

**Supplementary Table 1. Tumour descriptor categories in the WHO Classification of Tumours 5th edition (1).**

Section in the WHO Blue Book	
Localisation	
Clinical features	Clinical manifestation
	Imaging
	Others
Epidemiology	
Aetiology	
Pathogenesis	
Macroscopic appearance	
Histopathology	General features
	Patterns/subtypes
	Immunohistochemistry
	Grading
	Differential diagnosis
	Others
Cytology	
Diagnostic molecular pathology	In-situ hybridisation
	Sequencing
	Others
Staging	
Prognosis and prediction	

WHO: World Health Organization

**Supplementary Table 2. Number of references per level of evidence and tumour type for the 5<sup>th</sup> WHO Classification of Tumours Edition of Thoracic Tumours, Tumours of the Lung Chapter (n=1434).**

Tumour type	Low LOE % (n)	Moderate LOE % (n)	High LOE % (n)	Uncodable % (n)	Total number of references
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Exploratory evidence maps for the WHO Classification of Tumours 5th edition for lung and thymus tumors

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					<b>% of total references (n)</b>
Adenocarcinoma in situ of the lung	87,0% (20)	4,3% (1)	8,7% (2)	0,0% (0)	1,6% (23)
Adenoid cystic carcinoma of the lung	100,0% (16)	0,0% (0)	0,0% (0)	0,0% (0)	1,1% (16)
Adenosquamous carcinoma of the lung	90,7% (39)	4,7% (2)	0,0% (0)	4,7% (2)	3,0% (43)
Alveolar adenoma	100,0% (9)	0,0% (0)	0,0% (0)	0,0% (0)	0,6% (9)
Atypical adenomatous hyperplasia of the lung	75,9% (22)	17,2% (5)	6,9% (2)	0,0% (0)	2,0% (29)
Bronchial papillomas	90,3% (28)	6,5% (2)	3,2% (1)	0,0% (0)	2,2% (31)
Bronchiolar adenoma / ciliated muconodular papillary tumour	190,9% (10)	9,1% (1)	0,0% (0)	0,0% (0)	0,8% (11)
Carcinoid/neuroendocrine tumour of the lung	92,6% (100)	1,9% (2)	2,8% (3)	2,8% (3)	7,5% (108)
Carcinosarcoma of the lung	100,0% (22)	0,0% (0)	0,0% (0)	0,0% (0)	1,5% (22)
Colloid adenocarcinoma of the lung	81,8% (9)	0,0% (0)	0,0% (0)	18,2% (2)	0,8% (11)
Congenital peribronchial myofibroblastic tumour	100,0% (10)	0,0% (0)	0,0% (0)	0,0% (0)	0,7% (10)
Diffuse idiopathic pulmonary neuroendocrine cell hyperplasia	90,9% (20)	4,5% (1)	4,5% (1)	0,0% (0)	1,5% (22)
Diffuse pulmonary lymphangiomatosis	100,0% (7)	0,0% (0)	0,0% (0)	0,0% (0)	0,5% (7)
Enteric-type adenocarcinoma of the lung	93,3% (14)	0,0% (0)	6,7% (1)	0,0% (0)	1,0% (15)
Epithelial-myoepithelial carcinoma of the lung	88,9% (8)	0,0% (0)	11,1% (1)	0,0% (0)	0,6% (9)

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Fetal adenocarcinoma of the lung	100,0% (18)	0,0% (0)	0,0% (0)	0,0% (0)	1,3% (18)
Hyalinizing clear cell carcinoma of the lung	100,0% (9)	0,0% (0)	0,0% (0)	0,0% (0)	0,6% (9)
Intravascular large B-cell lymphoma of the lung	100,0% (14)	0,0% (0)	0,0% (0)	0,0% (0)	1,0% (14)
Invasive mucinous adenocarcinoma of the lung	87,1% (27)	3,2% (1)	3,2% (1)	6,5% (2)	2,2% (31)
Invasive non-mucinous adenocarcinoma of the lung	69,8% (150)	13,0% (28)	11,6% (25)	5,6% (12)	15,0% (215)
Large cell carcinoma of the lung	100,0% (41)	0,0% (0)	0,0% (0)	0,0% (0)	2,9% (41)
Large cell neuroendocrine carcinoma of the lung	691,7% (6)	1,4% (1)	1,4% (1)	5,6% (4)	5,0% (72)
Lymphangioliomyomatosis of the lung	84,2% (16)	0,0% (0)	15,8% (3)	0,0% (0)	1,3% (19)
Lymphoepithelial carcinoma of the lung	100,0% (18)	0,0% (0)	0,0% (0)	0,0% (0)	1,3% (18)
Lymphomatoid granulomatosis of the lung	100,0% (11)	0,0% (0)	0,0% (0)	0,0% (0)	0,8% (11)
MALT lymphoma of the lung	100,0% (20)	0,0% (0)	0,0% (0)	0,0% (0)	1,4% (20)
Melanoma of the lung	100,0% (21)	0,0% (0)	0,0% (0)	0,0% (0)	1,5% (21)
Meningioma of the lung	100,0% (16)	0,0% (0)	0,0% (0)	0,0% (0)	1,1% (16)
Minimally invasive adenocarcinoma of the lung	78,6% (22)	0,0% (0)	3,6% (1)	17,9% (5)	2,0% (28)
Mucinous cystadenoma of the lung	100,0% (7)	0,0% (0)	0,0% (0)	0,0% (0)	0,5% (7)
Mucoepidermoid carcinoma of the lung	91,7% (11)	0,0% (0)	0,0% (0)	8,3% (1)	0,8% (12)

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Mucous gland adenoma of the lung	100,0% (5)	0,0% (0)	0,0% (0)	0,0% (0)	0,3% (5)
Myoepithelioma and myoepithelial carcinoma of the lung	100,0% (9)	0,0% (0)	0,0% (0)	0,0% (0)	0,6% (9)
Papillary adenoma of the lung	90,5% (19)	4,8% (1)	4,8% (1)	0,0% (0)	1,5% (21)
PEComa of the lung	100,0% (17)	0,0% (0)	0,0% (0)	0,0% (0)	1,2% (17)
Pleomorphic adenoma of the lung	100,0% (7)	0,0% (0)	0,0% (0)	0,0% (0)	0,5% (7)
Pleomorphic carcinoma of the lung	90,2% (46)	2,0% (1)	7,8% (4)	0,0% (0)	3,6% (51)
Pleuropulmonary blastoma	88,9% (16)	5,6% (1)	0,0% (0)	5,6% (1)	1,3% (18)
Primary pulmonary myxoid sarcoma with EWSR1-CREB1 fusion	100,0% (12)	0,0% (0)	0,0% (0)	0,0% (0)	0,8% (12)
Pulmonary artery intimal sarcoma	100,0% (24)	0,0% (0)	0,0% (0)	0,0% (0)	1,7% (24)
Pulmonary blastoma	100,0% (27)	0,0% (0)	0,0% (0)	0,0% (0)	1,9% (27)
Pulmonary chondroma	100,0% (7)	0,0% (0)	0,0% (0)	0,0% (0)	0,5% (7)
Pulmonary diffuse large B-cell lymphoma	87,5% (21)	0,0% (0)	0,0% (0)	12,5% (3)	1,7% (24)
Pulmonary Erdheim-Chester disease	78,8% (26)	9,1% (3)	3,0% (1)	9,1% (3)	2,3% (33)
Pulmonary hamartoma	94,7% (18)	0,0% (0)	0,0% (0)	5,3% (1)	1,3% (19)
Pulmonary Langerhans cell histiocytosis	87,5% (14)	6,3% (1)	6,3% (1)	0,0% (0)	1,1% (16)
Sclerosing pneumocytoma	94,1% (32)	0,0% (0)	0,0% (0)	5,9% (2)	2,4% (34)

Small cell lung carcinoma	80,9% (55)	2,9% (2)	7,4% (5)	8,8% (6)	4,7% (68)
Squamous cell carcinoma of the lung	86,0% (43)	4,0% (2)	2,0% (1)	8,0% (4)	3,5% (50)
Squamous dysplasia and carcinoma in situ of the lung	74,1% (43)	13,8% (8)	6,9% (4)	5,2% (3)	4,0% (58)
Thoracic SMARCA4-deficient undifferentiated tumour	93,8% (15)	0,0% (0)	0,0% (0)	6,3% (1)	1,1% (16)

CREB1: CAMP responsive element binding protein 1; EWSR1: RNA-binding protein EWS (Ewing sarcoma); MALT: mucosa-assisted lymphoid tissue; PEComa: perivascular epithelioid cell tumour; SMARCA4: Switch/sucrose non-fermentable-related, matrix-associated, actin-dependent regulator of chromatin, subfamily A.

**Supplementary Table 3. Number of references per level of evidence and tumour type for the 5<sup>th</sup> WHO Classification of Tumours Edition of Thoracic Tumours, Tumours of the Thymus Chapter (n=677).**

Tumour type	Low LOE % (n)	Moderate LOE % (n)	High LOE % (n)	Uncodable % (n)	Total number of references % (n)
Adenocarcinoma NOS	91,7% (11)	0,0% (0)	0,0% (0)	8,3% (1)	1,8% (12)
Adenosquamous Carcinoma	88,9% (8)	0,0% (0)	0,0% (0)	11,1% (1)	1,3% (9)
Basaloid Carcinoma	94,4% (17)	0,0% (0)	0,0% (0)	5,6% (1)	2,7% (18)
Carcinoid/ neuroendocrine tumour	89,1% (49)	7,3% (4)	0,0% (0)	3,6% (2)	8,1% (55)
Clear Cell Carcinoma	91,7% (11)	0,0% (0)	0,0% (0)	8,3% (1)	1,8% (12)
Enteric-Type Adenocarcinoma	92,3% (12)	0,0% (0)	0,0% (0)	7,7% (1)	1,9% (13)

Exploratory evidence maps for the WHO Classification of Tumours 5th edition for lung and thymus tumors

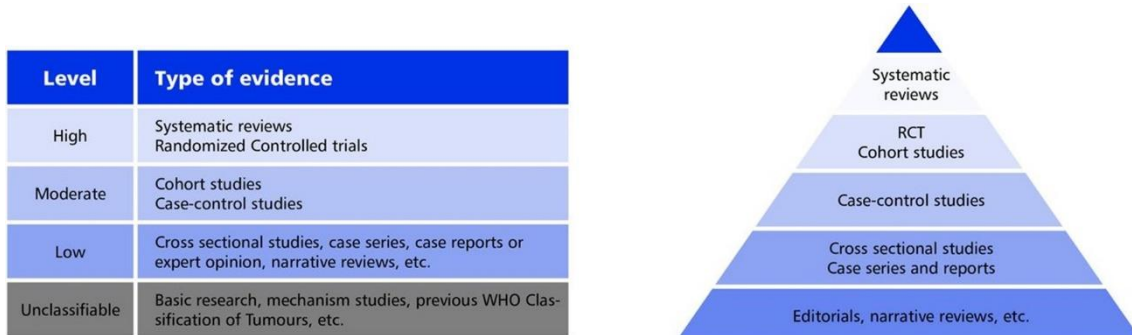
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Large cell neuroendocrine carcinoma	75,0% (9)	8,3% (1)	0,0% (0)	16,7% (2)	1,8% (12)
Lipofibroadenoma	100,0% (9)	0,0% (0)	0,0% (0)	0,0% (0)	1,3% (9)
Low-grade papillary adenocarcinoma	83,3% (10)	8,3% (1)	0,0% (0)	8,3% (1)	1,8% (12)
Lymphoepithelial Carcinoma	84,0% (21)	8,0% (2)	4,0% (1)	4,0% (1)	3,7% (25)
Metaplastic Thymoma	34,8% (8)	0,0% (0)	4,3% (1)	60,9% (14)	3,4% (23)
Micronodular Thymoma with Lymphoid Stroma	94,7% (18)	0,0% (0)	0,0% (0)	5,3% (1)	2,8% (19)
Mucoepidermoid carcinoma	92,3% (12)	0,0% (0)	0,0% (0)	7,7% (1)	1,9% (13)
NUT Carcinoma of the Thorax	74,5% (35)	0,0% (0)	4,3% (2)	21,3% (10)	6,9% (47)
Sarcomatoid Carcinoma	100,0% (16)	0,0% (0)	0,0% (0)	0,0% (0)	2,4% (16)
Small cell carcinoma	72,2% (13)	11,1% (2)	0,0% (0)	16,7% (3)	2,7% (18)
Squamous Cell Carcinoma	83,9% (78)	10,8% (10)	2,2% (2)	3,2% (3)	13,7% (93)
Thymic Carcinoma with Adenoid Cystic Carcinoma-like features	87,5% (7)	0,0% (0)	0,0% (0)	12,5% (1)	1,2% (8)
Thymic Carcinoma NOS	38,5% (5)	7,7% (1)	7,7% (1)	46,2% (6)	1,9% (13)
Type A Thymoma	80,8% (42)	7,7% (4)	7,7% (4)	3,8% (2)	7,7% (52)
Type AB Thymoma	71,4% (25)	11,4% (4)	11,4% (4)	5,7% (2)	5,2% (35)
Type B1 Thymoma	77,1% (27)	17,1% (6)	0,0% (0)	5,7% (2)	5,2% (35)

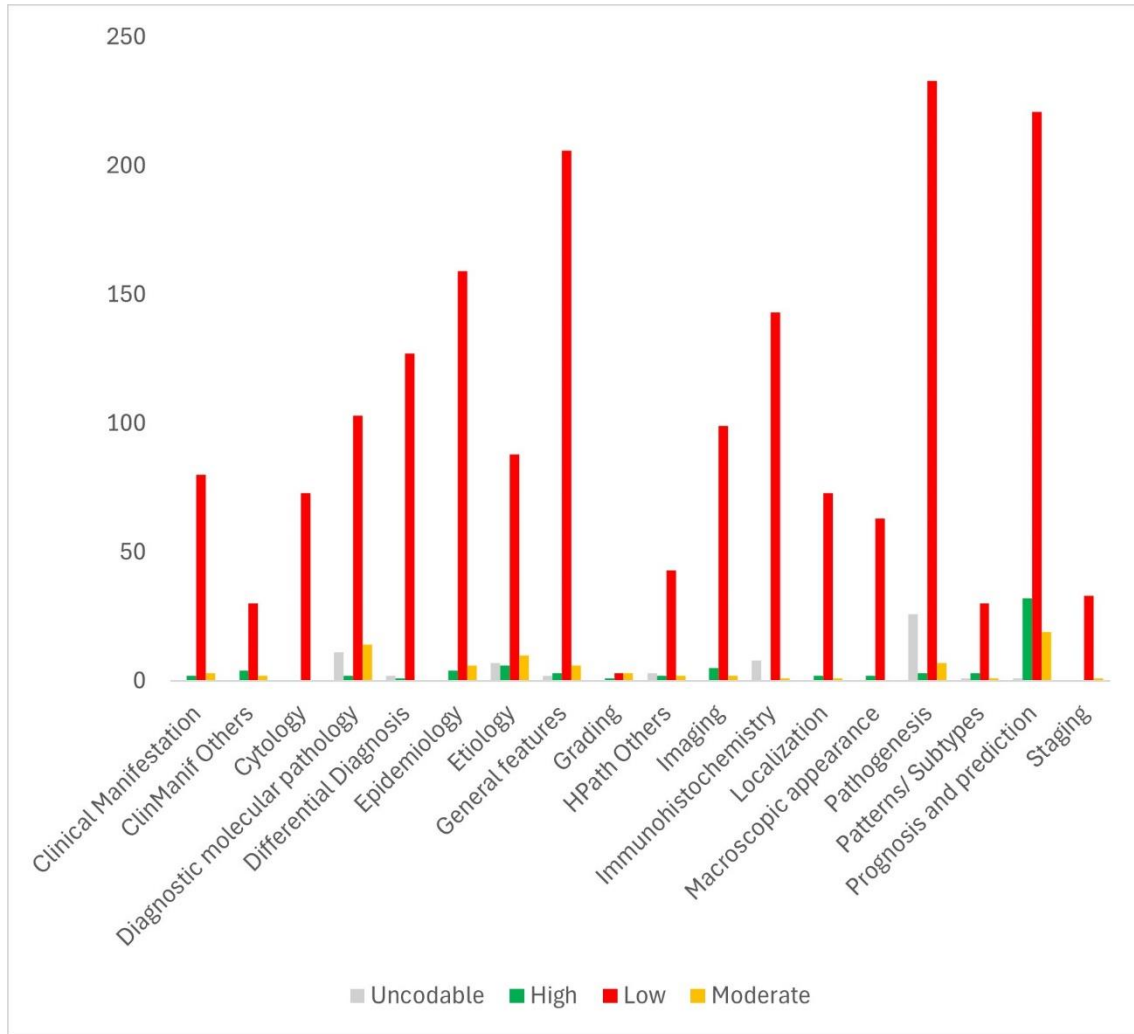
Type B2 Thymoma	72,7% (32)	15,9% (7)	0,0% (0)	11,4% (5)	6,5% (44)
Type B3 Thymoma	73,9% (51)	14,5% (10)	2,9% (2)	8,7% (6)	10,2% (69)
Undifferentiated Carcinoma	93,3% (14)	0,0% (0)	0,0% (0)	6,7% (1)	2,2% (15)

NOS: not otherwise specified; NUT: nuclear protein in testis gene.

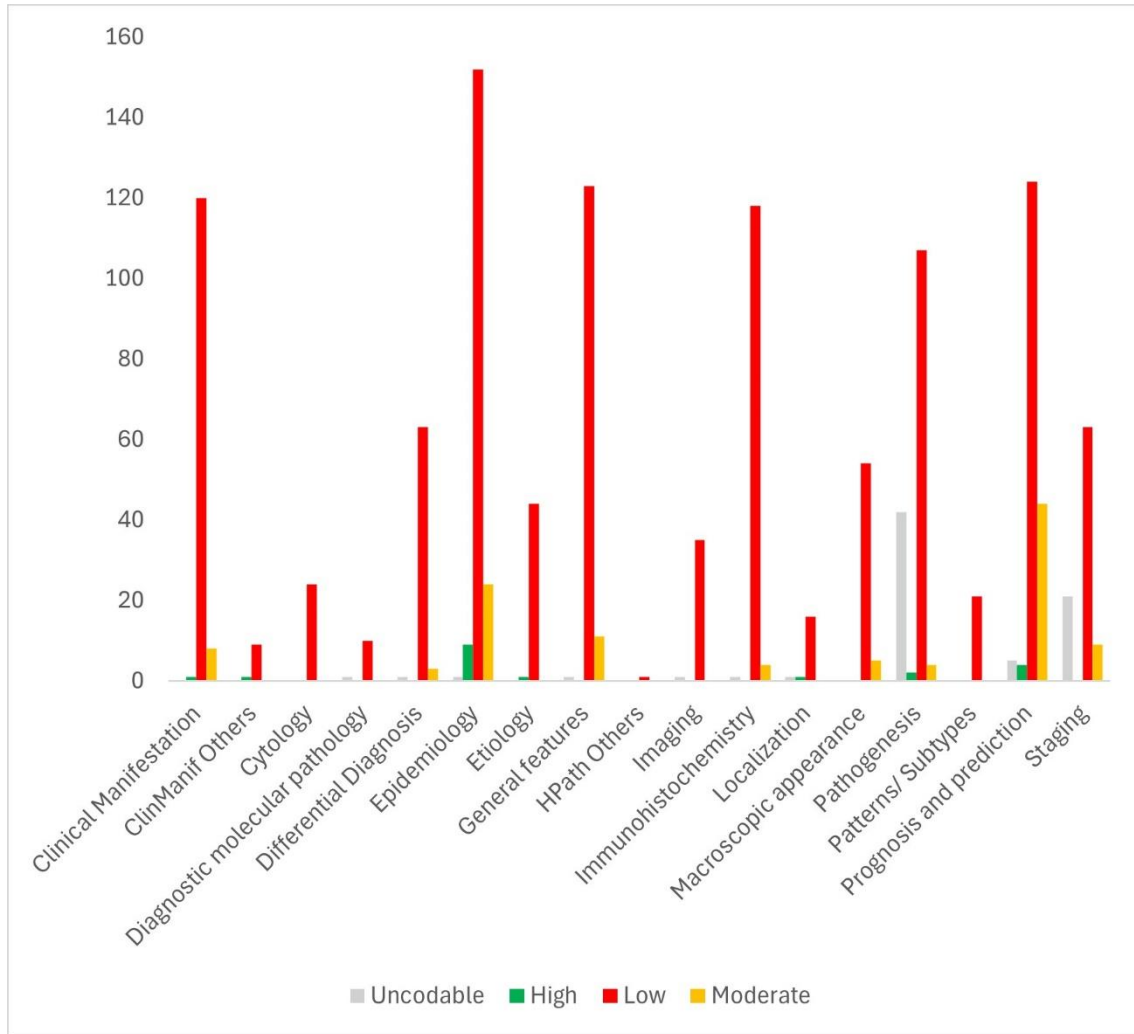


**Supplementary Figure 1. Level of evidence categories used in the exploratory maps of the WCT 5th edition Thoracic Tumours (Del Aguila Mejía J et al. 2022) (13).**

**RCT: randomized controlled trial**



**Supplementary Figure 2. Distribution of cited references per level of evidence (LOE) and tumour descriptor for the WHO Classification of Tumours 5th Edition of Thoracic Tumours, Tumours of the Lung Chapter (n=2018).**



**Supplementary Figure 3. Distribution of cited references per level of evidence (LOE) and tumour descriptor for the WHO Classification of Tumours 5th Edition of Thoracic Tumours, Tumours of the Thymus Chapter (n=1297).**