

## Supplementary Online Content

Peyton CC, Tang D, Reich RR, et al. Downstaging and survival outcomes associated with neoadjuvant chemotherapy regimens among patients treated with cystectomy for muscle-invasive bladder cancer. *JAMA Oncol*. Published online August 30, 2018. doi:10.1001/jamaoncol.2018.3542

**eTable 1.** Social and Demographic Information by Neoadjuvant Chemotherapy Type

**eTable 2.** Toxicity Summary for ddMVAC According to CTCAE v4.0

**eTable 3.** Full Cox Proportional Hazard Model for Overall Survival Results

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1.** Social and demographic information by neoadjuvant chemotherapy type

Variable	Gem/Cis	Gem/Carbo	ddMVAC	other	p value	Pairwise comparison GC vs ddMVAC, p value
N (%)	204 (61.4)	32 (9.6)	46 (13.9)	50 (15.1)		
Median age (IQR)	66 (59-72)	70.5 (63.5-76)	61.5 (56-68)	64 (57-72)	0.02	0.002
Gender					0.19	0.80
Female	57 (27.9)	4 (12.5)	12 (26.1)	17 (34.0)		
Male	147 (72.1)	28 (87.5)	34 (73.9)	33 (66.0)		
Race/ethnicity					0.01	0.12
White	195 (95.6)	27 (84.4)	44 (95.7)	45 (90)		
Black	7 (3.4)	5 (15.6)	0 (0)	3 (6.0)		
Other	2 (1.0)	0 (0)	2 (4.4)	2 (4.0)		
Hispanic/Latino	3 (1.5)	1 (3.3)	2 (4.4)	2 (4.0)		
Marital status					0.78	0.51
Married/living together	146 (71.6)	24 (75.0)	32 (69.6)	36 (72.0)		
Separated/divorced	18 (8.8)	1 (3.1)	4 (8.7)	6 (12.0)		
Single never married	22 (10.8)	3 (9.4)	8 (17.4)	4 (8.0)		
Widowed	18 (8.8)	4 (12.5)	2 (4.4)	4 (8.0)		
Education					0.12	0.38
High School or Less	47 (34.8)	8 (42.1)	9 (24.3)	4 (16.7)		
College or Some College	55 (40.7)	10 (52.6)	14 (37.8)	15 (62.5)		
Graduate/professional degree	16 (11.9)	1 (5.3)	6 (16.2)	4 (16.7)		
Unknown	17 (12.6)	0 (0)	8 (21.6)	1 (4.2)		
Primary insurance					0.04	0.06
Private	63 (30.9)	6 (18.8)	23 (50.0)	14 (28.0)		
Medicare	114 (55.9)	20 (62.5)	17 (37.0)	27 (54.0)		
Medicaid	14 (6.9)	1 (3.1)	2 (4.4)	2 (4.0)		
Self-pay/uninsured	8 (3.9)	1 (3.1)	1 (2.2)	1 (2.0)		
Other	5 (2.5)	4 (12.5)	3 (6.5)	6 (12.0)		
Elixhauser comorbidity, median (IQR)	3 (2-5)	4 (2.5-6.5)	3 (1-5)	4 (3-6)	0.03	0.05
Histology					0.005	0.33
Urothelial carcinoma	141 (69)	25 (78)	27 (59)	36 (72)		
Squamous cell carcinoma	1 (1)	2 (6)	0	3 (6)		
Adenocarcinoma	0	0	0	1 (2)		
Other	62 (30)	5 (16)	19 (41)	10 (20)		

Variable	Gem/Cis	Gem/Carbo	ddMVAC	other	p value	Pairwise comparison GC vs ddMVAC, p value
<b>Clinical Stage</b>						
≤ cT1* NxMx	2 (1)	1 (3)	0	8 (16)	<0.001	0.44
cT2 NxMx	146 (72)	20 (63)	36 (78)	26 (52)		
cT3 NxMx	40 (20)	7 (22)	5 (11)	9 (18)		
cT4 NxMx	16 (8)	4 (13)	5 (11)	6 (12)		
Unknown				1 (2)		
<b>Pathologic AJCC Stage</b>					0.02	0.16
Stage 0 a/is (Ta/isN0M0)	50 (24.5)	3 (9.38)	19 (41.3)	12 (24)		
Stage I (T1N0M0)	28 (13.7)	1 (3.13)	7 (15.2)	7 (14)		
Stage II (T2N0M0)	20 (9.8)	3 (9.38)	4 (8.7)	9 (18)		
Stage III (T3N0M0)	42 (20.6)	11 (34.38)	9 (19.6)	7 (14)		
Stage IV (T4N0-3M0-1)	64 (31.4)	14 (43.75)	7 (15.2)	15 (30)		
Unknown						
<b>Cycles of chemotherapy</b>						
Mean ± SD	3.72 (2.19)	4.44 (3.57)	3.27 (0.86)	3.96 (2.13)	<0.001	<0.03
Counts, N (%)						
< 3 cycles	52 (26.3)	9 (28.1)	3 (6.5)	14 (29.2)	0.02	<0.001
3-4 cycles	96 (48.5)	13 (40.6)	39 (85)	19 (39.6)		
> 4 cycles	50 (25.3)	10 (31.3)	3 (6.5)	15 (31.3)		

\* cT1 based on transurethral resection with radiographic or clinical evidence of invasive/advanced disease

**eTable 2.** Toxicity summary for ddMVAC according to CTCAE v4.0

Adverse Events	Grades 1 to 2, No. (%)	Grade 3, No. (%)
Hematologic		
Anemia	13 (28)	3 (7)
Thrombocytopenia	15 (33)	
Neutropenia		1 (2)
Acute Kidney Injury	3 (7)	
Gastrointestinal disorders		
Mucositis	4 (9)	1 (2)
Nausea/vomiting	17 (37)	
Diarrhea	1 (2)	
Reflux	6 (13)	
Esophagitis		1 (2)
Respiratory		1 (2)
Metabolism and nutrition disorders		2 (4)
Neuropathy	3 (7)	
Urinary tract infection	3 (7)	2 (4)
General disorders and administration site conditions		
Phlebitis or Cellulitis	6 (13)	
Alopecia	4 (9)	
Fever	2 (4)	1 (2)
Fatigue	26 (57)	1 (2)
Lower extremity edema	1 (2)	
Cough or hiccups	1 (2)	
Insomnia	1 (2)	
Tinnitus	2 (4)	
Thromboembolic event	2 (4)	2 (4)
CTCAE v4.0, Common Terminology Criteria for Adverse Events version 4.0.		

**eTable 3.** Full Cox proportional hazard model for overall survival results

<b>Variable</b>	<b>HR</b>	<b>95% CI</b>	<b>P value</b>
Age	0.99	0.97-1.01	0.31
Comorbidity	1.06	0.97-1.16	0.18
Gender	0.63	0.39-1.00	0.05
Clinical stage			
cT2	1.52	0.58-4.00	0.39
cT3	3.27	1.20-8.89	0.02
cT4	3.37	1.15-9.86	0.03
Chemotherapy regimen			
ddMVAC	0.43	0.17-1.06	0.07
Gem/Carbo	2.00	1.16-3.45	0.01
Other	1.72	1.05-2.80	0.03
Cycles of NAC	1.02	0.94-1.10	0.66