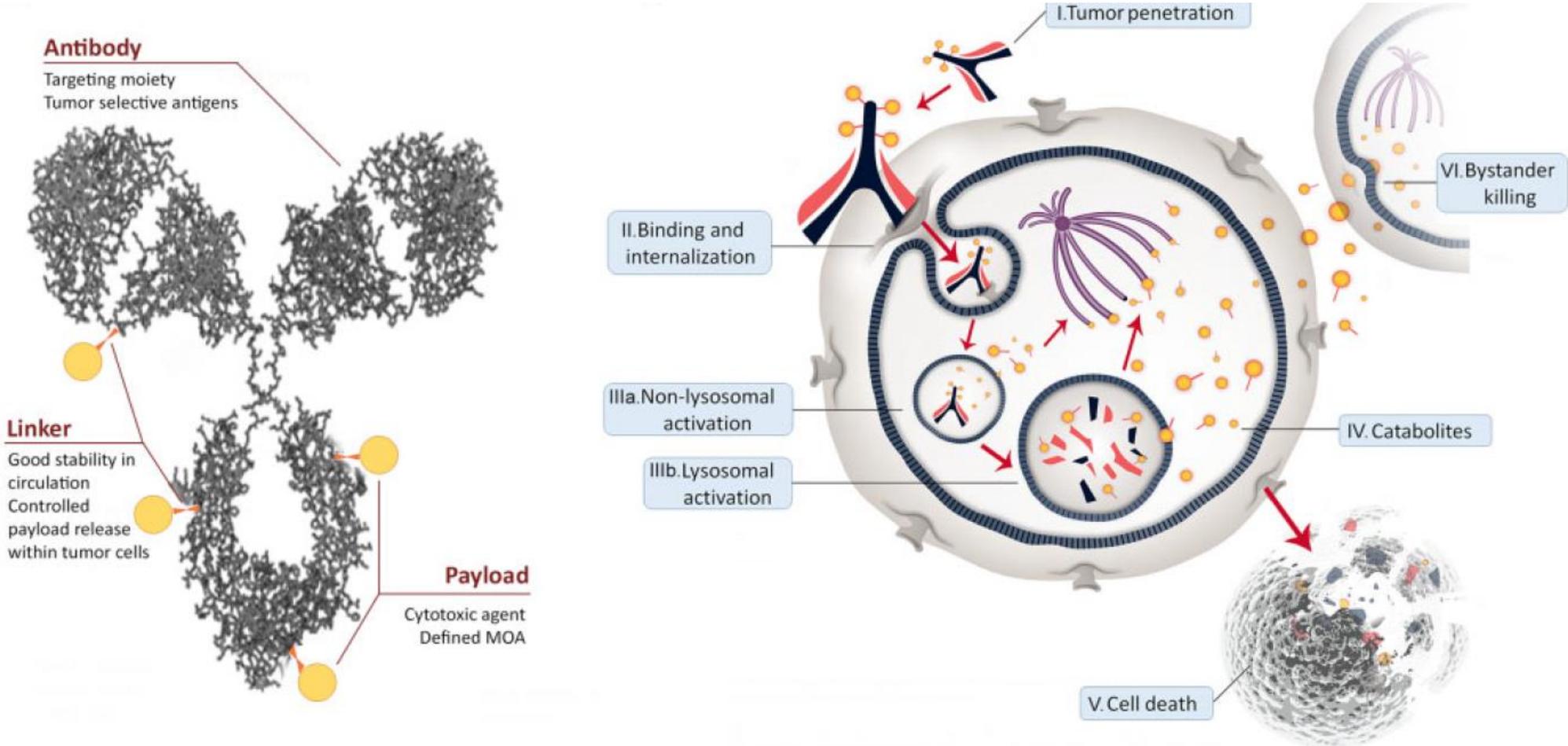
# Données chez les personnes âgées

	Age ≥ 75 Years, n = 149				Age < 75 Years, n = 1323			
	Any		Grade ≥ 3		Any		Grade ≥ 3	
<b>Treatment-related AEs</b>	<b>102</b>	<b>(68.5)</b>	<b>36</b>	<b>(24.2)</b>	<b>862</b>	<b>(65.2)</b>	<b>224</b>	<b>(16.9)</b>
Serious	24	(16.1)	20	(13.4)	170	(12.8)	137	(10.4)
Led to discontinuation	16	(10.7)	10	(6.7)	90	(6.8)	73	(5.5)
Led to death <sup>b</sup>	2	(1.3)	2	(1.3)	17	(1.3)	17	(1.3)
Occurring in > 10% of patients in any group								
Fatigue	26	(17.4)	3	(2.0)	140	(10.6)	13	(1.0)
Decreased appetite	19	(12.8)	1	(0.7)	119	(9.0)	9	(0.7)
Pruritus	19	(12.8)	1	(0.7)	106	(8.0)	3	(0.2)
Rash	18	(12.1)	2	(1.3)	119	(9.0)	4	(0.3)
Nausea	14	(9.4)	1	(0.7)	103	(7.8)	2	(0.2)
Diarrhea	9	(6.0)	1	(0.7)	102	(7.7)	12	(0.9)
Anemia	7	(4.7)	1	(0.7)	62	(4.7)	11	(0.8)
Asthenia	4	(2.7)	1	(0.7)	73	(5.5)	6	(0.5)
Constipation	3	(2.0)	0		34	(2.6)	0	
Vomiting	3	(2.0)	0		43	(3.3)	2	(0.2)
Platelet count decreased	1	(0.7)	0		4	(0.3)	1	(0.1)
Thrombocytopenia	1	(0.7)	0		7	(0.5)	2	(0.2)
WBC count decreased	1	(0.7)	0		5	(0.4)	0	
Alopecia	0		0		9	(0.7)	0	
Neutropenia	0		0		8	(0.6)	1	(0.1)
Neutrophil count decreased	0		0		5	(0.4)	0	
<b>Immune-mediated AEs and infusion reactions</b>	<b>37</b>	<b>(24.8)</b>	<b>14</b>	<b>(9.4)</b>	<b>331</b>	<b>(25.0)</b>	<b>94</b>	<b>(7.1)</b>
Hypothyroidism	13	(8.7)	0		138	(10.4)	1	(0.1)
Pneumonitis	11	(7.4)	4	(2.7)	90	(6.8)	39	(2.9)
Hyperthyroidism	8	(5.4)	0		76	(5.7)	2	(0.2)
Severe skin reactions	4	(2.7)	3	(2.0)	30	(2.3)	24	(1.8)
Hypophysitis	3	(2.0)	3	(2.0)	5	(0.4)	4	(0.3)
Hepatitis	2	(1.3)	2	(1.3)	10	(0.8)	6	(0.5)
Colitis	2	(1.3)	1	(0.7)	14	(1.1)	9	(0.7)
Adrenal insufficiency	2	(1.3)	1	(0.7)	8	(0.6)	2	(0.2)
Myocarditis	1	(0.7)	1	(0.7)	0		0	
Infusion reactions	1	(0.7)	0		16	(1.2)	1	(0.1)
Thyroiditis	1	(0.7)	0		19	(1.4)	0	
Pancreatitis	1	(0.7)	0		6	(0.5)	4	(0.3)
Myositis	0		0		6	(0.5)	0	
Nephritis	0		0		5	(0.4)	3	(0.2)
Type 1 diabetes mellitus	0		0		4	(0.3)	4	(0.3)

Profil tolérance superposable sujets jeunes

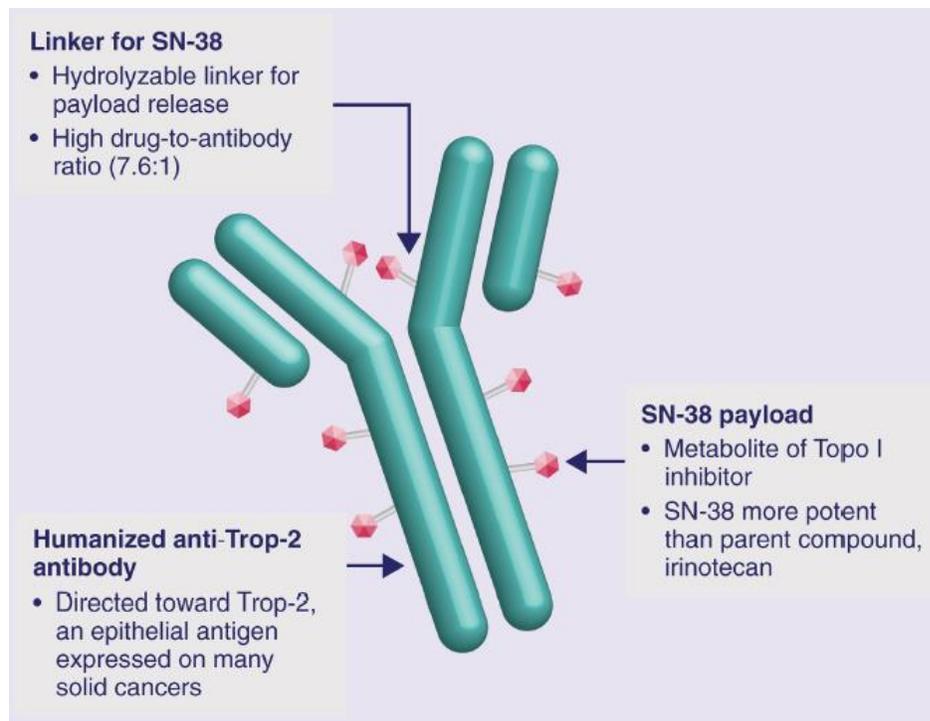
SACITUZUMAB GOVITECAN  
TRODELVY®

Ac monoclonal reconnaissant Ag tumoral + agent cytotoxique par liaison chimique  
→ diminue exposition tissus normaux → moins toxicité



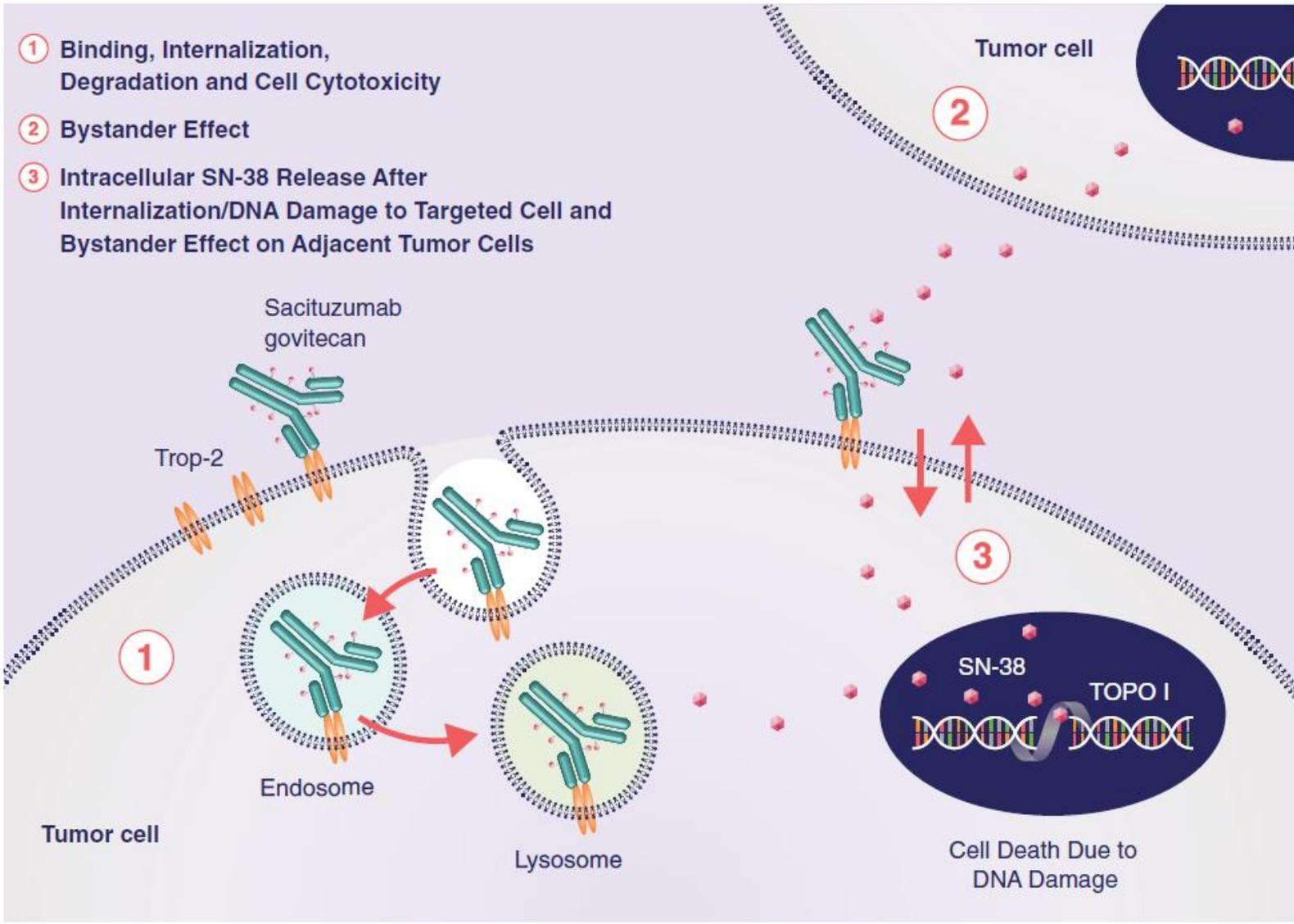
# Mécanisme d'action

# Sacituzumab govitecan - Trodelvy®

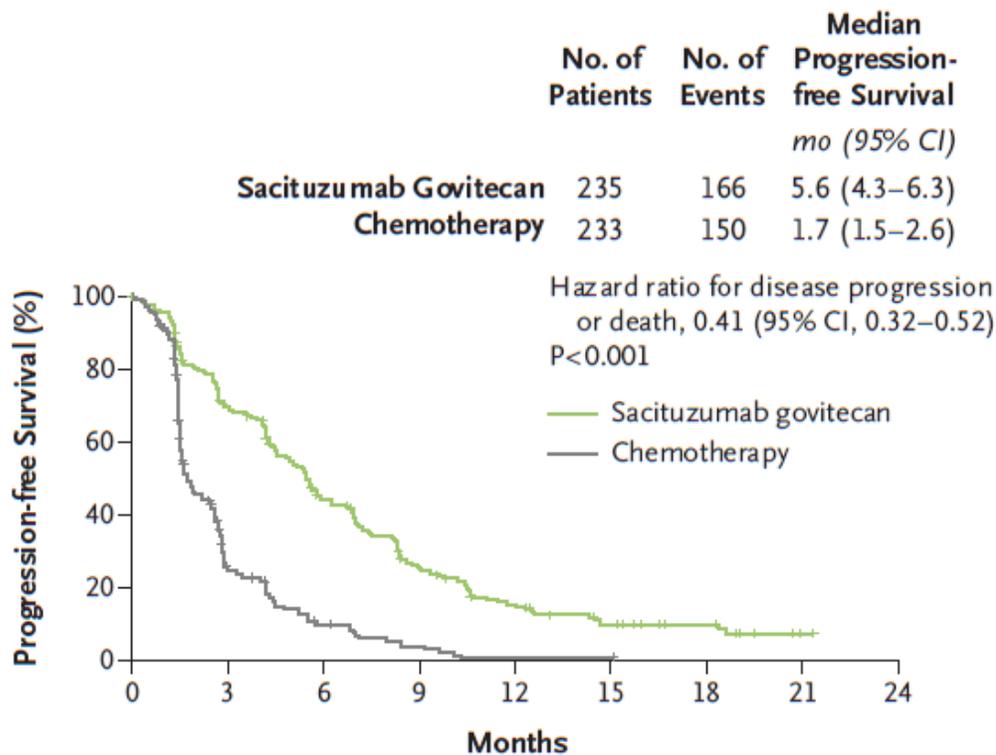


**Trop 2**  
Exprimé > 90% cancer sein  
Mauvais pronostic

**SN38**  
Métabolite actif Irinotecan  
Membrane perméable

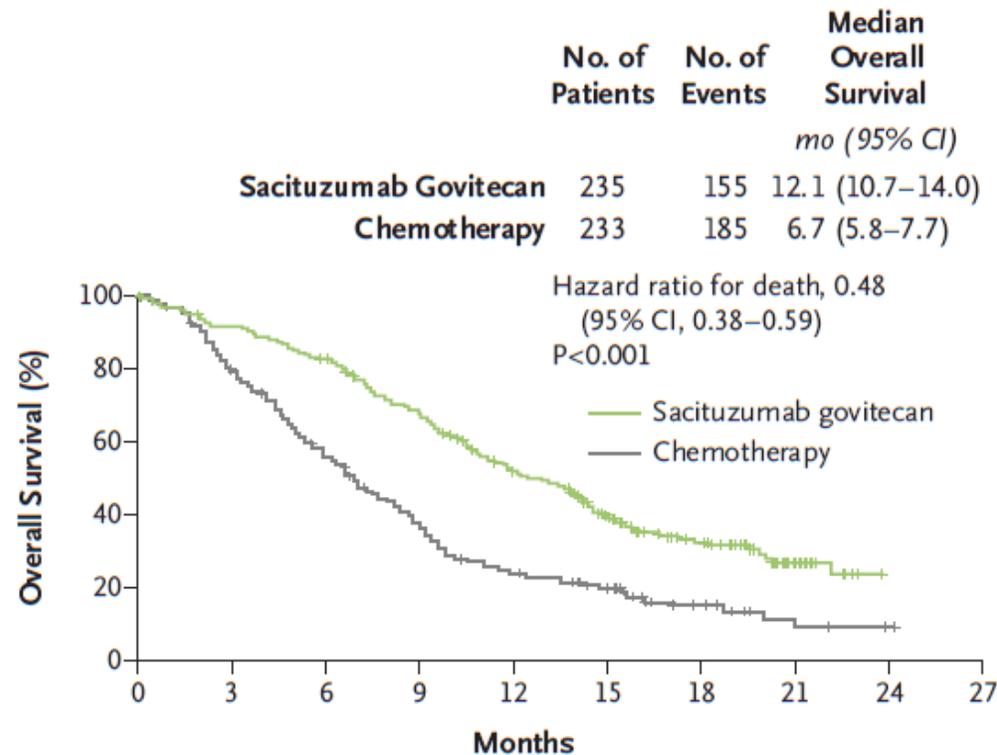


A Progression-free Survival among Patients without Brain Metastases



No. at Risk	0	3	6	9	12	15	18	21
Sacituzumab govitecan	235	154	91	49	28	15	9	1
Chemotherapy	233	39	14	5	1	1	0	0

B Overall Survival among Patients without Brain Metastases



No. at Risk	0	3	6	9	12	15	18	21	24
Sacituzumab govitecan	235	214	190	153	107	70	37	13	0
Chemotherapy	233	173	117	74	45	30	11	3	1

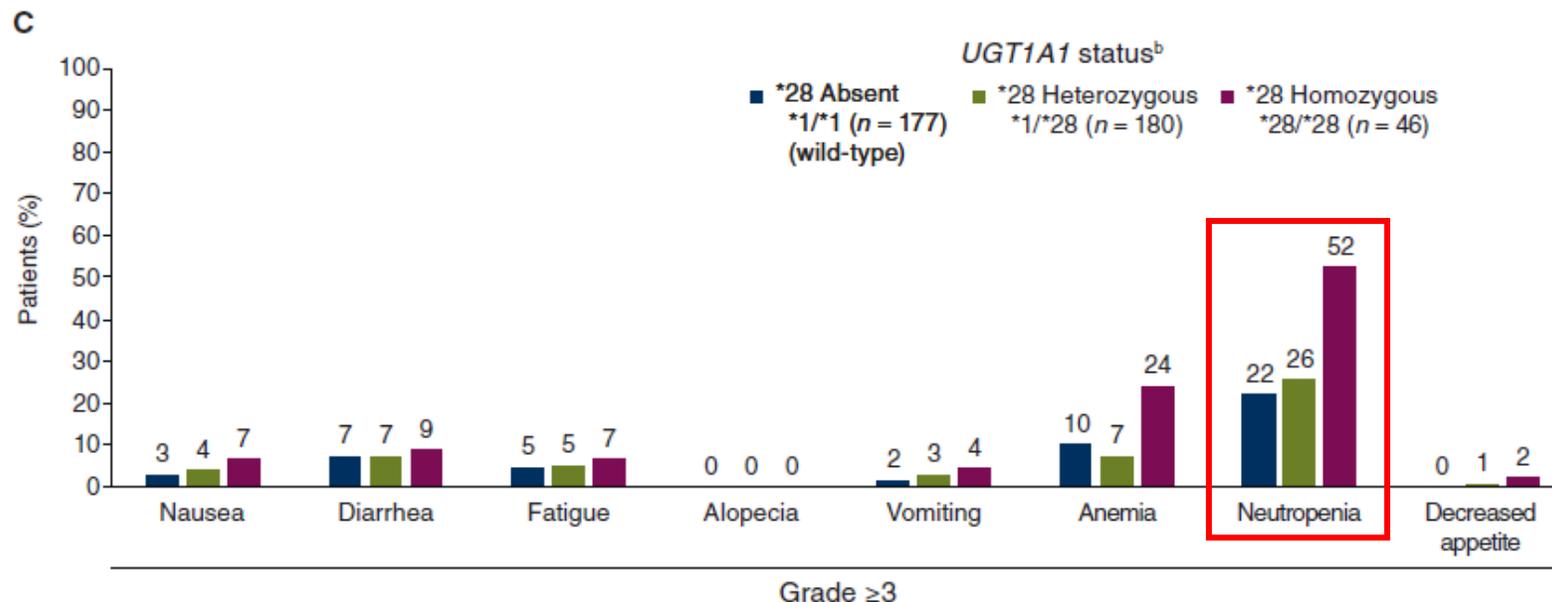
# Tolérance

Adverse Event	Sacituzumab Govitecan (N = 258)			Chemotherapy (N = 224)		
	Any Grade	Grade 3	Grade 4	Any Grade	Grade 3	Grade 4
	<i>number of patients (percent)</i>					
Any adverse event	252 (98)	117 (45)	48 (19)	192 (86)	71 (32)	33 (15)
Hematologic event						
Neutropenia†	163 (63)	88 (34)	44 (17)	96 (43)	45 (20)	29 (13)
Anemia‡	89 (34)	20 (8)	0	54 (24)	11 (5)	0
Leukopenia§	41 (16)	23 (9)	3 (1)	25 (11)	10 (4)	2 (1)
Thrombocytopenia¶	14 (5)	2 (1)	2 (1)	25 (11)	3 (1)	0
Febrile neutropenia	15 (6)	12 (5)	3 (1)	5 (2)	4 (2)	1 (<1)
Gastrointestinal event						
Diarrhea	153 (59)	27 (10)	0	27 (12)	1 (<1)	0
Nausea	147 (57)	6 (2)	1 (<1)	59 (26)	1 (<1)	0
Vomiting	75 (29)	2 (1)	1 (<1)	23 (10)	1 (<1)	0
Constipation	44 (17)	0	0	32 (14)	0	0
Abdominal pain	29 (11)	3 (1)	0	9 (4)	1 (<1)	0
General disorders and administration-site conditions						
Fatigue	115 (45)	8 (3)	0	68 (30)	12 (5)	0
Asthenia	31 (12)	2 (1)	0	23 (10)	3 (1)	0
Skin and subcutaneous disorders: alopecia	119 (46)	0	0	35 (16)	0	0
Metabolism and nutrition disorders: decreased appetite	51 (20)	4 (2)	0	32 (14)	1 (<1)	0
Nervous system disorders**††	64 (25)	1 (<1)	0	53 (24)	5 (2)	0
Respiratory, thoracic, and mediastinal disorders††	41 (16)	5 (2)‡‡	0	17 (8)	1 (<1)	0
Musculoskeletal and connective-tissue disorders††	32 (12)	0	0	28 (12)	3 (1)	0
Infections and infestations††	30 (12)	6 (2)	1 (<1)	22 (10)	4 (2)	3 (1)

**Table 2. Selected key TRAEs of interest observed in ≥20% of patients in the overall safety population (N = 495)**

TRAE, n (%)	All grades	Grade 3	Grade 4
Any adverse reaction, n (%)	483 (97.6)	284 (57.4)	73 (14.7)
Gastrointestinal			
Nausea	310 (62.6)	18 (3.6)	0
Diarrhea	278 (56.2)	39 (7.9)	0
Vomiting	191 (38.6)	14 (2.8)	0
Hematologic			
Neutropenia	286 (57.8)	143 (28.9)	67 (13.5)
Febrile neutropenia <sup>a</sup>	27 (5.5)	21 (4.2)	5 (1.0)
Anemia	173 (34.9)	51 (10.3)	0
Systemic/other			
Fatigue	239 (48.3)	31 (6.3)	0
Alopecia	200 (40.4)	0	0

# Tolérance



**Table 5. TRAEs by UGT1A1 Genotype (All Grade, >20%; Grade 3/4, >5% of Patients)**

		SG (n=250) <sup>†</sup>					
		*1/*1 Wild-Type (n=113)		*1/*28 Heterozygous (n=96)		*28/*28 Homozygous (n=34)	
TRAE <sup>‡</sup>		All Grade, %	Grade ≥3, %	All Grade, %	Grade ≥3, %	All Grade, %	Grade ≥3, %
Hematologic	<b>Neutropenia<sup>§</sup></b>	<b>76 (67)</b>	<b>60 (53)</b>	<b>55 (57)</b>	<b>45 (47)</b>	<b>24 (71)</b>	<b>20 (59)</b>
	Anemia <sup>  </sup>	37 (33)	5 (4)	29 (30)	6 (6)	16 (47)	5 (15)
	Leukopenia <sup>**</sup>	18 (16)	10 (9)	13 (14)	9 (9)	8 (24)	5 (15)
	Lymphopenia <sup>¶</sup>	10 (9)	1 (1)	5 (5)	1 (1)	4 (12)	2 (6)
	<b>Febrile neutropenia</b>	<b>3 (3)</b>	<b>3 (3)</b>	<b>5 (5)</b>	<b>5 (5)</b>	<b>6 (18)</b>	<b>6 (18)</b>
	Thrombocytopenia <sup>=</sup>	3 (3)	0	6 (6)	0	4 (12)	4 (12)
Gastrointestinal	<b>Diarrhea</b>	<b>65 (58)</b>	<b>11 (10)</b>	<b>57 (59)</b>	<b>9 (9)</b>	<b>21 (62)</b>	<b>5 (15)</b>

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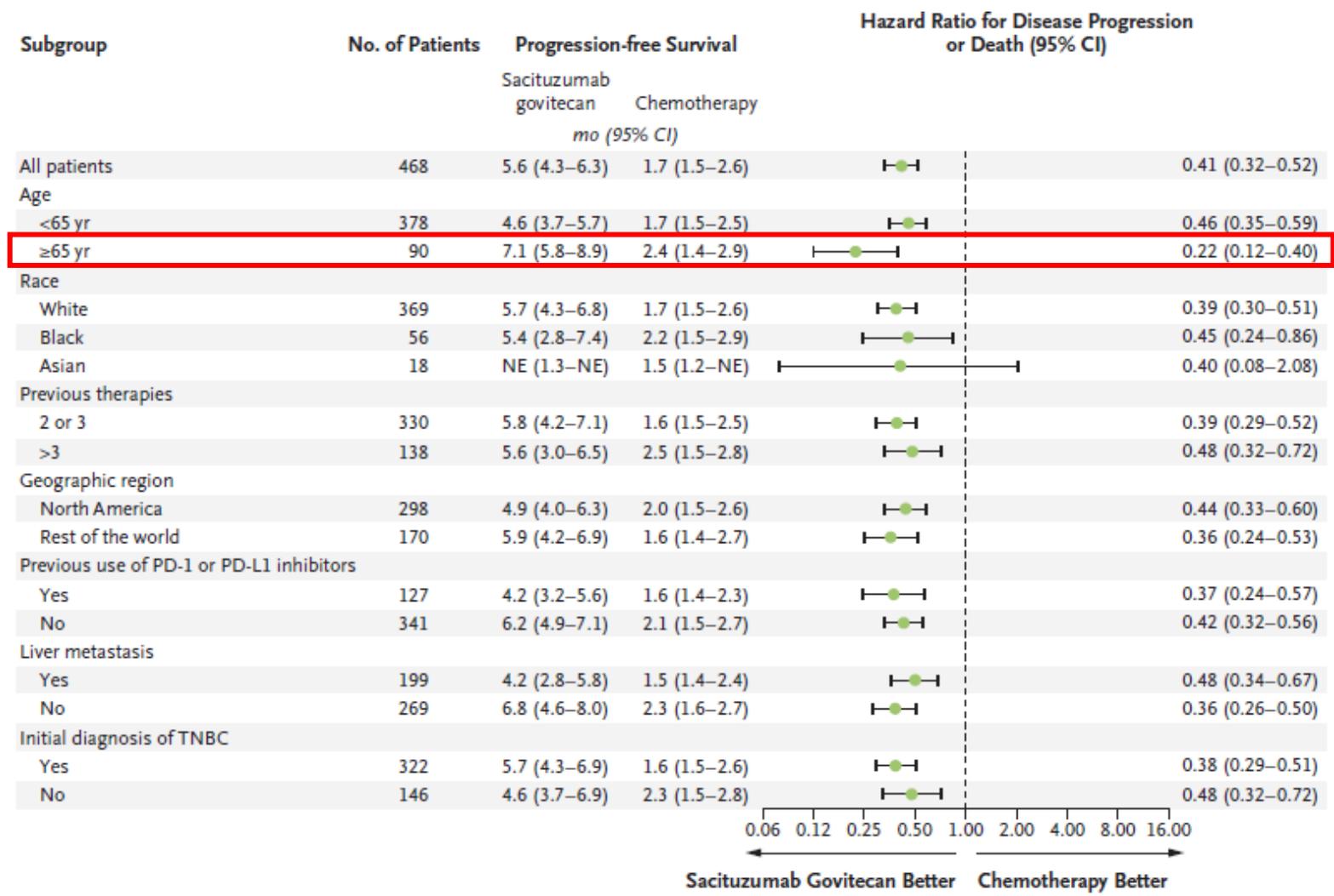
**TRODELVY (sacituzumab govitecan) est un traitement des patients adultes atteints de cancer du sein triple négatif (TNBC) non résécable ou métastatique ayant déjà reçu au moins deux traitements systémiques, dont au moins un pour une forme avancée de la maladie.**

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**En prenant en compte l'introduction récente dans la stratégie thérapeutique de l'immunothérapie (pembrolizumab) en première ligne du cancer du sein triple négatif, la place du sacituzumab govitecan en cas de tumeur avec expression du PD-L1, reste à définir.**

# Données chez les personnes âgées



	SG	Chimiothérapie
≥ 65 ans	49 (19%)	48 (21%)
≥ 75 ans	8 (3%)	13 (5,8%)

# Données chez les personnes âgées

	SG	Chimiothérapie
≥ 65 ans	49 (19%)	48 (21%)
≥ 75 ans	8 (3%)	13 (5,8%)

**Table 2.** Treatment-related adverse events of all grades reported in >20% and of grade 3 or 4 reported in >5% of patients by age.

TRAE <sup>1</sup> , n (%)	SG						TPC					
	<65 years (n = 209)			≥65 years (n = 49)			<65 years (n = 176)			≥65 years (n = 48)		
	All grades	Grade 3	Grade 4	All grades	Grade 3	Grade 4	All grades	Grade 3	Grade 4	All grades	Grade 3	Grade 4
<b>Hematologic</b>												
Neutropenia <sup>2</sup>	134 (64)	76 (36)	34 (16)	29 (59)	12 (24)	10 (20)	75 (43)	30 (17)	25 (14)	21 (44)	15 (31)	4 (8)
Anemia <sup>3</sup>	63 (30)	13 (6)	0	26 (53)	7 (14)	0	40 (23)	8 (5)	0	14 (29)	3 (6)	0
Leukopenia <sup>4</sup>	33 (16)	19 (9)	2 (1)	8 (16)	4 (8)	1 (2)	18 (10)	8 (5)	2 (1)	7 (15)	2 (4)	0
Febrile neutropenia	11 (5)	10 (5)	1 (<1)	4 (8)	2 (4)	2 (4)	5 (3)	4 (2)	1 (1)	0	0	0
<b>Gastrointestinal</b>												
Diarrhea	121 (58)	22 (11)	0	32 (65)	5 (10)	0	20 (11)	1 (1)	0	7 (15)	0	0
Nausea	123 (59)	6 (3)	1 (<1)	24 (49)	0	0	48 (27)	0	0	11 (23)	1 (2)	0
Constipation	32 (15)	0	0	12 (24)	0	0	27 (15)	0	0	5 (10)	0	0
Vomiting	63 (30)	2 (1)	1 (<1)	12 (24)	0	0	20 (11)	0	0	3 (6)	1 (2)	0
<b>Other</b>												
Fatigue	91 (44)	6 (3)	0	24 (49)	2 (4)	0	49 (28)	10 (6)	0	19 (40)	2 (4)	0
Alopecia	101 (48)	0	0	18 (37)	0	0	27 (15)	0	0	8 (17)	0	0
Decreased appetite	40 (19)	2 (1)	0	11 (22)	2 (4)	0	25 (14)	1 (1)	0	7 (15)	0	0

Profil tolérance idem <65 ans

**+ réduction dose ≥ 65ans**

Asthénie

Nausée

Diarrhée

Neutropénie fébrile

TRASTUZUMAB EMTANSINE  
KADCYLA®

# Mécanisme d'action

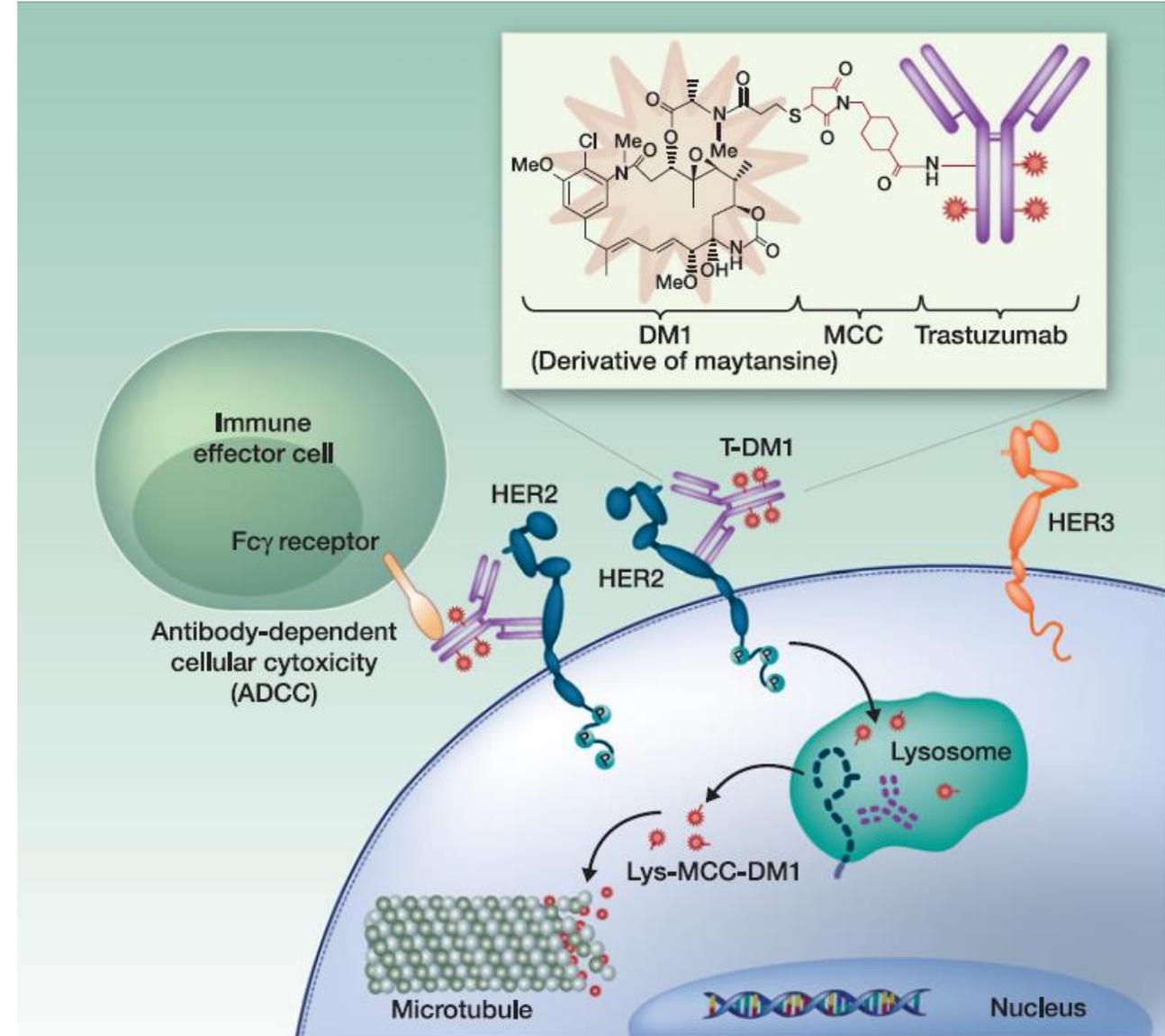
# ADC : Trastuzumab Emtansine - Kadcylla®

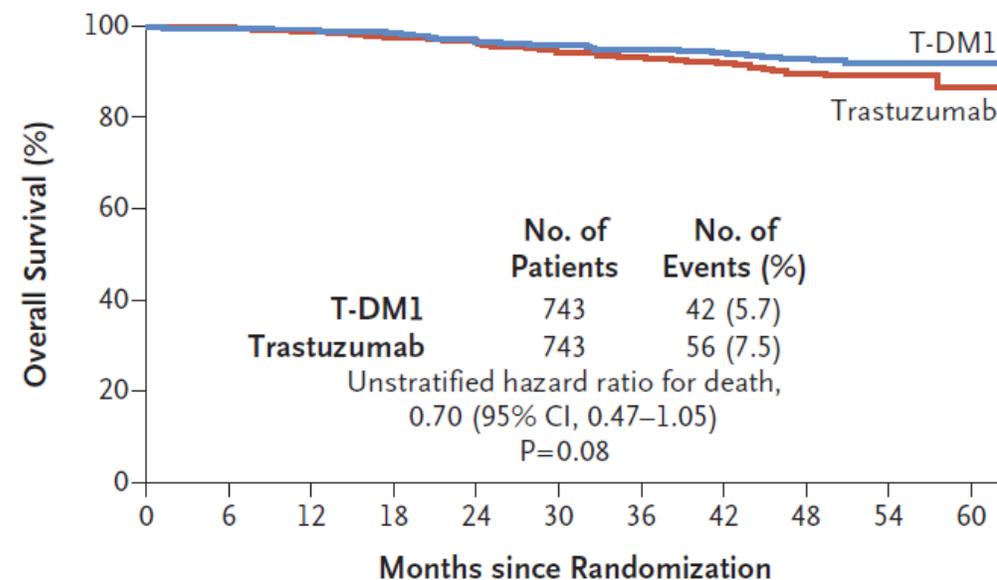
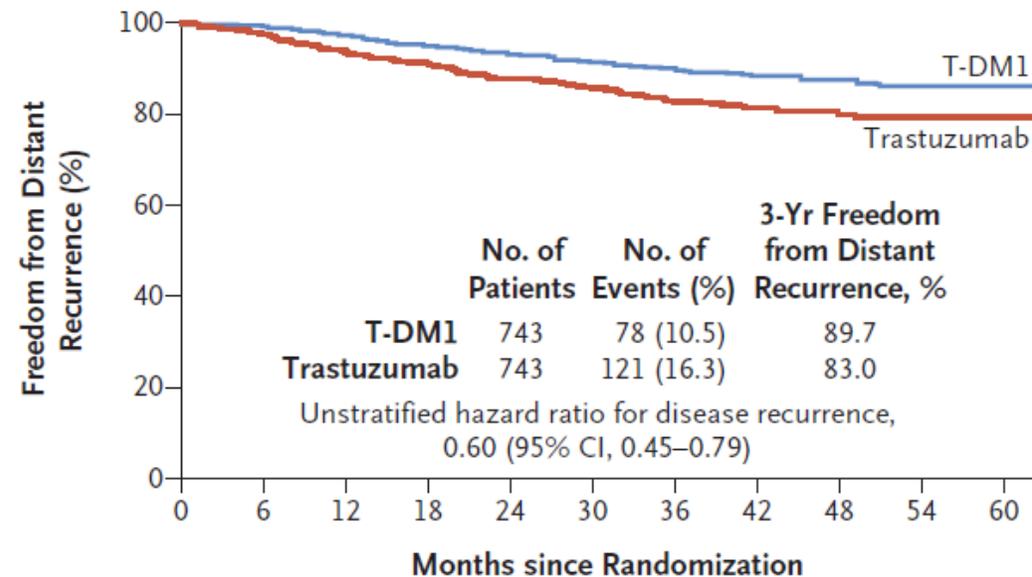
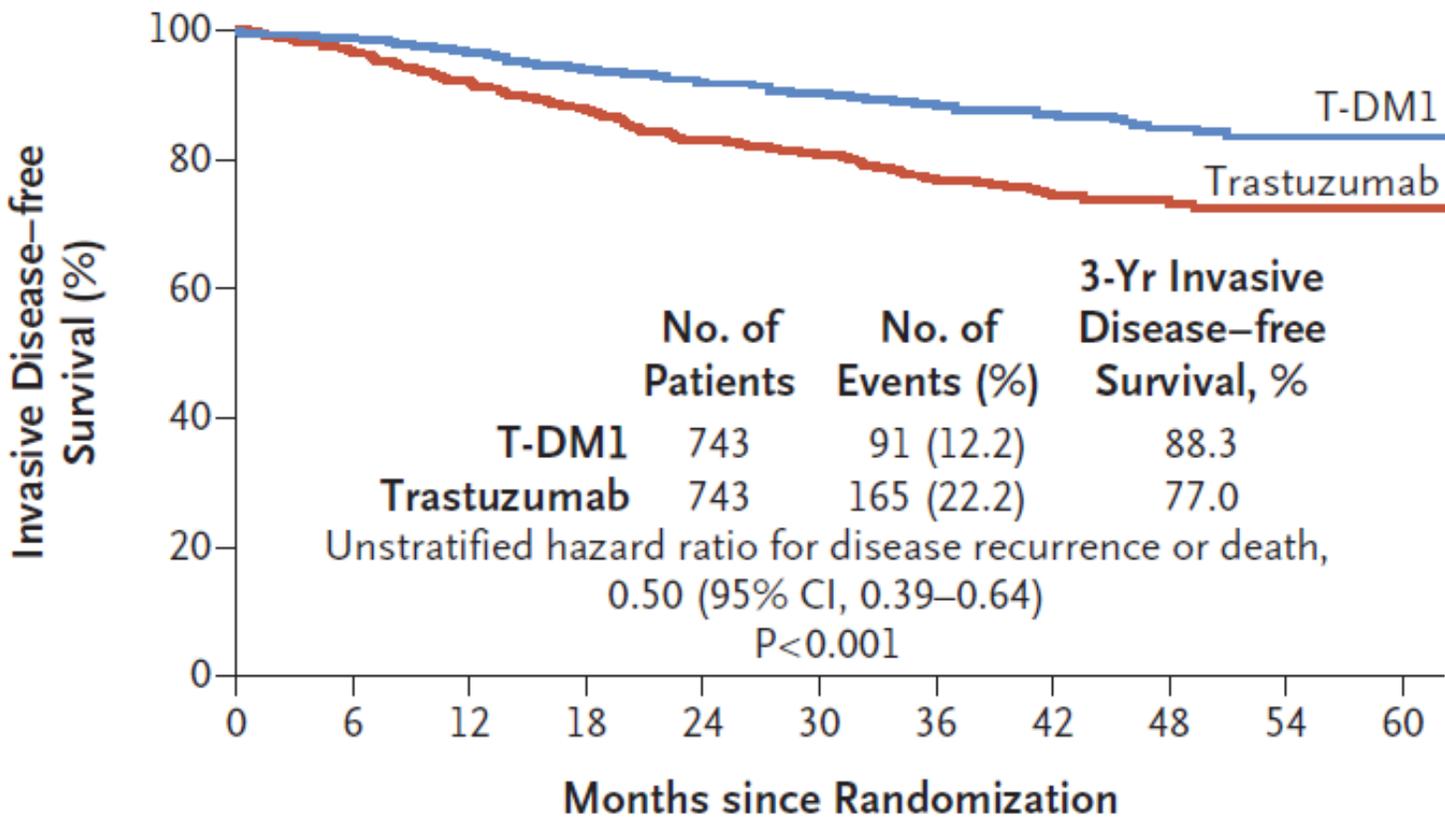
## HER 2

Surexprimé différents cancers  
10-20% Cancers sein  
Mauvais pronostic

## DM1

Dérivé maytansine  
Inhibiteur microtubules





# Tolérance

Event	Trastuzumab Group (N = 720)	T-DM1 Group (N = 740)
	<i>no. of patients (%)</i>	
Any adverse event	672 (93.3)	731 (98.8)
Grade $\geq 3$ adverse event	111 (15.4)	190 (25.7)
Adverse event leading to death†	0	1 (0.1)
Serious adverse event	58 (8.1)	94 (12.7)
Adverse event leading to discontinuation of trial drug‡	15 (2.1)	133 (18.0)
Grade $\geq 3$ adverse event that occurred in $\geq 1\%$ of patients in either group		
Decreased platelet count	2 (0.3)	42 (5.7)
Hypertension	9 (1.2)	15 (2.0)
Radiation-related skin injury	7 (1.0)	10 (1.4)
Peripheral sensory neuropathy	0	10 (1.4)
Decreased neutrophil count	5 (0.7)	9 (1.2)
Hypokalemia	1 (0.1)	9 (1.2)
Fatigue	1 (0.1)	8 (1.1)
Anemia	1 (0.1)	8 (1.1)



**Neuropathie périph sensitive = 1,4 % G3**  
**Diminution FEVG = 1,2%**

**Surveillance FEVG**

Extension d'indication

**A**

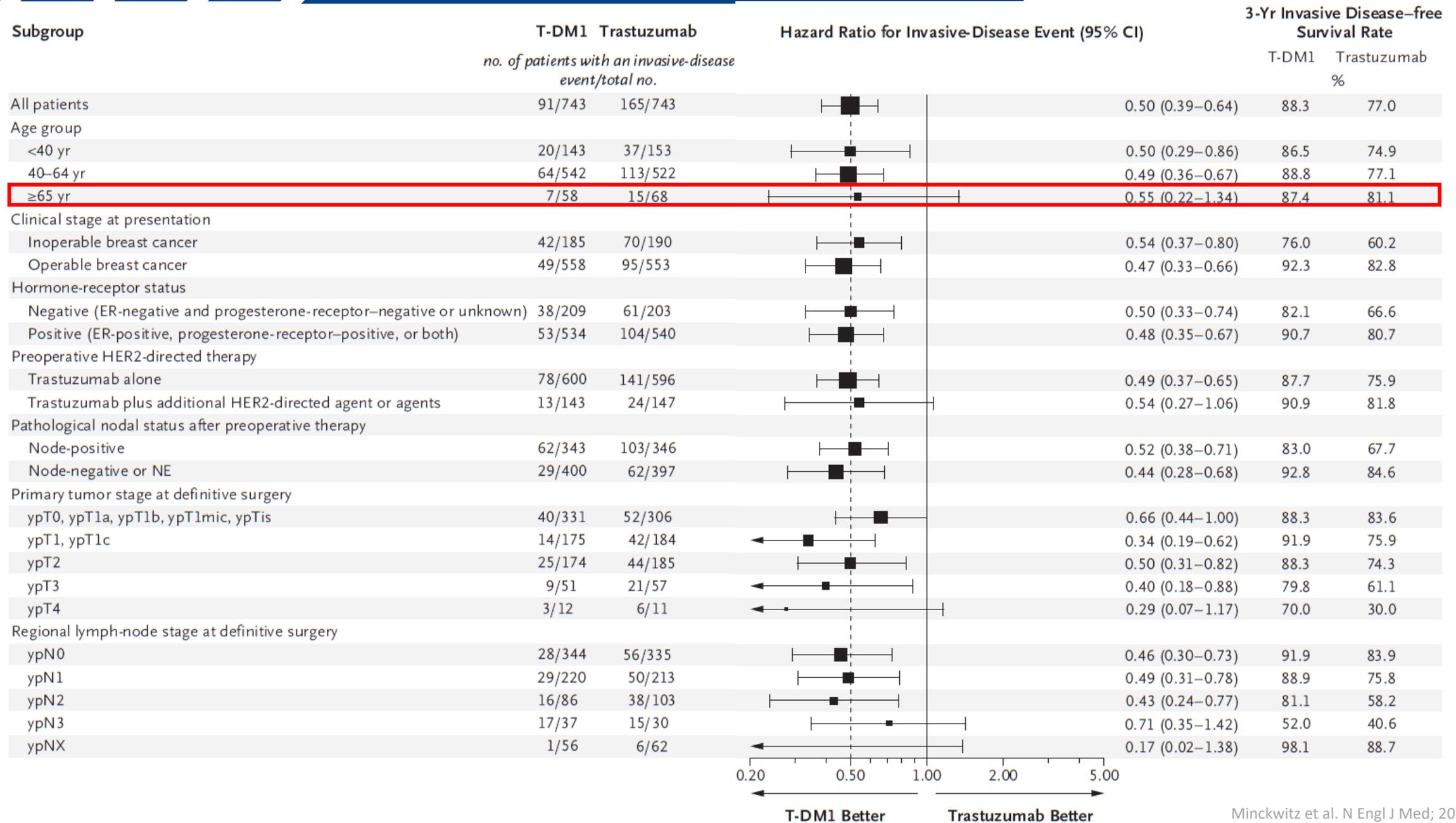
**Nouvelle indication.**

**M**

**M**

Avis favorable au remboursement dans le traitement adjuvant de patients adultes atteints d'un cancer du sein précoce HER2 positif qui ont une maladie résiduelle invasive, au niveau du sein et/ou des ganglions lymphatiques, après un traitement néoadjuvant à base de taxane et d'un traitement anti-HER2.

# Données chez les personnes âgées



# Données chez les personnes âgées

Outcome, n (%)	≥ 65 yrs (n = 373)	< 65 yrs (n = 1628)
Discontinuation due to AEs (% based on pts who discontinued)	41 (14.3)	112 (9.5)
Fatal AEs	10 (2.7)	17 (1.0)
Grade ≥ 3 AEs	160 (42.9)	540 (33.2)
Grade ≥ 3 AEs in ≥ 2% of either group		
Thrombocytopenia*	13 (3.5)	53 (3.3)
Asthenia	12 (3.2)	18 (1.1)
Anemia	11 (2.9)	32 (2.0)
Fatigue	10 (2.7)	34 (2.1)
GGT increased	8 (2.1)	42 (2.6)
Thrombocytopenia* Grade ≥ 3	49 (13.1) 13 (3.5)	211 (13.0) 53 (3.3)
Hepatotoxicity* Grade ≥ 3	68 (18.2) 18 (4.8)	327 (20.1) 114 (7.0)
Hemorrhage* Grade ≥ 3	87 (23.3) 6 (1.6)	392 (24.1) 28 (1.7)
LVEF < 45%	5 (1.3)**	36 (2.2)

Analyse sous groupe étude Kamilla

\*Based on groupings of related preferred terms; \*\*None < 40%.

# Données chez les personnes âgées

Characteristics	Median (range) or n (%)
Age, y	71 (65-89)
65-74	24 (25.8)
≥75	69 (74.2)
ECOG Performance Status	
0	25 (26.9)
1	40 (43)
2	28 (30.1)
Disease extent at diagnosis	
Early	73 (78.5)
Metastatic	20 (21.5)
Histologic subtype	
Invasive ductal carcinoma	82 (88.2)
Other	11 (11.8)
Hormone receptor status	
ER+ or PR+	55 (59.2)
ER- and PR-	38 (40.8)
Visceral metastases	
Yes	65 (69.9)
No	28 (30.1)
CNS metastasis	
Yes	32 (34.4)
No	61 (65.6)
Number of metastatic sites	
>3	52 (55.9)
<3	41 (44.1)
T-DMI treatment line	
First	21 (22.6)
Second	42 (45.2)
Third	21 (22.6)
Fourth or more	9 (9.7)

AEs	Events of any grade, n (%)	Events of grade 3 or above, n (%)
Any event	86 (92.5)	28 (30.1)
Fatigue	54 (58.1)	5 (5.4)
Nausea	41 (44.1)	1 (1)
Vomiting	23 (24.7)	0 (0)
Diarrhea	23 (24.7)	3 (3.2)
Mucositis	10 (10.8)	1 (1.1)
Neuropathy	12 (12.9)	0 (0)
Rash	3 (3.2)	0 (0)
Epistaxis	9 (9.7)	0 (0)
Decreased LVEF	5 (5.4)	1 (1.1)
Infusion reaction	1 (1.1)	0 (0)
Thrombocytopenia	32 (34.4)	13 (13.9)
Anemia	22 (23.7)	5 (5.4)
Neutropenia	9 (9.7)	2 (2.2)
Elevated AST	27 (29)	3 (3.2)
Elevated ALT	22 (23.7)	3 (3.2)
AEs leading to dose reduction	11 (11.8)	
AEs leading to drug discontinuation	6 (6.5)	

**Supérieur à KATHERINE**  
mais situation M+

**Idem KATHERINE**  
18% diminution dose/arrêt  
1,2% diminution FEVG

## Des réponses à venir?

### Study Design

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Study Type ⓘ : Interventional (Clinical Trial)

Actual Enrollment ⓘ : 82 participants

Allocation: N/A

Intervention Model: Single Group Assignment

Masking: None (Open Label)

Primary Purpose: Treatment

Official Title: ATOP TRIAL: Adjuvant Ado-Trastuzumab Emtansine (T-DM1) for Older Patients With Human Epidermal Growth Factor Receptor 2 (HER2)-Positive Breast Cancer

Actual Study Start Date ⓘ : August 22, 2018

Estimated Primary Completion Date ⓘ : August 30, 2026

Estimated Study Completion Date ⓘ : August 30, 2029

TRASTUZUMAB DERUXTECAN  
ENHERTU®

# Mécanisme d'action

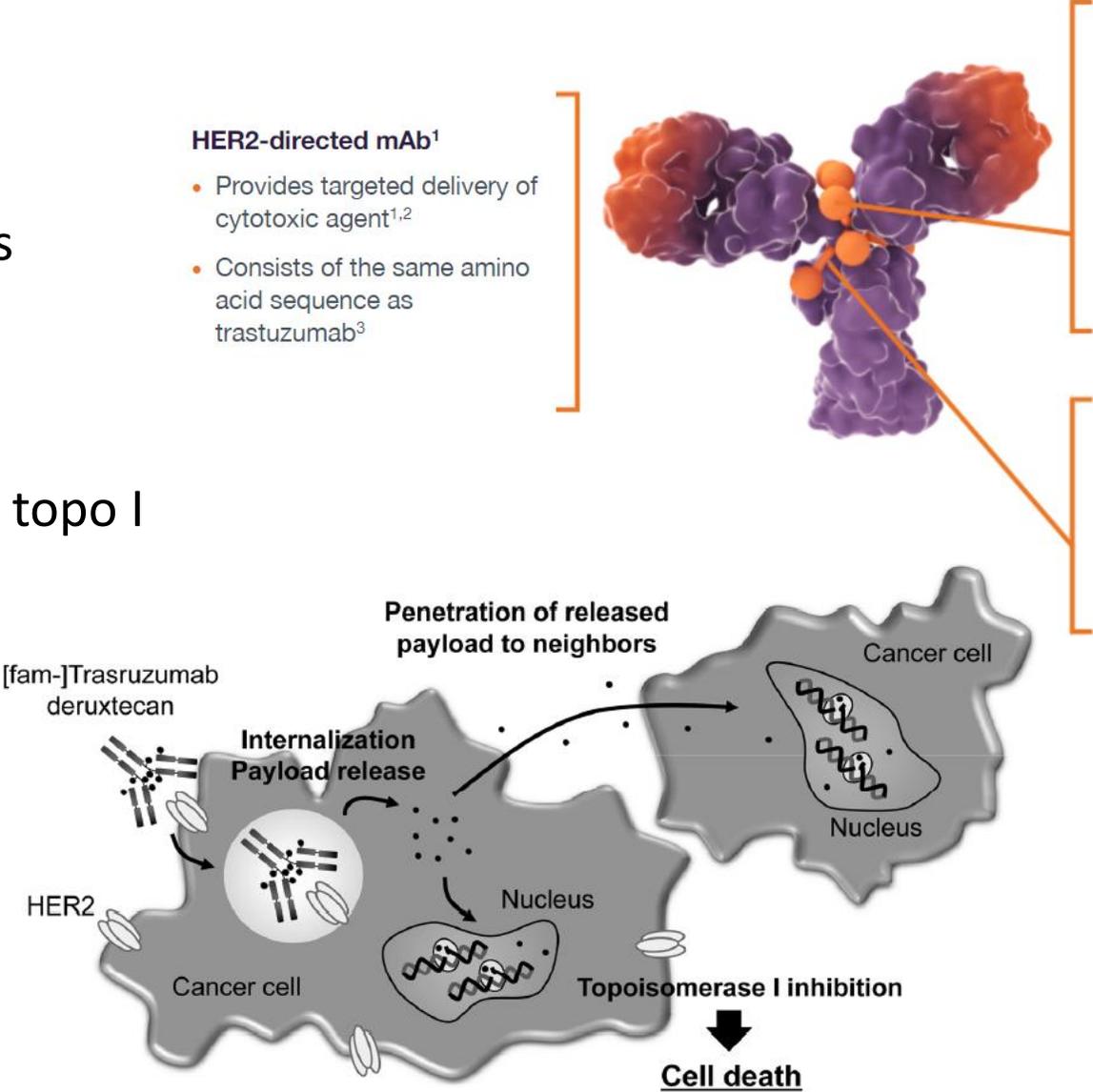
# ADC : Trastuzumab Deruxtecan - Enhertu®

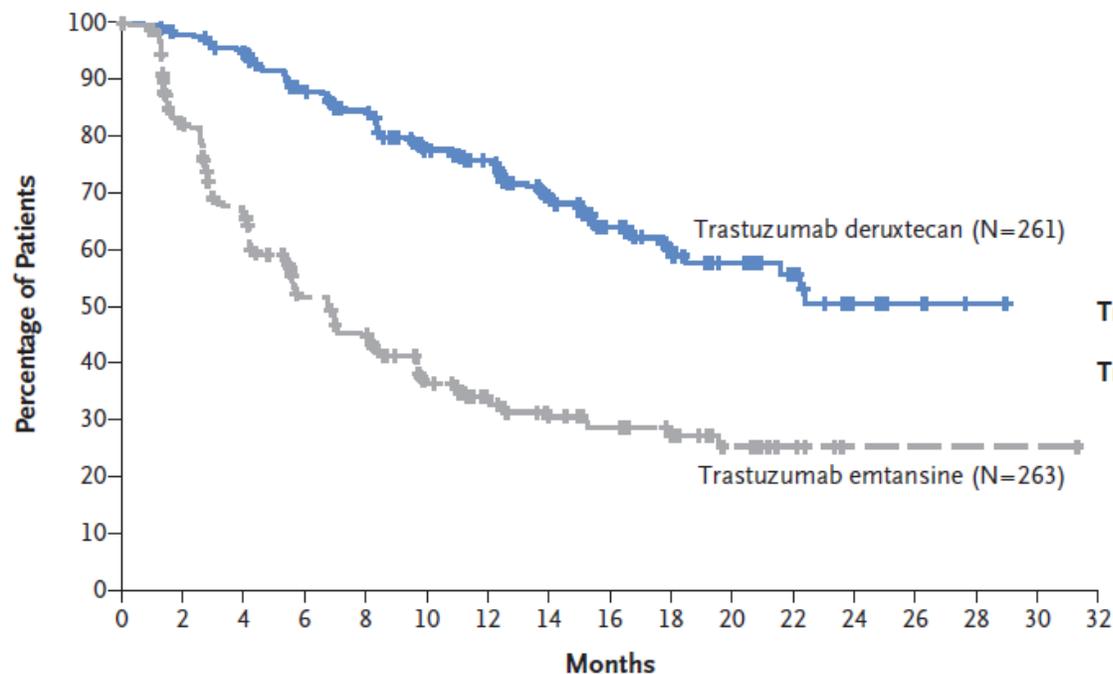
## HER 2

Surexprimé différents cancers  
10-20% Cancers sein

## DXd

Analogue Captotecin - Inhib topo I  
8 molécules/ Ac  
Membrane perméable

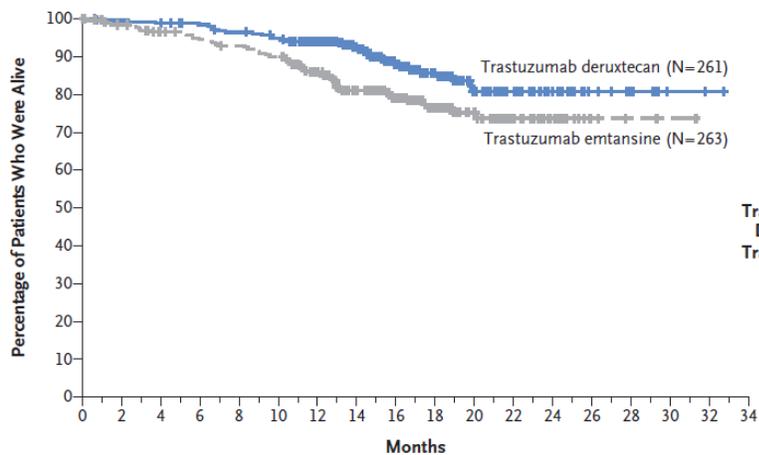
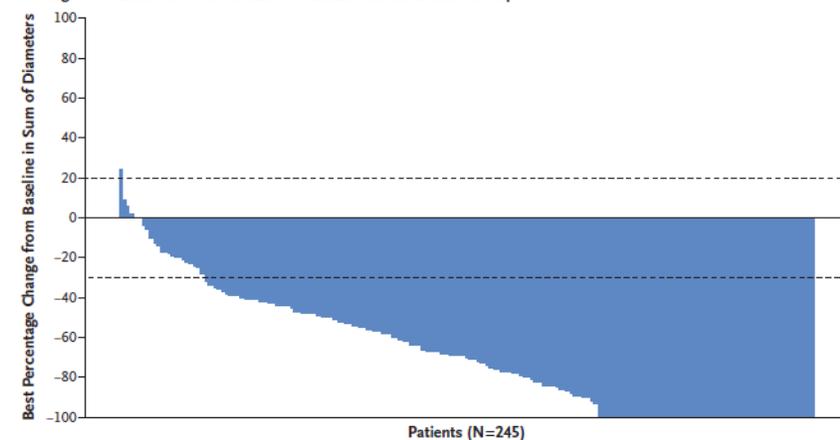




	Median Progression-free Survival (95% CI) mo	12-Mo Progression-free Survival (95% CI) %
Trastuzumab Deruxtecan	NR (18.5–NE)	75.8 (69.8–80.7)
Trastuzumab Emtansine	6.8 (5.6–8.2)	34.1 (27.7–40.5)

Hazard ratio for disease progression or death, 0.28 (95% CI, 0.22–0.37)  
P<0.001

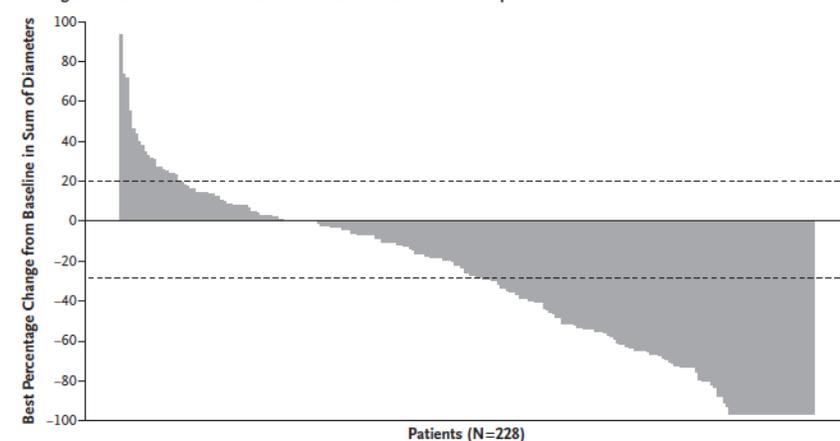
A Change from Baseline in Tumor Size in Trastuzumab Deruxtecan Group



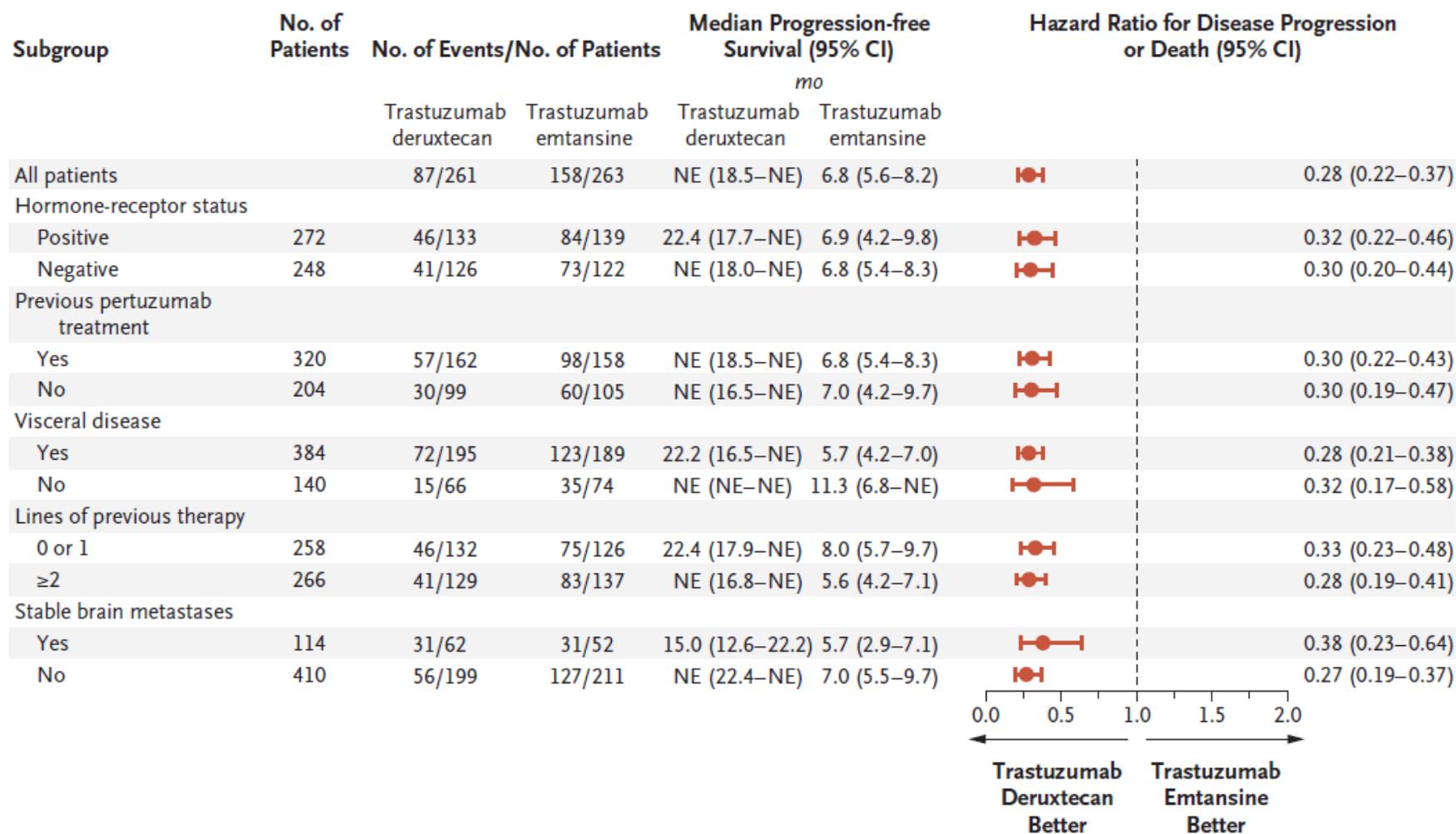
	Median Overall Survival (95% CI) mo	12-Mo Overall Survival (95% CI) %
Trastuzumab Deruxtecan	NE (NE–NE)	94.1 (90.3–96.4)
Trastuzumab Emtansine	NE (NE–NE)	85.9 (80.9–89.7)

Hazard ratio for death, 0.55 (95% CI, 0.36–0.86)  
P=0.007

B Change from Baseline in Tumor Size in Trastuzumab Emtansine Group



**Mais 1<sup>ère</sup> analyse intermédiaire...**



# Tolérance

Event	Trastuzumab Deruxtecan (N=257)		Trastuzumab Emtansine (N=261)	
	Any Grade	Grade ≥3	Any Grade	Grade ≥3
<i>number of patients (percent)</i>				
Most common drug-related adverse events				
Blood and lymphatic system disorders				
Neutropenia*	110 (42.8)	49 (19.1)	29 (11.1)	8 (3.1)
Anemia†	78 (30.4)	15 (5.8)	37 (14.2)	11 (4.2)
Leukopenia‡	77 (30.0)	17 (6.6)	20 (7.7)	1 (0.4)
Thrombocytopenia§	64 (24.9)	18 (7.0)	135 (51.7)	65 (24.9)
Gastrointestinal disorders				
Nausea	187 (72.8)	17 (6.6)	72 (27.6)	1 (0.4)
Vomiting	113 (44.0)	4 (1.6)	15 (5.7)	1 (0.4)
Diarrhea	61 (23.7)	1 (0.4)	10 (3.8)	1 (0.4)
Constipation	58 (22.6)	0	25 (9.6)	0
General disorders				
Fatigue¶	115 (44.7)	13 (5.1)	77 (29.5)	2 (0.8)
Investigations				
Aspartate aminotransferase increased	60 (23.3)	2 (0.8)	97 (37.2)	13 (5.0)
Alanine aminotransferase increased	50 (19.5)	4 (1.6)	71 (27.2)	12 (4.6)
Metabolism and nutrition disorders				
Decreased appetite	67 (26.1)	3 (1.2)	33 (12.6)	0
Skin and subcutaneous tissue disorders				
Alopecia	93 (36.2)	1 (0.4)	6 (2.3)	0
Adjudicated drug-related interstitial lung disease or pneumonitis**	27 (10.5)	2 (0.8)	5 (1.9)	0

**Surveillance FEVG  
Scanner thorax / 6 semaines**

A  
T  
U

**Autorisation d'accès précoce octroyée** à la spécialité **ENHERTU (Trastuzumab déruxtécan)** dans l'indication « en monothérapie, dans le traitement de patients adultes atteints d'un cancer du sein HER2-positif non résécable ou métastatique ayant reçu au préalable une ligne de traitement anti- HER2. Les patients doivent :

- avoir reçu un traitement antérieur pour la maladie localement avancée ou métastatique ou
- avoir présenté une progression de la maladie pendant un traitement adjuvant ou dans les six mois suivant sa fin ».

**Pas de données spécifique sur les personnes âgées que ce soit dans la DB01 ou dans la DB03...**

Efficacité?

Tolérance?

... mais ...

	All women			70+			<70		
	HR	95% CI	p	HR	95% CI	p	HR	95% CI	p
<b>Age (reference: &lt; 70)</b>									
≥70	1.55	[1.38; 1.73]	<0.01	NA			NA		
<b>Age (continuous variable)</b>	NA			1.05	[1.03; 1.07]	<0.01	1.01	[1.00; 1.01]	0.05
<b>Number of metastatic sites at metastatic diagnosis (reference: 1 site)</b>						<0.01			<0.01
2 sites	1.32	[1.18; 1.49]		1.29	[1.01; 1.65]		1.34	[1.17; 1.53]	
3 sites or more	2.10	[1.85; 2.39]	<0.01	1.87	[1.43; 2.45]		2.17	[1.88; 2.51]	
<b>Visceral metastatic disease (reference: none) (*)</b>			<0.01			<0.01			<0.01
<b>Time-varying effect:</b>									
Estimated HR at 1 year	2.67	[2.10; 3.38]		1.91	[1.21; 3.03]		3.11	[2.33; 4.14]	
Estimated HR at 3 years	3.89	[3.07; 4.94]		2.48	[1.56; 3.92]		4.75	[3.56; 6.32]	
Estimated HR at 5 years	5.68	[4.47; 7.20]		3.20	[2.02; 5.07]		7.24	[5.44; 9.65]	
<b>ER/PgR status (reference: both ER- and PgR-)</b>			<0.01			0.02			<0.01
<b>If no time-varying effect, estimated average HR</b>									
Positive ER or positive PgR	NA	NA		0.77	[0.62; 0.95]		NA		
Undetermined ER/PgR status	NA	NA		1.67	[0.68; 0.95]		NA		
<b>If time-varying effect, estimated HR at 1 year</b>									
Positive ER and/or PgR	0.63	[0.56; 0.71]		NA			0.60	[0.52; 0.68]	
Undetermined ER/PgR status	0.54	[0.32; 0.91]		NA			0.45	[0.24; 0.83]	
<b>If time-varying effect, estimated HR at 3 years</b>									
Positive ER and/or PgR	0.79	[0.71; 0.89]		NA			0.76	[0.67; 0.87]	
Undetermined ER/PgR status	0.68	[0.40; 1.14]		NA			0.57	[0.31; 1.06]	
<b>If time-varying effect, estimated HR at 5 years</b>									
Positive ER and/or PgR	1.00	[0.89; 1.12]		NA			0.97	[0.85; 1.12]	
Undetermined ER/PgR status	0.85	[0.50; 1.43]		NA			0.73	[0.39; 1.36]	
<b>First-line treatment (reference: chemotherapy + anti-HER2 therapy)</b>			0.01			<0.01			
<b>If time-varying effect, estimated HR at 1 year</b>									
Chemotherapy without anti-HER2 therapy (±endocrine therapy)	3.40	[2.86; 4.05]		2.79	[2.05; 3.79]		3.77	[3.04; 4.66]	
Anti-HER2 therapy alone or endocrine therapy alone or both	2.26	[1.80; 2.84]		1.96	[1.43; 2.69]		1.24	[0.78; 1.96]	
<b>If time-varying effect, estimated HR at 3 years</b>									
Chemotherapy without anti-HER2 therapy (±endocrine therapy)	2.00	[1.68; 2.38]		2.04	[1.50; 2.78]		2.11	[1.40; 2.61]	
Anti-HER2 therapy alone or endocrine therapy alone or both	1.33	[1.05; 1.67]		1.44	[1.04; 1.97]		0.69	[0.43; 1.10]	
<b>If time-varying effect, estimated HR at 5 years</b>									<0.01
Chemotherapy without anti-HER2 therapy (±endocrine therapy)	1.17	[0.99; 1.40]		1.49	[1.10; 2.03]		1.18	[0.95; 1.46]	
Anti-HER2 therapy alone or endocrine therapy alone or both	0.78	[0.62; 0.98]		1.05	[0.77; 1.45]		0.39	[0.24; 0.61]	
<b>MFI (months) (reference: &lt; 6 months)</b>						0.05			<0.01
6–24 months	2.58	[2.25; 2.95]		1.42	[1.05; 1.92]		3.06	[2.62; 3.58]	
24 months and more	1.37	[1.24; 1.52]	<0.01	1.01	[0.82; 1.26]		1.52	[1.35; 1.71]	
<b>Center size (number of patients/site) (reference: less than 700 patients)</b>			<0.01						<0.01
700 to 1399 patients	0.87	[0.71; 1.06]		NS			0.91	[0.73; 1.13]	
1400 patients and more	0.63	[0.50; 0.78]		NS			0.63	[0.50; 0.80]	

Absence utilisation thérapie anti-HER2 =

- ↗ risque décès
- ↗ risque progression

HR = 1,54 IC95 [1,18 - 2,02]



# Messages clés Cancers du sein

**Manque de données dans la population gériatrique sous représentée dans les essais mais...**

## Triple négatifs

### Pembrolizumab

- Néoadj TNBC et L1 M+ TNBC avec CPS  $\geq 10$
- Efficacité: NS mais effectifs faibles
- Tolérance idem jeunes, EI immunomédiés

### Sacituzumab Govitecan

- TNBC M+ > L2
- Efficacité: OUI mais à confirmer?
- Tolérance: profil idem mais + réduction dose
- **Homozygote muté UGT1A1** 

## HER 2 positifs

### Trastuzumab Emtansine – TDM1

- HER2+ maladie invasive résiduelle postNéoadj
- Efficacité: NS mais effectifs faibles
- Tolérance: un peu + toxique mais acceptable
- **Surveillance FEVG**

### Trastuzumab Deruxtecan – TDxD

- HER2+ M+ >L1
- Tolérance et efficacité?
- **Surveillance FEVG et TDM thorax lowdose**

# Merci pour votre attention

