PÍLDORAS FORMATIVAS

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Novedades de la nueva clasificación de la OMS en tumores tiroideos e implicaciones pronósticas de la 8ª edición TNM en Cáncer de Tiroides

Dra. Mª Guadalupe Guijarro de Armas
Hospital Universitario de Getafe

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Sociedad de Endocrinología, Nutrición y Diabetes de la Comunidad de Madrid
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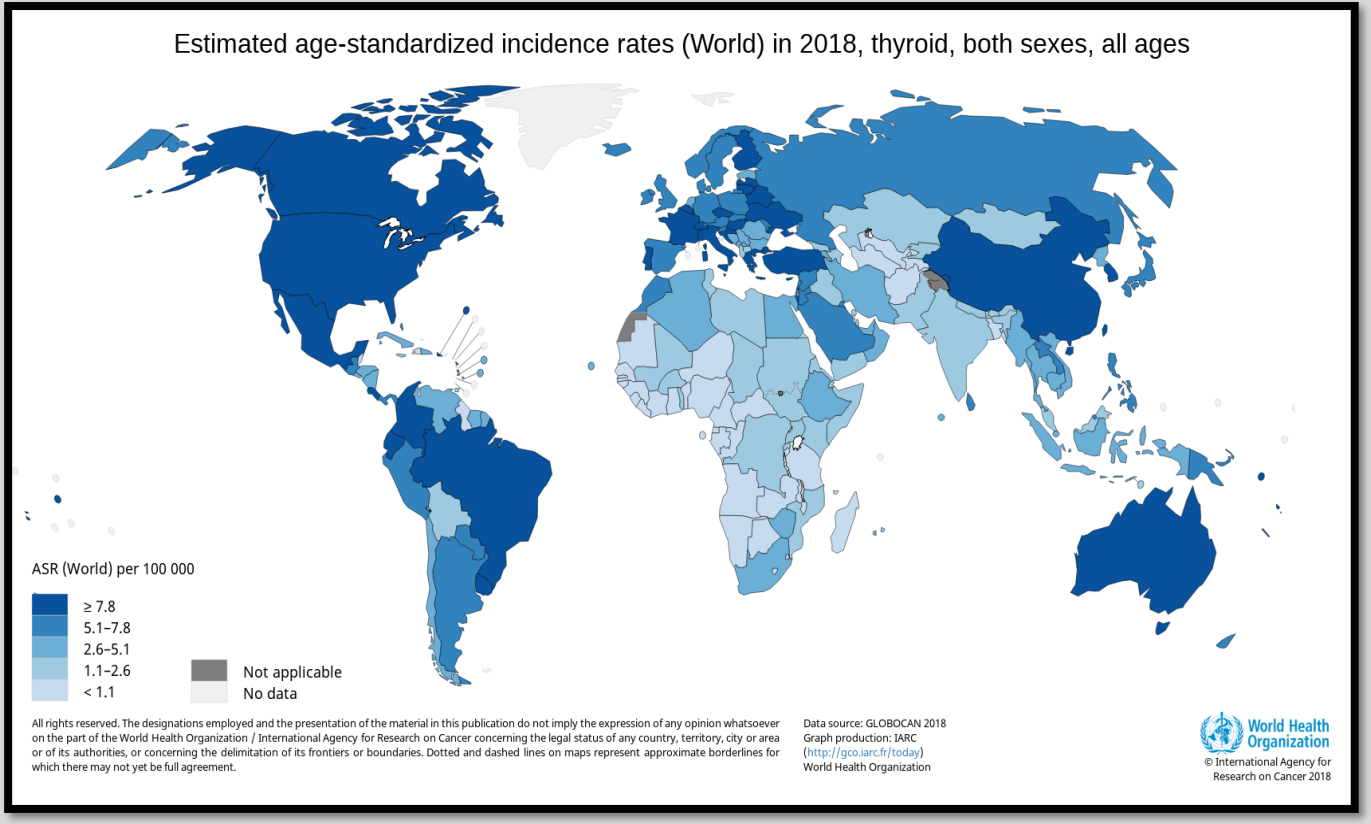
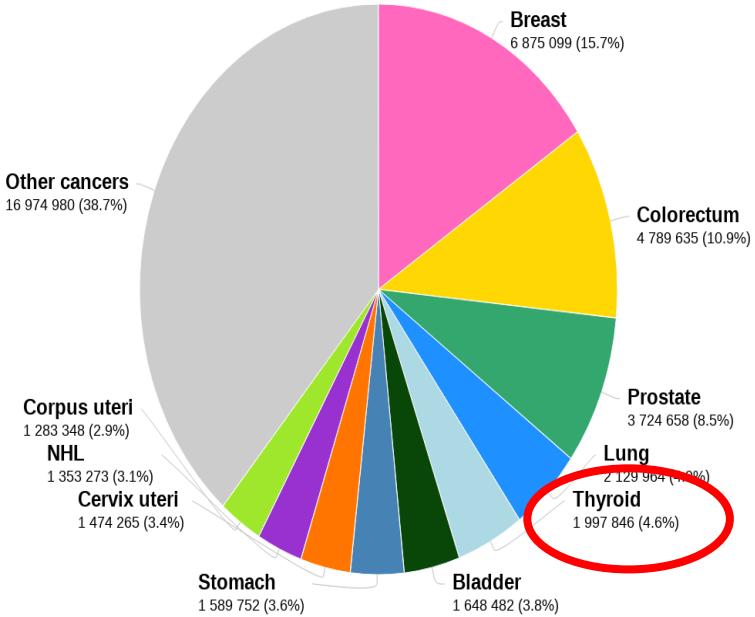
INTRODUCCIÓN

- El cáncer de Tiroides aparece en el 5-10% de los nódulos tiroideos.
- Es el tumor endocrino maligno más frecuente.
- Supone el 1-2% del total de tumores malignos.
- Incidencia variable según el país.

INTRODUCCIÓN



Estimated number of prevalent cases (5-year) in 2018, worldwide, all cancers, both sexes, all ages



5° en frecuencia

Total : 43 841 302

Data source: Globocan 2018
Graph production: Global Cancer Observatory (http://gco.iarc.fr)

International Agency for Research on Cancer
World Health Organization

NATIONAL CANCER INSTITUTE
Surveillance, Epidemiology, and End Results Program

Estimated New Cases in 2018	53,990
% of All New Cancer Cases	3.1%

Estimated Deaths in 2018	2,060
% of All Cancer Deaths	0.3%

Percent Surviving 5 Years

98.1%

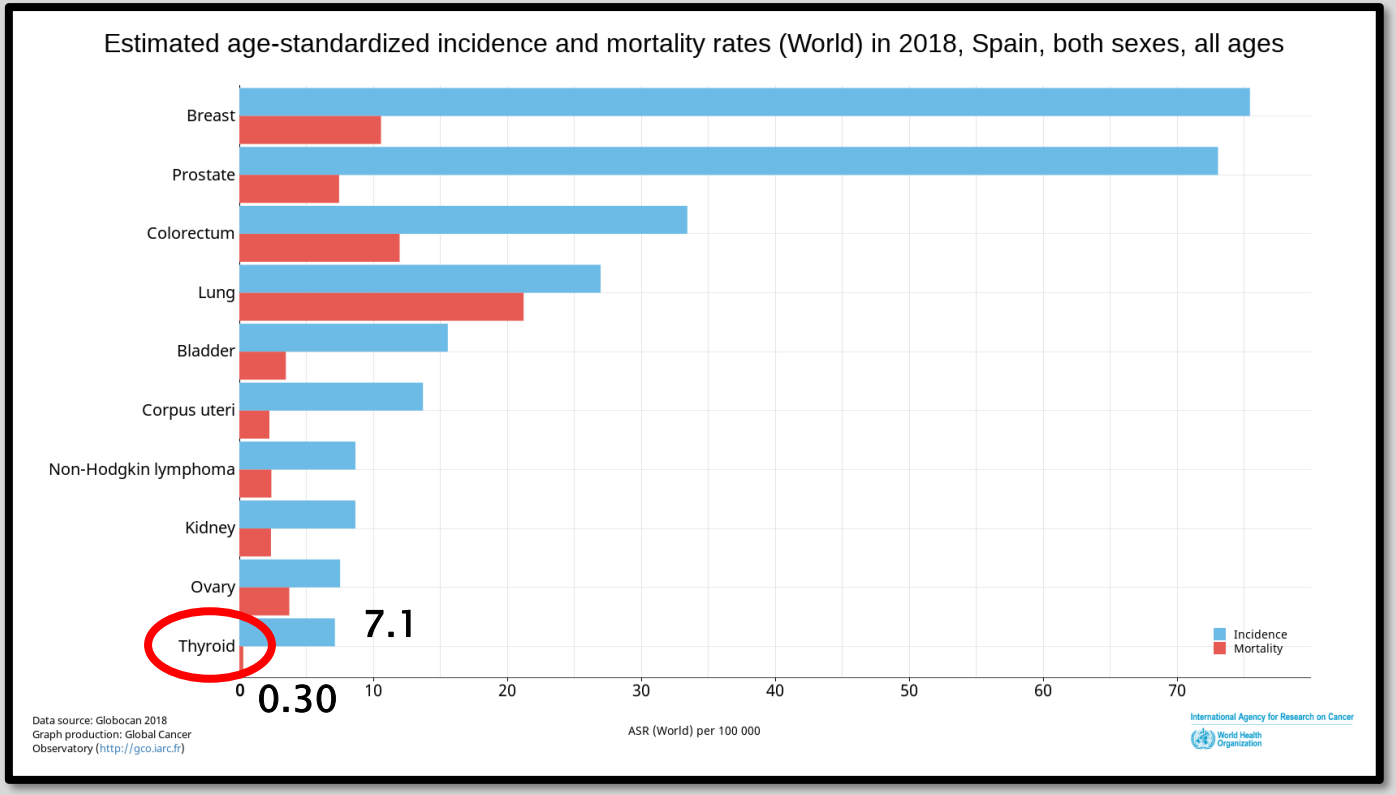
2008-2014

Los datos para 2019 en EEUU son:

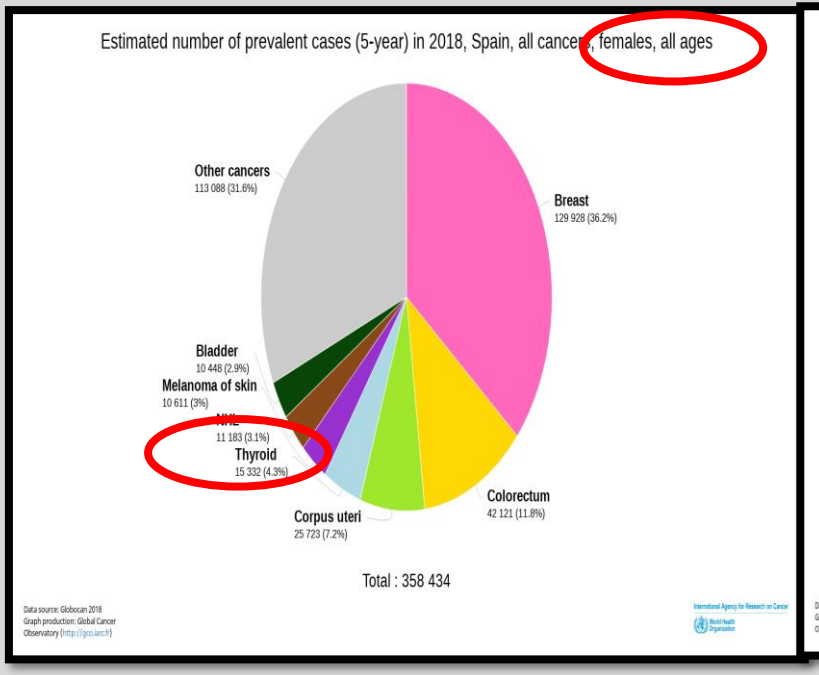
- 52,070 nuevos casos (14,260 en hombres y 37,810 en mujeres).
- 2,170 muertes por CT (1,020 hombres y 1,150 mujeres).

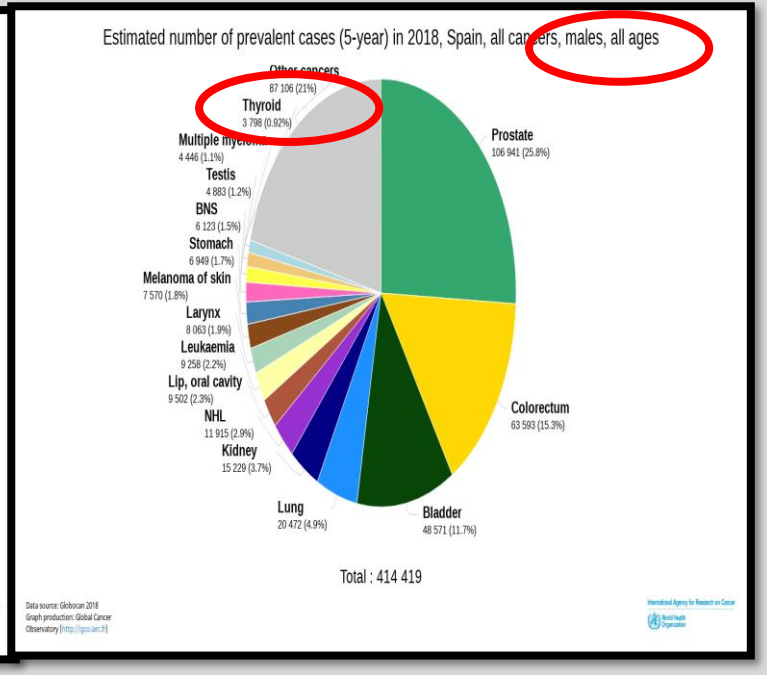
American Cancer Society: Cancer Facts and Figures 2019. Atlanta.

EN ESPAÑA...


Estimated age-standardized incidence and mortality rates (World) in 2018, Spain, both sexes, all ages
Breast
Prostate
Colorectum
Lung
Bladder
Corpus uteri
Non-Hodgkin lymphoma
Kidney
Ovary
Thyroid
7.1
0.30
0
10
20
30
40
50
60
70
Incidence
Mortality
Data source: Globocan 2018
Graph production: Global Cancer Observatory (http://gco.iarc.fr)
ASR (World) per 100 000
International Agency for Research on Cancer
World Health Organization

En España…


Estimated number of prevalent cases (5-year) in 2018, Spain, all cancers, females, all ages
Other cancers
113 088 (31.6%)
Breast
129 928 (36.2%)
Bladder
10 448 (2.9%)
Melanoma of skin
10 611 (3%)
NHL
11 183 (3.1%)
Thyroid
15 332 (4.3%)
Corpus uteri
25 723 (7.2%)
Colorectum
42 121 (11.8%)
Total : 358 434
Data source: Globocan 2018
Graph production: Global Cancer Observatory (http://gco.iarc.fr)


Estimated number of prevalent cases (5-year) in 2018, Spain, all cancers, males, all ages
Other cancers
87 106 (21%)
Thyroid
3 798 (0.92%)
Multiple myeloma
4 446 (1.1%)
Testis
4 883 (1.2%)
BNS
6 123 (1.5%)
Stomach
6 949 (1.7%)
Melanoma of skin
7 570 (1.8%)
Larynx
8 063 (1.9%)
Leukaemia
9 258 (2.2%)
Lip, oral cavity
9 502 (2.3%)
NHL
11 915 (2.9%)
Kidney
15 229 (3.7%)
Lung
20 472 (4.9%)
Prostate
106 941 (25.8%)
Colorectum
63 593 (15.3%)
Bladder
48 571 (11.7%)
Total : 414 419
Data source: Globocan 2018
Graph production: Global Cancer Observatory (http://gco.iarc.fr)

CLASIFICACIÓN HISTOLÓGICA DE TUMORES TIROIDEOS OMS 2004

CARCINOMAS

- Carcinoma papilar
- Carcinoma folicular
- Carcinoma pobremente diferenciado
- Carcinoma indiferenciado (anaplásico)
- Carcinoma escamoso
- Carcinoma mucoepidermoide esclerosante con eosinofilia
- Carcinoma mucinoso
- Carcinoma medular
- Carcinoma mixto medular y de células foliculares
- Tumor de células foliculares fusiformes con diferenciacion de tipo timo (SETTLE)
- Carcinoma con diferenciación de tipo Timo (CASTLE).

OTROS TUMORES

- Teratoma
- Linfoma y plasmocitoma primario
- Timoma ectópico
- Angiosarcoma
- Tumores de músculo liso
- Tumores de vaina de nervio periférico
- Paraganglioma
- Tumor fibroso solitario
- Tumor de células dendríticas foliculares
- Histiocitosis de células de Langerhans
- Tumores secundarios

ADENOMA FOLICULAR Y TUMORES RELACIONADOS

- Adenoma folicular
- Tumor trabecular hialinizante

DeLellis RA, et al. World Health Organization Classification of Tumours. Pathology and Genetics of Tumours of Endocrine Organs. 2004

WHO classification of tumours of the thyroid gland (2017)

Follicular adenoma	8330/0
Hyalinizing trabecular tumour	8336/1*
Other encapsulated follicular-patterned thyroid tumours	
Follicular tumour of uncertain malignant potential	8335/1*
Well-differentiated tumour of uncertain malignant potential	8348/1*
Noninvasive follicular thyroid neoplasm with papillary-like nuclear features	8349/1*
Papillary thyroid carcinoma (PTC)	
Papillary carcinoma	8260/3
Follicular variant of PTC	8340/3
Encapsulated variant of PTC	8343/3
Papillary microcarcinoma	8341/3
Columnar cell variant of PTC	8344/3
Oncocytic variant of PTC	8342/3
Follicular thyroid carcinoma (FTC), NOS	8330/3
FTC, minimally invasive	8335/3
FTC, encapsulated angioinvasive	8339/3
FTC, widely invasive	8330/3
Hürthle (oncocytic) cell tumours	
Hürthle cell adenoma	8290/0
Hürthle cell carcinoma	8290/3
Poorly differentiated thyroid carcinoma	8337/3
Anaplastic thyroid carcinoma	8020/3
Squamous cell carcinoma	8070/3
Medullary thyroid carcinoma	8345/3
Mixed medullary and follicular thyroid carcinoma	8346/3
Mucoepidermoid carcinoma	8430/3
Sclerosing mucoepidermoid carcinoma with eosinophilia	8430/3
Mucinous carcinoma	8480/3
Ectopic thymoma	8580/3
Spindle epithelial tumour with thymus-like differentiation	8588/3
Intrathyroid thymic carcinoma	8589/3

Paraganglioma and mesenchymal/stromal tumours	
Paraganglioma	8693/3
Peripheral nerve sheath tumours (PNSTs)	
Schwannoma	9560/0
Malignant PNST	9540/3
Benign vascular tumours	
Haemangioma	9120/0
Cavernous haemangioma	9121/0
Lymphangioma	9170/0
Angiosarcoma	9120/3
Smooth muscle tumours	
Leiomyoma	8890/0
Leiomyosarcoma	8890/3
Solitary fibrous tumour	8815/1
Hematolymphoid tumours	
Langerhans cell histiocytosis	9751/3
Rosai-Dorfman disease	
Follicular dendritic cell sarcoma	9758/3
Primary thyroid lymphoma	
Germ cell tumours	
Benign teratoma	9080/0
Immature teratoma	9080/1
Malignant teratoma	9080/3
Secondary tumours	

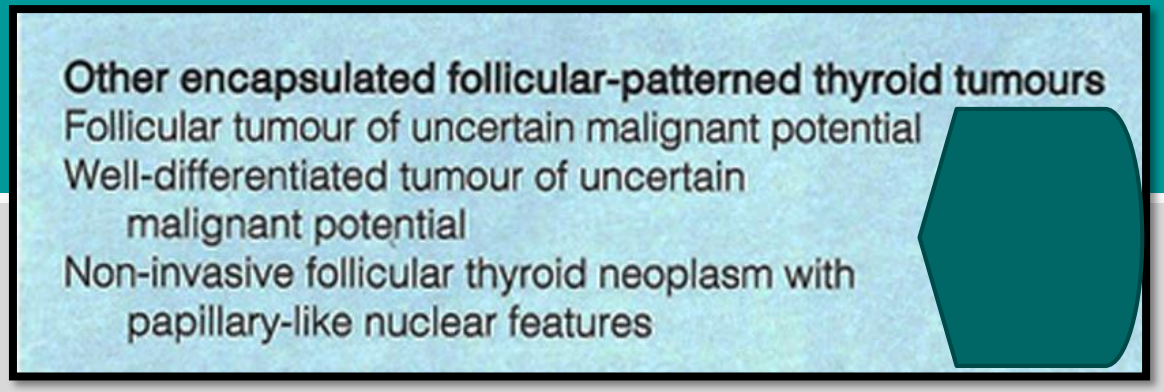
The first four digits indicate the specific histological term; the fifth digit after the slash (/) is the behavior code, including /0 for benign tumours, /1 for unspecified, borderline, or uncertain behavior, /2 for carcinoma in situ and grade III intraepithelial neoplasia, and /3 for malignant tumours

* These new codes were approved by the IARC/WHO Committee for ICD-O

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017

¿QUÉ HA CAMBIADO?

- Patrón de clasificación.
- Adición de un grupo tumoral Bordeline.
- Una nueva variante histológica de Ca. Papilar de tiroides.
- 3 subtipos de Carcinoma folicular.
- Tumores de células de Hurthle como una entidad separada.
- Adopción de criterios de Turín para el diagnóstico de Carcinoma pobremente diferenciado.



- **Tumores foliculares de potencial maligno incierto (FT-UMP):** Tumores encapsulados o bien delimitados, células foliculares bien diferenciadas sin núcleos de CP y cuestionable invasión capsular o vascular.

- **Tumor folicular bien diferenciado de potencial maligno incierto (WDT-UMP):** Tumor encapsulado o bien delimitado compuesto por células foliculares con características nucleares de CP total o parcialmente desarrolladas y cuestionable invasión vascular o capsular.

→Datos de seguimiento son limitados.
→Pronóstico excelente.
→Mx <0,2% de los casos.

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.

Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol Diabet Nutr.2018;65(3):133-135.

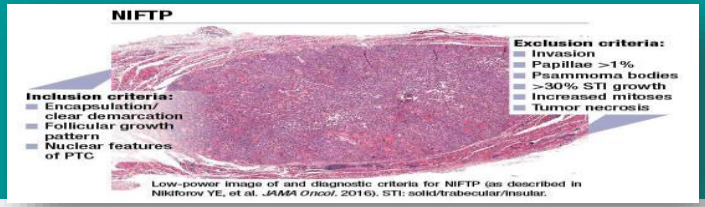
TUMOR FOLICULAR NO INVASIVO CON ALTERACIONES NUCLEARES DE CARCINOMA PAPILAR (NIFTP).

- Es una neoplasia no invasiva de células foliculares de tiroides con patrón de crecimiento folicular y características nucleares de CP.
- Supone el reconocimiento de la baja agresividad biológica de los tumores previamente designados como Variante folicular encapsulada del carcinoma papilar sin invasión capsular o vascular.
- Mutaciones en la familia genes RAS.
- Fusiones de genes PPARG y THADA.
- Pueden haber mutaciones BRAF K601E positivos, pero BRAF V600E y reordenamientos RET Negativos.

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.

Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol Diabet Nutr.2018;65(3):133-135.

NIFTP



→Se requiere examen completo de la cápsula para descartar invasión.

1. Cápsula completa.
2. Ausencia de Invasión capsular y vascular.
3. Patrón de crecimiento folicular: < 1% papilas, ausencia de cuerpos de psamoma y < 30% de patrón de crecimiento sólido, trabecular o insular.
4. Características nucleares de Carcinoma Papilar.
5. No necrosis.
6. Escasa actividad proliferativa (menos de 3 mitosis por 10 campos de 400X).

→Con estos criterios pueden ser tratados mediante Hemitiroidectomía.
→Mx <1% en primeros 15 años de tratamiento.

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumous of Endocrine Organs, 4th edition Lyon:IARC;2017.

Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of t hyroid gland neoplasms. Endocrinol Diabet Nutr.2018; 65(3):133-135.

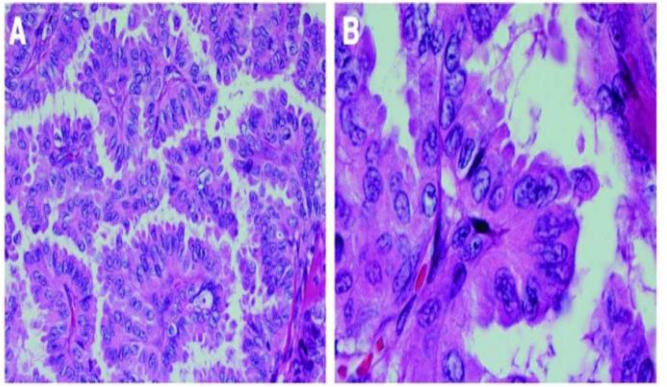
NUEVA VARIANTE HISTOLÓGICA DE CA.

- >30% células con características en clavo.
- Elevado índice de proliferación.
- Extensión extratiroidea frecuente.
- Mayor recurrencia y Mx ganglionares y a distancia.
- Presentan con frecuencia IHQ positiva para p53 y mutación BRAFV600E.

TABLE 2. Variants of

Variant	eness/Prognosis*
1. Conventional/classic	
2. Papillary microcarcinoma	
3. Encapsulated	
4. Follicular	
5. Diffuse sclerosing	
6. Tall cell	
7. Columnar cell	
8. Cribriform-morular	
9. Hobnail	
10. Papillary thyroid carcinoma with fibromatosis/fascitiis-like stroma	
11. Solid/trabecular variant	
12. Oncocytic	
13. Spindle cell	
14. Clear cell variant	
15. Warthin like variant	

*When compared with conventional/classic papillary thyroid carcinoma.



Case of hobnail variant papillary thyroid carcinoma (HVPTC) showing **A** the micropapillary architecture and **B** loss of cellular polarity with apocrine snouting of cells (hematoxylin and eosin, 100× and 200× respectively). Color images available online at www.liebertpub.com/thy

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.
Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol Diabet Nutr.2018; 65(3):133-135.

TABLE 2. Variants of Papillary Thyroid Carcinoma

Variant	Biological Aggressiveness/Prognosis*
1. Conventional/classic	—
2. Papillary microcarcinoma	/more favorable
3. Encapsulated	/more favorable
4. Follicular	Same/similar
5. Diffuse sclerosing	High/similar
6. Tall cell	h/less favorable
7. Columnar cell	Variable/variable
8. Cribriform-morular	No definite information available
9. Hobnail	High/less favorable
10. Papillary thyroid carcinoma with fibromatosis/fascitiis-like stroma	No definite information available
11. Solid/trabecular variant	High/variable
12. Oncocytic	No definite information available
13. Spindle cell	No definite information available
14. Clear cell variant	No definite information available
15. Warthin like variant	Same/similar

*When compared with conventional/classic papillary thyroid carcinoma.

- **Mujeres jóvenes.**
- **Poliposis adenomatosa familiar.**
- **IHQ débil para Tg y característica la tinción nuclear para beta catenina.**

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.
Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol Diabet Nutr.2018; 65(3):133-135.

CARCINOMA FOLICULAR DE TIROIDES

→ Se divide en tres subtipos:

- CF Mínimamente invasivo (Invasión capsular sólo).
- CF encapsulado angioinvasivo.
- CF ampliamente invasivo.

→**Variantes:** Células claras, células en anillo de sello, células fusiformes o células con patrón glomeruloide.

→**LA VARIANTE ONCOCÍTICA NO SE CONSIDERA UNA VARIANTE DEL CF, SINO UNA ENTIDAD INDEPENDIENTE.**

Lloyd RV, Osamura RY, Kloppel G, Rosal J, editores. WHO Classification of Tumours of Endocrine Organs, 4th edition Lyon:IARC;2017.
Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol DiabetNutr.2018; 65(3):133-135.

TUMORES CÉLULAS DE HURTHLE (ONCOCÍTICOS)

- **Adenoma células de Hurthle.**

  - Tumor de células de Hürthle sin invasión capular y/o vascular.
  - Es un tumor benigno.

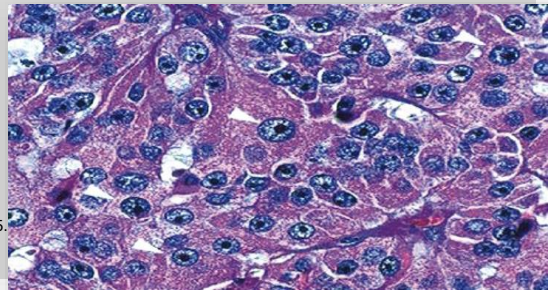
- **Carcinoma de células de Hurthle (Oncocítico):**

  - Mínimamente invasivo.
  - Encapsulado angioinvasivo.
  - Ampliamente invasivo.

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.
Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol DiabetNutr.2018; 65(3):133-135.

CARCINOMA CÉL. HURTHLE

- Tumor de células de Hürthle con Invasión capsular y/o vascular.
- Hombres > Mujeres. Edad avanzada.
- Son tumores más grandes y se presentan en estadios patológicos superiores.
- Menores índices de supervivencia de pacientes que con carcinoma folicular.
- Relativamente resistente al radioyodo.
- Se puede diseminar a los ganglios linfáticos cervicales.



Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.
Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol Diabet Nutr.2018; 65(3):133-135.

CA. POBREMENTE DIFERENCIADO

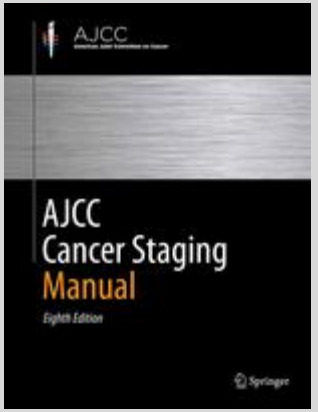
- Tumor con evidencia limitada de diferenciación folicular.
- Morfológicamente intermedio entre Ca. diferenciado y anaplásico.
- **OMS 2017:** Inclusión de algoritmo diagnóstico (consenso de Turin) para su definición: Patrón sólido, trabecular ó insular, Núcleos irregulares, convolucionados, Mitosis (3/10c.g.a.) ó Necrosis, Ausencia de alteraciones nucleares de carcinoma papilar.

Lloyd RV, Osamura RY, Kloppel G, Rosal J, et al. WHO Classification of Tumors of Endocrine Organs, 4th edition Lyon:IARC;2017.

Cameselle-Teijeiro JM, Sobrinho-Simoes M. New WHO classification of Thyroid tumors: a pragmatic categorization of thyroid gland neoplasms. Endocrinol Diabet Nutr.2018; 65(3):133-135.

Volante M, Collini P, Nikiforov YE, Sakamoto A, Kakudo K, Katoh R, et al. Poorly differenciated thyroid carcinoma: The Turin proposal for the use of uniform diagnostic criteria and an algorithmic diagnostic approach. Am J Surg Pathol.2007;31(8):1256-64.

8ª versión de la clasificación TNM de la AJCC



Implicaciones de la nueva estadificación TNM en Cáncer de Tiroides.

OBJETIVO DEL CAMBIO TNM

- Evitar el exceso de tratamiento en pacientes con enfermedad de bajo riesgo de mortalidad, que son la mayoría de los CDT.

Formación multidisciplinar en CDT. Implicaciones del nuevo TNM en CDT. Emma Anda.

Amin MB, Edge S, Greene F, Byrd DR, Brookland RK,Washington MK, Gershenwald JE, Compton CC, Hess KR,Sullivan DC, Jessup JM, Brierley JD, Gaspar LE, Schilsky RL, Balch CM, Winchester DP, Asare EA, Madera M,Gress DM, Meyer LR 2017 AJCC Cancer Staging Manual. Eighth edition. Springer, New York.

¿QUÉ HA CAMBIADO RESPECTO A LA 7ª EDICIÓN?

- Cambio en el corte de **edad de riesgo** (de 45 a 55 años).
- No inclusión de la **mínima invasión extratiroidea** en la clasificación.
- Nueva subclasificación dentro de T3 (T3a y T3b).
- **Exclusión de las adenopatías** centrales para clasificar a los pacientes ≥ 55 años en el estadio III. Pasan a estadio II independientemente de la región.
- Cambios en N.
- Cambios en Ca. Anaplásico: No todos son T4.

Table 1. Major Changes to the AJCC/TNM Staging of Differentiated and Anaplastic Thyroid Cancers in the Eighth Edition

Differentiated	1.	The age cutoff used for staging was increased from 45 to 55 years of age at diagnosis.
	2.	Minor extrathyroidal extension detected only on histological examination was removed from the definition of T3 disease and therefore has no impact on either T category or overall stage.
	3.	N1 disease no longer upstages a patient to stage III. If <55 years of age at diagnosis, N1 disease is stage I. If ≥55 years of age, N1 disease is stage II.
	4.	T3a is a new category for tumors >4 cm confined to the thyroid gland.
	5.	T3b is a new category for tumors of any size demonstrating gross extrathyroidal extension into strap muscles (sternohyoid, sternothyroid, thyrohyoid, or omohyoid muscles).
	6.	Level VII lymph nodes, previously classified as lateral neck lymph nodes (N1b), were reclassified as central neck lymph nodes (N1a) to be more anatomically consistent and because level VII presented significant coding difficulties for tumor registrars, clinicians, and researchers.
	7.	In differentiated thyroid cancer, the presence of distant metastases in older patients is classified as stage IVB disease rather than stage IVC disease. Distant metastasis in anaplastic thyroid cancer continues to be classified as stage IVC disease.
Anaplastic	1.	Unlike previous editions where all anaplastic thyroid cancers were classified as T4 disease, anaplastic cancers will now use the same T definitions as differentiated thyroid cancer.
	2.	Intrathyroidal disease is stage IVA, gross extrathyroidal extension or cervical lymph node metastases is stage IVB, and distant metastases are stage IVC.

AJCC, American Joint Committee on Cancer; TNM, tumor-node-metastasis.

Kim M, Kim YN, Kim WG, Park S, Kwon H, Jeon MJ, et al. 2017 Optimal cut-off age in the TNM staging system of differentiated thyroid cancer: is 55 years better than 45 years? Clin Endocrinol (Oxf) 86:438–443.

Tuttle M , Haugen B and Perrier ND. 2017 Updated American Joint Committee on Cancer/Tumor-Node-Metastasis Staging System for Differentiated and Anaplastic Thyroid Cancer (Eighth Edition): What Changed and Why? Thyroid 27(6): 751-6.

8ª VERSIÓN DE LA CLASIFICACIÓN TNM DE LA AJCC

Definition of Primary Tumor (T)

For Papillary, Follicular, Poorly differentiated, Hurthle cell and Anaplastic Thyroid Carcinoma

T Category	*T Criteria*
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T1	Tumor ≤ 2 cm in greatest dimension limited to the thyroid
T1a	Tumor ≤ 1 cm in greatest dimension limited to the thyroid
T1b	Tumor > 1 cm but ≤ 2 cm in greatest dimension, limited to the thyroid
T2	Tumor > 2 cm but ≤ 4 cm in greatest dimension limited to the thyroid
T3*	Tumor > 4cm limited to the thyroid, or gross extrathyroidal extension invading only strap muscles
T3a*	Tumor > 4 cm limited to the thyroid
T3b*	Gross extrathyroidal extension invading only strap muscles (sternohyoid, sternothyroid, thyrohyoid, or omohyoid muscles) from a tumor of any size
T4	Includes gross extrathyroidal extension into major neck structures
T4a	Gross extrathyroidal extension invading subcutaneous soft tissues, larynx, trachea, esophagus, or recurrent laryngeal nerve from a tumor of any size
T4b	Gross extrathyroidal extension invading prevertebral fascia or encasing carotid artery or mediastinal vessels from a tumor of any size
Note: All categories may be subdivided: (s) solitary tumor and (m) multifocal tumor (the largest tumor determines the classification).	

Tuttle M , Haugen B and Perrier ND. 2017 Updated American Joint Committee on Cancer/Tumor-Node-Metastasis Staging System for Differentiated and Anaplastic Thyroid Cancer (Eighth Edition): What Changed and Why? Thyroid 27(6): 751-6.

T1

Tumor con una dimensión máxima ≤2 cm limitado al tiroides:

+ T1a: Tumor ≤ 1 cm.

+ T1b: Tumor >1 cm pero ≤2 cm.

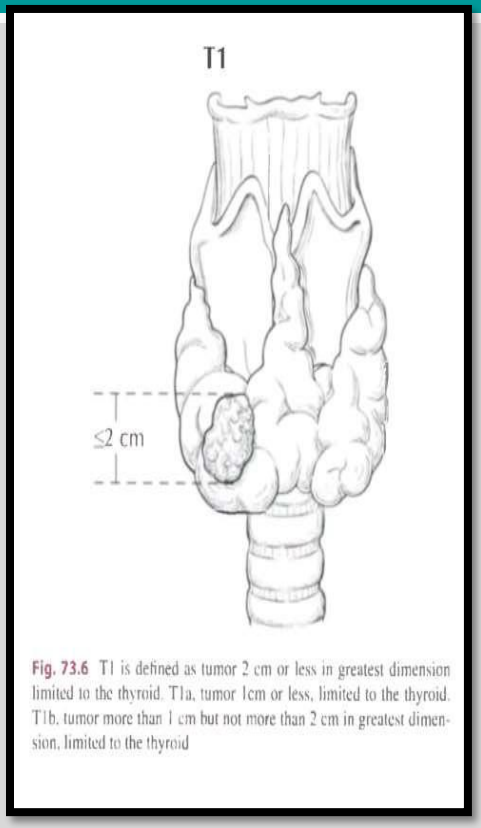


Fig. 73.6 T1 is defined as tumor 2 cm or less in greatest dimension limited to the thyroid. T1a, tumor 1cm or less, limited to the thyroid. T1b, tumor more than 1 cm but not more than 2 cm in greatest dimension, limited to the thyroid

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T2

Tumor >2 cm pero ≤ 4 cm de dimensión máxima, limitado al tiroides.

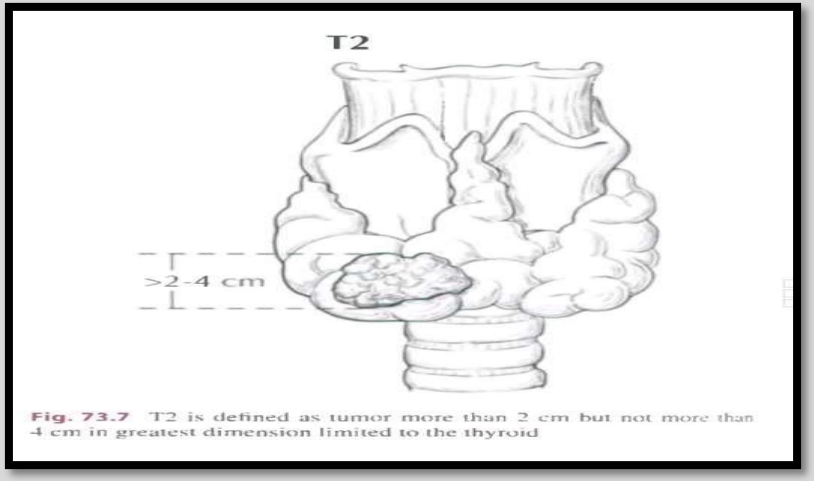

Fig. 73.7 T2 is defined as tumor more than 2 cm but not more than 4 cm in greatest dimension limited to the thyroid

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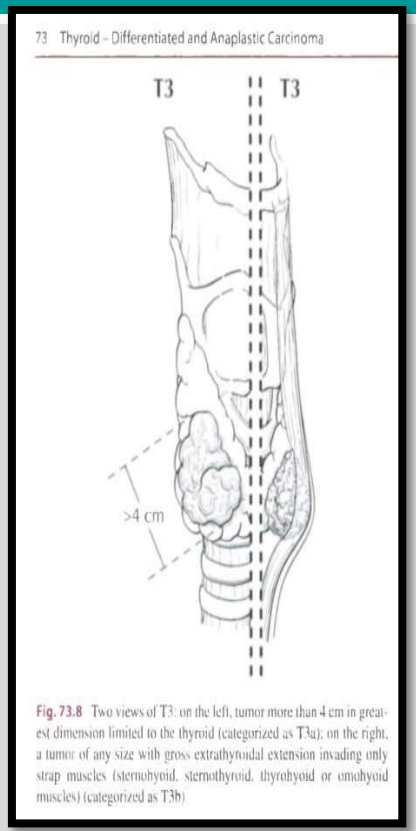
T3

Tumor >4 cm limitado al tiroides o con cualquier tamaño con extensión extratiroidea grosera afectando a musculatura extratiroidea (esternotirodeo, esternohioideo, tiroideo u omohioideo).

+ T3a: Tumor >4 cm limitado al tiroides.

+ T3b Cualquier tamaño con extensión extratiroidea grosera afectando a musculatura extratiroidea (esternotirodeo, esternohioideo, tiroideo u omohioideo).



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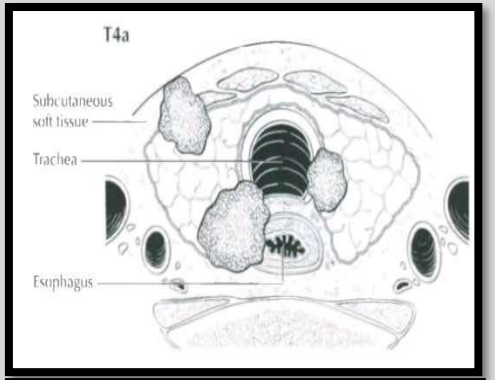
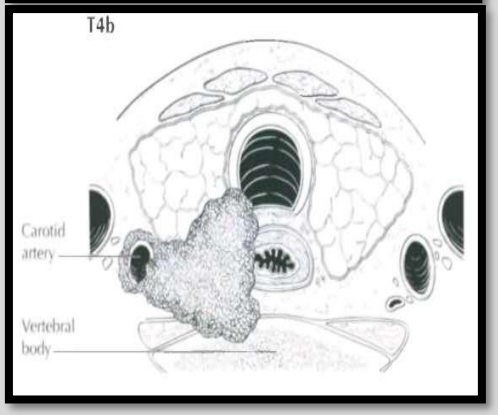
T4

Tumor que sobrepasa significativamente la cápsula tiroidea con extensión extratiroidea:

+<u>T4a:</u> Tumor de cualquier tamaño con extensión extratiroidea que invada tejido subcutáneo, laringe tráquea, esófago o nervio laringeo recurrente.

+ <u>T4b:</u> Tumor de cualquier tamaño con extensión extratiroidea que invada la fascia prevertebral, arteria carótida o vasos mediastínicos.





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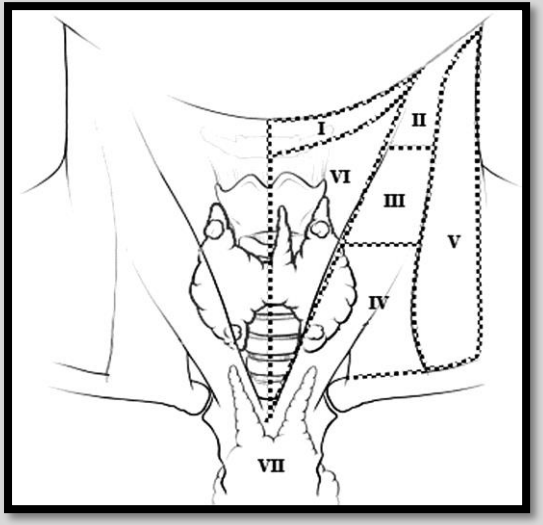
8ª VERSIÓN DE LA CLASIFICACIÓN TNM DE LA AJCC

Definition of Regional Lymph Node (N)

N Category	*N Criteria*
NX	Regional lymph nodes cannot be assessed
N0	No evidence of regional lymph nodes metastasis
N0a*	One or more cytological or histologically confirmed benign lymph node
N0b*	No radiologic or clinical evidence of locoregional lymph node metastasis
N1*	Metastasis to regional nodes
N1a*	Metastasis to level VI or VII (pretracheal, paratracheal, or prelaryngeal/Delphian or upper mediastinal) lymph nodes. This can be unilateral or bilateral disease.
N1b*	Metastasis to unilateral, bilateral, or contralateral lateral neck lymph nodes (Levels I, II, III, IV, or V) or retropharyngeal lymph nodes



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N0

No evidencia de Metastásis ganglionares locoregionales.

+ N0a: Uno o más ganglios linfáticos, en los que no se objetiva neoplasia en el examen histológico o citológico.

+ N0b: No se objetivan rasgos radiológicos o clínicos que indiquen presencia de metástasis en los ganglios linfáticos.

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N1

Se objetivan Mx en ganglios linfáticos locorregionales:

+ <u>N1a:</u> Mx (uni o bilaterales) en ganglios del grupo VI o VII (pretraqueales, paratraqueales, prelaringeos o mediastino superior).

+ <u>N1b:</u> Mx (unilaterales, contralaterales o bilaterales) en ganglios linfáticos cervicales laterales (Grupos I-V) o retrofaríngeos.

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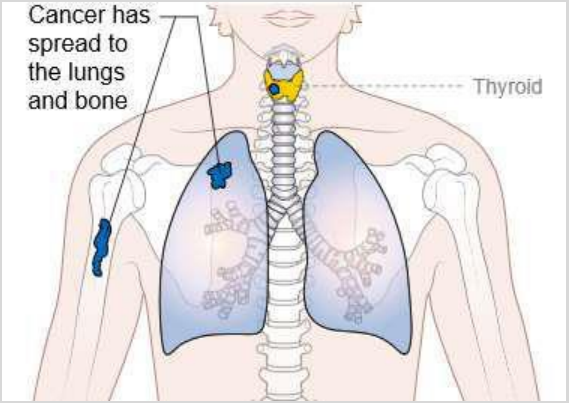
METÁSTASIS A DISTANCIA

Definition of Distant Metastasis (M)

M Category	*M Criteria*
M0	No distant metastasis
M1	Distant metastasis



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The AJCC TNM staging 7th and 8th editions of thyroid cancer.

Category	7th edition	8th edition
Primary tumor (T)		
TX	Primary tumor cannot be assessed	Primary tumor cannot be assessed
T0	No evidence of primary tumor	No evidence of primary tumor
T1	Tumor size ≤ 2 cm AND intrathyroidal	Tumor size ≤ 2 cm AND intrathyroidal
T1a	Tumor size ≤ 1 cm	Tumor size ≤ 1 cm
T1b	1 cm < tumor size ≤ 2 cm	1 cm < tumor size ≤ 2 cm
T2	2 cm < tumor size ≤ 4 cm AND intrathyroidal	2 cm < tumor size ≤ 4 cm AND intrathyroidal
T3	Tumor size > 4 cm OR minimal extrathyroidal extension (sternothyroid muscle, perithyroid soft tissues)	T3a – Tumor size > 4 cm AND intrathyroidal T3b – gross extrathyroidal extension (sternohyoid, sternothyroid, thyrohyoid, omohyoid muscles)
T4	Gross extrathyroidal extension from tumor at any size	Gross extrathyroidal extension from tumor at any size
T4a	Extension beyond thyroid capsule (subcutaneous soft tissue, larynx, trachea, esophagus, recurrent laryngeal nerve)	Extension beyond thyroid capsule (subcutaneous soft tissue, larynx, trachea, esophagus, recurrent laryngeal nerve)
T4b	Invasion to prevertebral fascia OR encasing the carotid artery, mediastinal vessels	Invasion to prevertebral fascia OR encasing the carotid artery, mediastinal vessels
Regional lymph nodes (N)		
NX	Regional lymph nodes cannot be assessed	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis	No regional lymph node metastasis
N1	Regional lymph node metastasis	Regional lymph node metastasis
N1a	Metastasis to level VI	Metastasis to level VI, VII
N1b	Metastasis to level I, II, III, IV, V, VII, retropharyngeal lymph nodes	Metastasis to level I, II, III, IV, V, retropharyngeal lymph modes
Distant metastasis (M)		
M0	No distant metastasis	No distant metastasis
M1	Distant metastasis	Distant metastasis

8ª VERSIÓN DE LA CLASIFICACIÓN TNM DE LA AJCC

Stage grouping		
	Age < 45 years old	Age < 55 years old
Stage I	Any TAny NM0	Any TAny NM0
Stage II	Any TAny NM1	Any TAny NM1
	Age ≥ 45 years old	Age ≥ 55 years old
Stage I	T1N0M0	T1–T2N0M0
Stage II	T2N0M0	T1–T2N1M0
		T3Any NM0
Stage III	T1–T2N1aN0	T4aAny NM0
	T3N0M0	
Stage IVA	T4aAny NM0	T4bAny NM0
	Any TN1bM0	
Stage IVB	T4bAny NM0	Any TAny NM1
Stage IVC	Any TAny NM1	

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7ª edición					8ª edición				
<45 años				Superv. 10 años	**<55 años**				Superv. a 10 años
I	Cualquier T y N		M0	97-100%	I	Cualquier T y N		M0	98-100%
II	Cualquier T y N		M1	95-99%	II	Cualquier T y N		M1	85-95%
≥45 años					**≥ 55 años**				
I	T1	N0	M0	97-100%	I	T1 o T2	N0	M0	98-100%
II	T2	N0	M0	97-100%	II	T1 o T2 T3a/b	N1a/b Cualquier N		85-95%
III	T1 o T2	N1a	M0	88-95%	III	T4A	Cualquier N	M0	60-70%
	T3	N0 o N1a							
IVA	T1 o T2 o T3	N1b		50-75%	IVA	T4b	Cualquier N	M0	<50%
	T4a	Cualquier N							
IVB	T4b	Cualquier N	M0		IVB	Cualquier T y N		M1	
IVC	Cualquier T y N		M1						

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CA. ANAPLÁSICO

Anaplastic carcinoma			
All anaplastic carcinomas are considered Stage IV			
Stage IVA	T4a	Any N	M0
Stage IVB	T4b	Any N	M0
Stage IVC	Any T	Any N	M1

Anaplastic

When T is...	And N is...	And M is...	Then the stage group is...
T1–T3a	N0/NX	M0	IVA
T1–T3a	N1	M0	IVB
T3b	Any N	M0	IVB
T4	Any N	M0	IVB
Any T	Any N	M1	IVC

- **Enfermedad intratiroidea: IVA.**
- **Extensión extratiroidea o afectación cervical: IVB.**
- **Enfermedad a distancia: IVC.**

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CONCLUSIONES 8ª VERSIÓN TNM

• La 8ª versión TNM supone reclasificar a un 23-35% de los pacientes con CDT a estadios más bajos que los previos, con un incremento en los **estadios I y II.**

• Cuidado con el **estadio II en los pacientes >55 años, ya que habrá un grupo de pacientes con mayor probabilidad de recurrencia (ETE, adenopatías).**

• En el **estadio III se agrupan los pacientes con enfermedad cervical más agresiva sin metástasis a distancia.**

•**El pronóstico vital en los estadios III y IV es menor que en la edición previa.**

•El riesgo de mortalidad global de los pacientes con CDT es bajo, pero la tasa de persistencia/recurrencia es mayor, con la morbilidad que ello supone. Es fundamental utilizar la clasificación de Riesgo de recurrencia (bajo-intermedio-alto) y la estratificación dinámica de respuesta al tratamiento a lo largo del tiempo.

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