



Session Oncologie Urologique de la Vessie

11 decembre 2024

NIORT

Dr Samuel GOURJAULT

Rétrospectives et perspectives en onco urologie en 2024



PLAN

- CONFIRMATION DU NEOADJUVANT
- PLACE DE L'ADJUVANT
- NOUVEAUTES PEC METASTATIQUE

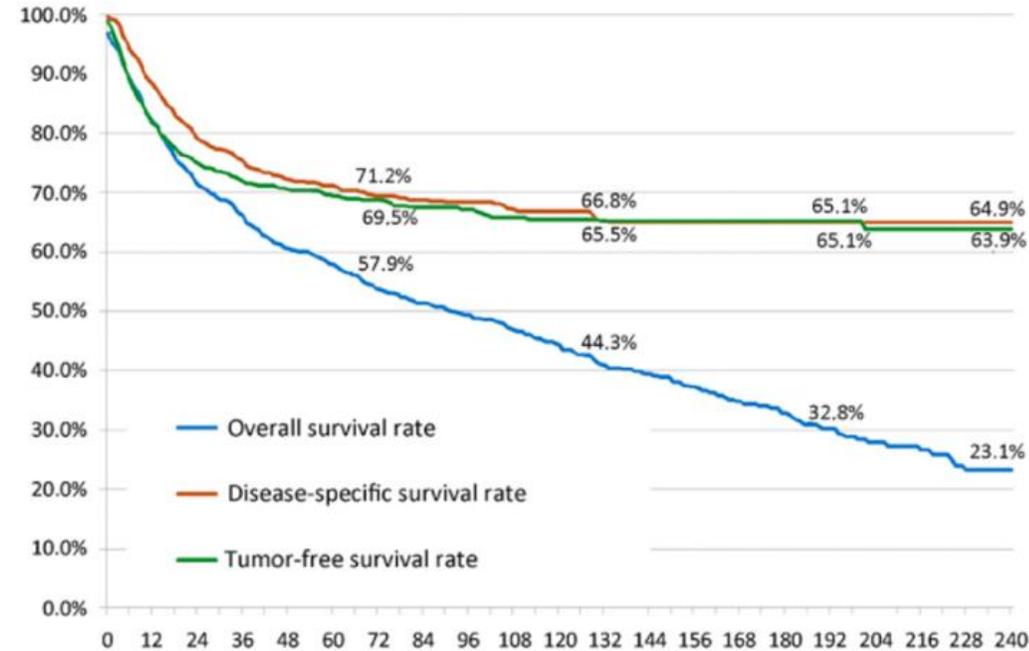


GENERALITES

- 13 000 TVIM/an en F 5800 décès
- ! 10-15% : FGFr HER2 BRCA MMR EpCAM
- 5% de TVES : penser LYNCH³ (MSH2)
- PDL1
- BILAN d'EXTENSION :
 - standard : TDM URO + THORAX
 - en vogue : IRM (T) + TDM + TEP



Chirurgie d'emblée...

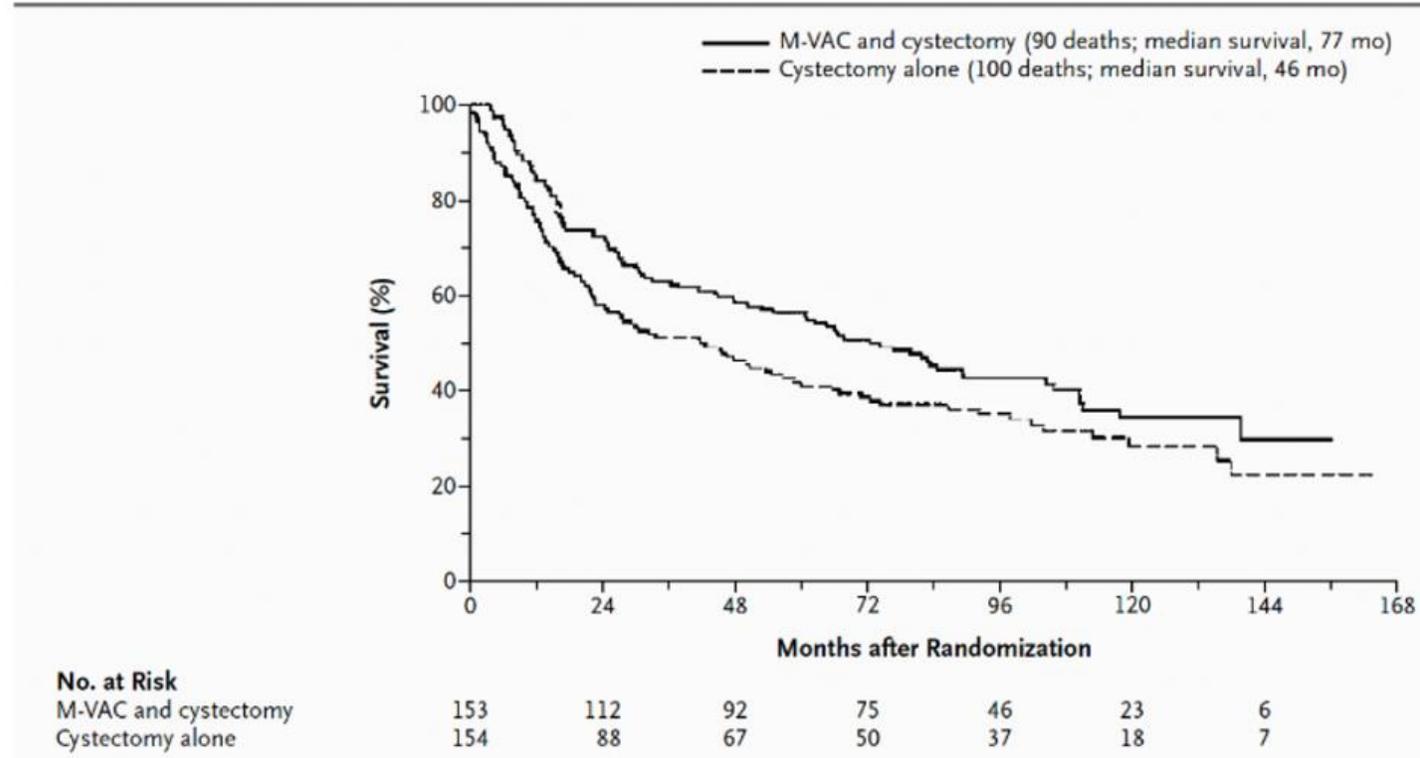


Years	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Pat. (n)	1100	815	660	567	486	434	367	318	272	250	205	172	152	131	115	87	73	51	36	27	21

Hautmann et al, EUROPEAN UROLOGY 2012



Chimiothérapie néoadjuvante

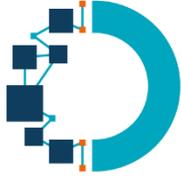


Grossman et al, NEJM 2003



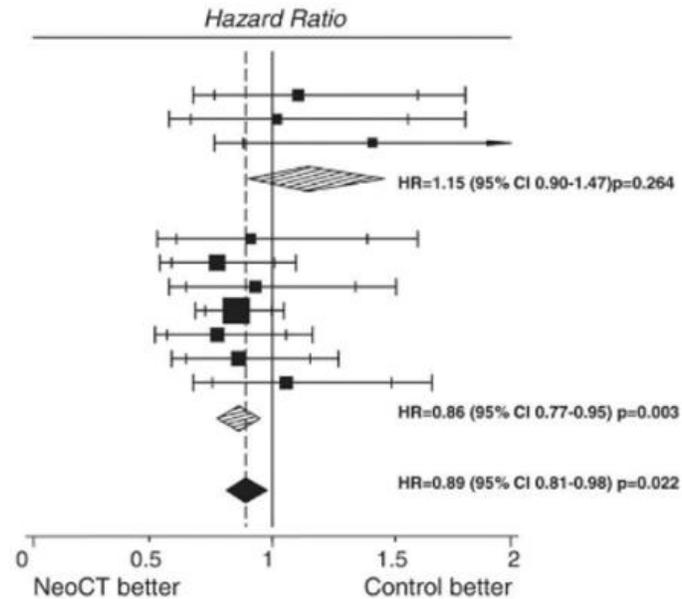
NEOADJUVANT

- **cT2 à cT4a N0M0** et précède CYSTECTOMIE.
(OS cystect seule 30-70% ; 50% seront M -> μméta au diagn)
- !!! histo sur copeaux résection : basal, en nid, malpig ou μpap >50%
=> risque de moins bonne réponse
- Si embols copeaux : bilan extension récent
- Patient FIT CisPlatine : PS<2 Cl>60 ml/min à chaque C (si Cl<40 : CI)
entre ces 2 valeurs juger de l'amélioration potentielle
!! IC, hypoacousie ou neurop. sévères
=> sinon CYSTECTOMIE ou TTT TRIMODAL



Chimiothérapie néoadjuvante

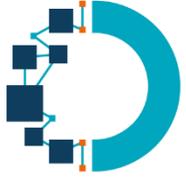
	(no. events/no. entered)		O-E	Variance
	CT	Control		
Single agent platinum				
Wallace [2]	59/83	50/76	2.74	27.18
Martinez-Pineiro [3]	43/62	38/59	0.33	20.11
Raghavan [2]	34/41	37/55	5.85	16.51
Sub-total	136/186	125/190	8.92	63.80
Platinum-based combinations				
Cortesi unpublished	43/82	41/71	-1.87	20.84
Grossman [9]	98/158	108/159	-13.61	51.00
Bassi [5]	53/102	60/104	-1.95	28.13
MRC/EORTC [6]	275/491	301/485	-23.69	143.61
Malmström [8]	68/151	84/160	-9.97	37.94
Sherif [8]	79/158	90/159	-6.37	42.18
Sengeløv [7]	70/78	60/75	1.79	31.96
Sub-total	686/1220	744/1213	-55.67	355.65
Total	822/1406	869/1403	-46.75	419.45



Éradiquer les micro-métastases
Réduire la taille tumorale (32 % de ypT0)

Gain de survie significatif :

- + 5 % de bénéfice en OS à 5 ans
- Confirmé + 6 % en OS à 8 ans
- Si NAC à base de sels de platine (M-VAC+++)
- Qq soit le traitement local (Chir ou Rxttt)
- Qq soit le stade (T2 ou T3/T4)



PROTOCOLE de CHIMIO

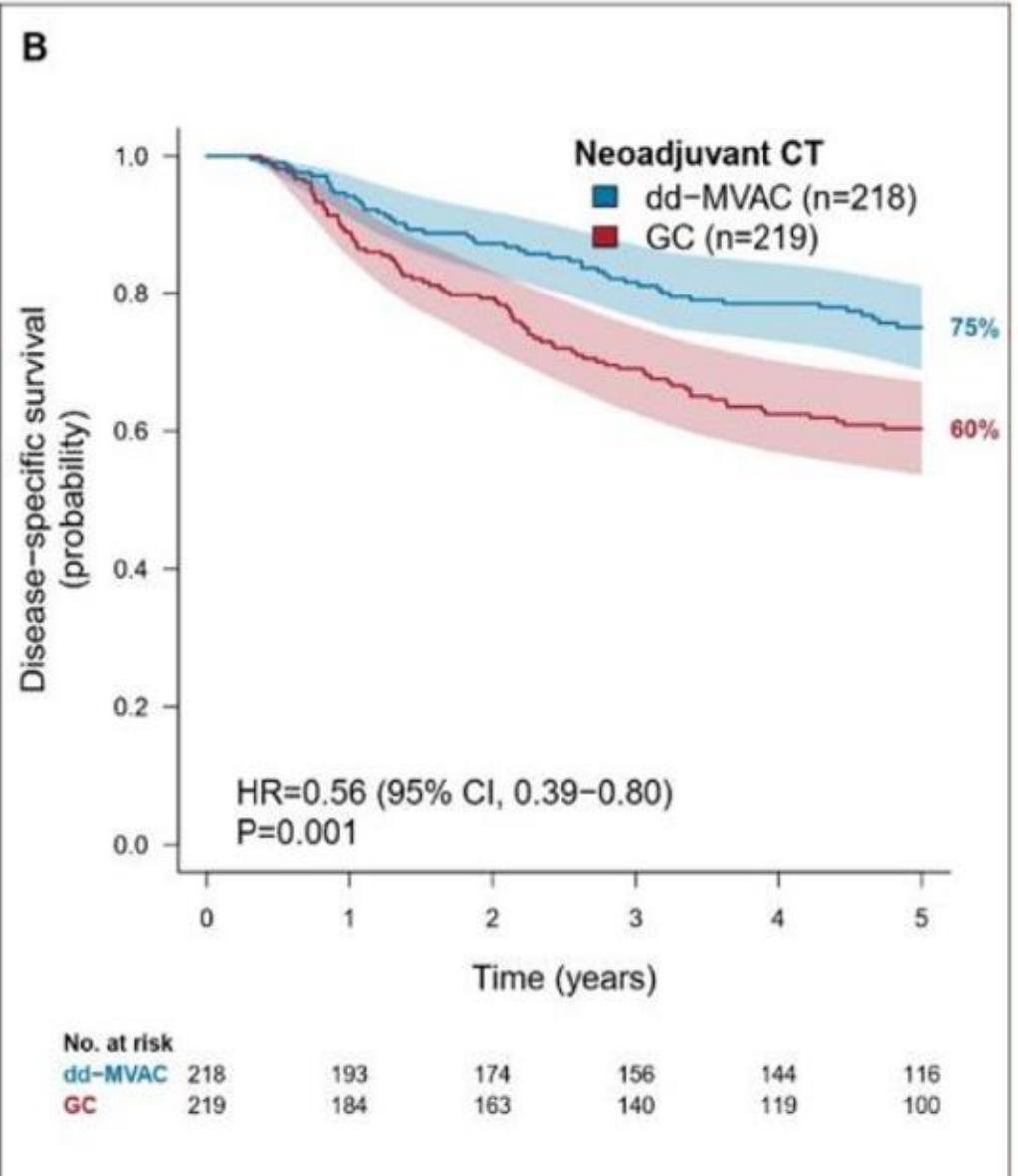
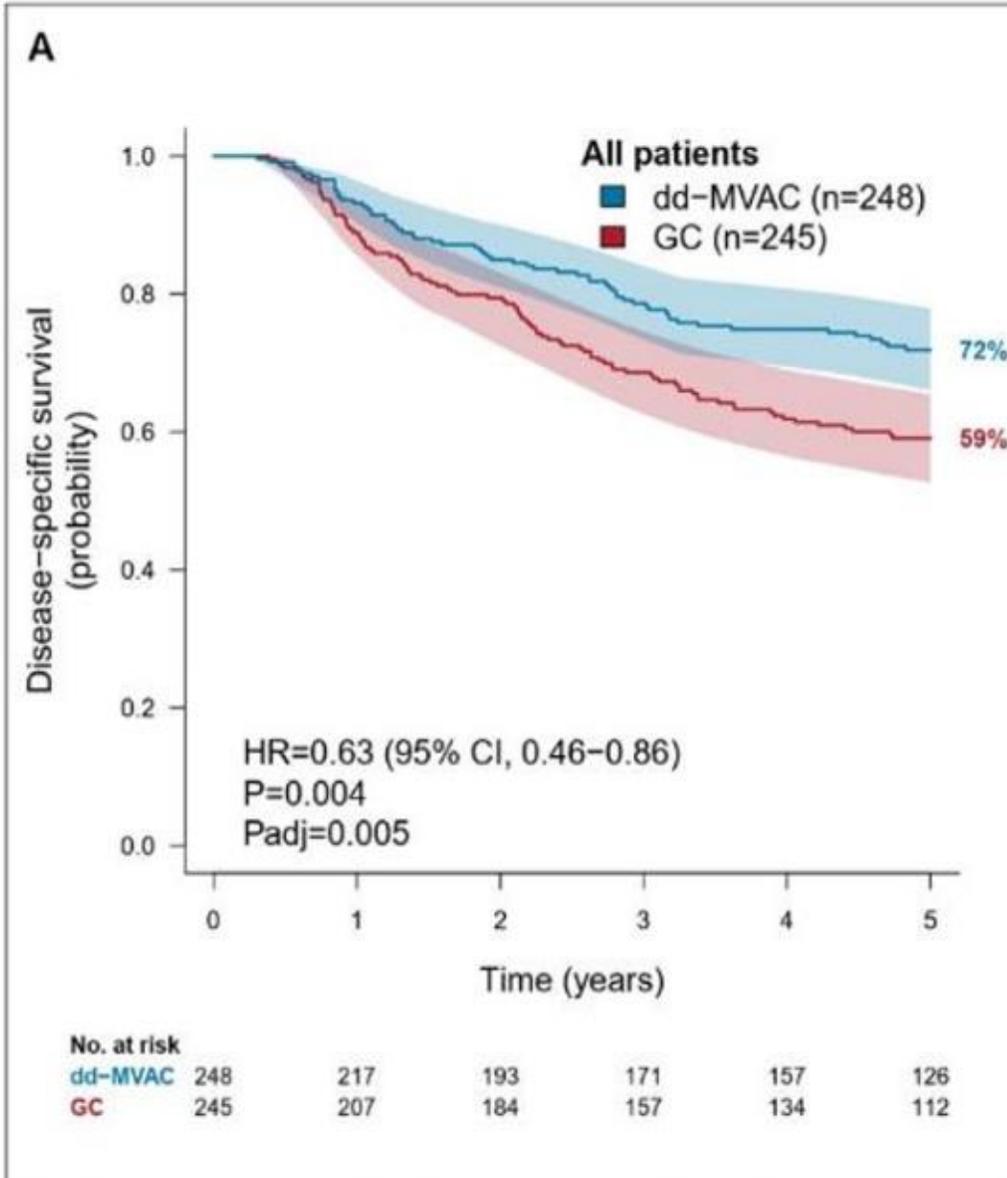
- STANDARD ACTUEL : 6 MVAC dose dense /14j (mini 4 cycles)
! évaluation cardio ; ! GCSF systq ; ! rééval CI créat avant chaque C
=> 42% pCR ; OS 5ans 57% -> 66%

8

- Alternative moins efficace : GC (cf. étude VESPER)
- En cours EV ; EV Pembro

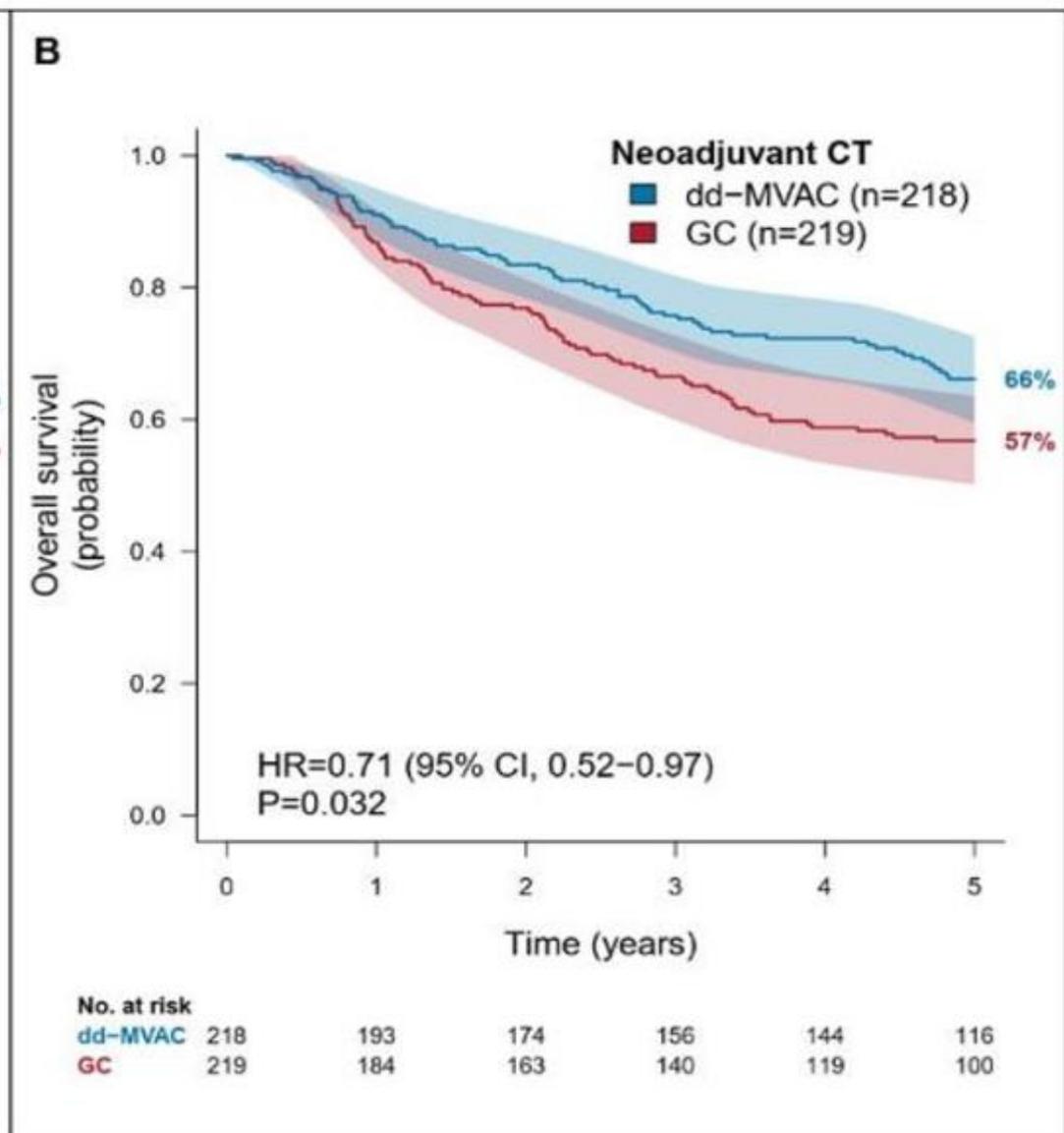
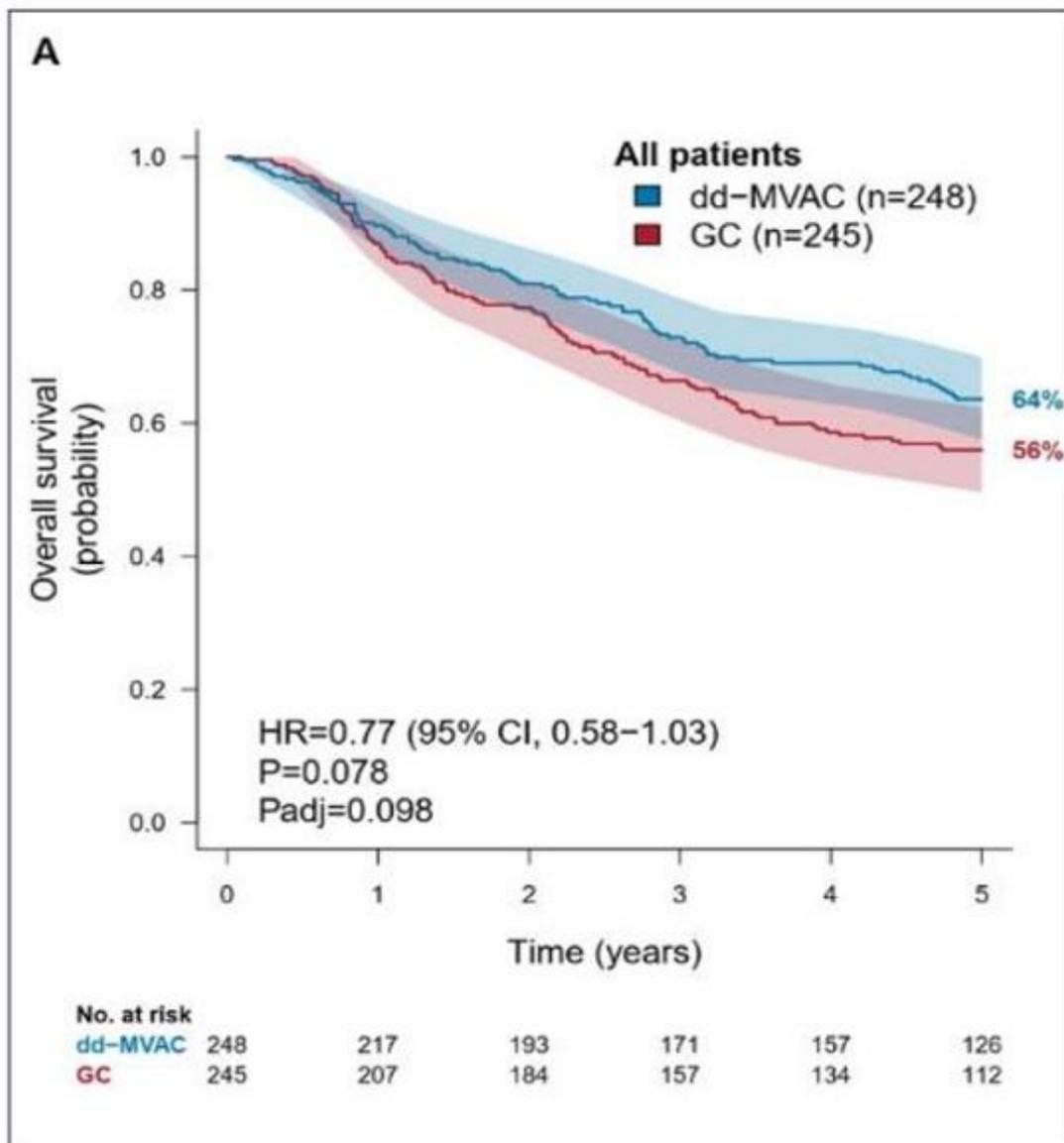
Results (2)

Disease-specific Survival



Results (1)

Overall Survival at 5 years



Results (5)

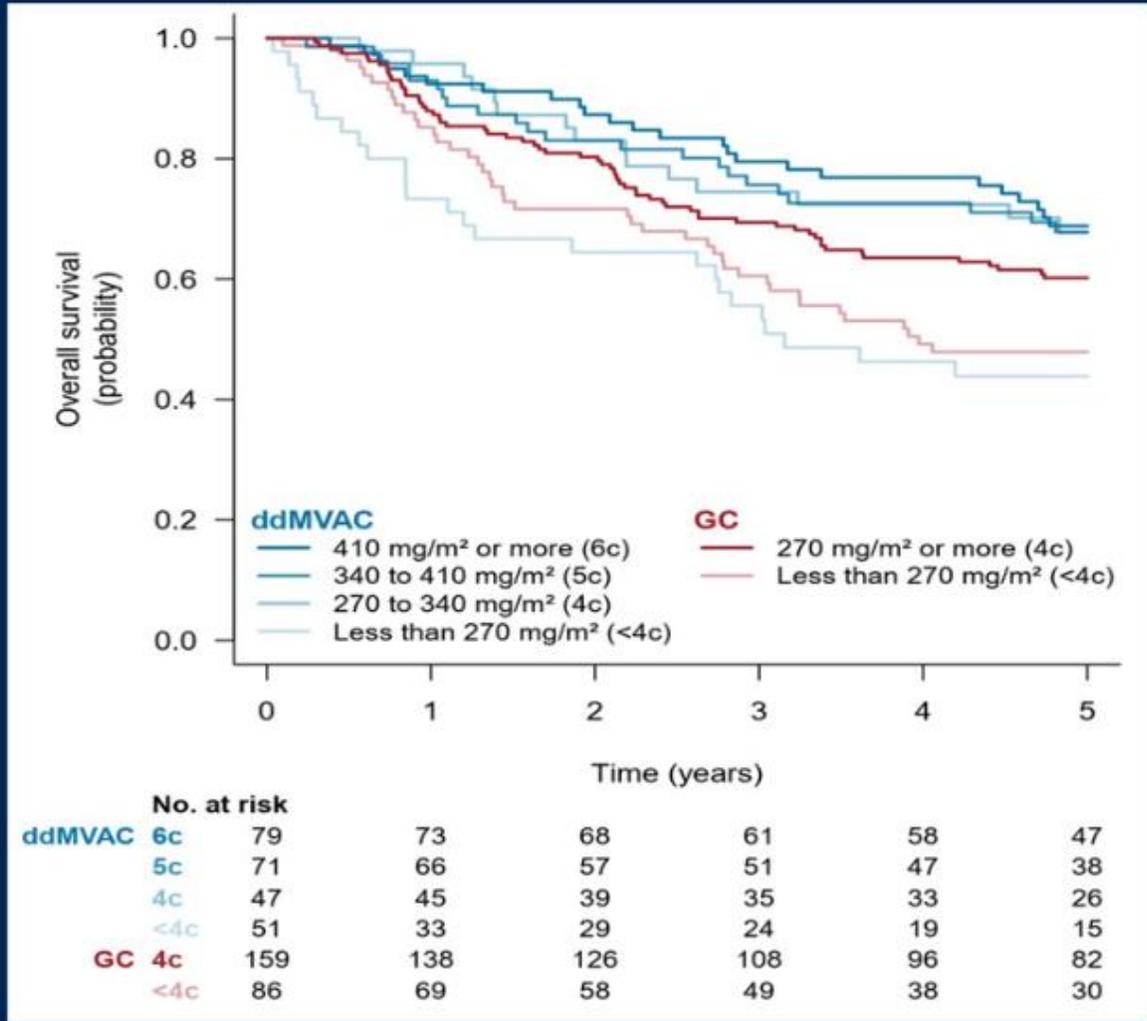
OS stratified by CT arm and number of cycles delivered

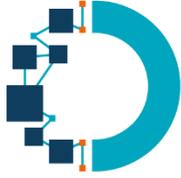
Importance of cumulative cisplatin dose

Poor OS < 4 full doses cisplatin

Median OS GC arm 4 full doses cisplatin

High OS dd-MVAC arm > 4 full doses cisplatin





PRINCIPLES OF SYSTEMIC THERAPY

Neoadjuvant Chemotherapy [preferred for bladder]

Preferred regimen • DDMVAC (dose-dense methotrexate, vinblastine, doxorubicin, and cisplatin) with growth factor support for 3–6 cycles ^{1,2}
Other recommended regimens • Gemcitabine and cisplatin for 4 cycles ^{3,4}

Adjuvant Therapy

No previous platinum-based neoadjuvant therapy (pT3, pT4a, pN+)	Preferred regimen • DDMVAC with growth factor support for 3–6 cycles ^{1,2} Other recommended regimens • Gemcitabine and cisplatin for 4 cycles ^{3,4} • Nivolumab ⁵
Previous platinum-based neoadjuvant therapy (ypT2-ypT4a or ypN+)	Other recommended regimen • Nivolumab ⁵

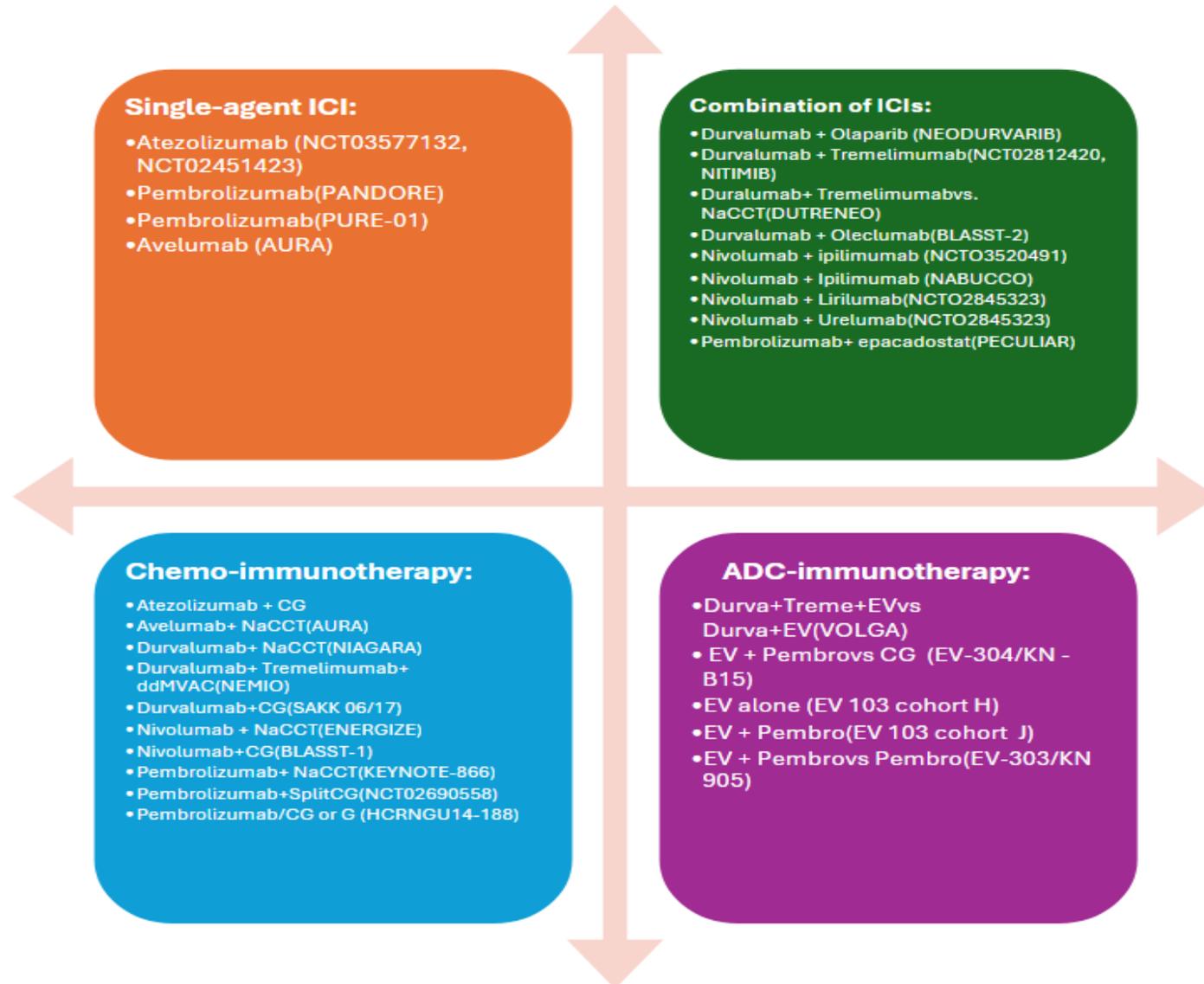
- Three to four cycles of cisplatin-based neoadjuvant ChT should be given for MIBC [I, A]. Cross-sectional imaging should occur after ChT before RC [IV, B].



Recommandations : chimiothérapie périopératoire		Niveau
Situation néo-adjuvante	PS ≤ 1 et Clairance ≥ 60 mL/min	MVAC ou HD-MVAC ou GC
		Fort / Faible
PS > 1 ou Clairance < 60 mL/min		Pas de chimiothérapie néo-adjuvante
		Fort / Faible
	À discuter au cas par cas si clairance entre 50-60 mL/min (CDK-EPI)	Faible



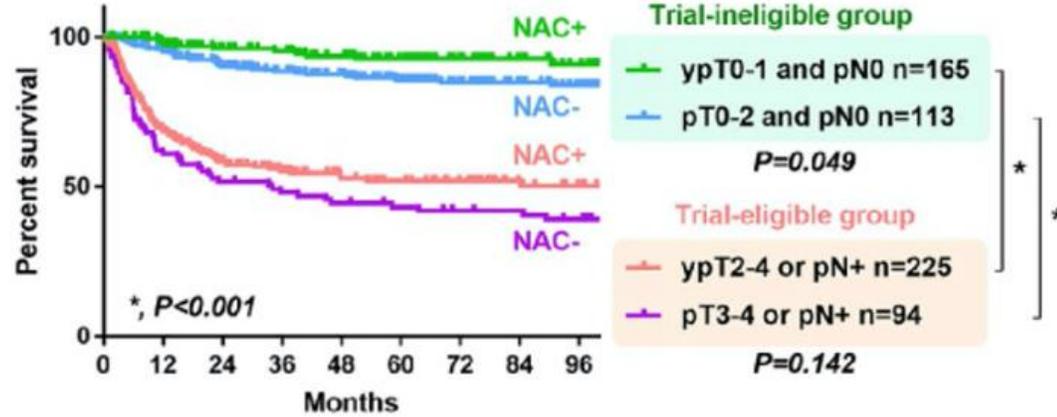
L'ère de l'immunothérapie en NA



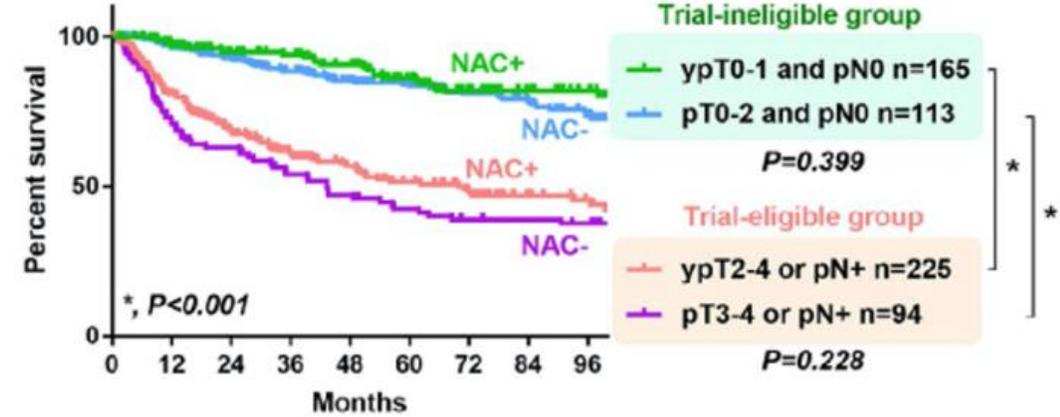


\geq ypT2?

(A) Disease-free survival (MIBC)



(B) Overall survival (MIBC)





ADJUVANT

- Si **PAS NEOADJ** : CT adj PLATINE-GEMZAR voire MVAC (selon critère éligibilité platine, PS....) OS 6%
- IMMUNOTHERAPIE : CM274 si PDL1>1% DFS ; OS attendu a priori
 - POST NEOADJ (et cystec) ++ : ypT2-ypT4a ou pN+
15
 - POST CYSTECT seule : pT3-pT4a ou pN+
(?? étude ambassador PEMBRO bénéfice > si PDL1 nég)
!! IT ne se substitue pas à la CT néoadj.)
- RADIO-CHIMIO (Cispl, 5FU-MYTO) : PAS UN STANDARD mais :
R1, pT3-4, <10 N curage (!grele)
!! rechute locale et pelv est précoce grave : avant IT ?

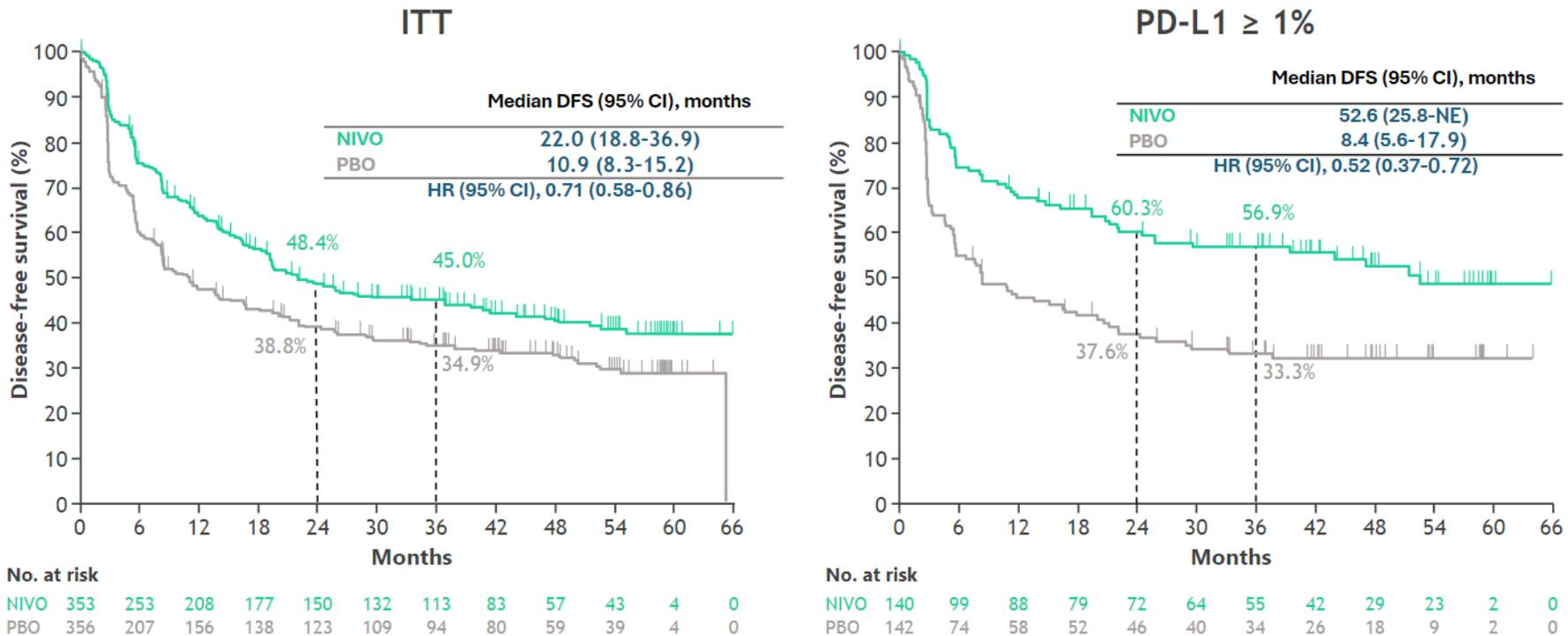


IT ADJUVANTE : CM 274

CheckMate 274

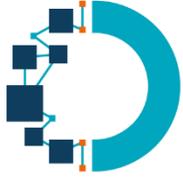
Disease-free survival (primary endpoint)

- Continued DFS benefit was observed with NIVO versus PBO both in the ITT and tumor PD-L1 expression $\geq 1\%$ populations



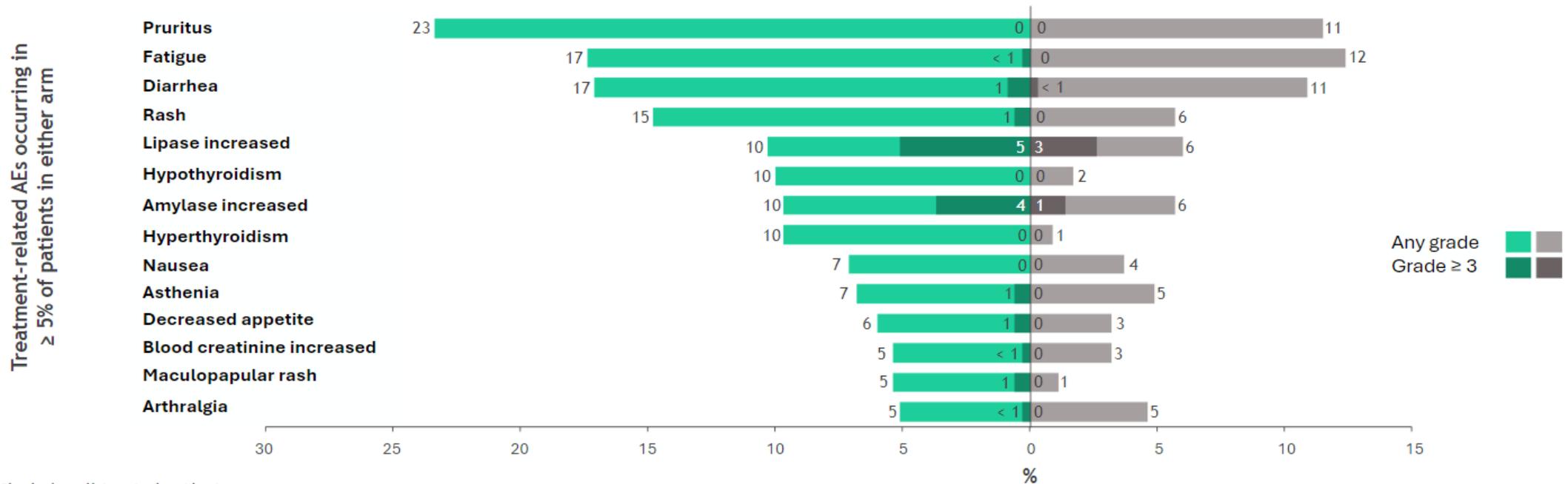
Minimum follow-up in the ITT population, 31.6 months. DFS was defined as the time between the date of randomization and the date of first recurrence (local urothelial tract, local non-urothelial tract or distant) or death. NE, not estimable.

Bajorin et al, NEJM 2021



Safety summary in all treated patients

	NIVO (n = 351) ^a		PBO (n = 348) ^a	
	Any grade	Grade ≥ 3	Any grade	Grade ≥ 3
Treatment-related AEs, %	79	18	56	7
Treatment-related AEs leading to discontinuation, %	14	7	2	1

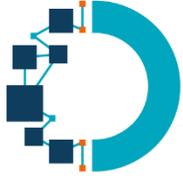


^aIncludes all treated patients.

There were 3 treatment-related deaths in the NIVO arm (2 instances of pneumonitis and 1 instance of bowel perforation).

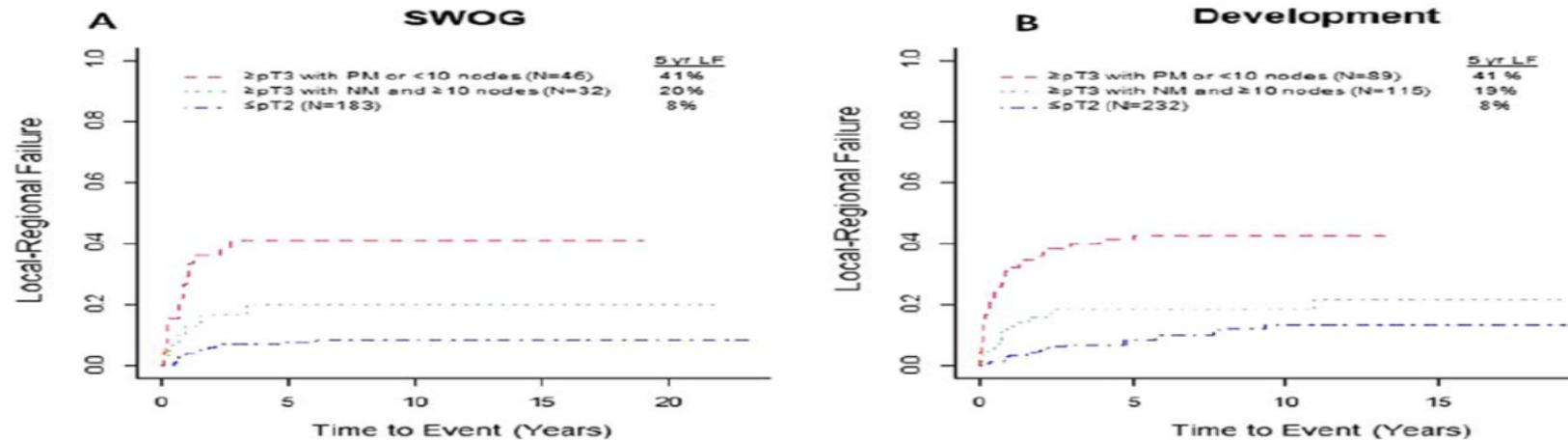
Includes events reported between the first dose and 30 days after the last dose of study therapy.

Minimum follow-up in the ITT population, 31.6 months. AE, adverse event.



QUID RADIOTHERAPIE ?

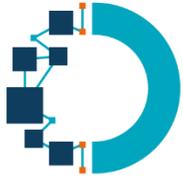
Facteurs prédictifs de rechute loco-régionale



Group at risk	Characteristics	LRR at 5 yrs
Low	pT0-2	8%
Intermediate	pT3-4 avec ≥10 LN and R0	20%
High	pT3-4 avec < 10 LN or R1	41%

Predictive nomogram integrating the margin status (R1)

Christodouleas et al, Cancer 2014



DONNEES RECENTES RT adj

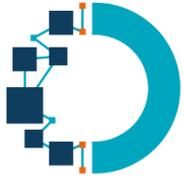
Résultats d'études prospectives contemporaines

Adjuvant EBRT

- 6-12 weeks post-RC
- CTV: elective pelvic lymph nodes
 - R1 → + cystectomy bed
- 50Gy/25fractions
 - pN+ on PET-CT → SIB 70Gy
- VMAT

		Number of patients N=72
Age, years		70 (34-87)
Gender		
	Male	54 (75)
	Female	18 (25)
Tumour histology		
	Urothelial	61 (85)
	SCC	8 (11)
	Other	3 (4)
Neoadjuvant chemo		
	Yes	31 (43)
	No	41 (57)
pT stage		
	≤pT2	15 (21)
	pT3	35 (49)
	pT4	22 (31)
pN stage		
	Positive	47 (65)
	Negative	23 (32)
	X	2(3)
Surgical margin		
	Positive	14 (19)
	Negative	58 (81)
Type of urinary diversion		
	Ileal conduit	55 (76)
	Neobladder	17 (23)

Verghote et al, ESTRO 2024



Résultats d'études prospectives contemporaines

Acute toxicity (primary endpoint)

Gastro-intestinal

N = 72	Grade 1	Grade 2	Grade 3
Diarrhea	19	34	2*
Incontinence	11	2	0
Urgency	18	7	0
Nausea	8	7	2
Vomiting	2	1	0*
Dysphagia	0	0	0
dominal distension	2	0	0
Abdominal cramps	14	16	0
Bloating	0	1	0
Flatulency	2	2	0
Inflammation	1	0	0
Obstruction	0	6	1
Perforation	0	0	0
Anal pain	3	1	0
Frequency	11	12	0
RBPA	2	0	0
Mucus loss	6	0	0
		61%	6%

Genito-urinary (neobladder)

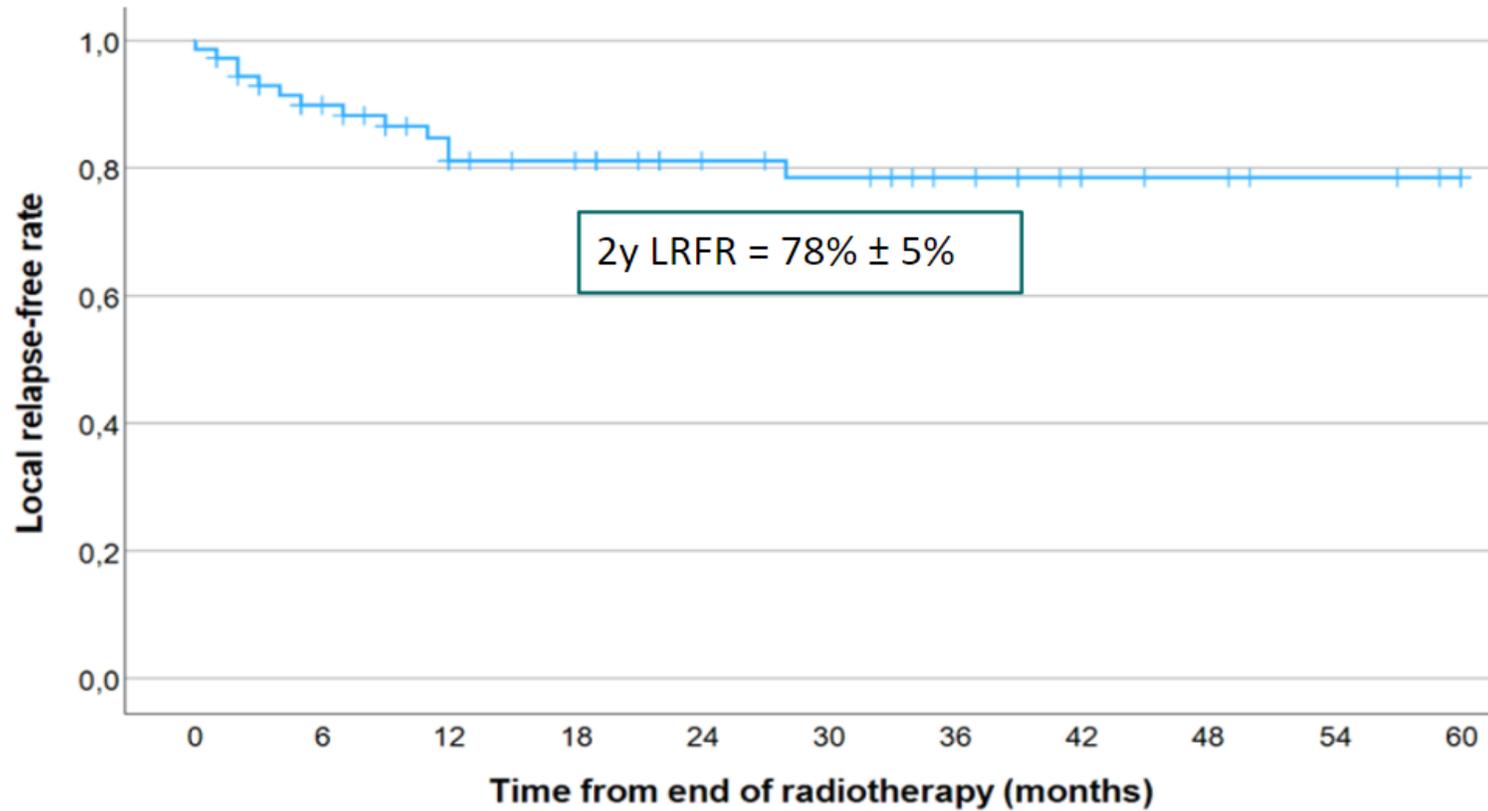
N = 17	Grade 1	Grade 2	Grade 3
Haematuria	0	3	0
Frequency	2	1	0
Incontinence	7	5	2
Urgency	5	0	0
Nocturia	4	5	1
		53%	18%

*1 patient died of a bowel obstruction

Verghote et al, ESTRO 2024



Résultats d'études prospectives contemporaines



Pelvic failure: N=13
- 12/13 within 1yr
- 10/13 simultaneous M+

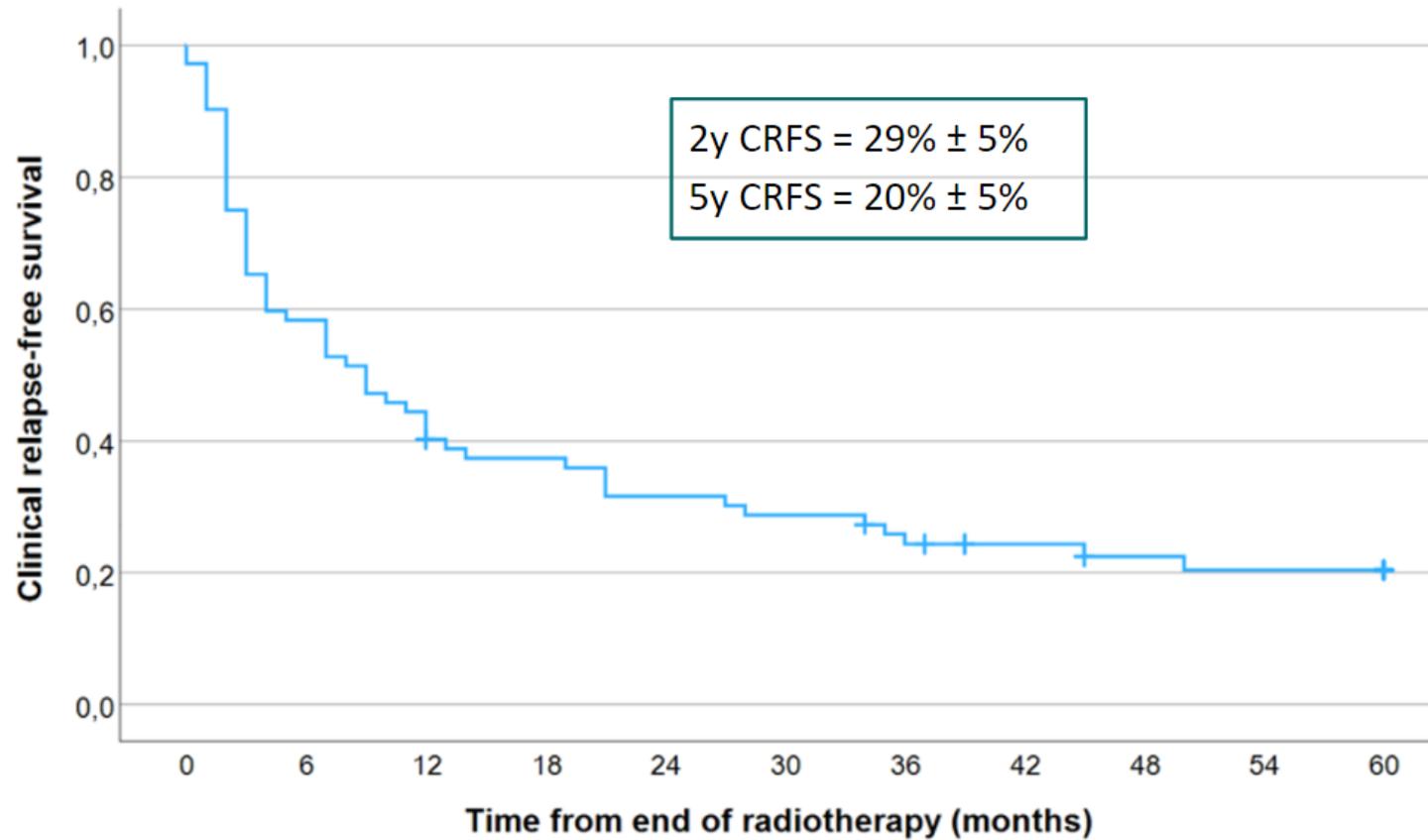
Patients with R+ (N=14)
→ Only 3 pelvic failures

Verghote et al, ESTRO 2024



Résultats d'études prospectives contemporaines

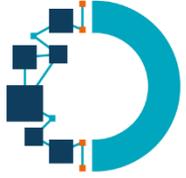
Clinical relapse-free survival



No at risk 72 42 32 26 22 20 17 13 11 10 10

CRFS events	N=56
Recurrence	46
Local	3
Distant	33
Distant + local	10
Death	10

Verghote et al, ESTRO 2024



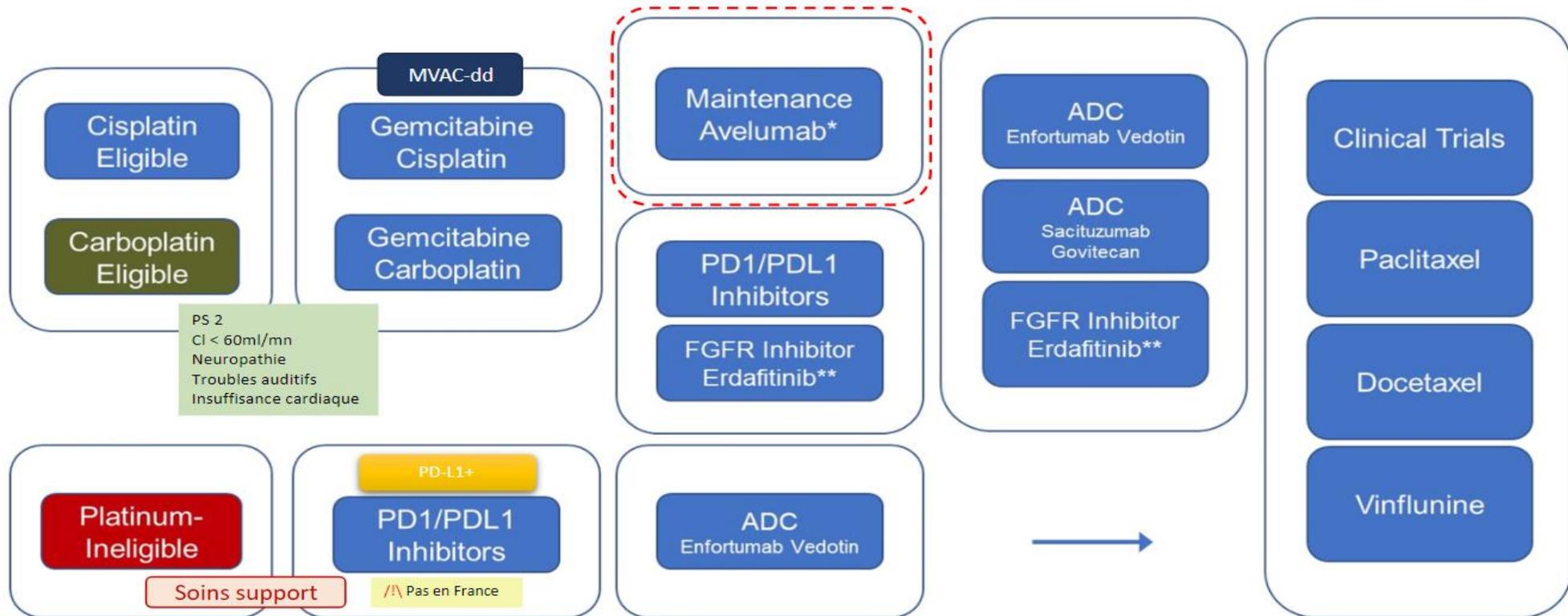
PERSPECTIVES ADJUVANT

- Intérêt ctDNA ? Recherche biomarqueurs ?
- Attendre confirmation IT²³ adj en OS
- Attente étude GETUG-AFU 30 : place RT et séquence avec IT



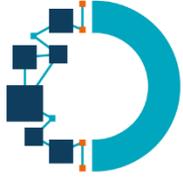
TVIM META : AVANT

1 1^{ère} ligne : jusqu'à présent...



*Disease control on platinum-based chemotherapy; ** FGFR 2/3 alterations, no prior Erdafitinib. ADC - Antibody Drug Conjugates

Adapté de Sridhar SS, ESMO 2021



TVIM METASTATIQUE : la NOUVEAUTE

Ac conjugué ENFORTUMAB VEDOTIN (nectine 4)

EV-302/KEYNOTE-A39 :
EV + pembrolizumab vs Chimiothérapie

• Méthodologie

Population (N=886)

- CU localement avancé/métastatique non antérieurement traité
- Eligible pour un sel de platine et EV
- Naïf de tt par un anti PD-(L)1
- DFG > 30 mL/min
- ECOG PS < 2

R
1:1

EV + Pembrolizumab
Pas de nombre maximal de cycles d'EV,
Pembro : 35 cycles max

Traitement jusqu'à progression (revue indépendante),
progression clinique, toxicité inacceptable ou atteinte du
nombre maximal de cycles de traitement

Chimiothérapie
(Cisplatine ou carboplatine + gemcitabine)
Maximum 6 cycles

Co-critères principaux :

- SSP (revue indépendante)
- SG

Critères secondaires :

- Taux de RO (RECIST v1.1; revue indépendante et investigateurs)
- Tolérance

Sous-groupes pré spécifiés :

- Eligibilité au cisplatine (éligible, non éligible)
- Expression de PD-L1 (faible, élevée)
- Métastases hépatiques (présentes, absentes)
- Age (< 65, > 65 ans)
- Région (Amérique du Nord,, Europe, reste du monde)
- Sexe (femmes, hommes)
- Race (blanche, autres)
- ECOG PS à l'inclusion (0, 1-2)
- Métastases viscérales vs.métastases ganglionnaires seules
- Site primitif (haut appareil, bas appareil)
- Fonction rénale (normale à sévère)

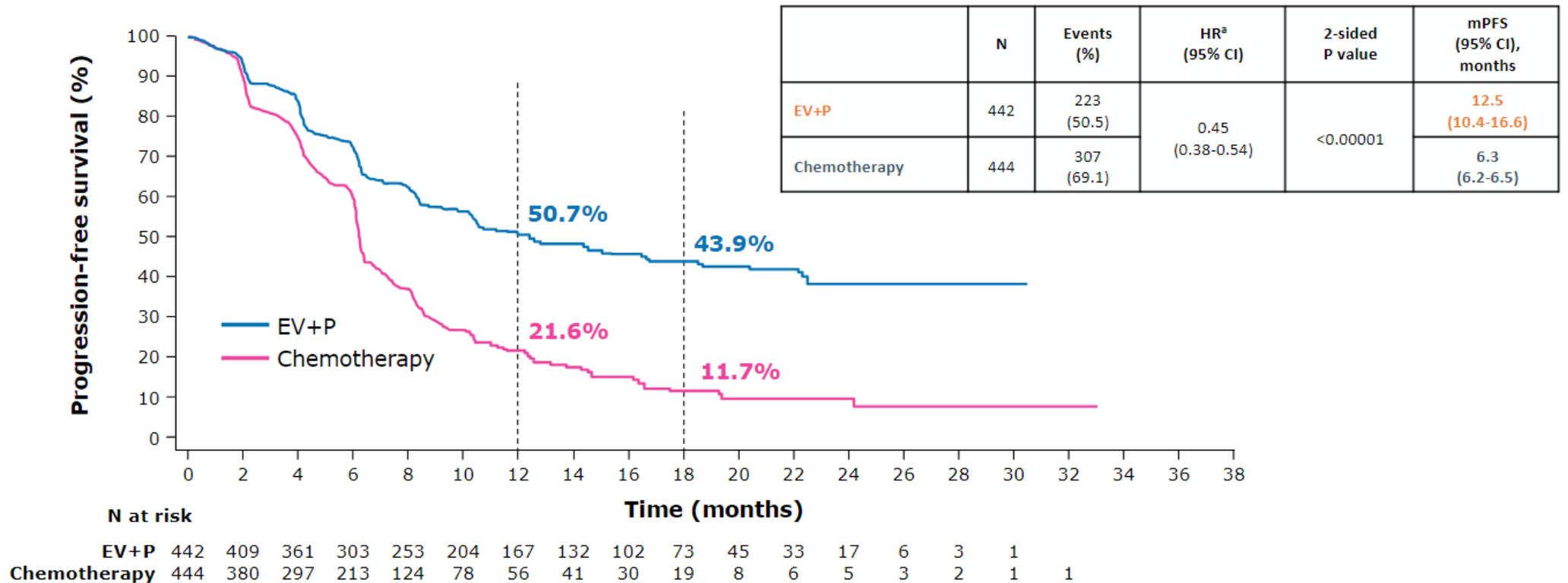
- EV: 1,25 mg/kg IV J1 et J8 toutes les 3 semaines et Pembro : 200 mg IV J1
- Maintenance autorisée après arrêt ou fin du traitement à base de platine

ASCO GU 2024 - D'après van der Heijden MS et al ; Abstract LBA530



Survie sans progression selon la revue centralisée

Réduction du risque de progression ou de décès de 55 % chez les patients traités par EV+P



Data cutoff: 08 Aug 2023

PFS at 12 and 18 months was estimated using Kaplan-Meier method

HR, Hazard Ratio; mPFS, median progression free survival

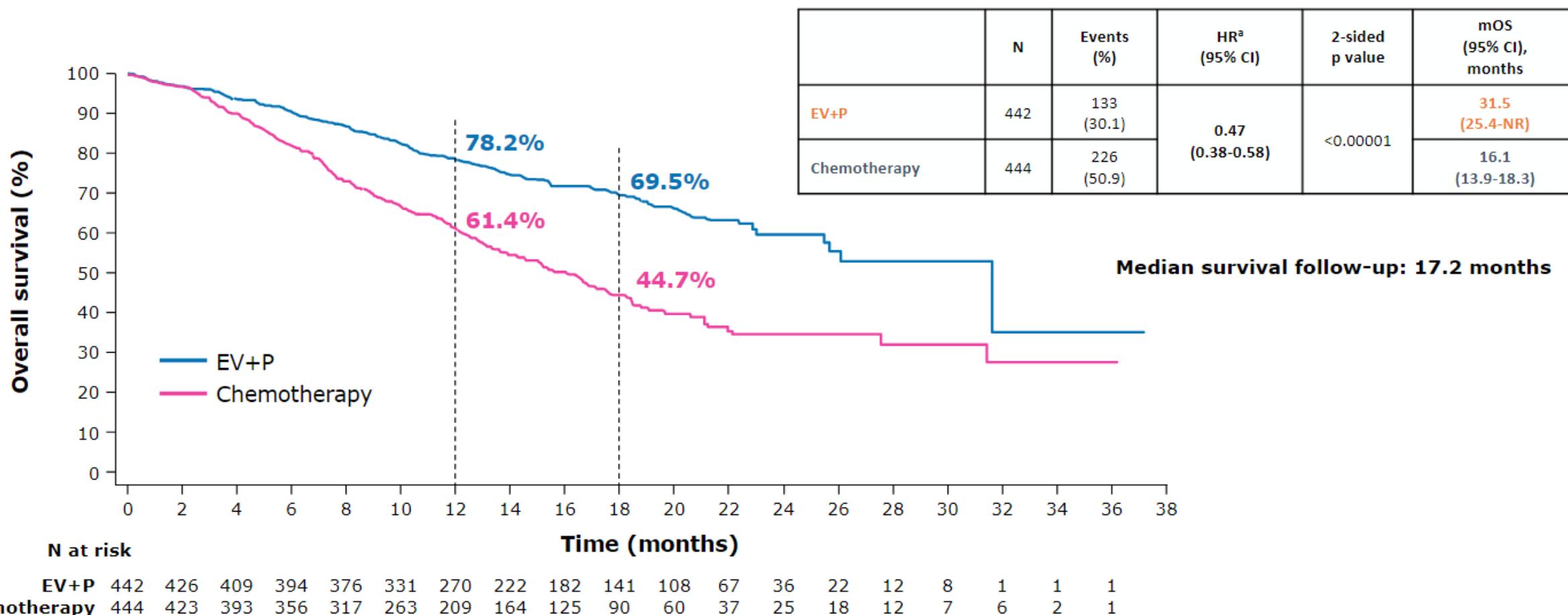
^aCalculated using stratified Cox proportional hazards model. A hazard ratio <1 favors the EV+P arm

Powles T. ESMO 2023



Survie globale

Réduction du risque de décès de 53% chez les patients traités par EV+P



Data cutoff: 08 Aug 2023

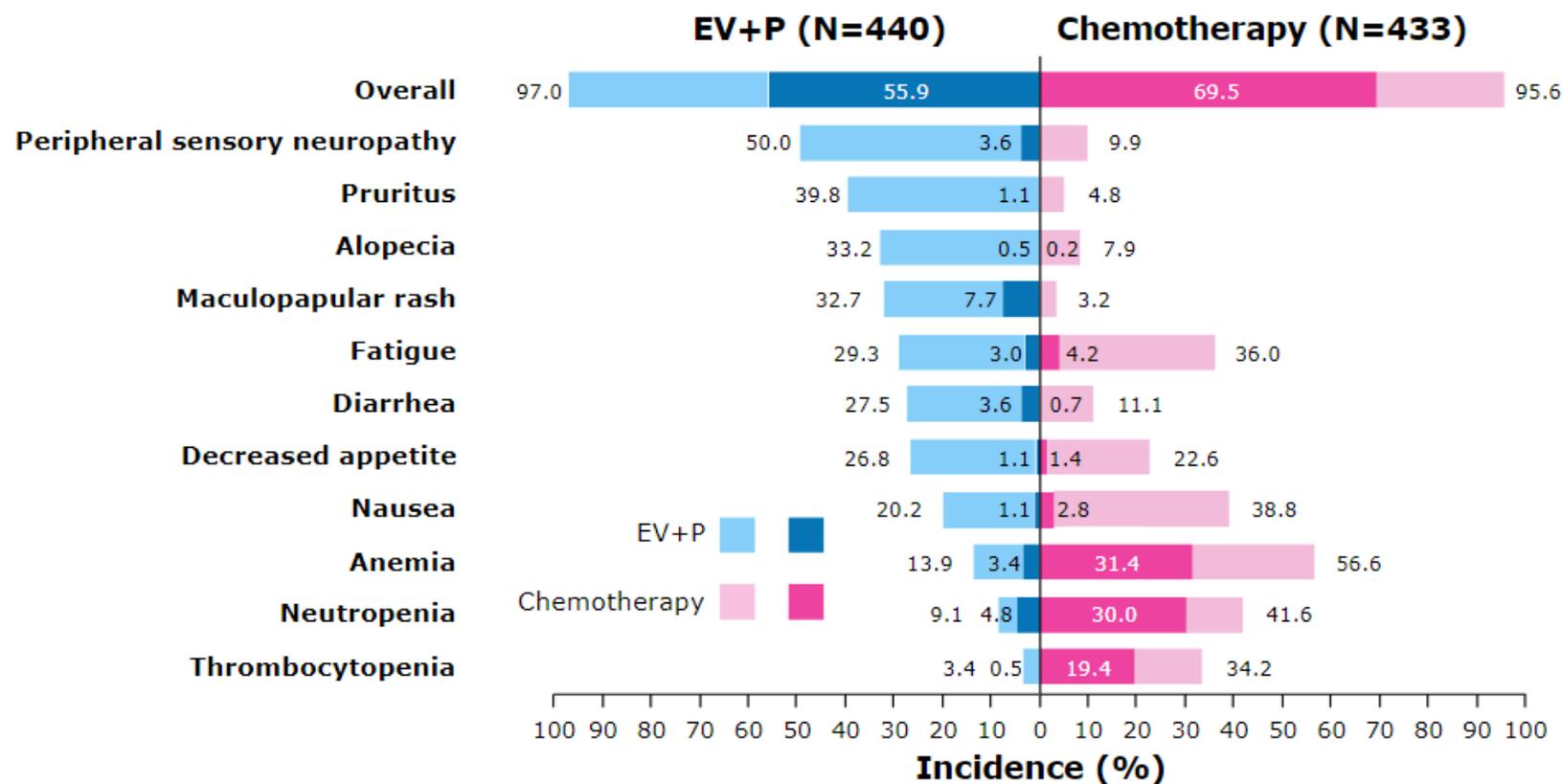
OS at 12 and 18 months was estimated using Kaplan-Meier method

mOS, median overall survival; NR, not reached

^aCalculated using stratified Cox proportional hazards model. A hazard ratio <1 favors the EV+P arm

Evénements indésirables liés au traitement

L'incidence des EI de grade ≥ 3 était de 56% avec EV + P et de 70% avec la chimiothérapie



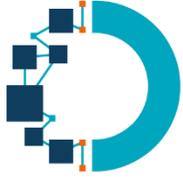
- **Evénements graves :**
- 122 (27.7%) EV+P
- 85 (19.6%) chimiothérapie
- **Evénements conduisant au décès (selon l'investigateur) :**
- EV+P: 4 (0.9%)
- Asthénie
- Diarrhée
- Maladie pulmonaire à médiation immunitaire
- Syndrome de défaillance multiviscérale
- Chimiothérapie: 4 (0.9%)
- Neutropénie fébrile
- Infarctus du myocarde
- Sepsis neutropénique
- Sepsis

Le nombre median de cycles était de 12.0 (1-46) pour EV+P et de 6.0 (1-6) pour la chimiothérapie

Data cutoff: 08 Aug 2023

TRAEs shown in figure are any grade by preferred term in >20% of patients for any grade in either arm
TRAEs, treatment-related adverse events

Powles T. ESMO 2023 #LBA6

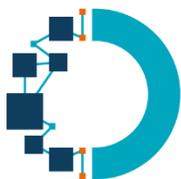


EV-302/KEYNOTE-A39: AE Reliés au traitement par Enfortumab Vedotin

TRAE of Special Interest, n (%)	EV + Pembro (n = 440)		Chemotherapy (n = 433)	
	Any Grade	Grade ≥3	Any Grade	Grade ≥3
Skin reactions	294 (66.8)	68 (15.5)	60 (13.9)	1 (0.2)
Peripheral neuropathy	278 (63.2)	30 (6.8)	53 (12.2)	0
▪ Sensory events	260 (59.1)	19 (4.3)	51 (11.8)	0
▪ Motor events	44 (10.0)	12 (2.7)	5 (1.2)	0
Ocular disorders	94 (21.4)	0	12 (2.8)	0
▪ Dry eye	82 (18.6)	0	8 (1.8)	0
Hyperglycemia	57 (13.0)	27 (6.1)	3 (0.7)	0
Infusion-related reactions	9 (2.0)	0	9 (2.1)	0

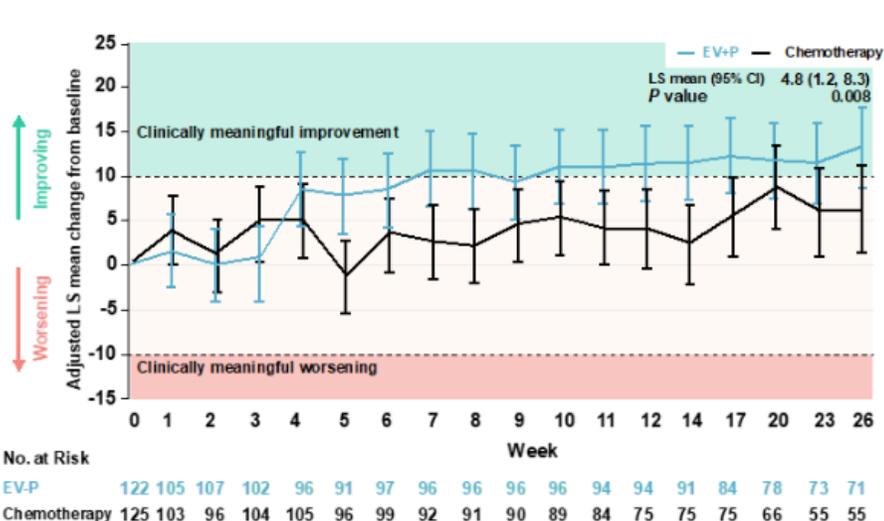
- Faire un dosage de l'HBA1c
- Eliminer une neuropathie de grade II

Powles, ESMO 2015, 15.

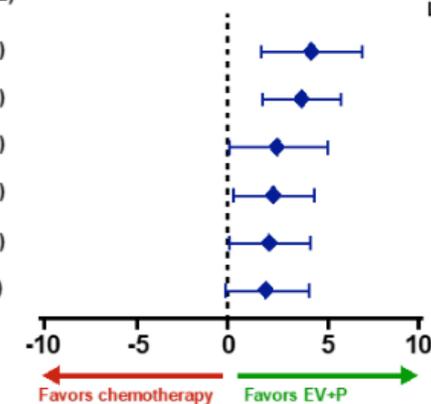


EV-302 : Enfortumab vedotin – 1^e ligne métastatique

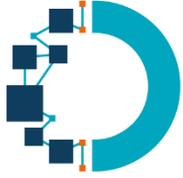
Données de Qualité de vie



Functioning domain	EV+P LS mean (SE)	Chemotherapy LS mean (SE)	EV+P - Chemotherapy LS mean (95% CI)	P value
Role functioning	-5.36 (1.23)	-9.49 (1.26)	4.13 (1.47, 6.79)	0.0024
Physical functioning	-2.63 (0.96)	-6.25 (0.99)	3.62 (1.54, 5.70)	0.0007
Social functioning	-2.94 (1.22)	-5.52 (1.25)	2.57 (-0.07, 5.22)	0.0561
Global health status/QoL	-0.59 (0.99)	-3.12 (1.01)	2.54 (0.41, 4.67)	0.0197
Cognitive functioning	-0.54 (0.95)	-2.69 (0.97)	2.15 (0.10, 4.20)	0.0400
Emotional functioning	3.85 (0.97)	1.96 (0.98)	1.89 (-0.19, 3.97)	0.0750

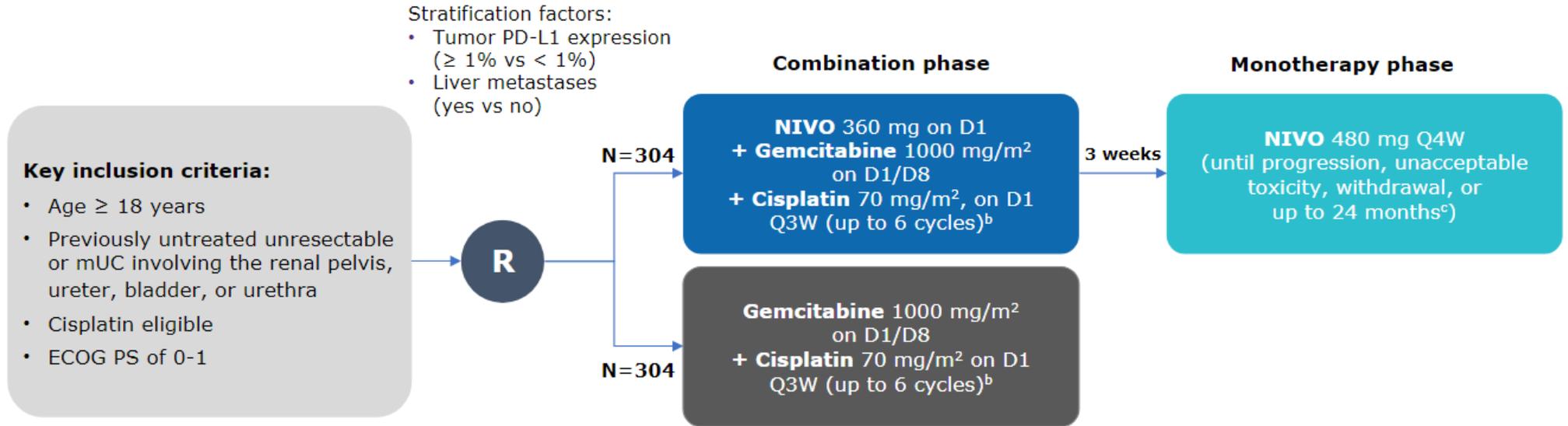


- Pas de détérioration de la QoL sous EV-pembro
- Amélioration chez patients douloureux à l'initiation



CheckMate 901 : Design

Nivolumab+ gemcitabine-cisplatin vs gemcitabine-cisplatin in cisplatin-eligible patients^a



Median (range) study follow-up,
33.6 (7.4-62.4) months

Primary endpoints: OS, PFS per BICR

Key secondary endpoints: OS and PFS by PD-L1 $\geq 1\%$,^d HRQoL

Key exploratory endpoints: ORR per BICR, safety

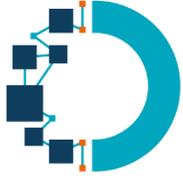
^aFurther CheckMate 901 trial design details are available at <https://clinicaltrials.gov/study/NCT03036098>

^bPatients who discontinued cisplatin could be switched to gemcitabine-carboplatin for the remainder of the platinum doublet cycles (up to 6 in total)

^cA maximum of 24 months from first dose of NIVO administered as part of the NIVO + gemcitabine-cisplatin combination

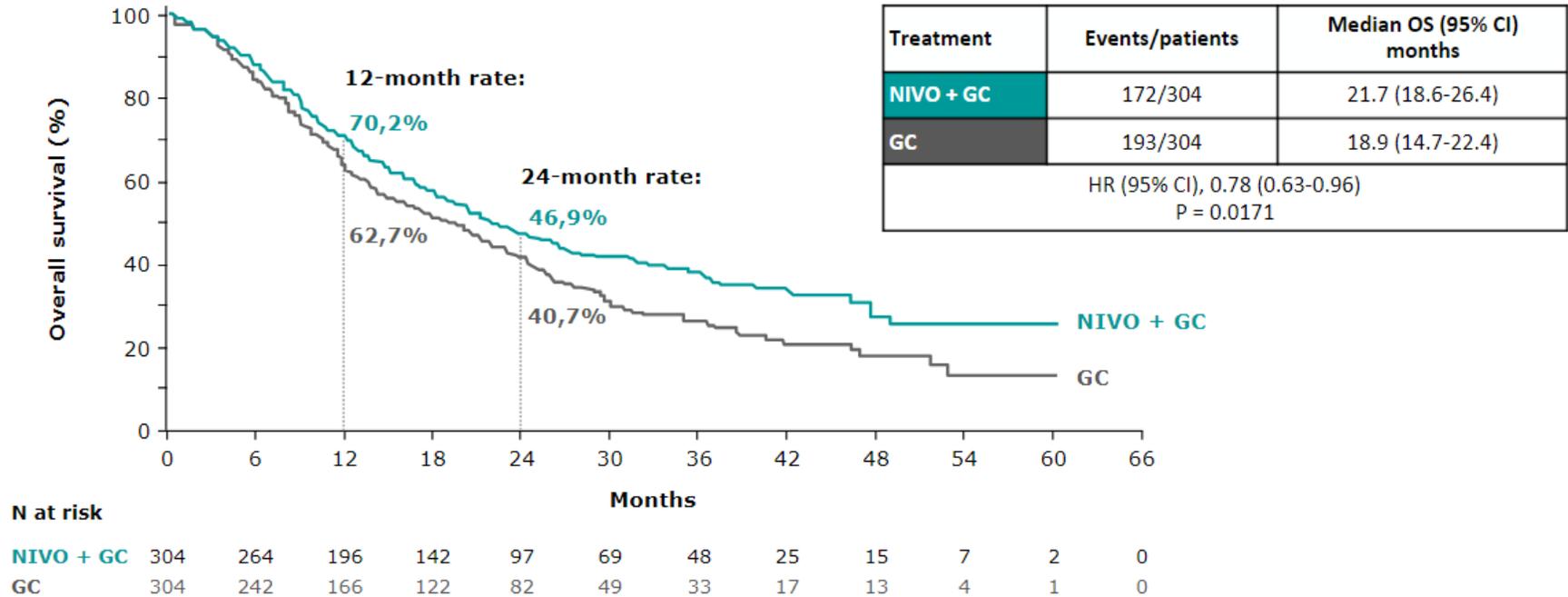
^dPD-L1 status was defined by the percentage of positive tumor cell membrane staining in a minimum of 100 tumor cells that could be evaluated with the use of the PD-L1 IHC 28-8 pharmDX immunohistochemical assay

BICR, blinded independent central review; D, day; ECOG PS, Eastern Cooperative Oncology Group performance status; HRQoL, health-related quality of life; ORR, objective response rate; PD-L1, programmed death ligand 1; PFS, progression-free survival; QxW, every x weeks; R, randomization

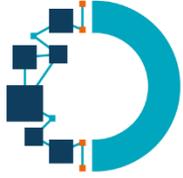


CheckMate 901 : Résultats d'efficacité

OS (primary endpoint)

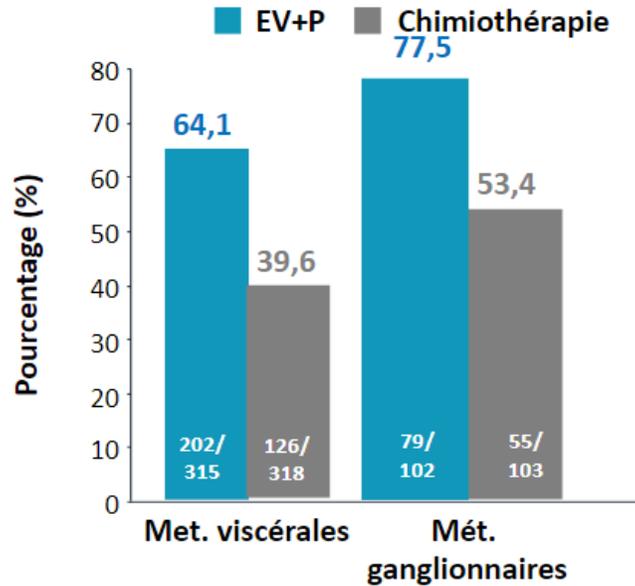


Median (range) study follow-up was 33.6 (7.4-62.4) months. OS was estimated in all randomized patients and defined as time from randomization to death from any cause. For patients without documented death, OS was censored on the last date the patient was known to be alive. For randomized patients with no follow-up, OS was censored at randomization.



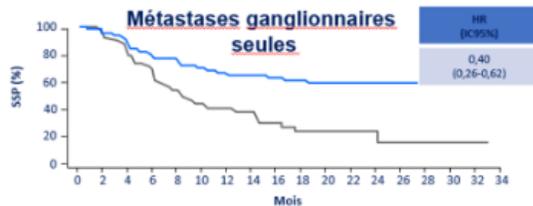
Réponses chez les patients avec une atteinte ganglionnaire

EV302

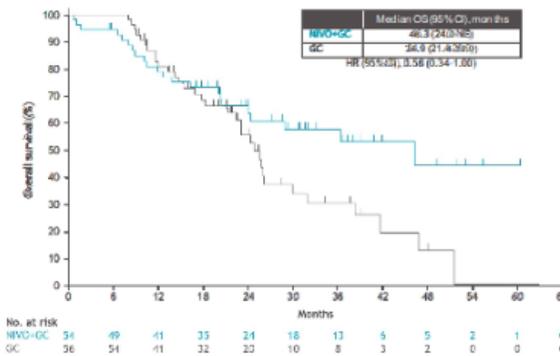
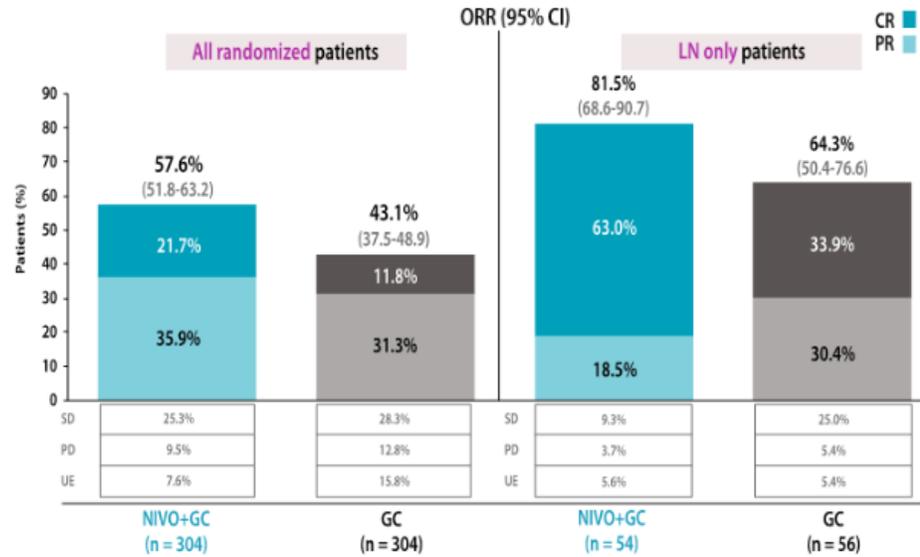


Différence absolue, % (IC95%)

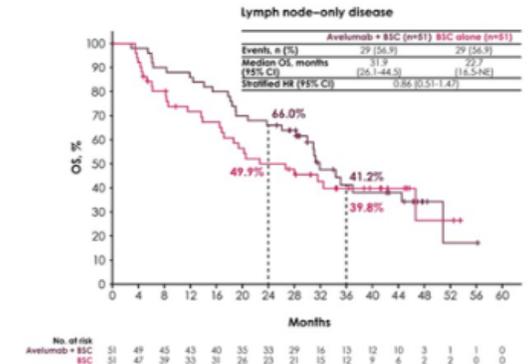
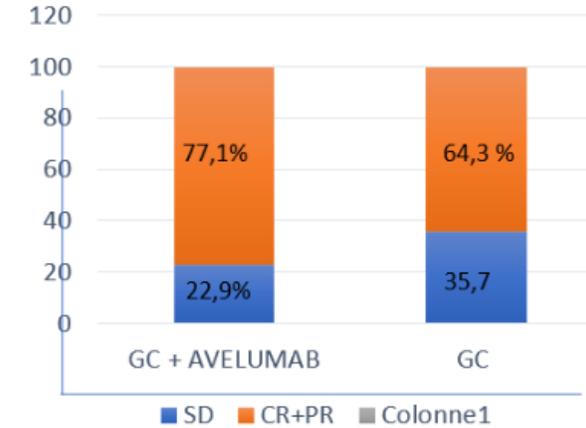
Met. viscérales	24,5 (16,8-31,9)
Mét. ganglionnaires	24,1 (11,1-36,3)



CHECKMATE 901

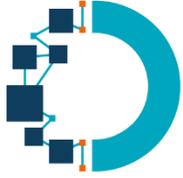


JAVELIN BLADDER 100



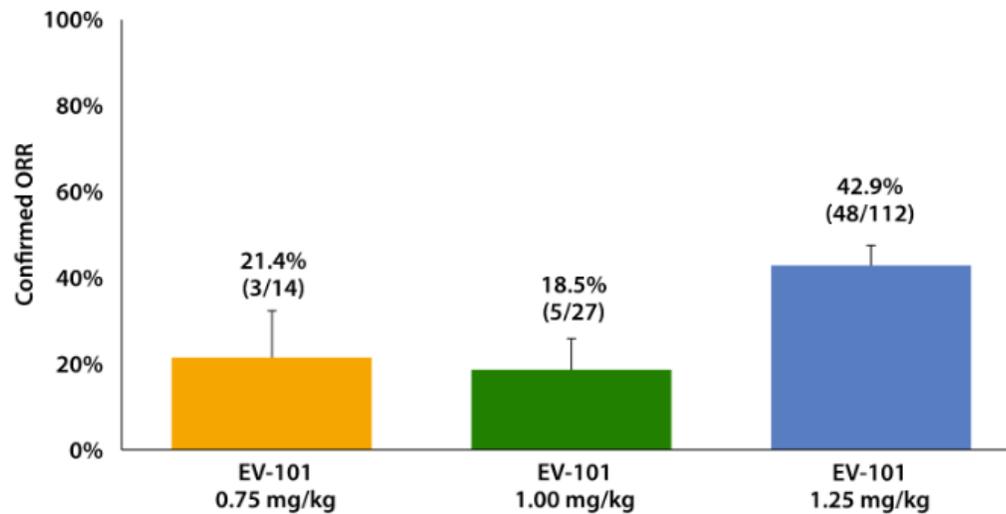
ASCO GU 2024 - D'après van der Heijden MS et al ; Abstract LBA530, Bellmunt J et al abs 4566



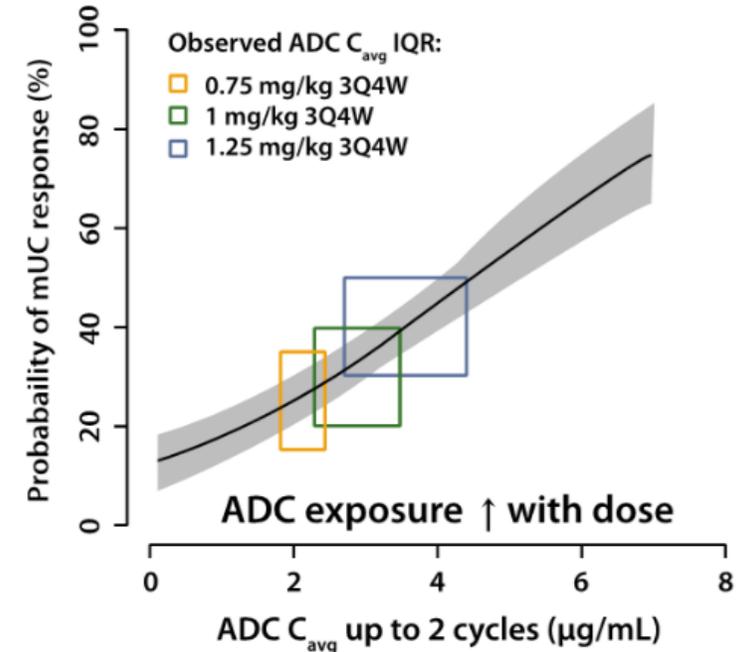


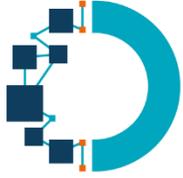
EV : Données d'exposition – efficacité-toxicité en monothérapie

- Taux de réponses selon dose à l'initiation
- Exposition/réponse selon dose initiale (EV-101)



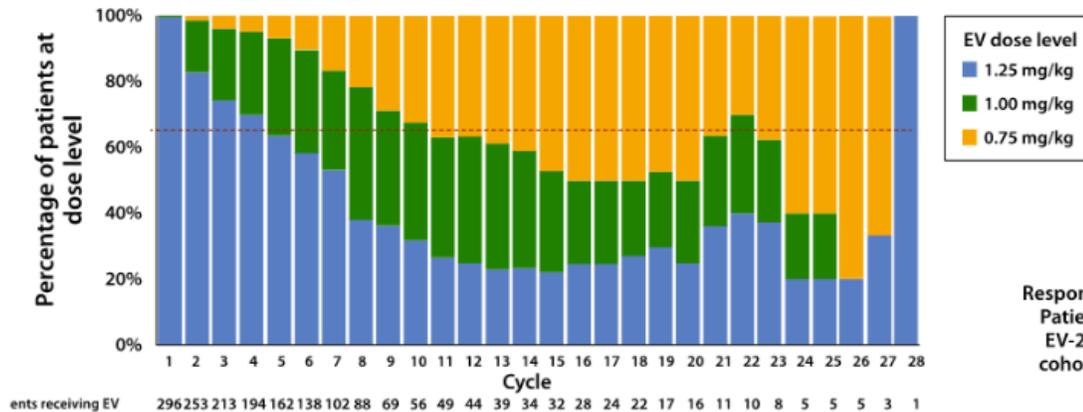
- Effet dose-réponse lors de l'initiation de l'EV



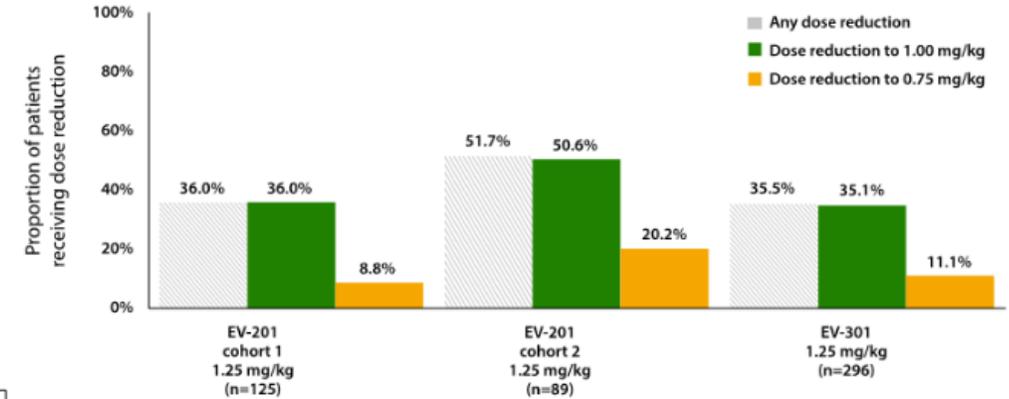


EV : Données d'exposition – efficacité-toxicité en monothérapie

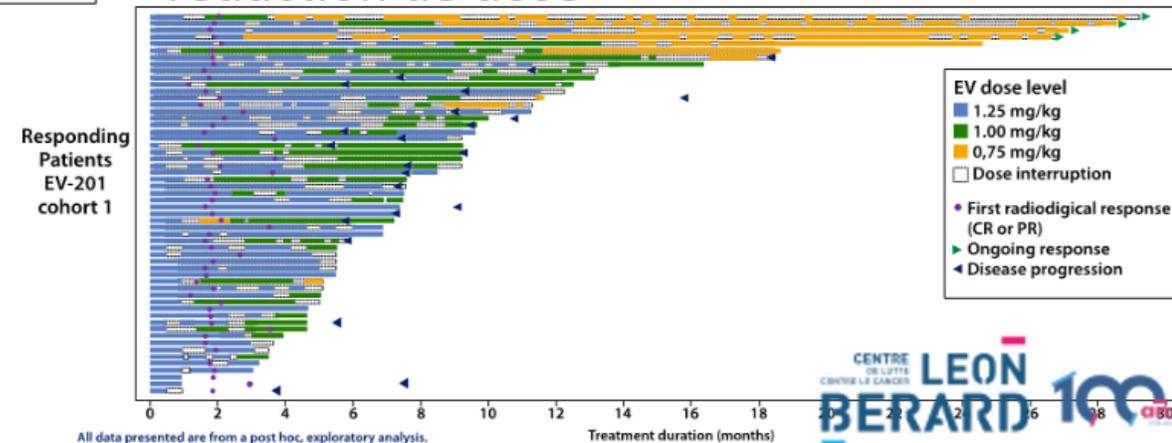
- Dose d'EV selon cycle (EV-101)
La majorité des patients ont pu recevoir 7 cycles à 1,25mg/Kg



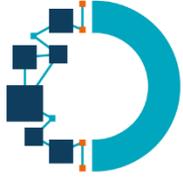
- Proportion de réduction de doses/essai



- Poursuite de bénéfice après pause et réduction de dose



- Petrylak D et al. Abstr 4503, ASCO 2024



3

Ciblage FGFR

- FGFR+ : 10-15% des CUM

- Quel testing ?

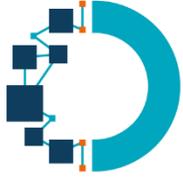
NGS et RNA-seq (recherche de mutations + amplifications et fusions ; surtout FGFR3 +++)

- Quand tester ?

Dès la 1^{ère} ligne métastatique car traitement potentiellement indiqué après CT-IO

- Quelle molécule prescrire ?

ERDAFITINIB (accès compassionnel...)



3 Ciblage FGFR

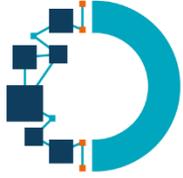
➔ Gestion pratique

- **Dose : 8 mg/j en continu**
 - avec majoration à 9 mg/j à partir de J22 si bonne tolérance (phosphorémie et autres EIs)
 - Cp : 3 mg, 4 mg, 5 mg
- **Heure fixe (pdt ou après repas)**, éviter jus de pamplemousse et millepertuis (risque surexposition à l'erdafitinib)
- Pas d'adaptation si insuffisance rénale ou hépatique
- **Interactions médicamenteuses:**
 - Inhibiteurs CYP3A4/2C9: Amiodarone, cotrimoxazole, fluconazole, clarythromycine → risque de surexposition à l'erdafitinib
 - Inducteurs puissants CYP3A4/2C9: antiépileptiques → augmentation possible de l'exposition aux médicaments
 - Substrats OCT2: metformine → risque d'augmentation de l'exposition à la metformine



CONCLUSION

- EV + pembro un nouveau standard en 1ère ligne de traitement quel que soit l'éligibilité au CDDP
- Pembrolizumab arrêt à 2 ans et comment adapter l'EV en cas de réponses et de toxicités ?
- Arrêt et rechallenge ?
- Diminution de doses
- Modification du schéma d'administration tous les 15 jours
- Pour les atteintes ganglionnaires pures une approche différente ?



1

1^{ère} ligne : demain ça change vraiment !!!

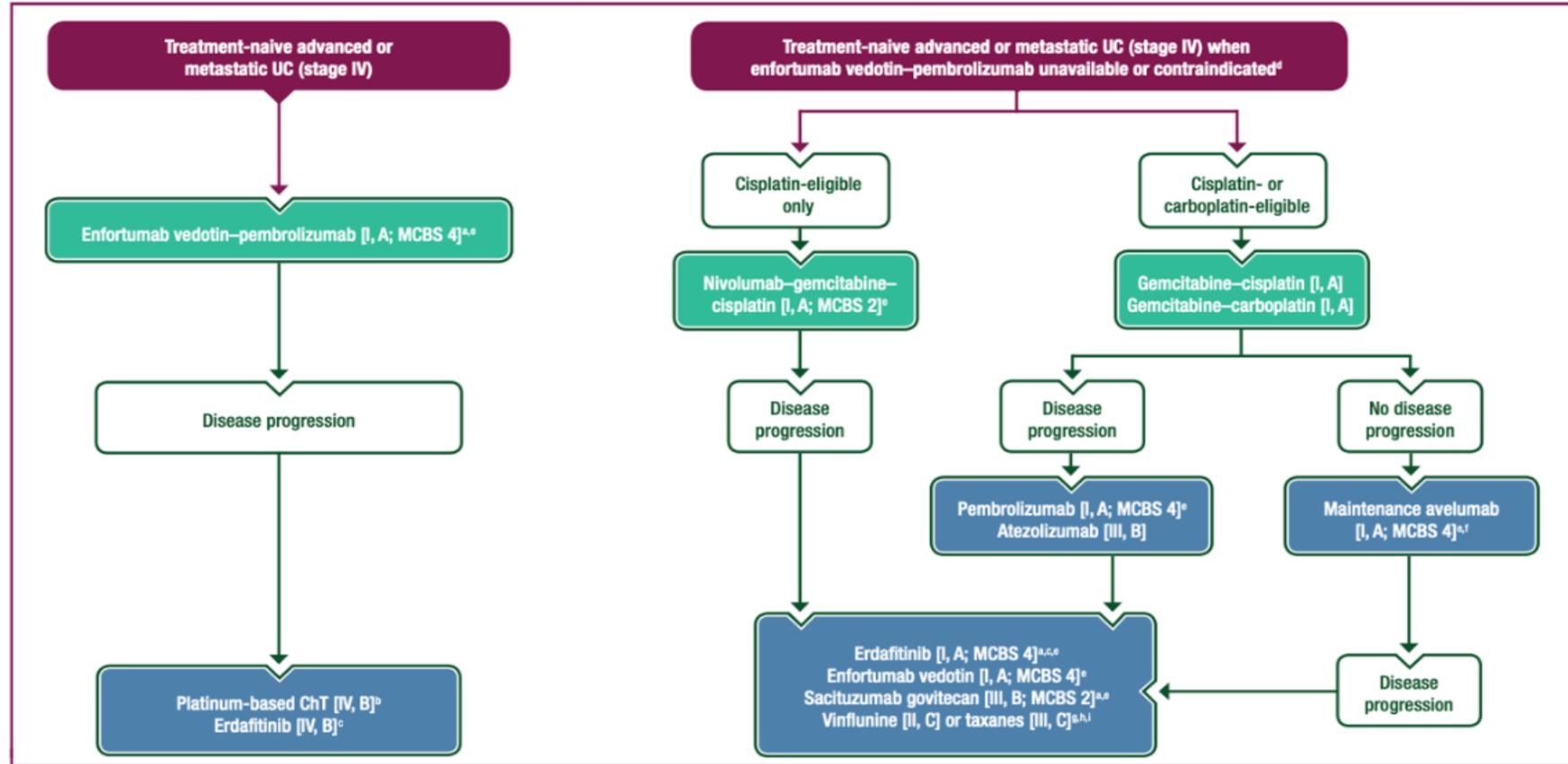
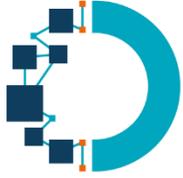
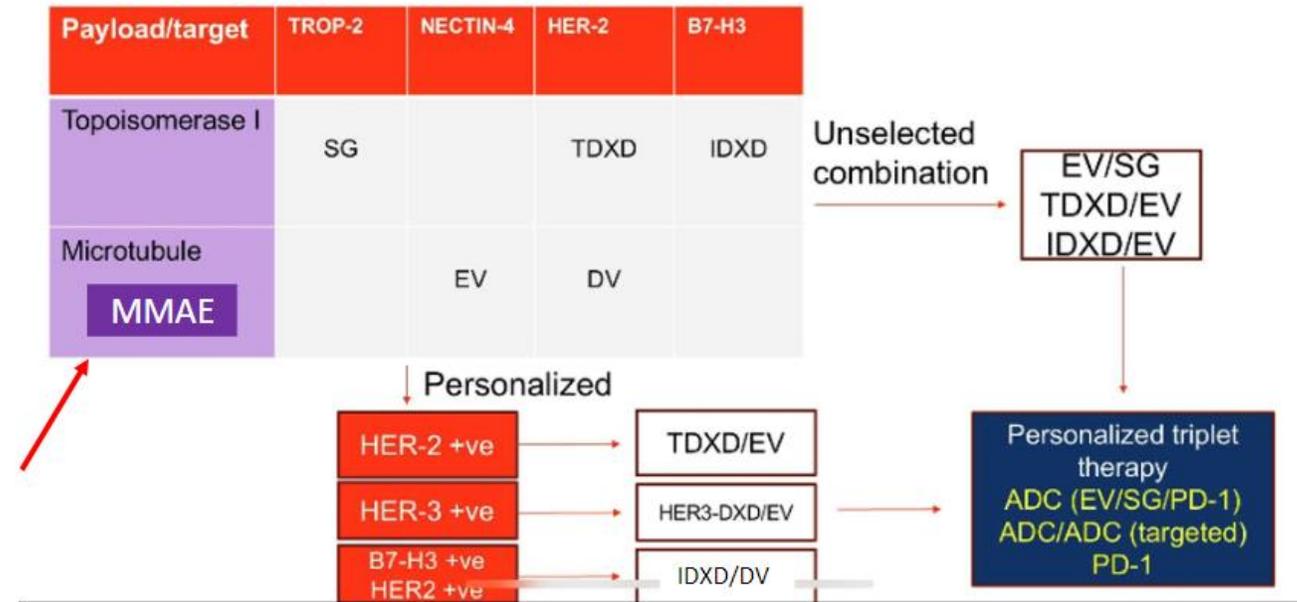


Figure 1. Management of patients with metastatic urothelial carcinoma.



2 Les stratégies ADC en développement

Picking the combination to broaden targeting and reduce dose limiting toxicity seems wise



EV : Enfortumab Vedotin ; SG : Sacituzumab Govitecan ; TDXD : Trastuzumab Deruxtecan ; DV : Disitamab Vedotin ; IDXD : Ifinatamab Deruxtecan (DS-7300)

