Histological tumour type (Core)

Histologic diagnosis is based on the World Health Organization (WHO) Classification of Tumours, Soft Tissue and Bone Tumours, 5th edition, 2020 (Table 1).[1] Many tumours of the bone are surgically assessed by biopsy. In some cases, the biopsy is suboptimally centred on the area(s) of interest or affected by the surgical process, leaving the pathologist with tissue that can be under-representative or misrepresentative of the lesion based on the imaging studies. In a few instances, more sophisticated testing (e.g., molecular) may be required to achieve a full/correct diagnosis, but the small tissue size, tissue processing issues, or suboptimal targeting of biopsy materials may make this testing impossible. The pathologist should specify any, and all, limitations of the tissue in achieving optimal diagnosis. In addition, comments can be made in case the diagnosis on biopsy is not certain for reasons other than limitations of the material, or when there is still a differential diagnosis.

Table 1: World Health Organization classification of intermediate and malignant bone tumours and undifferentiated small round cell sarcomas.[1]

Descriptor	**ICD-O codes[a]**
Chondrogenic tumours	
Intermediate (locally aggressive)	
Atypical cartilaginous tumour	9222/1
Malignant	
Chondrosarcoma, grade 1	9222/3*
Chondrosarcoma, grade 2	9220/3
Chondrosarcoma, grade 3	9220/3
Periosteal chondrosarcoma	9221/3
Clear cell chondrosarcoma	9242/3
Mesenchymal chondrosarcoma	9240/3
Dedifferentiated chondrosarcoma	9243/3
Osteogenic tumours	
Malignant	
Low-grade central osteosarcoma	9187/3
Osteosarcoma	9180/3
Conventional osteosarcoma	
Telangiectatic osteosarcoma	
Small cell osteosarcoma	
Parosteal osteosarcoma	9192/3
Periosteal osteosarcoma	9193/3
High-grade surface osteosarcoma	9194/3
Secondary osteosarcoma	9184/3
Fibrogenic tumours	
Malignant	
Fibrosarcoma NOS	8810/3
Vascular tumours of bone	
Malignant	
Epithelioid haemangioendothelioma NOS	9133/3
Angiosarcoma	9120/3

Descriptor	ICD-O codes[a]
Osteoclastic giant cell–rich tumours	
Intermediate (locally aggressive, rarely metastasizing)	
Giant cell tumour of bone	9250/1
Malignant	
Giant cell tumour of bone, malignant	9250/3
Notochordal tumours	
Malignant	
Conventional chordoma	9370/3
Chondroid chordoma	
Poorly differentiated chordoma	9370/3
Dedifferentiated chordoma	9372/3
Other mesenchymal tumours of bone	
Malignant	
Adamantinoma of long bones	9261/3
Dedifferentiated adamantinoma	
Leiomyosarcoma NOS	8890/3
Pleomorphic sarcoma, undifferentiated	8802/3
Haematopoietic neoplasms of bone	
Plasmacytoma of bone	9731/3
Malignant lymphoma, non-Hodgkin, NOS	9591/3
Hodgkin disease NOS	9650/3
Diffuse large B-cell lymphoma NOS	9680/3
Follicular lymphoma NOS	9690/3
Marginal zone B-cell lymphoma NOS	9699/3
T-cell lymphoma NOS	9702/3
Anaplastic large cell lymphoma NOS	9714/3
Malignant lymphoma, lymphoblastic, NOS	9727/3
Burkitt lymphoma NOS	9687/3
Langerhans cell histiocytosis NOS	9751/1
Langerhans cell histiocytosis, disseminated	9751/3
Erdheim–Chester disease	9749/3
Rosai–Dorfman disease	
Undifferentiated small round cell	
Ewing sarcoma	9364/3
Round cell sarcoma with *EWSR1*–non-ETS fusions	9366/3*
CIC-rearranged sarcoma	9367/3*
Sarcoma with *BCOR* genetic alterations	9368/3*

[a] These morphology codes are from the International Classification of Diseases for Oncology, third edition, second revision (ICD-O-3.2).[2] Behaviour is coded /0 for benign tumours; /1 for unspecified, borderline, or uncertain behaviour; /2 for carcinoma in situ and grade III intraepithelial neoplasia; /3 for malignant tumours, primary site; and /6 for malignant tumours, metastatic site.

* Codes marked with an asterisk were approved by the International Agency for Research on Cancer/WHO Committee for ICD-O at its meeting in January 2020. Incorporates all relevant changes from the 5th Edition Corrigenda October 2020.

References

1 WHO Classification of Tumours Editorial Board (2020). *Soft Tissue and Bone Tumours. WHO Classification of Tumours, 5th Edition, Volume 3*. IARC Publications, Lyon.

2 Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin LH, Parkin DM, Whelan SL and World Health Organization (2000). *International classification of diseases for oncology*, World Health Organization, Geneva.