

## Pathological staging (Core)

Pathological staging (according to the agreed criteria of the Union for International Cancer Control (UICC)<sup>1</sup> and American Joint Committee on Cancer (AJCC)<sup>2</sup> 8<sup>th</sup> Editions) is the most important factor to predict the survival of patients with oesophageal carcinomas.

It is worth noting that although the pathological criteria T, N, M remain the same, the stage grouping is different from squamous cell carcinoma and adenocarcinoma.<sup>2</sup> Stage grouping tables have therefore been provided for reference (see Tables 4-7) for the AJCC 8<sup>th</sup> Edition staging of oesophageal adenocarcinomas and squamous cell carcinomas with or without neoadjuvant therapy.<sup>2</sup> The differentiation (grades) of the carcinomas are important criteria for the stage grouping.

In the AJCC 8<sup>th</sup> Edition Staging Manual there is only one staging grouping for both squamous cell carcinoma and adenocarcinoma.<sup>2</sup> The stage grouping is different from that without therapy. The grade of carcinoma is not a criterion for the stage grouping.<sup>2-4</sup>

**Table 4: American Joint Committee on Cancer Pathological (pTNM) – Squamous cell carcinoma.**

When pT is...	And pN is...	And M is...	And G is...	And location is...	Then the stage group is...
Tis	N0	M0	N/A	Any	0
T1a	N0	M0	G1	Any	IA
T1a	N0	M0	G2-3	Any	IB
T1a	N0	M0	GX	Any	IA
T1b	N0	M0	G1-3	Any	IB
T1b	N0	M0	GX	Any	IB
T2	N0	M0	G1	Any	IB
T2	N0	M0	G2-3	Any	IIA
T2	N0	M0	GX	Any	IIA
T3	N0	M0	G1-3	Lower	IIA
T3	N0	M0	G1	Upper/middle	IIA
T3	N0	M0	G2-3	Upper/middle	IIB
T3	N0	M0	GX	Lower/upper/middle	IIB
T3	N0	M0	Any	Location X	IIB
T1	N1	M0	Any	Any	IIB
T1	N2	M0	Any	Any	IIIA
T2	N1	M0	Any	Any	IIIA
T2	N2	M0	Any	Any	IIIB
T3	N1-2	M0	Any	Any	IIIB
T4a	N0-1	M0	Any	Any	IIIB
T4a	N2	M0	Any	Any	IVA
T4b	N0-2	M0	Any	Any	IVA
Any T	N3	M0	Any	Any	IVA
Any T	Any N	M1	Any	Any	IVB

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**Table 5: American Joint Committee on Cancer Postneoadjuvant Therapy (ypTNM) – Squamous cell carcinoma.**

When yp T is...	And yp N is...	And M is...	Then the stage group is...
T0-2	N0	M0	I
T3	N0	M0	II
T0-2	N1	M0	IIIA
T3	N1	M0	IIIB
T0-3	N2	M0	IIIB
T4a	N0	M0	IIIB
T4a	N1-2	M0	IVA
T4a	NX	M0	IVA
T4b	N0-2	M0	IVA
Any T	N3	M0	IVA
Any T	Any N	M1	IVB

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**Table 6: American Joint Committee on Cancer Pathological (pTNM) – Adenocarcinoma.**

When pT is...	And pN is...	And M is...	And G is...	Then the stage group is...
Tis	N0	M0	N/A	0
T1a	N0	M0	G1	IA
T1a	N0	M0	GX	IA
T1a	N0	M0	G2	IB
T1b	N0	M0	G1-2	IB
T1b	N0	M0	GX	IB
T1	N0	M0	G3	IC
T2	N0	M0	G1-2	IC
T2	N0	M0	G3	IIA
T2	N0	M0	GX	IIA
T1	N1	M0	Any	IIB
T3	N0	M0	Any	IIB
T1	N2	M0	Any	IIIA
T2	N1	M0	Any	IIIA
T2	N2	M0	Any	IIIB
T3	N1-2	M0	Any	IIIB
T4a	N0-1	M0	Any	IIIB
T4a	N2	M0	Any	IVA
T4b	N0-2	M0	Any	IVA
Any T	N3	M0	Any	IVA
Any T	Any N	M1	Any	IVB

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**Table 7: American Joint Committee on Cancer Postneoadjuvant Therapy (ypTNM) – Adenocarcinoma.**

When yp T is...	And yp N is...	And M is...	Then the stage group is...
T0-2	N0	M0	I
T3	N0	M0	II
T0-2	N1	M0	IIIA
T3	N1	M0	IIIB
T0-3	N2	M0	IIIB
T4a	N0	M0	IIIB
T4a	N1-2	M0	IVA
T4a	NX	M0	IVA
T4b	N0-2	M0	IVA
Any T	N3	M0	IVA
Any T	Any N	M1	IVB

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**References**

1 Brierley JD, Gospodarowicz MK and Wittekind C (eds) (2016). *Union for International Cancer Control. TNM Classification of Malignant Tumours, 8th Edition*, Wiley-Blackwell, USA.

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3 Lam AK (2018). Application of pathological staging in esophageal adenocarcinoma. *Methods Mol Biol* 1756:93-103.

4 Lam AK (2020). Application of pathological staging in esophageal squamous cell carcinoma. *Methods Mol Biol* 2129:19-31.