

# Union for International Cancer Control

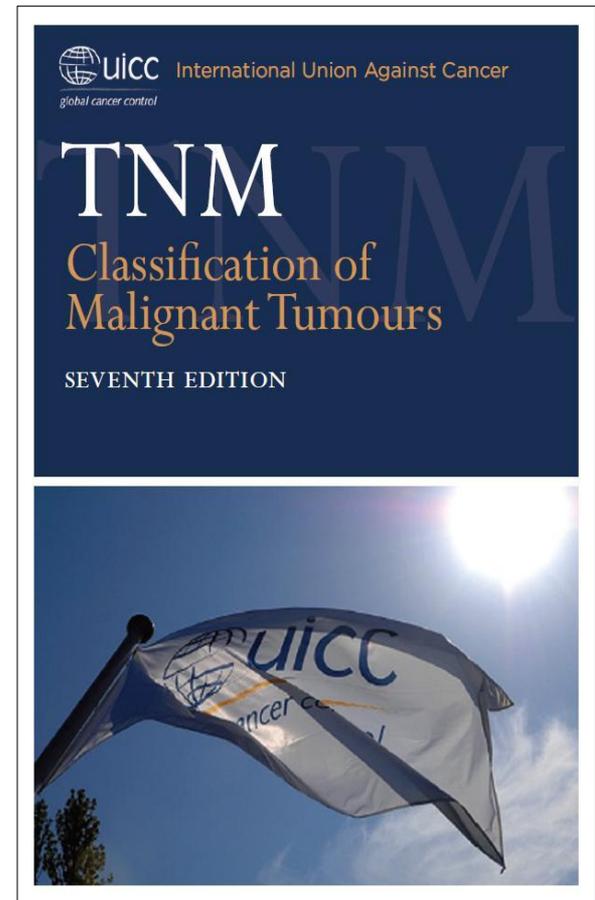


**TNM Classification of Malignant Tumours - 7<sup>th</sup> ed.**

Changes between the 6th and 7th editions

# TNM 7<sup>th</sup> edition due December 2009

- The aim of this presentation is to:
  - present the changes between the 6<sup>th</sup> and 7<sup>th</sup> edition.  
**Changes are in Orange**
  - Indicate where no changes have taken place
  - provide links to where questions on the use of TNM may be found
  - provide information on corrections  
**Corrections to the first printing are in *Bold italics***



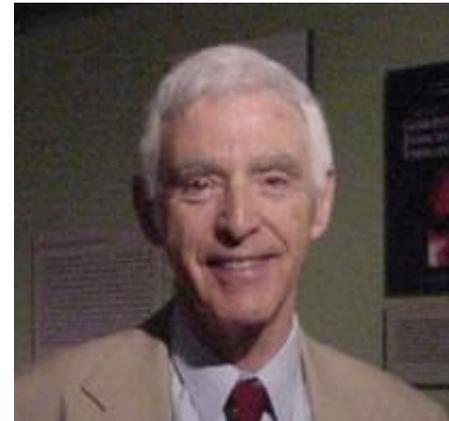
## Special thanks to the editors



**Dr Mary Gospodarowicz**



**Dr Christian Wittekind**



**Dr Leslie Sobin**

## Highlights

- Changes to take effect from January 2010
- The rules of classification and staging correspond to those appearing in the seventh edition of the *AJCC Cancer Staging Manual 2009* and have approval of all national TNM committees
- First time the UICC process for evaluating proposals has been used

# Highlights

- 9 new classifications
- 6 major modifications
- Elimination of MX
- Introduction of Anatomical Stage Grouping and Prognostic Grouping

# First time the UICC process for evaluating proposals has been used

- A continuous systematic approach composed of two arms has been introduced:
  - procedures to address formal proposals from investigators
  - periodic literature search for articles about improvements to TNM
- Proposals and results of the literature search are evaluated by members of a UICC panel of experts, the TNM Prognostic Factors committee, the AJCC and the other national TNM experts
- The changes to Lung cancer staging proposed by the IALSC and adopted are an example of this process

## TNM-7 New classifications

- Melanoma of upper aerodigestive tract
- Gastroesophageal carcinomas
- Gastrointestinal stromal tumours (GISTs)
- Appendix: carcinomas
- Neuroendocrine tumours :  
stomach, intestines, appendix; pancreas; lung
- Intrahepatic cholangiocarcinoma
- Merkel cell carcinoma
- Uterine sarcomas
- Adrenal cortex

## TNM-7 Major modifications

- Esophagus
- Stomach
- Lung
- Skin
- Vulva
- Prostate

## TNM-7 Minor or no modifications

- Head and neck
- Small intestine
- Colon
- Anal canal
- Liver, hepatocellular
- Gallbladder, ampulla, pancreas
- Mesothelioma, pleural
- **Bone and Soft tissue sarcoma**
- **Skin, melanoma**
- Gynecological sites: except vulva
- Urological sites, **including kidney**: except prostate

## Elimination of MX

- The use of MX may result in exclusion from staging
- cMX is inappropriate as the clinical assessment of metastasis can be based on physical examination alone.

If the pathologist does not have knowledge of the clinical M, MX should NOT be recorded. It has been deleted from TNM.

- pMX: does not exist; pM0: does not exist (except at autopsy)

## Elimination of MX

What remains:

- cM0 = clinically no distant metastasis
- cM1= distant metastasis clinically, e.g., colon cancer with liver metastasis based on CT
- pM1= distant metastasis proven microscopically, e.g., needle biopsy  
If a cM1 (e.g., liver met) is biopsied and is negative, it becomes cM0, not pM0

# Stage Grouping and Prognostic Grouping

- Stage grouping:
  - Anatomical extent of disease, composed of T, N, and M categories alone
- Prognostic Grouping:
  - T, N, and M plus other prognostic factors

For most tumour sites only the (Anatomical) Stage Grouping is given

# Nasopharynx – 7<sup>th</sup> edition

T1 Nasopharynx, **oropharynx or nasal cavity (was T2a)** without parapharyngeal extension

T2 Parapharyngeal extension **(was T2b)**

T3 Bony structures of skull base and/or paranasal sinuses

T4 Intracranial, cranial nerves, hypopharynx, orbit, infratemporal fossa/masticator space

N1 Unilateral **cervical**, unilateral or bilateral retropharyngeal lymph nodes, above supraclavicular fossa;  $\leq 6$  cm

N2 Bilateral **cervical** above supraclavicular fossa;  $\leq 6$  cm

N3a  $>6$  cm; N3b Supraclavicular fossa

## Anatomical Stage Groups

Stage I	T1	N0	
Stage II	T1	N1	
	T2	N0, N1	
Stage III	T1, T2	N2	
	T3	N0, 1, 2	
Stage IVA	T4	N0, 1, 2	
Stage IVB	Any T	N3	
Stage IVC	Any T	Any N	M1

**Stage II compressed**

**←Changes from TNM 6**

# Mucosal Melanoma (upper aerodigestive)

## 7<sup>th</sup> ed - (new site)

T3 Epithelium/ submucosa (mucosal disease)

T4a Deep soft tissue, cartilage, bone, or overlying skin

T4b Brain, dura, skull base, lower cranial nerves, masticator space, carotid artery, prevertebral space, mediastinal structures, cartilage, skeletal muscle, or bone

### STAGE GROUPING

Stage III	T3	N0	
Stage IVA	T4a	N0	
	T3-T4a	N1	
Stage IVB	T4b	Any N	
Stage IVC	Any T	Any N	M1

Mucosal melanomas are aggressive tumours, therefore T1 and T2 and Stages I and II are omitted

## TNM-7

# Oesophagogastric junction tumours

- A tumour the epicenter of which is within 5 cm of the esophagogastric junction and also extends into the oesophagus is classified and staged according to the **oesophageal** scheme
- All other tumours with an epicenter in the stomach greater than 5 cm from the oesophagogastric junction or those within 5 cm of the EGJ *without* extension into the oesophagus are staged using the **gastric** carcinoma scheme

# Oesophagus 7<sup>th</sup> edition

## TNM definitions: AJCC = UICC

Tis	Carcinoma in situ / <b>High-grade dysplasia</b>
T1	lamina propria or submucosa <b>T1a lamina propria or muscularis mucosae</b> <b>T1b submucosa</b>
T2	muscularis propria
T3	adventitia
T4	adjacent structures <b>T4a pleura, pericardium, diaphragm, or adjacent peritoneum</b> <b>T4b other adjacent structures, e.g. aorta, vertebral body, trachea</b>

N0	No regional lymph node metastasis
<b>N1</b>	<b>1 to 2 regional lymph nodes</b>
<b>N2</b>	<b>3 to 6</b>
<b>N3</b>	<b>&gt;6</b>

[N1 was site dependent]

M - Distant Metastasis

<b>M1</b>	<b>Distant metastasis</b>
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[M1a,b were site dependent]

Changes from 6<sup>th</sup> edition

# Oesophagus 7<sup>th</sup> edition

## Anatomical Stage Groups (adeno & squamous) [UICC]

Stage IA	T1	N0	M0
Stage IB	T2	N0	M0
Stage IIA	T3	N0	M0
Stage IIB	T1, T2	N1	M0
Stage IIIA	T4a	N0	M0
	T3	N1	M0
	T1, T2	N2	M0
Stage IIIB	T3	N2	M0
Stage IIIC	T4a	N1, N2	M0
	T4b	Any N	M0
	Any T	N3	M0
Stage IV	Any T	Any N	M1

Major changes



# Oesophageal Adenocarcinoma

## Prognostic Grouping

[AJCC adds type & grade]

	T	N	M	Grade
Stage IA	1	0	0	1, 2, X
Stage IB	1	0	0	3
	2	0	0	1, 2, X
Stage IIA	2	0	0	3
Stage IIB	3 (IIA)	0	0	Any
	1, 2	1	0	Any
Stage IIIA	1, 2	2	0	Any
	3	1	0	Any
	4a	0	0	Any
Stage IIIB, IIIC, & IV...				
Low Stages: AJCC not all = UICC. AJCC=UICC			Stages IIIB, C & IV:	

# Stomach 7<sup>th</sup> edition

T1 Lamina propria, submucosa

T1a Lamina propria

T1b Submucosa

T2 Muscularis propria

T3 Subserosa (*was T2b*)

T4a Perforates serosa (*was T3*)

T4b Adjacent structures

N1 1 to 2 nodes

N2 3 to 6 nodes (*was N1*)

N3a 7 - 15 nodes (*was N2*)

N3b 16 or more (*was N3*)

Changes from 6<sup>th</sup> edition

Stage IA T1 N0

Stage IB T2 N0

T1 N1

Stage IIA T3 N0

T2 N1

T1 N2

Stage IIB T4a N0

T3 N1

T2 N2

T1 N3

Stage IIIA T4a N1

T3 N2

T2 N3

Stages IIIB, IIIC, IV...

Stages: most  
changed

# Gastrointestinal Stromal Tumours (GIST) 7<sup>th</sup> ed - new chapter

All sites:

T1  $\leq$  2 cm    T2 > 2 – 5 cm  
T3 > 5-10 cm    T4 > 10 cm

Stage Grouping - Small Intestine

				<u>Mitotic rate</u>
Stage I	T1-2	N0	M0	Low
Stage II	T3			Low
Stage IIIA	T1			High
	T4			Low
Stage IIIB	T2, 3, 4			High
Stage IV	Any T	N1	M0	Any
	Any T	Any N	M1	Any

- Prognostic factors: site, size, mitotic rate

Stage Grouping - Stomach

				<u>Mitotic rate</u>
Stage IA	T1-2	N0	M0	Low
Stage IB	T3			Low
Stage II	T-2			High
	T4			Low
Stage IIIA	T3			High
	IIIB T4			High
Stage IV	Any T	N1	M0	Any
	Any T	Any N	M1	Any

# Carcinoids and Neuroendocrine tumours

## Staging

- GI tract:
  - Carcinoid : separate staging by site
  - Small cell/large cell: stage as carcinoma
- Pancreas: stage as carcinoma
- Lung: stage as carcinoma
- Skin: separate classification for Merkel cell carcinoma

# Carcinoids (NET) – 7<sup>th</sup> edition

## Gastrointestinal

### Appendix

T1  $\leq$  2 cm

T2 > 2 – 4 cm; cecum

T3 > 4 cm; ileum

T4 Perforates peritoneum; other organs, structures

### Small Intestine

T1 Lam propria/ submucosa and  $\leq$  1 cm

T2 Muscularis propria or > 1 cm

T3 Jejunal, ileal: subserosa.

Ampullary, duodenal: pancreas or retroperitoneum`

T4 Perforates serosa; adjacent structures

### Stomach

Tis < 0.5 mm confined to mucosa

T1 Lam propria or submucosa &  $\leq$  1cm

T2 Muscularis propria or > 1 cm

T3 Subserosa

T4 Perforates serosa; adjacent structures

### Large Intestine

T1 Lamina propria or submucosa or  $\leq$  2cm

T1a  $\leq$  1 cm; T1b 1 to 2 cm

T2 Muscularis propria or >2 cm

T3 Subserosa, or pericorectal tissues

T4 Perforates serosa; adjacent structures

# Carcinoids (NET) – 7<sup>th</sup> edition

## Stage Groups

### Carcinoid: Appendix

Stage I	T1	N0		
Stage II	T2, T3	N0		
Stage III	T4	N0		
	Any T	N1		
Stage IV	Any T	Any N	M1	

### Carcinoid: other GI sites

Stage I	T1	N0		
Stage IIA	T2	N0		
IIB	T3	N0		
Stage IIIA	T4	N0		
IIIB	Any T	N1		
Stage IV	Any T	Any N	M1	

# Appendix– 7<sup>th</sup> edition

## Carcinoid

T1 ≤ 2 cm  
 T2 > 2 – 4 cm; cecum  
 T3 > 4 cm; ileum  
 T4 Perforates peritoneum; other organs, structures

N1 Regional

Stage I	T1	N0	
Stage II	T2, T3	N0	
Stage III	T4	N0	
	Any T	N1	
Stage IV	Any T	Any N	M1

Based mainly on size

## Carcinoma

T1 Submucosa  
 T2 Muscularis propria  
 T3 Subserosa, non-peritonealize periappendiceal tissues  
 T4a Perforates visceral peritoneum/Mucinous peritoneal tumour within right lower quadrant  
 T4b Other organs or structures  
 N1 ≤ 3 regional  
 N2 > 3 regional  
 M1a Intraperitoneal metastasis beyond right lower quadrant  
 M1b Non-peritoneal metastasis  
 Like colon, based on depth; includes goblet cell carcinoid

## Appendix– 7<sup>th</sup> edition Carcinoma (was part of colon classification)

- Colon - Rectum

T4 Tumour directly invades other organs or structures and/or perforates visceral peritoneum

T4a perforates visceral peritoneum

T4b directly invades other organ or structures

M – Distant Metastasis: colon

M1 Distant metastasis

M1a one organ

M1b > one organ or peritoneum

Changes from TNM 6

- Appendix - Carcinoma: Separate mucinous from nonmucinous carcinomas

T4a Perforates visceral peritoneum/Mucinous peritoneal tumour within right lower quadrant

T4b Other organs or structures

M1a Intraperitoneal metastasis beyond RLQ

M1b Non-peritoneal metastasis

Changes from colon

# Colon - Rectum – 7<sup>th</sup> edition

T4 Tumour directly invades other organs or structures and/or perforates visceral peritoneum

T4a perforates visceral peritoneum

T4b directly invades other organ or structures

M1 Distant metastasis

M1a one organ

M1b > one organ or peritoneum

Basic categories unchanged

Subdivisions expanded

N1 Metastasis in 1 to 3 regional lymph nodes

N1a 1 node

N1b 2 – 3 nodes

N1c satellites in subserosa, *without* regional nodes\*

N2 Metastasis in 4 or more regional lymph nodes

N2a 4 – 6 nodes

N2b 7 or more nodes

Basic categories unchanged

Subdivisions expanded

Changes from 6<sup>th</sup> edition

# Colon - Rectum – 7<sup>th</sup> edition

Stage 0	Tis	N0
Stage I	T1, T2	N0
Stage II	T3, T4	N0
Stage IIA	T3	N0
Stage IIB	T4a	N0
Stage IIC	T4b	N0

Basic categories unchanged

Subdivisions expanded

Changes from TNM 6

Stage III	Any T	N1-2	
Stage IIIA	T1, T2	N1	
	T1	N2a	
Stage IIIB	T3, T4a	N1	
	T2-T3	N2a	
	T1-T2	N2b	
Stage IIIC	T4a	N2a	
	T3-T4a	N2b	
	T4b	N1-2	
Stage IV	Any T	Any N	M1
Stage IVA	Any T	Any N	M1a
Stage IVB	Any T	Any N	M1b

# Extrahepatic bile ducts 7<sup>th</sup> ed

## Proximal bile duct (New site)

(right, left and common hepatic ducts)

T1 Ductal wall

T2a Beyond ductal wall

T2b Adjacent hepatic parenchyma

T3 Unilateral portal vein or hepatic artery branches

T4 Main portal vein or branches bilaterally;...

N1 Regional

### STAGE GROUPS (Proximal)

Stage I	T1	N0	
Stage II	T2a-b	N0	
Stage IIIA	T3	N0	
Stage IIIB	T1-3	N1	
Stage IVA	T4	Any N	
Stage IVB	Any T	Any N	M1

## Distal Extrahepatic Bile Ducts

(from cystic duct insertion into common hepatic duct)

T1 Ductal wall

T2 Beyond ductal wall

T3 adjacent organs

T4 **Celiac axis, or superior mesenteric artery**

N1 Regional

### STAGE GROUPS (Distal)

Stage IA	T1	N0	
Stage IB	T2	N0	
Stage IIA	T3	N0	
Stage IIB	T1 – 3	N1	
Stage III	T4	Any N	
Stage IV	Any T	Any N	M1

No change

# Lung – 7<sup>th</sup> edition

includes non-small cell and small cell carcinoma & carcinoid

T1  $\leq 3$  cm

T1a  $\leq 2$  cm

T1b  $> 2 - 3$  cm

T2 Main bronchus  $\geq 2$  cm from carina,  
invades visceral pleura, partial atelectasis

T2a  $> 3 - 5$  cm

T2b  $> 5$  cm -  $7$  cm

T3  $> 7$  cm; chest wall, diaphragm,  
pericardium, mediastinal pleura, main  
bronchus  $< 2$  cm from carina, total  
atelectasis, **separate nodule(s) in same  
lobe (was T4)**

T4 Mediastinum, heart, great vessels,  
carina, trachea, oesophagus,  
vertebra; **separate tumour nodule(s) in  
a different ipsilateral lobe (was M1)**

N1 Ipsilateral peribronchial, ipsilateral  
hilar

N2 Ipsilateral mediastinal, subcarinal

N3 Contralateral mediastinal or hilar,  
scalene or supraclavicular

M1a Separate tumour nodule(s) in a  
contralateral lobe; pleural nodules or  
**malignant pleural or pericardial  
effusion (was T4)**

M1b Distant metastasis

Changes from 6<sup>th</sup> edition

# Lung – 7<sup>th</sup> edition

includes non-small cell and small cell carcinoma & carcinoid

Occult carcinoma	TX	N0
Stage 0	Tis	N0
Stage IA	T1a, b	N0
Stage IB	T2a	N0
Stage IIA	T2b	N0
	T1a, b	N1
	T2a	N1
Stage IIB	T2b	N1
	T3	N0

Stage IIIA	T1a,b, T2a,b	N2
	T3	N1, N2
	T4	N0, N1
Stage IIIB	T4	N2
	Any T	N3
Stage IV	Any T	Any N M1

Changes to the 6<sup>th</sup> edition are based upon recommendations from the IASLC Lung Cancer Staging Project (retrospective study of 80,000 cases)

One classification for several tumor types; must separate tumors by histology.

Changes from 6<sup>th</sup> edition

# Skin 7<sup>th</sup> ed - carcinomas

## 6<sup>th</sup> ed

- T1  $\leq 2$  cm
  - T2  $>2$  to 5 cm
  - T3  $>5$  cm
  - T4 Deep extradermal structures  
(bone, muscle...)
- 
- N1 Regional

## 7<sup>th</sup> ed

- T1  $\leq 2$  cm
  - T2  $>2$  cm
  - T3 Deep: Muscle, bone, cartilage, jaws,  
orbit
  - T4 Skull base, axial skeleton
- 
- N1 single  $<3$  cm
  - N2 single  $\geq 3$  to 6 cm, multiple  $\leq 6$  cm
  - N3  $>6$  cm

# Skin 7<sup>th</sup> ed - carcinomas

## 6<sup>th</sup> ed

Stage I	T1	N0		
Stage II	T2, T3	N0		
Stage III	T4	or	N1	
Stage IV	Any T	Any N		M1

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## High Risk Factors (AJCC)

>4 mm thickness, Clark IV  
Perineural invasion  
Lymphovascular invasion  
Ear, non-glabrous lip  
Poorly or undifferentiated

\*Stage I with > one high risk factor =  
Stage II →

## Anatomical Stage Groups

Stage I	T1	N0	
Stage II	T2	N0	
Stage III	T3	N0	
	T1, 2, 3		N1
Stage IV	T1, 2, 3		N2
	T4	or	N3 or M1

## AJCC Prognostic Groups

Stage I \* T1 N0  
Stage II T2 N0  
Stage III and IV: Same as anatomical  
above

# Skin 7<sup>th</sup> edition

## Skin Carcinoma

## carcinoma

## Merkel Cell

### 7<sup>th</sup> ed

T1  $\leq 2$  cm

T2  $> 2$  cm

T3 Deep: Muscle, bone, cartilage, jaws, orbit

T4 Skull base, axial skeleton

N1 single  $< 3$  cm

N2 single  $\geq 3$  to 6 cm, multiple  $\leq 6$  cm

N3  $> 6$  cm

### Merkel cell

T1  $\leq 2$  cm

T2  $> 2$  to 5 cm

T3  $> 5$  cm

T4 Deep extradermal structures (bone, muscle...)

N1a microscopic metastasis

N1b macroscopic metastasis

N2 In transit metastasis

M1a skin, subcut, non-regional nodes

M1b lung

M1c other sites

Differs from other skin carcinoma

# Skin 7<sup>th</sup> edition

## Skin Carcinoma

Stage I	T1	N0
Stage II	T2	N0
Stage III	T3	N0
	T1, 2, 3	N1
Stage IV	T1, 2, 3	N2
	T4 or	N3 or M1

pN0 = microscopically confirmed

cN0 = nodes neg. clinically; not micro confirmed

## Merkel cell carcinoma

### Merkel cell carcinoma

Stage I	T1	N0
IA	T1	pN0
IB	T1	cN0
Stage IIA	T2, 3	pN0
IIB	T2, 3	cN0
IIC	T4	N0
Stage IIIA	Any T	N1a
IIIB	Any T	N1b, N2
Stage IV	Any T	Any N M1

# Melanoma

## 6<sup>th</sup> Edition

pT1  $\leq$  1 mm

pT1a w/o ulcer & **Clark** II/III;

pT1b with ulcer or **Clark** IV/V

## 7th Edition

T1  $\leq$  1mm

T1a w/o ulcer & **mitosis**  $< 1/mm^2$

T1b with ulcer **or mitosis**  $\geq 1/mm^2$ \*

\* If no mitosis data, Clark IV/V=T1b

mm<sup>2</sup> = 4 high power fields (at 400x)

The UICC have changed the definition to above to be congruent with AJCC

## Sarcoma – Bone

### 6<sup>th</sup> Edition

I = T1/2	G1/2
II = T1/2	G3/4
III = T3	G3/4
Low	1/2
High	3/4

7<sup>th</sup> Edition – Discontinuous tumour (T3)  
that is low grade is not a poor  
prognostic feature

IA T1	N0	M0	G1/2
<b>IB T2,T3</b>	<b>N0</b>	<b>M0</b>	<b>G1/2</b>
IIA T1	N0	M0	G3/4
IIB T1	N0	M0	G3/4
III T3	N0	M0	G3/4
Low	1/2		
High	3/4		

The UICC have changed the  
definition to above to be congruent  
with AJCC

## Sarcoma – Soft Tissue

6th Edition, a 4 grade system telescoped into 2 grades was used

I	T1,2	Low grade
IIA	T1	High grade
IIB	T2a	High grade
III	T2b	High grade

7<sup>th</sup> Edition a 3 grade system has been adopted

I	T1,2	N0	M0	G1
IIA	T1a,b	N0	M0	G2,3
<b>IIB</b>	<b>T2a,b</b>	<b>N0</b>	<b>M0</b>	<b>G2</b>
<b>III</b>	<b>T2a,b</b>	<b>N0</b>	<b>M0</b>	<b>G3</b>
	Any T	N1	M0	Any G
IV	Any T	Any N	M1	Any G

The UICC have changed the definition to above to be congruent with AJCC

## Vulva– 7<sup>th</sup> ed

T1	Confined to vulva/perineum
T1a	≤ 2 cm with stromal invasion ≤ 1.0 mm
T1b	> 2 cm or stromal invasion > 1.0 mm
T2	Lower urethra/vagina/anus
T3	Upper urethra/vagina, bladder rectal/mucosa, bone, fixed to pelvic bone
N1a	One or two nodes < 5 mm
N1b	One node ≥ 5 mm
N2a	3 or more nodes < 5 mm
N2b	2 or more nodes ≥ 5 mm
N2c	Extracapsular spread
N3	Fixed, ulcerated
M1	Distant

Major changes in T & N categories and stage grouping.

### STAGE GROUPING

Stage 0	Tis	N0	M0
Stage I	T1	N0	M0
Stage IA	T1a	N0	M0
Stage IB	T1b	N0	M0
Stage II	T2	N0	M0
Stage IIIA	T1,T2	N1a,N1b	M0
Stage IIIB	T1,T2	N2a,N2b	M0
Stage IIIC	T1, T2	N2c	M0
Stage IV	T1, T2 T3	N3 Any N	M0 M0
Stage IVB	Any T	Any N	M1

## Uterine Sarcomas – 7<sup>th</sup> ed

### Leiomyosarcoma/Endometrial stromal sarcoma

- I Tumor limited to uterus
  - IA < 5 cm
  - IB > 5 cm
- II Beyond uterus, in pelvis
  - IIA Adnexal
  - IIB Other pelvic tissues
- III Tumor invades abdominal tissues
  - IIIA One site
  - IIIB > one site
  - IIIC Pelvic/para-aortic nodes
  - IVA Tumor invades bladder/rectum
  - IVB Distant metastasis

Carcinosarcoma staged as endometrial carcinoma

### Adenosarcoma

- I Tumor limited to uterus
  - IA Endometrium/endocervix
  - IB < half myometrium
  - IC > half myometrium
- II Beyond uterus, in pelvis
  - IIA Adnexal
  - IIB Other pelvic tissues
- III Tumor invades abdominal tissues
  - IIIA One site
  - IIIB > one site
  - IIIC Pelvic/para-aortic nodes
- IVA Invades bladder/rectum
- IVB Distant metastasis

# Prostate- 7<sup>th</sup> edition

T1 Not palpable or visible

T1a ≤5% or less

T1b >5%

T1c Detected by needle biopsy

T2 Confined within prostate

T2a ≤ half of one lobe

T2b > half of one lobe

T2c Both lobes

T3 Through prostate capsule

T3a Extracapsular

T3b Seminal vesicle(s)

T4 Fixed or invades adjacent structures

No change from 6<sup>th</sup>

STAGE GROUPING (ANATOMIC)

(UICC)

Stage I T1, T2a N0

Stage II T2b-2c N0

Stage III T3 N0

Stage IV T4 N0

Any T N1

Any T Any N M1

Change from 6<sup>th</sup>

Grade was in 6<sup>th</sup>

## Prostate- 7<sup>th</sup> ed PROGNOSTIC GROUPING

I	T1a – c	N0	PSA <10	Gle ≤ 6
	T2a	N0	PSA <10	Gle ≤ 6
IIA	T1 a – c	N0	PSA < 20	Gle 7
	T1 a – c	N0	PSA ≥10 <20	Gle ≤6
	<b>T2a</b>	<b>N0</b>	<b>PSA ≥10 &lt;20</b>	<b>Gle ≤6</b>
	<b>T2a</b>	<b>N0</b>	<b>PSA &lt; 20</b>	<b>Gle 7</b>
	T2b	N0	PSA < 20	Gle ≤ 7

If PSA or Gleason is missing, use whatever is available.

IIB	T2c	N0	M0	Any PSA	Any Gle
	T 1-2	N0	M0	PSA ≥20	Any Gle
	T 1-2	N0	M0	Any PSA	Gle ≥ 8
III	T3a-c	N0	M0	Any PSA	Any Gle
IV	T4	N0	M0	Any PSA	Any Gle
	Any T	N1	M0	Any PSA	Any Gle
	Any T	Any N	M1	Any PSA	Any Gle

If both missing, no prognostic grouping is possible.

## Kidney – 7<sup>th</sup> edition

### 6th Edition

N1 metastases in a single regional lymph node

N2 Metastastasis in more than one regional node

### 7th Edition

#### **N1 Metastases in regional node(s)**

#### Stage Grouping

III	T3	Any N	M0
	<b>T1-3</b>	<b>N1</b>	<b>M0</b>
IV	T4	Any N	M0
	Any T	Any N	M1

# Adrenal Cortical Carcinoma - 7<sup>th</sup> edition (new site)

T1 ≤ 5 cm, no extra-adrenal invasion  
 T2 > 5 cm, no extra-adrenal invasion  
 T3 Local invasion  
 T4 Adjacent organs

N1 Regional

M1 Distant

## STAGE GROUPING

Stage I	T1	N0	
Stage II	T2	N0	
Stage III	T1, T2	N1	
	T3	N0	
Stage IV	T3	N1	
	T4	Any N	
	Any T	Any N	M1

## What else is new?

- Pn Perineural Invasion

PnX Perineural invasion cannot be assessed

Pn0 No perineural invasion

Pn1 Perineural invasion

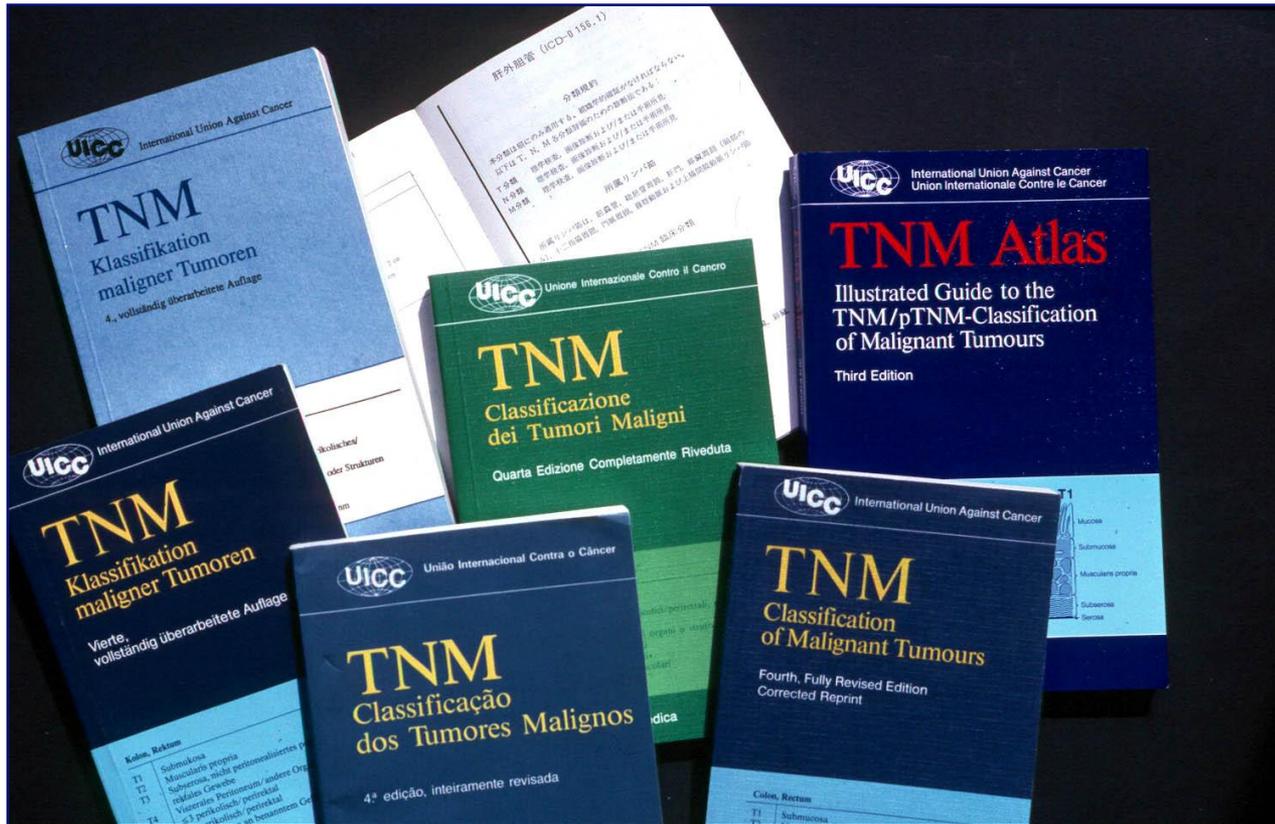
## What else is new?

- Tumour deposit or satellite in colorectal cancer
  - N1c  
Tumour deposit(s), i.e. satellites, in the subserosa, or in non-peritonealized pericolic or perirectal soft tissue without regional lymph node metastasis
  - If a nodule is considered by the pathologist to be a totally replaced lymph node (generally having a smooth contour), it should be recorded as a positive lymph node and counted as such i.e., N1a, N1b, N2a or N2b

## Additional Material

- Web page – [www.uicc.org/tnm](http://www.uicc.org/tnm)
- FAQ: Answers to frequently asked questions about TNM
- Helpdesk for questions on TNM not answered by the FAQ
- Guidelines on how to use TNM
- Glossary of terms used
- How to propose changes for the 8<sup>th</sup> edition

# Translations of 7<sup>th</sup> edition planned



# Coming Soon

## 4th edition:

On schedule for Dec 2010  
submission

# TNM Supplement

A Commentary on Uniform Use

Third Edition

Edited by

Ch. Wittekind

F. L. Greene

D. E. Henson

R. V. P. Hutter

L. H. Sobin

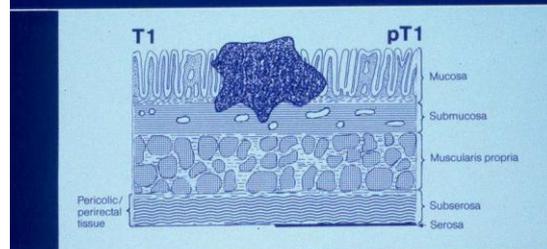
## 6th edition:

On schedule for 2010 submission

# TNM Atlas

Illustrated Guide to the  
TNM/pTNM-Classification  
of Malignant Tumours

Third Edition



Springer-Verlag

## 4th edition:

Combined  
publication with UICC Manual  
of Clinical Oncology planned

# Prognostic Factors in Cancer

Third Edition

Edited by

Mary K. Gospodarowicz

Brian O'Sullivan

Leslie H. Sobin

# Union for International Cancer Control

