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What has changed with the 8th TNM staging system?

125 - Impact on chemotherapy and multimodality strategies in early and advanced diseases

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ELCC 2016

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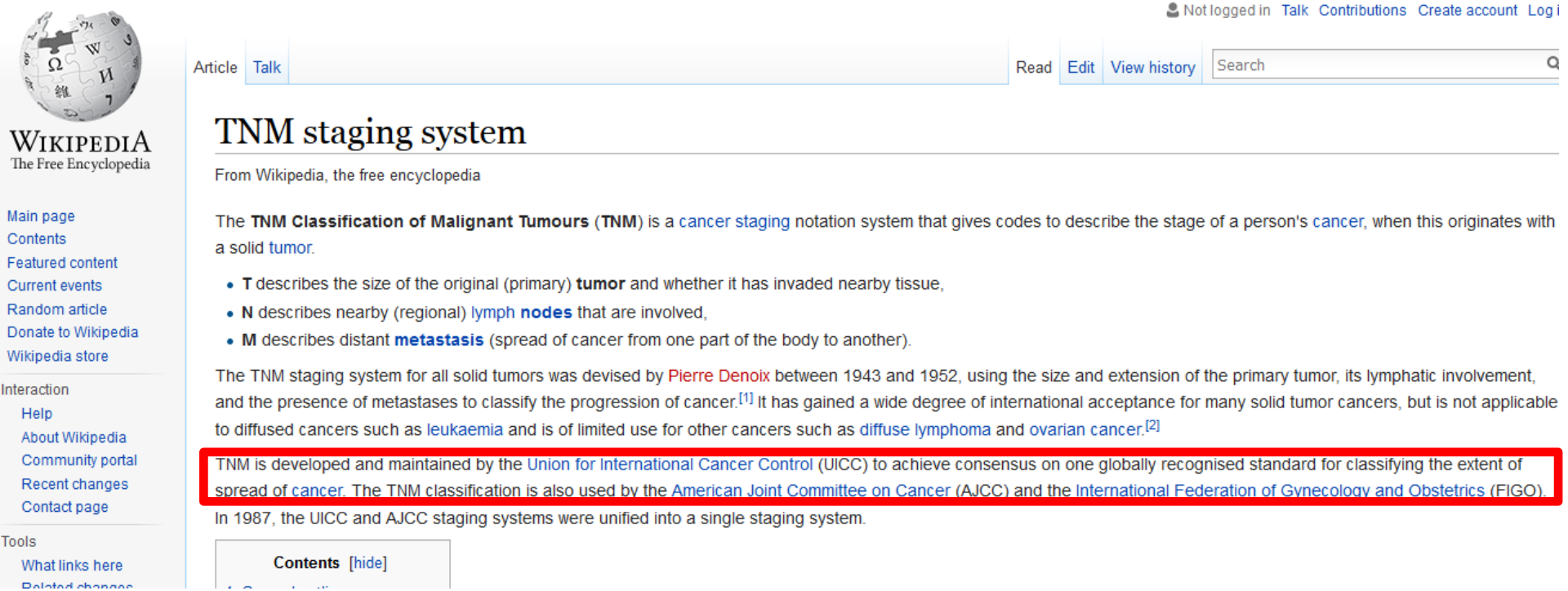
Disclosures

- I attended advisory boards and/or provided lectures for: Roche, Eli Lilly, Boehringer Ingelheim, Astra Zeneca, Pfizer, BMS, Amgen, Astra Zeneca, Novartis, MSD; for which I received honoraria

- I declare no conflicts of interest

Why TNM classification?



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Random article
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Interaction
Help
About Wikipedia
Community portal
Recent changes
Contact page

Tools
What links here

TNM staging system

From Wikipedia, the free encyclopedia

The **TNM Classification of Malignant Tumours** (**TNM**) is a cancer staging notation system that gives codes to describe the stage of a person's cancer, when this originates with a solid tumor.

- **T** describes the size of the original (primary) **tumor** and whether it has invaded nearby tissue,
- **N** describes nearby (regional) lymph **nodes** that are involved,
- **M** describes distant **metastasis** (spread of cancer from one part of the body to another).

The TNM staging system for all solid tumors was devised by Pierre Denoix between 1943 and 1952, using the size and extension of the primary tumor, its lymphatic involvement, and the presence of metastases to classify the progression of cancer.[1] It has gained a wide degree of international acceptance for many solid tumor cancers, but is not applicable to diffused cancers such as leukaemia and is of limited use for other cancers such as diffuse lymphoma and ovarian cancer.[2]

TNM is developed and maintained by the Union for International Cancer Control (UICC) to achieve consensus on one globally recognised standard for classifying the extent of spread of cancer. The TNM classification is also used by the American Joint Committee on Cancer (AJCC) and the International Federation of Gynecology and Obstetrics (FIGO). In 1987, the UICC and AJCC staging systems were unified into a single staging system.

Contents [hide]

TNM staging

- Grouping of patients with same pro

PROGNOSTIC impact

TABLE 1. Study Objectives

Component	Objective
T	Assess the prognostic impact of tumor size.
	Assess the classification capacity of each descriptor defining T-status.
	Study new conditions not included in the present T (e.g., differences between parietal pleura invasion and rib invasion).
N	Assess the prognostic impact of N-status.
	Explore the prognostic impact of involved lymph node "zones" within N1 and N2 categories.
	Assess the prognostic impact of:
	Nodal extent (single vs. multiple station involvement in N1 and N2 locations),
	Nodal size, i.e., the largest involved node within the relevant N category, and
	Individual nodes being involved in each nodal category.
	Assess the prognostic impact of extracapsular extension.
	Assess the prognostic impact of the N3 nodal location, i.e., contralateral mediastinum, ipsilateral or contralateral supraclavicular fossa.
M	Assess the prognostic impact of M-status, especially those descriptors now included within the new category of M1a proposed by the IASLC for the 7th edition.
	Assess the prognostic impact of:
	Single metastasis in a single organ
	Multiple metastases in a single organ, and
	Multiple metastases in several organs.
Other	Assess the prognostic impact of histologic type and grade.
	Assess the reliability of staging methods utilized in clinical staging (for those tumors with pretreatment and postsurgical classification).
	Assess the prognostic impact of complete, incomplete, and uncertain resections, according to the proposed definitions of the IASLC.
	Assess the prognostic impact of clinical factors, including co-morbidity and pulmonary function tests.
	Assess the prognostic impact of maximum standard uptake

Giroux, JTO 2009

TNM: 8th versus 7th version

- Prospective versus retrospective
- Less variation in treatment

- More T-details (tumor size)
- Number of involved nodes / nodal stations
- Various forms M1 disease
- Pre-treatment T,N,M: use MRI / PET reported

- Data collection 2009-2010;
- follow-up 2011-2012;
- analysis 2013

Giroux, JTO 2009

TNM database

- N = 70,967 NSCLC
- 79% patient from Asia, no information on EGFR status
- Treatment not reported

TABLE 2. Results of Univariate Analyses of Survival of Pathologically Staged T1–T3 N0M0R0 Cases According to Tumor Size and T2 and T3 Descriptors

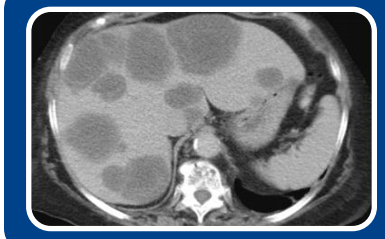
		Survival from Surgery	
Variable	**n/N (%)**	**HR (95% CI)**	***P* value**
Other histology vs. adeno	7064/21,122 (33)	2.19 (2.07, 2.32)	<0.001
Squamous vs. other	5237/21,122 (25)	1.96 (1.85, 2.07)	<0.001
Age ≥ 60 vs. <60	16,070/21,014 (76)	2.29 (2.11, 2.49)	<0.001
Male vs. female	12,457/20,995 (59)	1.86 (1.75, 1.98)	<0.001
Americas vs. Asia	1873/21,123 (9)	1.79 (1.64,1.97)	<0.001
Europe/Australia vs. Asia	2361/21,123 (11)	2.61 (2.43,2.80)	<0.001

Rami-Porta, JTO 2015

Chemotherapy in NSCLC, current guidelines

Adjuvant cisplatin-based chemotherapy

(conc) platinum based chemotherapy



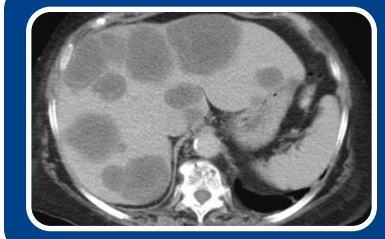
Palliative cisplatin based chemotherapy

No chemotherapy in NSCLC

Adjuvant cisplatin-based chemotherapy

- Stage I

(conc) platinum based chemotherapy

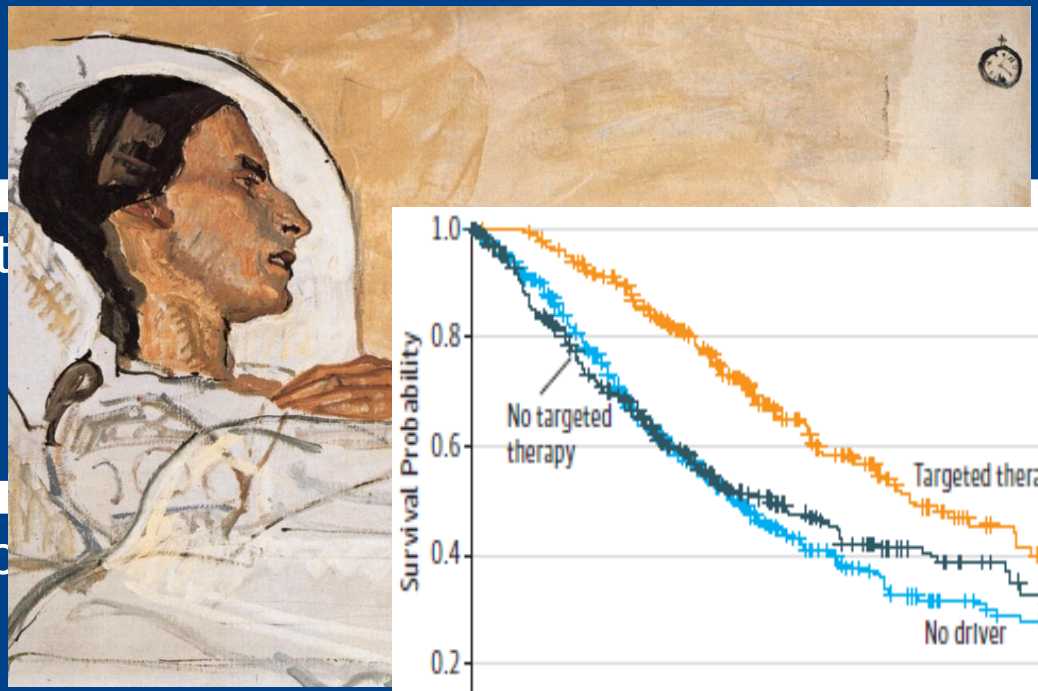


Palliative cisplatin based chemotherapy

No chemotherapy in NSCLC

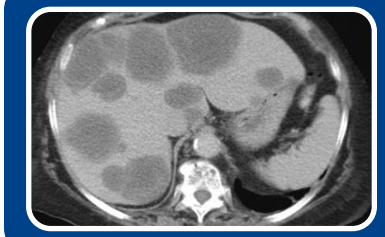
Adjuvant cisplatin-based chemotherapy

- Poor PS
- Stage I



(conc) plat

- Poor PS



Palliative c

- Poor PS

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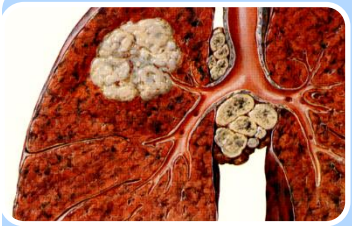
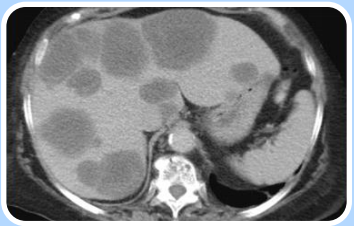
Pestalozzi, JCO; 21:74s, 2003

Chemotherapy in NSCLC, TNM 8

Adjuvant cisplatin-based chemotherapy



(conc) platinum based chemotherapy



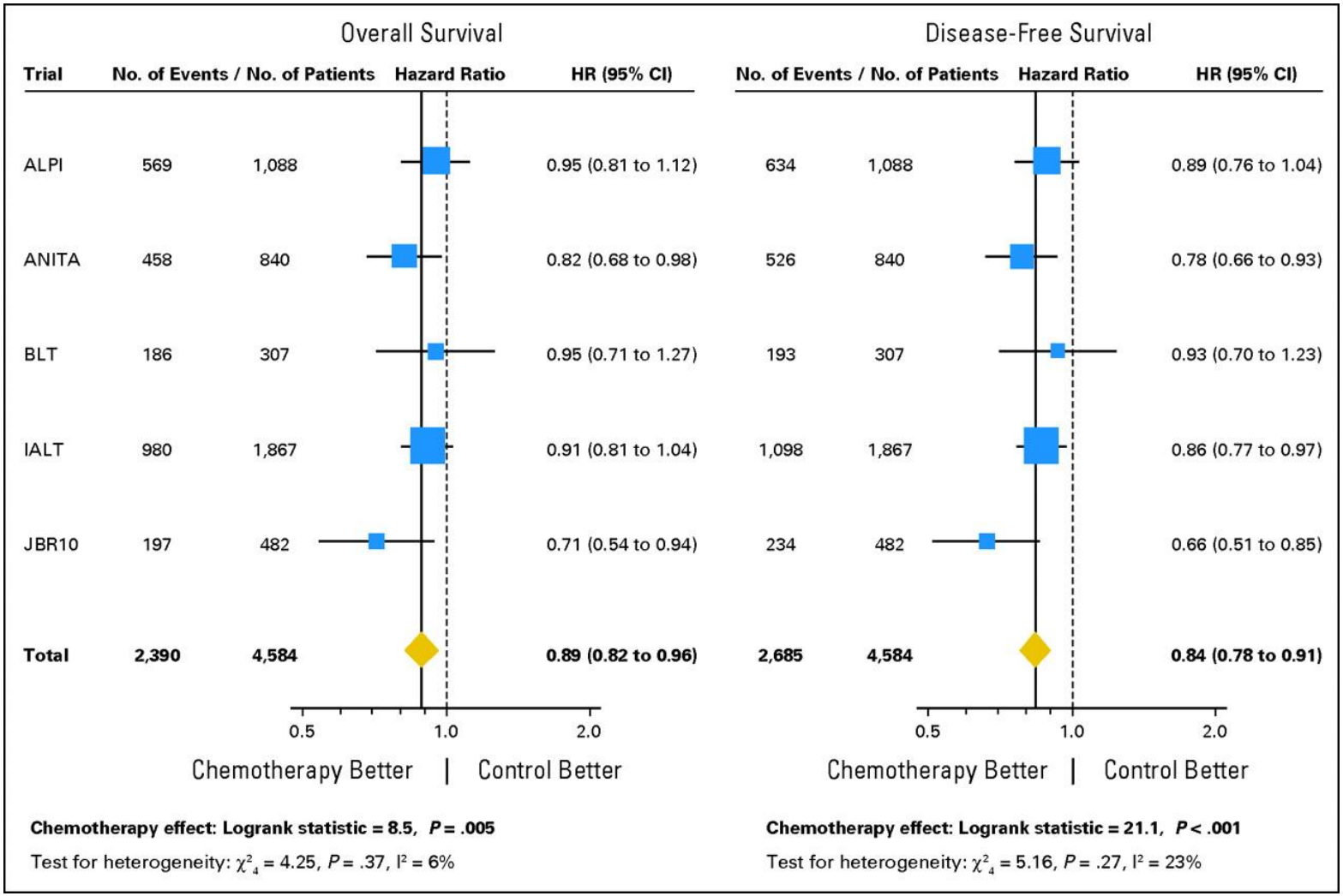
Palliative cisplatin based chemotherapy

Adjuvant chemotherapy: ESMO guideline

- Adjuvant chemotherapy should be offered to patients with resected stage II and III NSCLC [I, A] and can be considered in patients with resected stage IB disease and a primary tumour >4 cm [II, B]. Pre-existing comorbidity, time from surgery and postoperative recovery need to be taken into account in this decision taken in a multidisciplinary tumour board [V, A].

Vansteenkiste, Ann Oncol 2014

LACE meta analysis (TNM 6)



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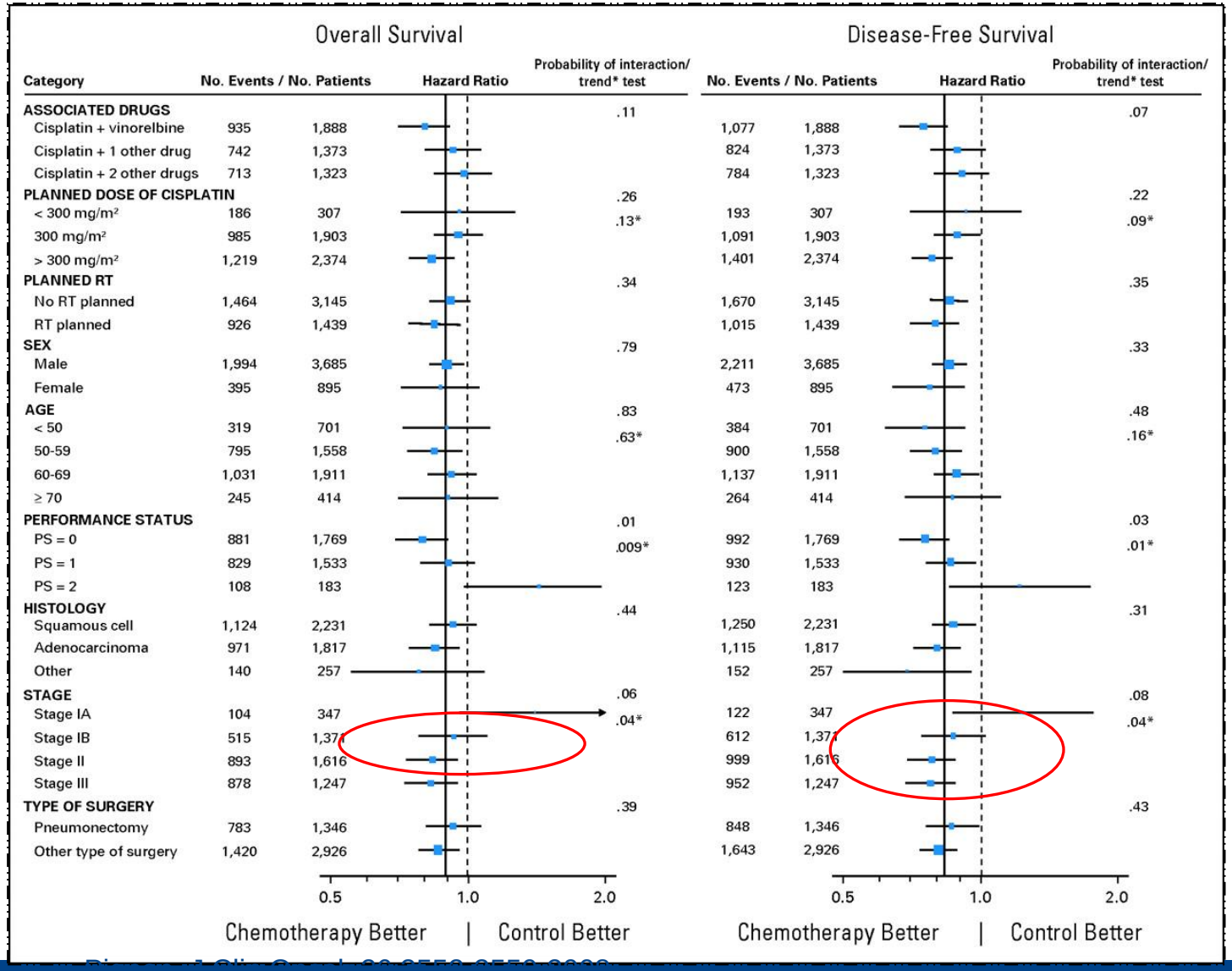
Pignon, J Clin Oncol; 26:3552-3559 2008

LACE: subgroup analysis



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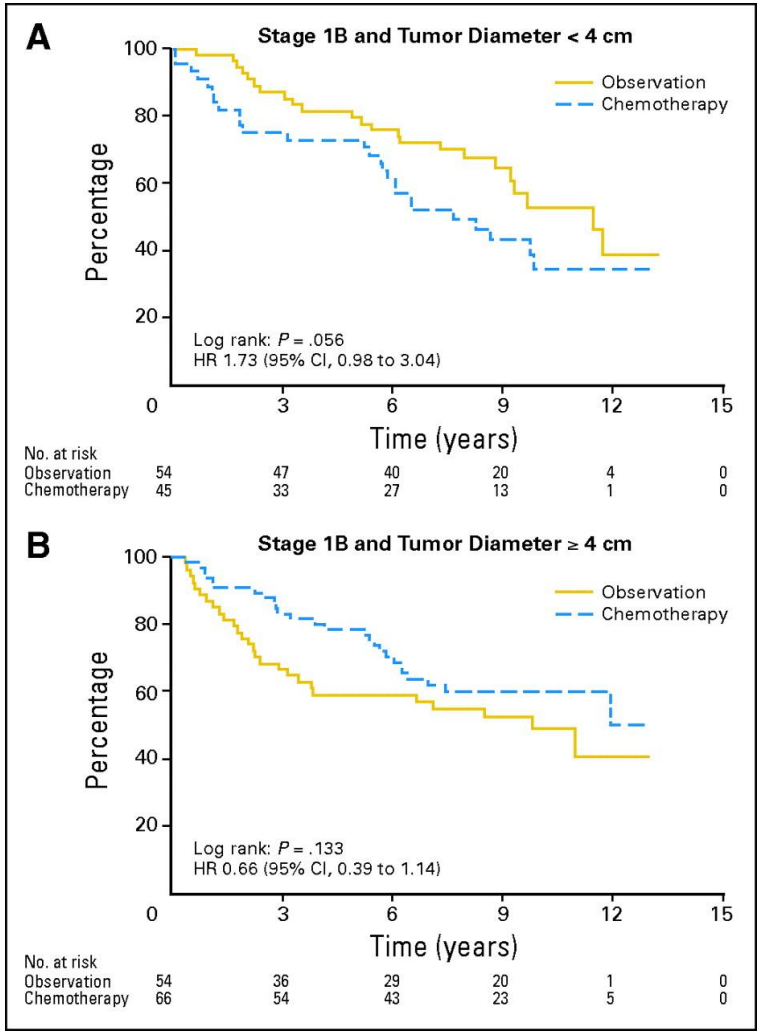
Survival comparison for stage IB (TNM6) patients with primary tumor ≥ 4 cm by treatment arm: JBR-10



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Butts, J Clin Oncol; 28:29-34 2010

From TNM 6 to TNM 7

TABLE 4. Descriptors, Proposed T and M Categories, and Proposed Stage Groupings

Sixth Edition T/M Descriptor	Proposed T/M	N0	N1	N2	N3
T1 (≤2 cm)	T1a	IA	IIA	IIIA	IIIB
T1 (>2–3 cm)	T1b	IA	IIA	IIIA	IIIB
T2 (≤5 cm)	T2a	IB	**IIA**	IIIA	IIIB
T2 (>5–7 cm)	T2b	**IIA**	**IIB**	IIIA	IIIB
T2 (>7 cm)	T3	**IIB**	**IIIA**	IIIA	IIIB
T3 invasion		IIB	IIIA	IIIA	IIIB
T4 (same lobe nodules)		**IIB**	**IIIA**	**IIIA**	IIIB
T4 (extension)	T4	**IIIA**	**IIIA**	IIIB	IIIB
M1 (ipsilateral lung)		**IIIA**	**IIIA**	**IIIB**	**IIIB**
T4 (pleural effusion)	M1a	**IV**	**IV**	**IV**	**IV**
M1 (contralateral lung)		IV	IV	IV	IV
M1 (distant)	M1b	IV	IV	IV	IV

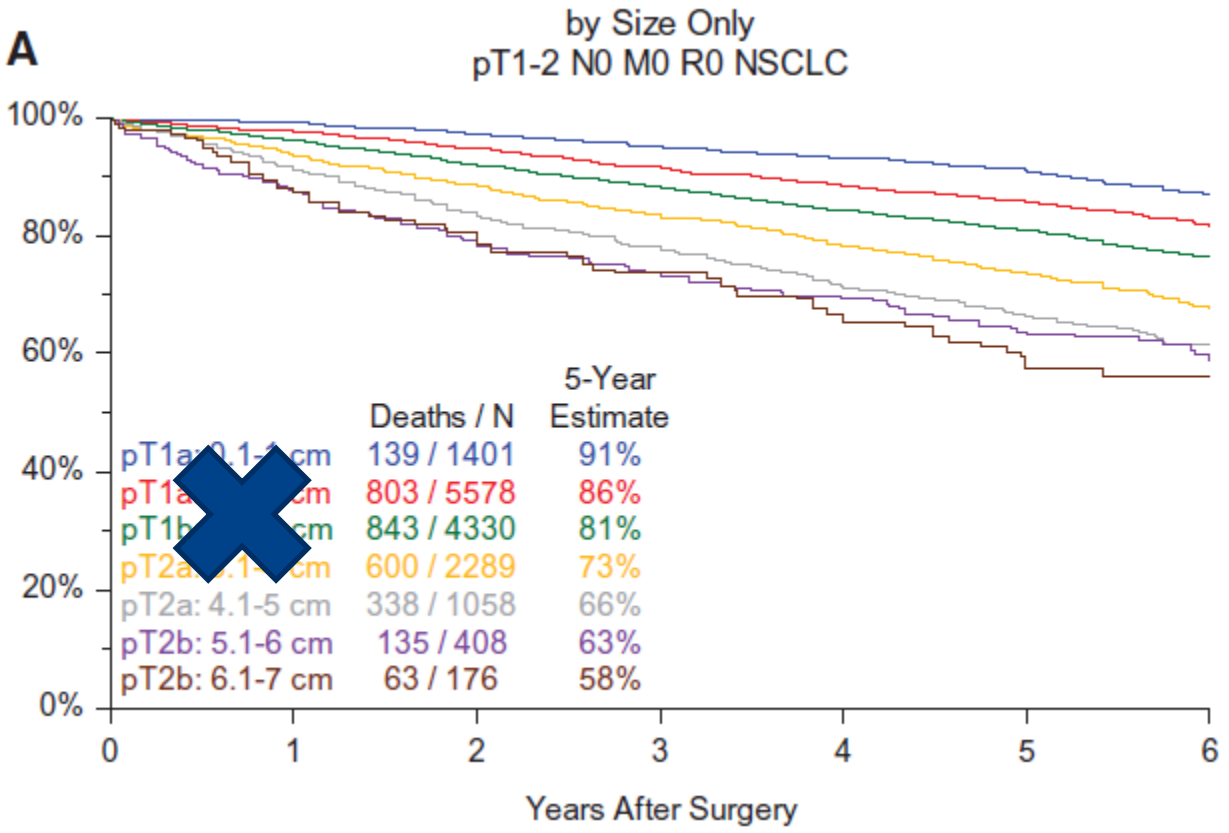
Cells in bold indicate a change from the sixth edition for a particular TNM category.

Adjuvant chemotherapy: ESMO guideline TNM 7

- Adjuvant chemotherapy should be offered to patients with resected stage II and III NSCLC [I, A] and can be considered in patients with resected stage IB disease and a primary tumour >4 cm [II, B]. Pre-existing comorbidity, time from surgery and postoperative recovery need to be taken into account in this decision taken in a multidisciplinary tumour board [V, A].

Vansteenkiste, Ann Oncol 2014

TNM 8 T-descriptor: size matters!



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Rami-Porta, JTO 2015

8th TNM system

Table 5. Descriptors and T and M categories in the seventh edition and as proposed for the eighth edition[a]

		N categories			
		Overall stage			
Descriptor in 7th edition	Proposed T/M	N0	N1	N2	N3
T1 ≤ 1 cm	T1a	**IA1** (IA)	**IIB** (IIA)	IIIA	IIIB
T1 > 1-2 cm	T1b	**IA2** (IA)	**IIB** (IIA)	IIIA	IIIB
T1 > 2-3 cm	T1c	**IA3** (IA)	**IIB** (IIA)	IIIA	IIIB
T2 > 3-4 cm	T2a	IB	**IIB** (IIA)	IIIA	IIIB
T2 > 4-5 cm	T2b	**IIA** (IB)	**IIB** (IIA)	IIIA	IIIB
T2 > 5-7 cm	T3	**IIB** (IIA)	**IIIA** (IIB)	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 structures	T3	IIB	IIIA	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 > 7 cm	T4	**IIIA** (IIB)	IIIA	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 diaphragm	T4	**IIIA** (IIB)	IIIA	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 endobronchial: location/atelectasis 3-4 cm	T2a	**IB** (IIB)	**IIB** (IIIA)	IIIA	IIIB
T3 endobronchial: location/atelectasis 4-5 cm	T2b	**IIA** (IIB)	**IIB** (IIIA)	IIIA	IIIB
T4	T4	IIIA	IIIA	IIIB	**IIIC** (IIIB)
M1a	M1a	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)
M1b single lesion	M1b	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)
M1c multiple lesions	M1c	**IVB** (IV)	**IVB** (IV)	**IVB** (IV)	**IVB** (IV)

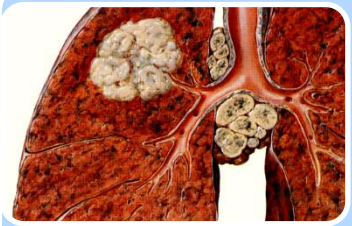
[a]Where there is a change, the resultant stage groupings proposed for the eighth edition are in bold, and the stage in the seventh edition is given in parenthesis.
T, tumor; M, metastasis.

Goldstraw, JTO 2016

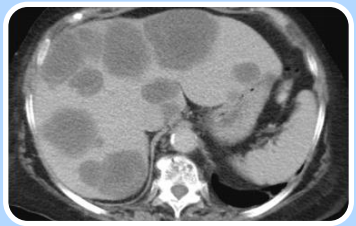
Chemotherapy in NSCLC, TNM 8

Adjuvant cisplatin-based chemotherapy

- in resected stage II-III NSCLC patients

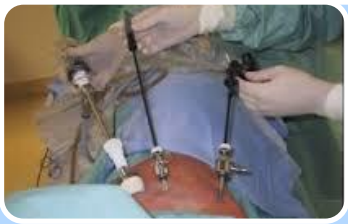


(conc) platinum based chemotherapy



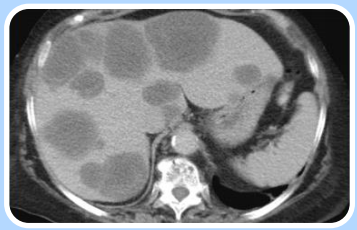
Palliative cisplatin based chemotherapy

Chemotherapy in NSCLC, TNM 8



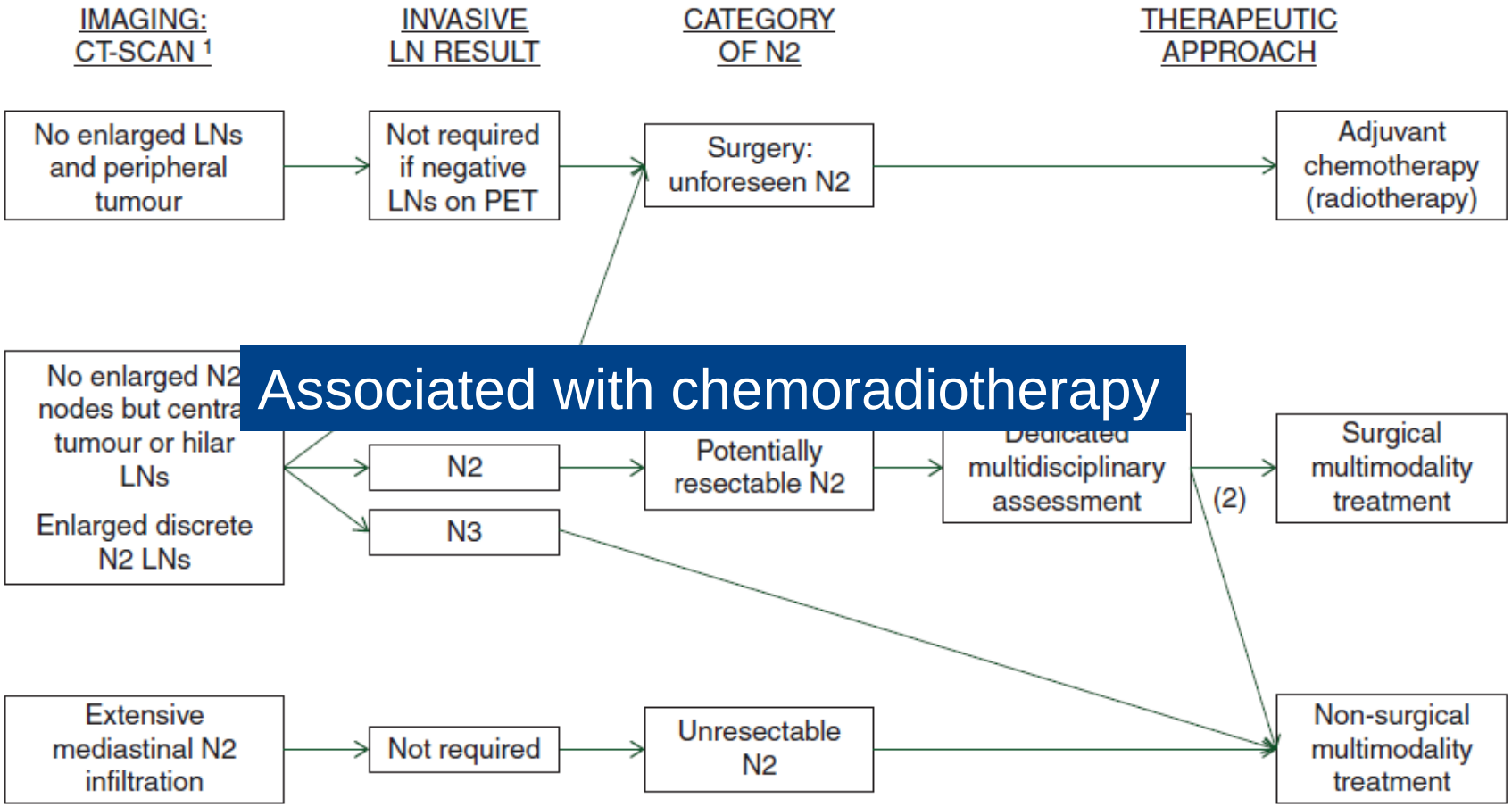
Adjuvant cisplatin-based chemotherapy

(conc) platinum based chemotherapy



Palliative cisplatin based chemotherapy

ESMO guideline: Stage III, a heterogeneous disease



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Eberhardt, Ann Oncol 2015

8th TNM system

Table 5. Descriptors and T and M categories in the seventh edition and as proposed for the eighth edition[a]

		N categories			
		Overall stage			
Descriptor in 7th edition	Proposed T/M	N0	N1	N2	N3
T1 ≤ 1 cm	T1a	**IA1** (IA)	**IIB** (IIA)	IIIA	IIIB
T1 > 1-2 cm	T1b	**IA2** (IA)	**IIB** (IIA)	IIIA	IIIB
T1 > 2-3 cm	T1c	**IA3** (IA)	**IIB** (IIA)	IIIA	IIIB
T2 > 3-4 cm	T2a	IB	**IIB** (IIA)	IIIA	IIIB
T2 > 4-5 cm	T2b	**IIA** (IB)	**IIB** (IIA)	IIIA	IIIB
T2 > 5-7 cm	T3	**IIB** (IIA)	**IIIA** (IIB)	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 structures	T3	IIB	IIIA	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 > 7 cm	T4	**IIIA** (IIB)	IIIA	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 diaphragm	T4	**IIIA** (IIB)	IIIA	**IIIB** (IIIA)	**IIIC** (IIIB)
T3 endobronchial: location/atelectasis 3-4 cm	T2a	**IB** (IIB)	**IIB** (IIIA)	IIIA	IIIB
T3 endobronchial: location/atelectasis 4-5 cm	T2b	**IIA** (IIB)	**IIB** (IIIA)	IIIA	IIIB
T4	T4	IIIA	IIIA	IIIB	**IIIC** (IIIB)
M1a	M1a	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)
M1b single lesion	M1b	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)	**IVA** (IV)
M1c multiple lesions	M1c	**IVB** (IV)	**IVB** (IV)	**IVB** (IV)	**IVB** (IV)

[a]Where there is a change, the resultant stage groupings proposed for the eighth edition are in bold, and the stage in the seventh edition is given in parenthesis.
T, tumor; M, metastasis.

Goldstraw, JTO 2016

Stage III according to TNM 8

- Includes T3 → T4 = IIIa
- tumors > 7 cm
- Includes diafragm invasion

- No change in N descriptors

TNM 8 ≠ changing treatment

As it was the case after the 7th edition was published, many specialists managing lung cancer patients used the changes in the classification to modify therapy. If the proposed IASLC recommendations are eventually introduced in the 8th edition of the TNM classification, they should not be interpreted as basis for changing treatment. They imply a taxonomic refinement and not new indications of already established treatment protocols that should ideally be derived from clinical trials.[33,34] So, for the T component, upstaging invasion of the diaphragm or tumors greater than 7 cm from T3 to T4 does not imply that these tumors should not be resected if they are amenable to complete resection.

Rami-Porta, JTO 2015

Stage III = IIIA – IIIB - IIIC

Table 5. Descriptors and T and M categories in the seventh edition and as proposed for the eighth edition[a]

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T1 > 2-3 cm	T1c	IA3 (IA)	IIB (IIA)	IIIA	IIIB
T2 > 3-4 cm	T2a	IB	IIB (IIA)	IIIA	IIIB
T2 > 4-5 cm	T2b	IIA (IB)	IIB (IIA)	IIIA	IIIB
T2 > 5-7 cm	T3	IIB (IIA)	IIIA (IIB)	IIIB (IIIA)	IIIC (IIIB)
T3 structures	T3	IIB	IIIA	IIIB (IIIA)	IIIC (IIIB)
T3 > 7 cm	T4	IIIA (IIB)	IIIA	IIIB (IIIA)	IIIC (IIIB)
T3 diaphragm	T4	IIIA (IIB)	IIIA	IIIB (IIIA)	IIIC (IIIB)
T3 endobronchial: location/atelectasis 3-4 cm	T2a	IB (IIB)	IIB (IIIA)	IIIA	IIIB
T3 endobronchial: location/atelectasis 4-5 cm	T2b	IIA (IIB)	IIB (IIIA)	IIIA	IIIB
T4	T4	IIIA	IIIA	IIIB	IIIC (IIIB)
M1a	M1a	IVA (IV)	IVA (IV)	IVA (IV)	IVA (IV)
M1b single lesion	M1b	IVA (IV)	IVA (IV)	IVA (IV)	IVA (IV)
M1c multiple lesions	M1c	IVB (IV)	IVB (IV)	IVB (IV)	IVB (IV)

[a]Where there is a change, the resultant stage groupings proposed for the eighth edition are in bold, and the stage in the seventh edition is given in parenthesis.
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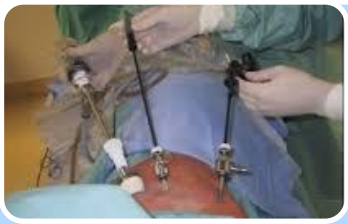
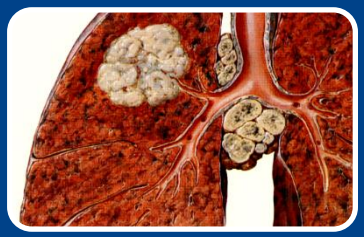
Goldstraw, JTO 2016

Chemotherapy in NSCLC, TNM 8

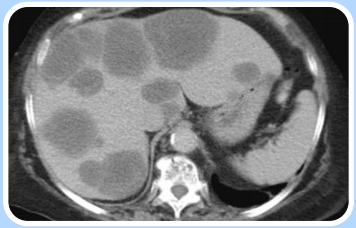


Adjuvant cisplatin-based chemotherapy



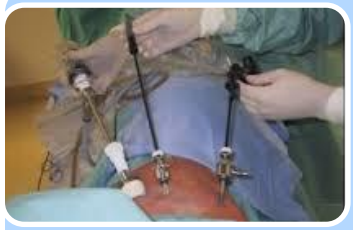
(conc) platinum based chemotherapy

- More surgery

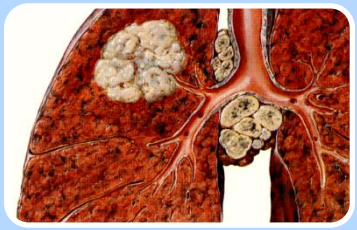


Palliative cisplatin based chemotherapy

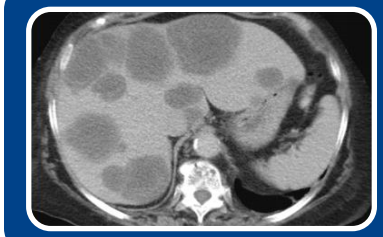
Chemotherapy in NSCLC, TNM 8



Adjuvant cisplatin-based chemotherapy



(conc) platinum based chemotherapy



Palliative cisplatin based chemotherapy

ESMO guideline: Stage IV

treatment of stage IV NSCLC

The treatment strategy should take into account histology, molecular pathology, age, PS, comorbidities, and patient's preferences. Treatment decisions should ideally be discussed within a multidisciplinary tumour board. Systemic therapy should be offered to all stage IV NSCLC patients with a PS 0–2 [I, A].

Reck, Ann Oncol 2014

ESMO guideline: Oligometastatic disease

- Stage IV NSCLC patients with oligometastases in the brain: See recommendations for brain metastases treatment.
- Stage IV patients with one to three synchronous metastases may experience long-term disease-free survival (DFS) after systemic therapy and a radical local treatment (high-dose radiotherapy or surgery) [II, B]. Because only one non-randomised phase II trial is available, inclusion in trials is preferred.
- Stage IV patients with a few metachronous metastases may be treated with a radical local treatment and experience long-term DFS [III, B]. However, this is based only on retrospective data.
- Solitary lesions in the contralateral lung should, in most cases, be considered as synchronous secondary primary tumours and, if possible, treated with radical intent [IV, B].

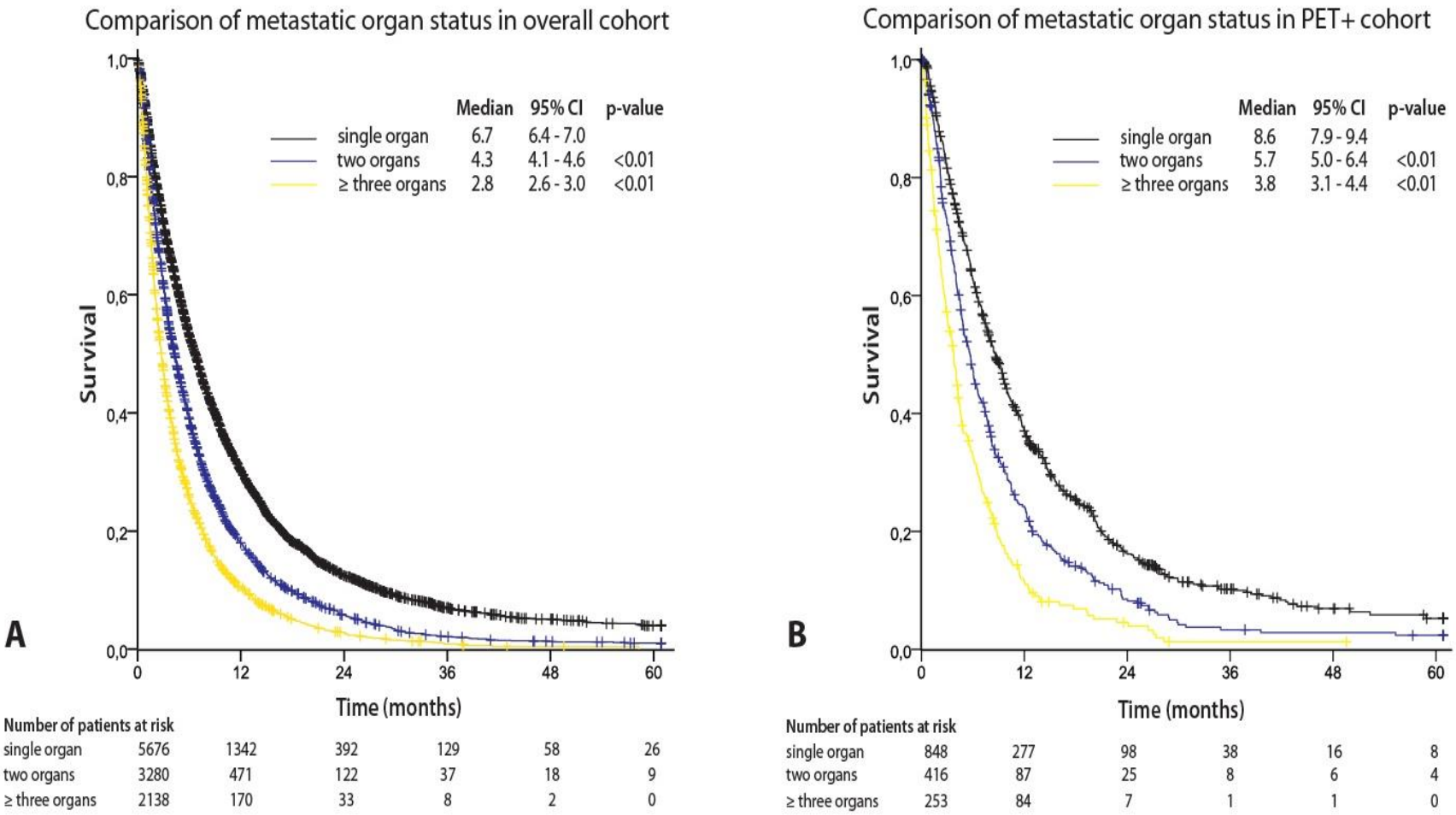
Reck, Ann Oncol 2014

Oligometastatic disease

≤ 5 metastatic lesions

Single organ?

Dutch Cancer Registry, population based OS – number of organs affected



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Hendriks, ERJ 2015

TABLE 1. Subject Counts by Data Source and 7th edition M Category

Database Type	Country	Institution	7th Edition M Category M1a	M1b
EDC	Argentina	Hospital Británico de Buenos Aires	2	4
		Hospital Universitario Austral	2	2
		Hospital Universitario-Fundación Favalor		7
		Hospital de Rehabilitación Respiratoria	3	1
	Australia	Peter MacCallum Cancer Institute		2
	Belgium	University Hospital Antwerp	15	51
		University Hospital Ghent	6	18
	[illegible]	[illegible]		
	China	Guangdong General Hospital	83	188
	[illegible]	[illegible]		
	Greece	Athens School of Medicine	6	15
	Spain	Complejo Hospitalario de Ourense	41	83
		Complejo Hospitalario La Mancha Centro	9	31
		Fundación Jiménez Díaz	18	45
		Htal. de la Plana Vila-Real	12	28
		Htal. General Universitario de Valencia	1	
		Htal. General Universitario Gregorio Mar	1	
		Htal. General Universitario de Albacete	14	42
		Htal. Meixoeiro	3	26
		Htal. Nuestra Señora de Sonsoles	2	8
		Htal. San Pedro Alcántara	12	24
		Htal. Severo Ochoa	10	13
		Htal. Sierrallana, Sección de Neumología	9	23
		Htal. Universitari Joan XXIII	13	10
		Htal. Universitario Central de Asturias	6	5
		Htal. Universitario La Fe	12	28
		Htal. Universitario de Canarias	10	15
		Htal. de Sagunto		4
	United States	Mayo Clinic Rochester		13
		NYU Langone Medical Center and Cancer Center	29	37
		Penrose Cancer Center	2	5
Subtotal—EDC cases by 7th edition M category			324	735
Subtotal—EDC cases			1059	
Consortium	Turkey	Turkish Thoracic Society	81	1215
Institutional registry	Australia	Prince Charles Hospital	2	54
Subtotal—All institutions by 7th edition M category			407	2004

Selection bias?

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TABLE 3. Prognostic Impact of Single and Multiple Metastatic Lesions in a Single Organ versus Multiple Metastatic Sites

Proposed Category	Variable	Overall Survival		
		n/N (%)	HR (95% CI)	*P* Value
M1a	M1a	324/1025 (32)	Reference level	
M1b	M1b, single organ/lesion	225/1025 (22)	1.11 (0.91, 1.36)	0.308
M1c	M1b, single organ/multiple lesions	229/1025 (22)	1.63 (1.34, 1.99)	<0.001
	M1b, multiple organs	247/1025 (24)	1.85 (1.52, 2.24)	<0.001

P value from score χ^2 test in Cox regression.
HR, hazard ratio; 95% CI, 95% confidence interval.

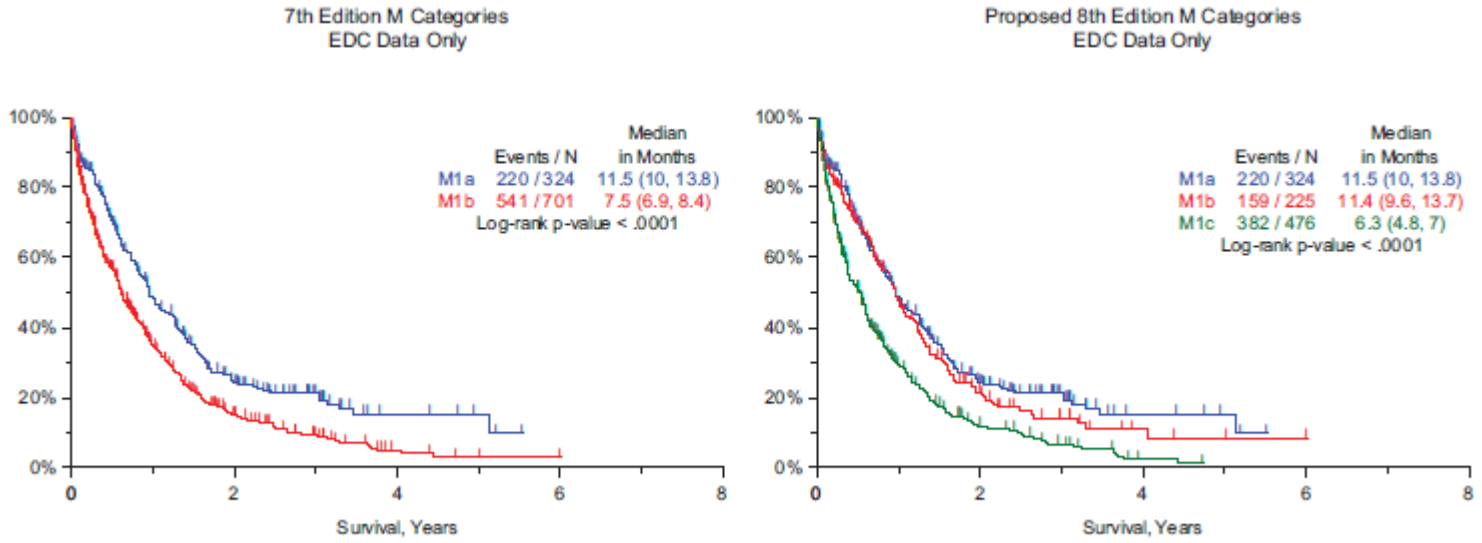

FIGURE 8. The 7th edition and proposed 8th edition M categories.

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Brain and adrenal not superior

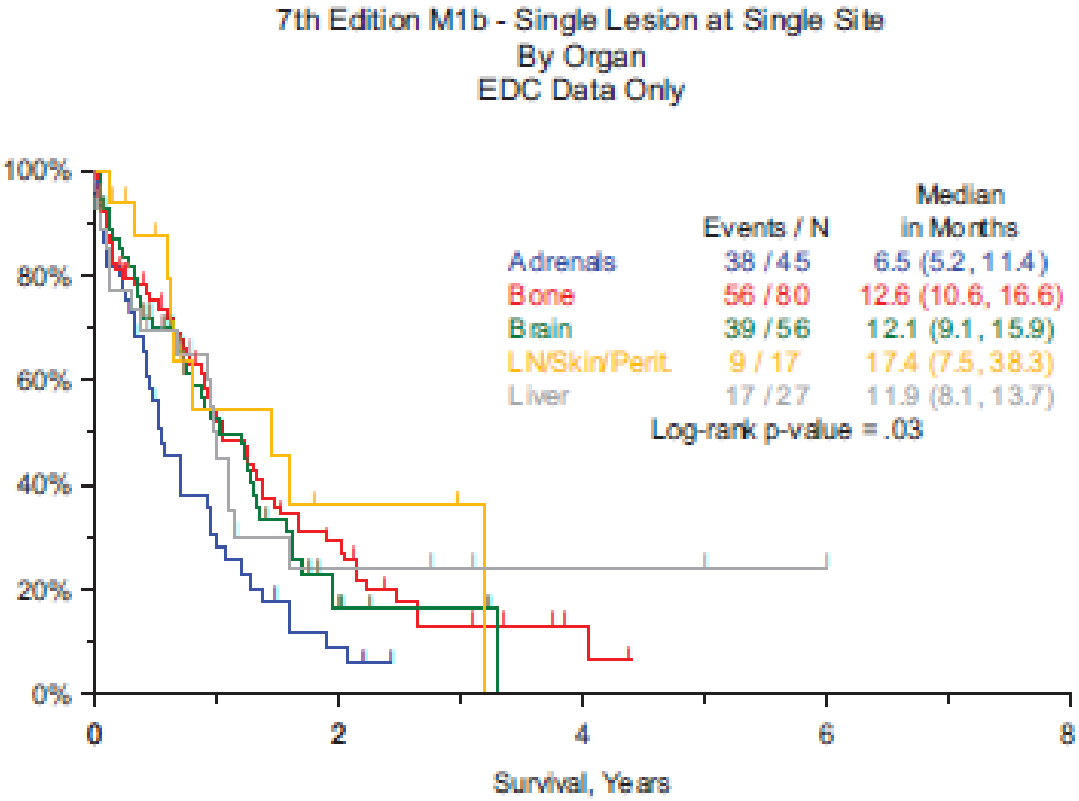

FIGURE 2. Single lesion at single site by organ.

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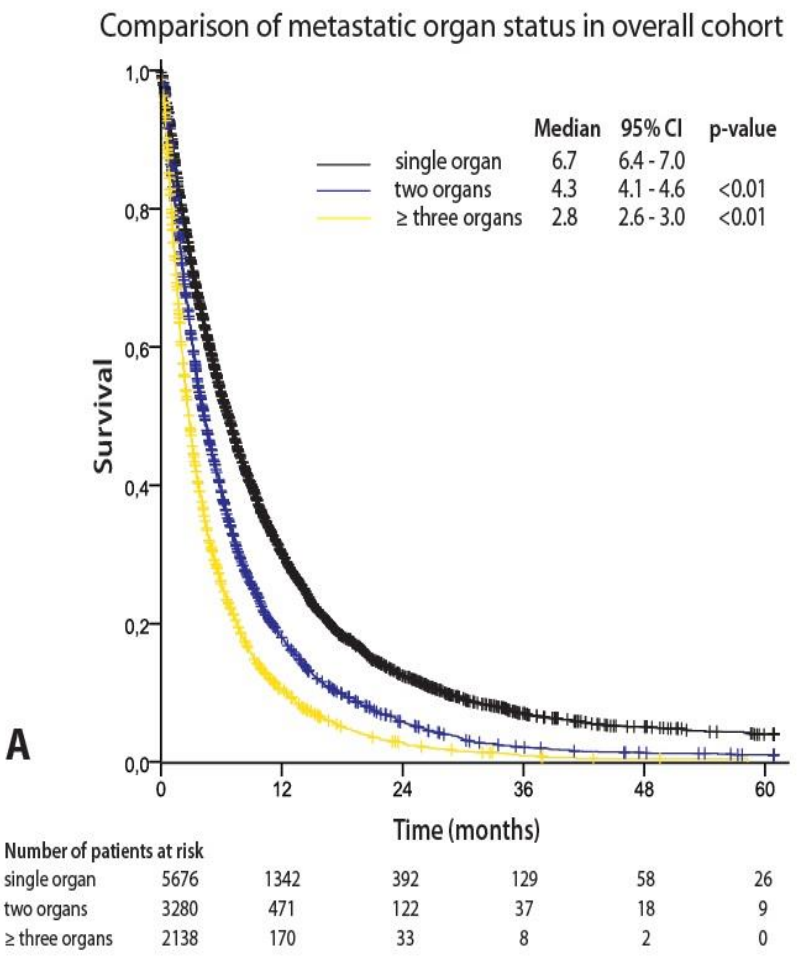
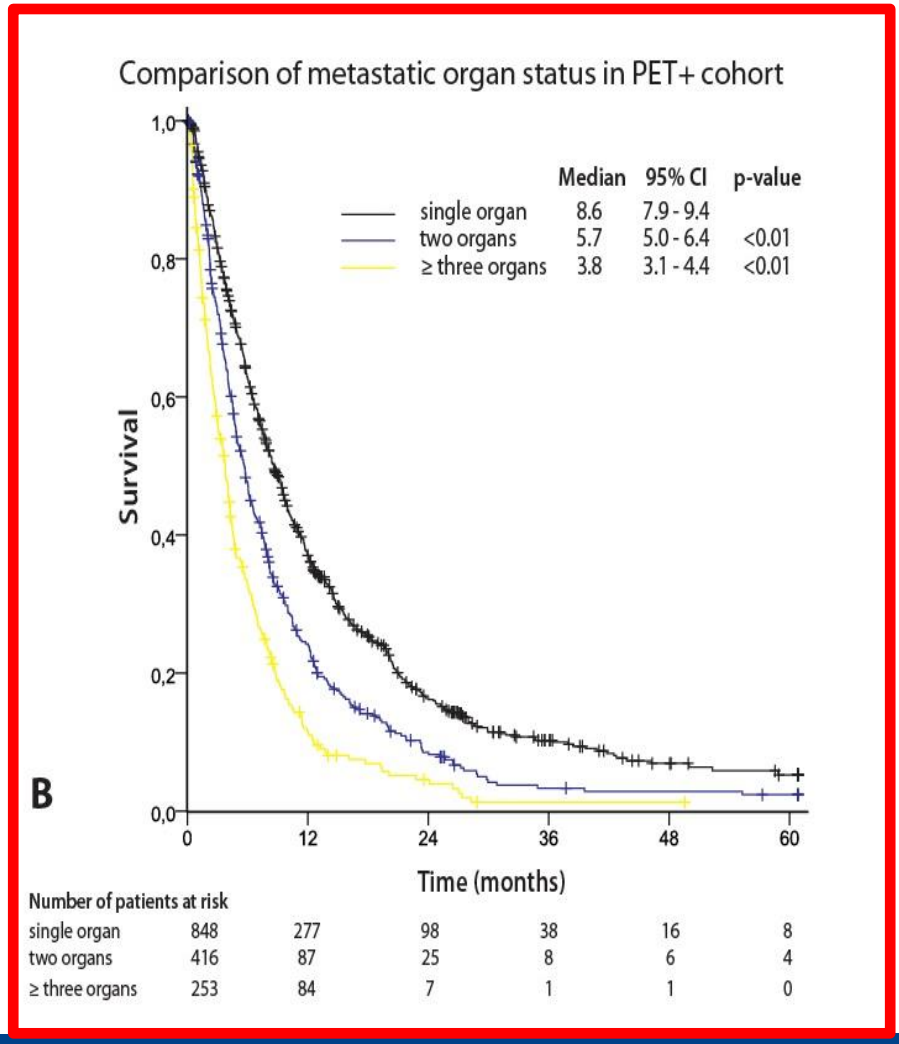
Single metastasis as separate category

2. Reclassify the current M1b category for patients with a single metastatic lesion in a single organ site, for example: (a) brain, (b) liver, (c) bone, (d) distant lymph node/skin/peritoneum, and (e) adrenal gland. Categorization of localization of single lesions in a single organ should be prospectively tested based on the individually involved organ.

Eberhardt, JTO 2015

Dutch Cancer Registry, population based PET scan improves outcome!





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Hendriks, ERJ 2015

Stage IVA

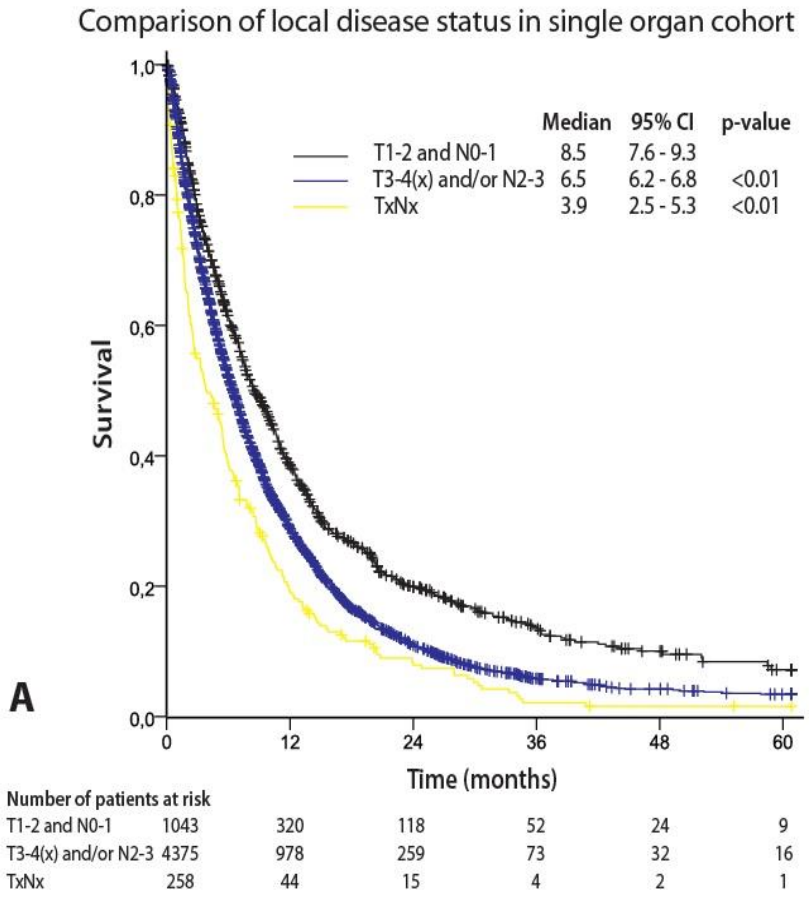
Table 6. Sample sizes for TNM subsets providing the basis for proposed changes, best stage

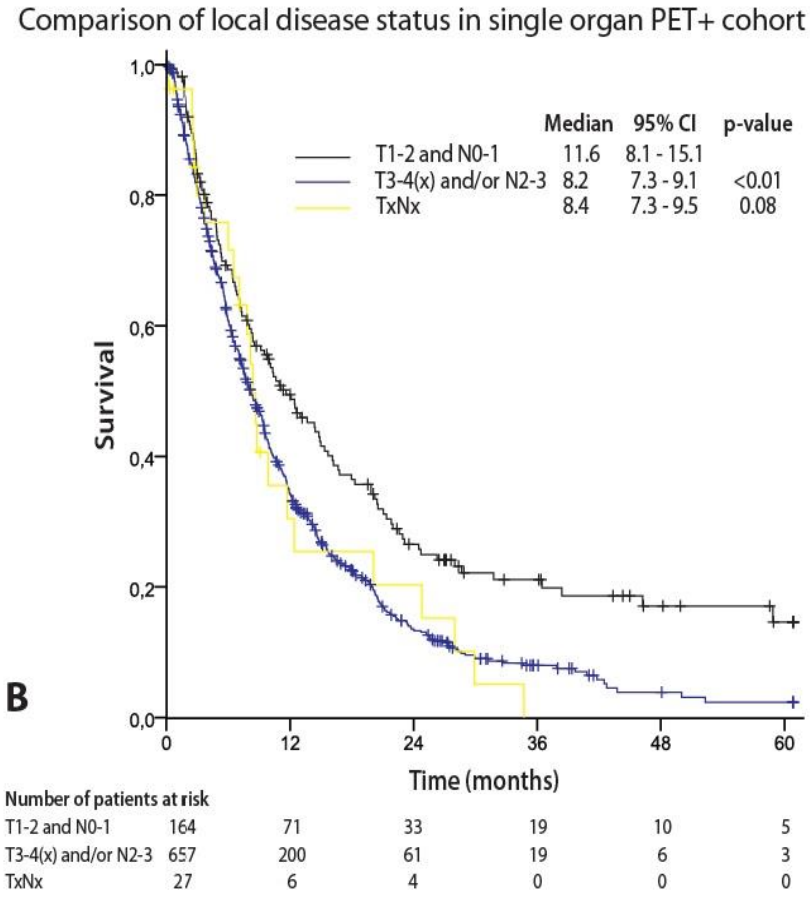
		N0		N1		N2		N3	
Descriptor in seventh edition	Proposed T/M	Overall stage	Sample size	Overall stage	Sample size	Overall stage	Sample size	Overall stage	Sample size
T1 ≤ 1 cm	T1a	IA ≥ IA1	1765	IIA ≥ IIB	47	IIIA	59	IIIB	4
T1 > 1-2 cm	T1b	IA ≥ IA2	6127	IIA ≥ IIB	321	IIIA	444	IIIB	20
T1 > 2-3 cm	T1c	IA ≥ IA3	4606	IIA ≥ IIB	492	IIIA	596	IIIB	37
T2 > 3-4 cm	T2a	IB	6382	IIA ≥ IIB	1250	IIIA	1666	IIIB	89
T2 > 4-5 cm	T2b	IB ≥ IIA	1689	IIA ≥ IIB	497	IIIA	559	IIIB	35
T2 > 5-7 cm	T3	IIA ≥ IIB	1244	IIB ≥ IIIA	418	IIIA ≥ IIIB	455	IIIB ≥ IIIC	45
T3 structures	T3	IIB	1666	IIIA	432	IIIA ≥ IIIB	736	IIIB ≥ IIIC	55
T3 > 7 cm	T4	IIB ≥ IIIA	870	IIIA	316	IIIA ≥ IIIB	320	IIIB ≥ IIIC	33
T3 diaphragm	T4	IIB ≥ IIIA	47	IIIA	16	IIIA ≥ IIIB	22	IIIB ≥ IIIC	0
T3 endobronchial location/atelectasis									
>3-4 cm	T2a	IIB ≥ IB	18	IIIA ≥ IIB	18	IIIA	10	IIIB	1
>4-5 cm	T2b	IIB ≥ IIA	11	IIIA ≥ IIB	2	IIIA	9	IIIB	1
T4	T4	IIIA	1862	IIIA	538	IIIB	1770	IIIB ≥ IIIC	893
M1a	M1a	IV ≥ IVA	62	IV ≥ IVA	11	IV ≥ IVA	100	IV ≥ IVA	145
M1b single lesion	M1b	IV ≥ IVA	38	IV ≥ IVA	13	IV ≥ IVA	68	IV ≥ IVA	74
M1b multiple lesions	M1c	IV ≥ IVB	59	IV ≥ IVB	18	IV ≥ IVB	128	IV ≥ IVB	191

TNM, tumor, node, metastasis.

Goldstraw, JTO 2016

OS – single organ & local disease status





Total single organ cohort, HR low vs high TN-status: 1.40 [1.29–1.51] ($p < 0.001$)
^{18}FDG-PET-staged cohort, HR low vs high TN-status: 1.62 [1.41–1.99] ($p < 0.001$)

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M1a descriptors: same OS

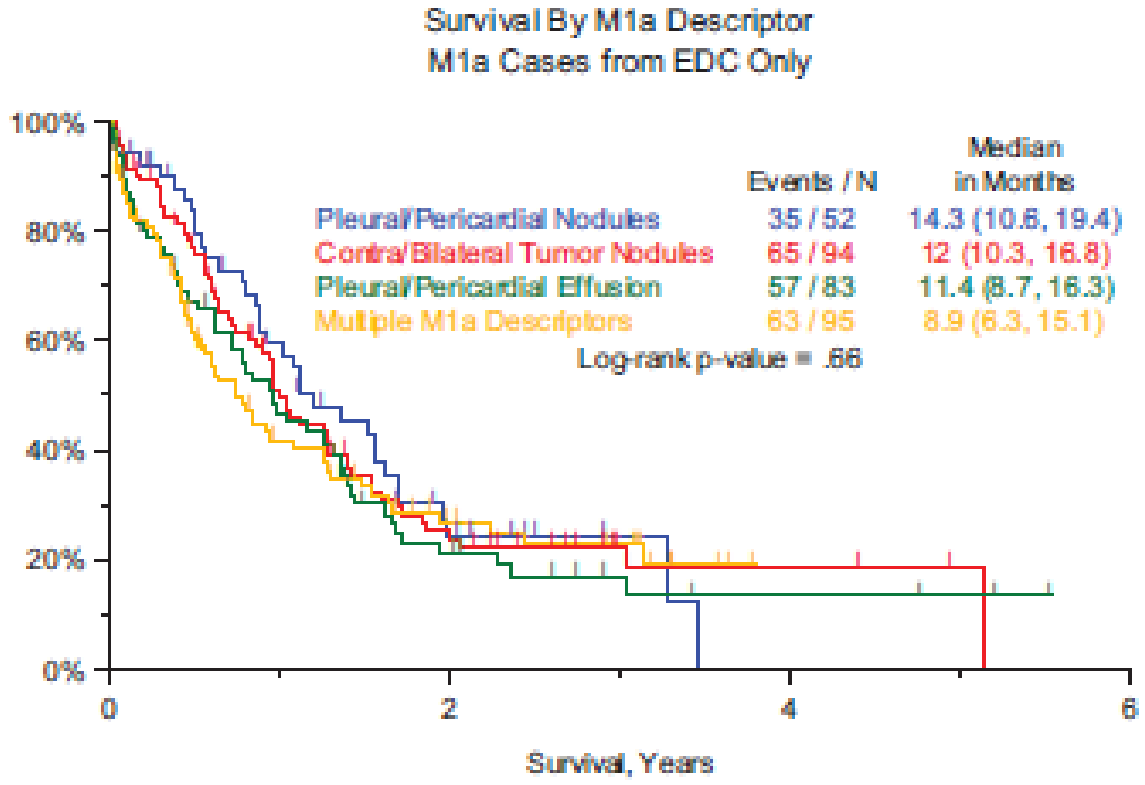

FIGURE 1. Prognostic impact of M1a descriptors.

Eberhardt, JTO 2015

ESMO guideline: Oligometastatic disease

- Stage IV NSCLC patients with oligometastases in the brain: See recommendations for brain metastases treatment.
- Stage IV patients with one to three synchronous metastases may experience long-term disease-free survival (DFS) after systemic therapy and a radical local treatment (high-dose radiotherapy or surgery) [II, B]. Because only one non-randomised phase II trial is available, inclusion in trials is preferred.
- Stage IV patients with a few metachronous metastases may be treated with a radical local treatment and experience long-term DFS [III, B]. However, this is based only on retrospective data.
- Solitary lesions in the contralateral lung should, in most cases, be considered as synchronous secondary primary tumours and, if possible, treated with radical intent [IV, B].

Reck, Ann Oncol 2014

Pleural effusion

TNM 6: T4 → st IIIb

TNM 7: M1a → st IV

TNM 8: M1a → st IVa

But: we all know it can not be cured…..

Table 5. Descriptors and T and M categories in the seventh edition and as proposed for the eighth edition[a]

		N categories			
		Overall stage			
Descriptor in 7th edition	Proposed T/M	N0	N1	N2	N3
T1 ≤ 1 cm	T1a	IA1 (IA)	IIB (IIA)	IIIA	IIIB
T1 > 1-2 cm	T1b	IA2 (IA)	IIB (IIA)	IIIA	IIIB
T1 > 2-3 cm	T1c	IA3 (IA)	IIB (IIA)	IIIA	IIIB
T2 > 3-4 cm	T2a	IB	IIB (IIA)	IIIA	IIIB
T2 > 4-5 cm	T2b	IIA (IB)	IIB (IIA)	IIIA	IIIB
T2 > 5-7 cm	T3	IIB (IIA)	IIIA (IIB)	IIIB (IIIA)	IIIC (IIIB)
T3 structures	T3	IIB	IIIA	IIIB (IIIA)	IIIC (IIIB)
T3 > 7 cm	T4	IIIA (IIB)	IIIA	IIIB (IIIA)	IIIC (IIIB)
T3 diaphragm	T4	IIIA (IIB)	IIIA	IIIB (IIIA)	IIIC (IIIB)
T3 endobronchial: location/atelectasis 3-4 cm	T2a	IB (IIB)	IIB (IIIA)	IIIA	IIIB
T3 endobronchial: location/atelectasis 4-5 cm	T2b	IIA (IIB)	IIB (IIIA)	IIIA	IIIB
T4	T4	IIIA	IIIA	IIIB	IIIC (IIIB)
M1a	M1a	IVA (IV)	IVA (IV)	IVA (IV)	IVA (IV)
M1b single lesion	M1b	IVA (IV)	IVA (IV)	IVA (IV)	IVA (IV)
M1c multiple lesions	M1c	IVB (IV)	IVB (IV)	IVB (IV)	IVB (IV)

[a]Where there is a change, the resultant stage groupings proposed for the eighth edition are in bold, and the stage in the seventh edition is given in parenthesis.
T, tumor; M, metastasis.

Goldstraw, JTO 2016

ESMO guideline: Oligometastatic disease

- Stage IV NSCLC patients with oligometastases in the brain: See recommendations for brain metastases treatment.
- Stage IV patients with one to three synchronous metastases may experience long-term disease-free survival (DFS) after local treatment (high-dose radiotherapy or surgery) [II, B]. Because only one non-randomised phase II trial is available, inclusion in trials is preferred.
- Stage IV patients with a few metachronous metastases may be treated with a radical local treatment and experience long-term DFS [III, B]. However, this is based only on retrospective data.
- Solitary lesions in the contralateral lung should, in most cases, be considered as synchronous secondary primary lung cancers with radical intent [IV, B].

M1a, M1b, M1c

M1a

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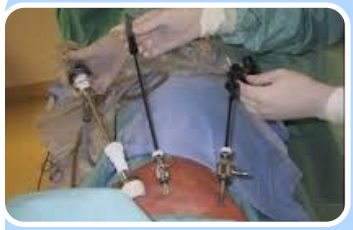
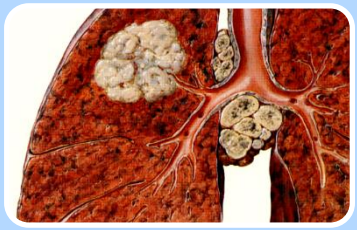
Reck, Ann Oncol 2014

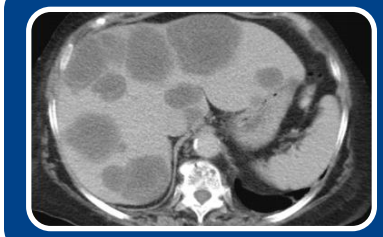
Chemotherapy in NSCLC, TNM 8



Adjuvant cisplatin-based chemotherapy



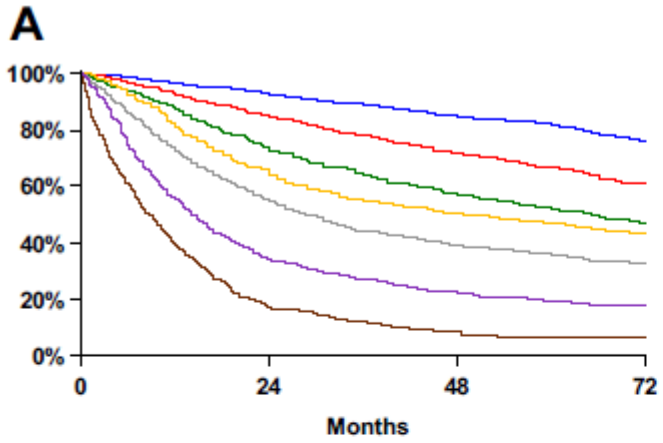
(conc) platinum based chemotherapy



Palliative cisplatin based chemotherapy

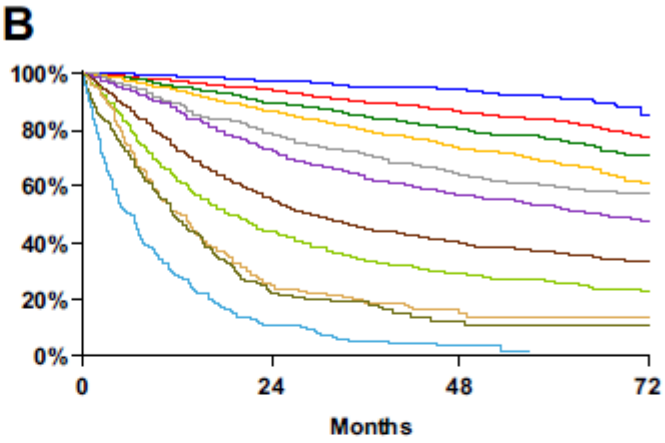
- Exploration oligometastatic disease

TNM 7



7th Ed.	Events / N	MST	24 Month	60 Month
IA	1119 / 6303	NR	93%	82%
IB	768 / 2492	NR	85%	66%
IIA	424 / 1008	66.0	74%	52%
IIB	382 / 824	49.0	64%	47%
IIIA	2139 / 3344	29.0	55%	36%
IIIB	2101 / 2624	14.1	34%	19%
IV	664 / 882	8.8	17%	6%

TNM 8



Proposed	Events / N	MST	24 Month	60 Month
IA1	68 / 781	NR	97%	92%
IA2	505 / 3105	NR	94%	83%
IA3	546 / 2417	NR	90%	77%
IB	560 / 1928	NR	87%	68%
IIA	215 / 585	NR	79%	60%
IIB	605 / 1453	66.0	72%	53%
IIIA	2052 / 3200	29.3	55%	36%
IIIB	1551 / 2140	19.0	44%	26%
IIIC	831 / 986	12.6	24%	13%
IVA	336 / 484	11.5	23%	10%
IVB	328 / 398	6.0	10%	0%

Goldstraw, JTO 2016

TNM 8: grouping of patients with same prognosis

stratify in trials
“same language”

been moved to a new stage grouping. Although such changes might raise the issue of whether consequent changes to treatment algorithms are needed, it is important to remind ourselves that stage does not dictate treatment. Stage is one, and perhaps the single most important, of several prognostic factors that guide the appropriate treatment option(s) to offer the patient. Any change to established treatment

Goldstraw, JTO 2016

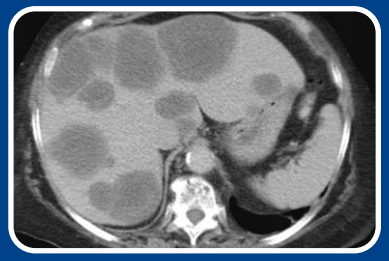
Chemotherapy in NSCLC, TNM 8

Adjuvant cisplatin-based chemotherapy

- Resected stage II-III

(conc) platinum based chemotherapy

- Stage III: more surgery
- Stage IIIc ≠ bulky disease



Palliative cisplatin based chemotherapy

Oligometastatic disease? Further exploration stage M1b