

## *Supplementary Material*

### **Title:**

# **Patient Selection in Human Papillomavirus Related Oropharyngeal Cancer: The Added Value of Prognostic Models in the New TNM 8<sup>th</sup> Edition Era**

**Running title: Patient-selection in HPV+ Oropharyngeal Cancer**

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### **Supplementary Tables and Figures:**

**S1:** Comparison of TNM 7<sup>th</sup> edition and 8<sup>th</sup> edition of the T- and N-stages and the number of included patients for each T- and N-stage.

**S2:** Predictors for overall survival in univariable (**A**) and multivariable (**B**) cox regression analysis.

**S3:** Patient and tumor characteristics separated by risk group according to the new proposed classification model.

**S4:** Locoregional control calculated with the cumulative incidence method with death as competing factor for the risk groups defined in figure 10.

**S5:** Kaplan-Meier curve for overall survival by N-stage (**A**) and T-stage (**B**) according to the TNM 8<sup>th</sup> edition for HPV positive oropharyngeal squamous cell carcinoma.

**S6:** Tumor volume of HPV+ OPC according to T-Stage.

**S3:** Patient and tumor characteristics by risk group according to the new proposed classification model.  
 IQR: Interquartile range; ACE27: Adult Comorbidity Evaluation 27.

	<b>Low risk</b>	<b>Intermediate risk</b>	<b>High risk</b>
<b>Gender</b>			
Male	11/18 (61.11%)	20/25 (80.00%)	45/57 (78.95%)
Female	7/18 (38.89%)	5/25 (20.00%)	12/57 (21.05%)
<b>Age</b>			
Median (IQR)	63.4 (52.0-69.0)	61.5 (54.2-72)	63.5 (54.7-69.9)
<b>Smoking</b>			
Never smoker	11/18 (61.11%)	1/25 (4.00%)	15/57 (26.32%)
≤ 10 Pack years	7/18 (38.89%)	2/25 (8.00%)	5/57 (8.77%)
> 10 Pack years	-	20/25 (80.00%)	36/57 (63.16%)
Unknown		2/25 (8.00%)	1/57 (1.75%)
<b>Systemic Treatment</b>			
No	8/18 (44.44%)	8/25 (32.00%)	15/57 (26.32%)
Yes	10/18 (55.56%)	17/25 (68.00%)	42/57 (73.68%)
<b>Comorbidity: ACE27</b>			
0-1	18/18 (100%)	14/25 (56.00%)	36/57 (63.16%)
2-3	-	11/25 (44.00%)	21/57 (36.84%)
<b>Stage (7<sup>th</sup> edition)</b>			
I	-	-	-
II	5/18 (27.78%)	5/25 (20.00%)	-
III	4/18 (22.22%)	2/25 (8.00%)	5/57 (8.77%)
IV	9/18 (50.00%)	18/25 (72.00%)	52/57 (91.23%)
<b>Stage (8<sup>th</sup> edition)</b>			
I	18/18 (100%)	25/25 (100%)	-
II	-	-	23/57 (40.39%)
III	-	-	34/57 (59.62%)