Chapter 4: Histological groups

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Background

The data presented in this edition of *Cancer Incidence in Five Continents* (CI5) are mainly organised according to anatomical site. However, for some sites, the histological type of cancer is particularly relevant clinically and epidemiologically. For practical reasons, detailed data on every available morphological entity cannot be presented or used for longitudinal and geographic comparisons. In the latest editions of CI5, edition VII (Parkin *et al*., 1997) and VIII (Parkin *et al*., 2002), these data were grouped according to histological types as defined in *Histological Groups for Comparative Studies* (Parkin *et al*., 1998), based on the second edition of *International Classification of Diseases for Oncology* (ICD-O-2) (Percy *et al*., 1990). Since then, the second edition has been followed by the third edition (ICD-O-3) (Fritz *et al*., 2000). Furthermore, some cancer classifications have been revised, e.g. through the third edition of the *WHO Classification of Tumours*. Consequently, there was a need to update the Histological Groups for Comparative Studies, and the revised version is presented in this chapter.

General structure

The main structure of the histological grouping is that specific types of malignant neoplasms are listed as well as Unspecified malignant neoplasms (Unspecified cancer in the previous edition), i.e. malignant tumours that are so poorly differentiated that we are unable to classify them in major groups such as carcinoma or sarcoma. Neoplasms that have a specific morphology but are too unusual to be listed among the specific types of malignant neoplasms are lumped under Other specified malignant neoplasm (Other specified cancer in the previous edition). Similarly, under Carcinoma, specific cancer subtypes such as Squamous cell carcinoma and Adenocarcinoma are listed as well as Unspecified carcinoma, i.e. carcinomas that are so poorly differentiated that we are unable to classify them according to histogenetic subtype, while it is still possible to distinguish them from non-epithelial malignant neoplasms such as sarcoma. Morphological codes are listed under the specific types of neoplasms (or carcinoma) and under Unspecified malignant neoplasms (or carcinoma). The remaining codes of neoplasia (or carcinoma) will then automatically be assigned to the Other specified malignant neoplasm (or carcinoma) group.

Sites

For inclusion as a histological group, a cancer type has to be sufficiently common at the site and clinically and epidemiologically relevant. The following 15 sites are included: oesophagus, anus, liver, lung, bone, skin, cervix, corpus uteri, ovary, testis, kidney/renal pelvis, urinary bladder, eye, central nervous system and thyroid, together with the haematological system. Some major cancer sites such as breast and prostate were not included because the vast majority of malignant neoplasms at these sites are adenocarcinomas, and the coding of subtypes of these is not consistent. Compared to the previous edition of *Histological Groups for Comparative Studies*, the anus and skin have been added. The kidney was combined with the renal pelvis because some urothelial carcinomas originating from the renal pelvis are site coded as kidney cancers while others are coded as renal pelvis cancers. Hodgkin disease and leukaemias were lumped together in the haematological system.

Types of neoplasms that are included

The CI5 data include all invasive malignant neoplasms and some non-invasive malignant neoplasms. For most morphology codes, a fifth digit /1 or /2 automatically excludes the data entry. Carcinoma *in situ* is reported to many cancer registries, but is generally not dealt with in this volume, with the exception of urothelial carcinoma *in situ*. A few lesions of borderline malignancy are included, such as low-grade non-invasive papillary transitional cell tumours, which are now designated as Papillary urothelial neoplasia of low malignant potential, PUNLMP (8130/1). Flat carcinoma *in situ* of urothelium (8120/2) and PUNLMP (8130/1, 8130/2) have been grouped with Transitional cell carcinoma in this edition. As the skin has been added to the sites, Basal cell carcinoma is reported as a separate group although many cancer registries do not have statistics on them. Within the 15 tumour sites presented, there are no cases of mesothelioma (ICD-O M905_), Kaposi sarcoma (9140), lymphoma or leukaemia (9590-9989), as these cancers have their own specific ICD-10 codes and are presented separately in the volume.

Morphology codes

Grouping of morphological codes presents several difficulties. The ICD-O system is based on separate site (topography) and morphology (histology) codes that can be combined. Inevitably, in registry data morphology codes may mistakenly have been combined with codes for sites where these entities do not occur or have not been reported yet. Some morphology codes are redundant, i.e. multiple codes can be applied for the same tumour. Other codes are obsolete, i.e. the entities have been renamed or deleted in later revisions of tumour classifications. A major difficulty is the variation in coding precision (specific codes for tumour subtypes vs. comprehensive codes for broad categories such as adenocarcinoma), which limits the utility of detailed codes. An example of this is the kidney tumours where renal cell carcinomas are often coded as renal cell carcinoma, NOS (8312) or adenocarcinoma, NOS (8140), while others are subtyped. Therefore, all of these carcinomas of the kidney are grouped together in this chapter.

Some specified cancer types occur in several organs, but may have different clinical behaviour depending on site of origin. For most sites adenosquamous carcinoma (8560) and mucoepidermoid carcinoma (8430) are included in Other specified carcinoma. An exception is corpus uteri (C54) where these are included in Adenocarcinoma because they are supposed to have similar biology (Zaino *et al*., 1988). Furthermore, squamous differentiation is very common in Endometrioid carcinoma, which makes it difficult to separate between these tumours. Another example is metaplastic carcinoma (8575), which is generally included under Other specified carcinoma. However, for the corpus uteri, it is grouped with Other specified neoplasm because metaplastic carcinoma is considered equivalent with carcinosarcoma on this site (Silverberg *et al*., 1990).

Unspecified carcinoma includes tumours that are coded as Carcinoma NOS, but also some descriptive diagnoses of poorly differentiated cancers. These tumours can be recognised as carcinomas but are too undifferentiated to be further classified according to their histogenetic origin. This group generally includes the morphology codes 8010-8035. An exception is lung tumours,

where Large cell carcinoma is a separate entity in the WHO classification and includes 8010-8012, 8014-8031 and 8035 (Travis *et al*., 2004). The thyroid is another exception where Anaplastic carcinoma also is a specific entity in the WHO classification and includes the morphology codes 8020-8035 (Delellis *et al*., 2004).

Some tumours are evidently miscoded in cancer registry data, because their incidence is far higher than expected. Papillary carcinomas NOS (8050) are listed under Squamous cell neoplasm in ICD-O-3. When used for bladder tumours, most of them are probably miscoded urothelial carcinomas rather than papillary squamous cell carcinomas, and therefore included in the Transitional cell carcinoma group. In the thyroid, it can be assumed that carcinomas that have been assigned the morphology code 8050 are actually papillary carcinomas of the thyroid, and they are therefore included in that category. In the kidney it can be assumed that a majority of tumours with the morphology code 8050 are miscoded papillary renal cell carcinomas, and they are consequently grouped with the Renal cell carcinoma group.

Oesophagus (C15)

Adenocarcinoma excludes Linitis plastica (8142), which occurs in gastric epithelium. Squamous cell carcinomas includes basaloid squamous cell carcinoma (8083). The principal cancers in the Other specified carcinoma group are Small cell carcinomas (8041-8045). Melanoma and Carcinosarcoma are included among Other specified malignant neoplasms.

1	Carcinoma	8010-8576
1.1	Squamous cell carcinoma	8050-8078, 8083-8084
1.2	Adenocarcinoma	8140-8141, 8143-8145, 8190-8231, 8260-8263, 8310, 8401, 8480-8490, 8550-8551, 8570-8574, 8576
1.3	Other specified carcinoma	
1.4	Unspecified carcinoma	8010-8035
2	Sarcoma	8800-8811, 8830, 8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Anus (C21)

The category Squamous cell carcinoma includes basaloid and cloacogenic carcinomas (8123-8124) and basaloid squamous cell carcinomas (8083). Cloacogenic carcinoma is a controversial entity, sometimes defined as carcinoma arising from the anal transition zone, sometimes as a morphological variant of squamous cell carcinoma. The term basaloid carcinoma has also been used to designate this group of tumours. Their reported incidence is highly variable, possibly because of the confusing nomenclature. Hence, these tumour types are lumped together with Squamous cell carcinoma.

1	Carcinoma	8010-8576
1.1	Squamous cell carcinoma	8050-8076,8083-8084, 8123-8124
1.2	Adenocarcinoma	8140-8145,8190-8231, 8260-8263,8310,8401, 8480-8490,8550-8551, 8570-8574, 8576
1.3	Other specified carcinoma	
1.4	Unspecified carcinoma	8010-8011
2	Melanoma	8720-8790
3	Other specified malignant neoplasm	8800-8811, 8830, 8840-8920, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
4	Unspecified malignant neoplasm	8000-8005

Liver (C22)

Hepatocellular carcinoma includes hepatoid carcinoma (8576), assuming that these are miscoded Hepatocellular carcinomas. The category Cholangiocarcinoma applies to all primary carcinomas of the liver of biliary epithelial type, i.e. excluding hepatocellular carcinoma and combined hepatocellular and cholangiocarcinoma. Klatskin tumours (8162) are excluded because they are by definition extrahepatic. Combined hepatocellular and cholangiocarcinomas (8180), with less than 1% of cancers of known histology in the *Cancer Incidence in Five Continents* Vol. IX database, appear in the Other specified carcinoma category. Carcinoid is included in the same group.

1	Carcinoma	8010-8576
1.1	Hepatocellular carcinoma	8170-8176
1.2	Cholangiocarcinoma (all intrahepatic biliary carcinomas, i.e. all primary adenocarcinomas)	8050, 8140-8141, 8160-8161, 8260, 8440, 8480-8500, 8570-8572
1.3	Other specified carcinoma	
1.4	Unspecified carcinoma	8010-8035
2	Hepatoblastoma	8970
3	Sarcoma	
3.1	Haemangiosarcoma	9120-9133, 9161
3.2	Other sarcomas	8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9150, 9170, 9540-9581
4	Other specified malignant neoplasm	
5	Unspecified malignant neoplasm	8000-8005

Lung (C34)

Squamous cell carcinoma includes papillary carcinoma NOS (8050) because these are listed under Squamous cell neoplasms in ICD-O-3. Adenocarcinoma includes bronchiolo-alveolar adenocarcinoma (8250-8254) but excludes adenoid cystic (8200), mucoepidermoid (8430) and adenosquamous carcinoma (8560), which appear in Other specified carcinoma. Small cell carcinoma includes neuroendocrine carcinoma NOS (8246). These may include some large cell neuroendocrine carcinomas, but it is assumed that the vast majority of cancers that are coded 8246 are small cell carcinomas. Large cell carcinoma includes cancers so described (8012), as well as other morphological variants of undifferentiated carcinomas (except those with neuroendocrine or spindle cell differentiation) and clear cell adenocarcinoma (8310). Other specified carcinoma includes non-small cell carcinoma (8046), carcinoid tumours (8240-8245), adenoid cystic (8200), mucoepidermoid (8430), adenosquamous (8560) and large cell neuroendocrine carcinomas (8013).

1	Carcinoma	8010-8576
1.1	Squamous cell carcinoma	8050-8078, 8083-8084
1.2	Adenocarcinoma	8140, 8211, 8230-8231, 8250-8260, 8323, 8480-8490, 8550-8551, 8570-8574, 8576
1.3	Small cell carcinoma	8041-8045, 8246

1.4	Large cell carcinoma (include giant cell, clear cell and large cell undifferentiated carcinoma)	8010-8012,8014-8031, 8035, 8310
1.5	Other specified carcinoma	
2	Sarcoma	8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Bone (C40-41)
The main categories are Osteosarcoma, Chondrosarcoma and Ewing sarcoma. These three groups contain the same ICD-O entities as groups VIII A-C in the *International Classification of Childhood Cancer, Third Edition* (Steliarova-Foucher *et al.*, 2005). The Other specified sarcomas category includes epithelioid sarcoma (8804), fibrosarcoma (8810-8812), malignant fibrous histiocytoma (8830), liposarcomas (8850-8858), angiosarcomas (9120-9133) and malignant giant cell tumours (9250). The Other specified malignant neoplasm category includes desmoplastic small round cell tumour (8806), mesenchymoma (8990), chordoma (9370-9372), adamantinomas (9261, 9310) and PNET (9473).

1	Sarcoma	8800-8921, 9040-9044, 9120-9133, 9150, 9180-9250, 9260, 9540-9581
1.1	Osteosarcoma	9180-9200
1.2	Chondrosarcoma	9210-9243
1.3	Ewing sarcoma	9260
1.4	Other specified sarcomas	
1.5	Unspecified sarcoma	8800-8803, 8805
2	Other specified malignant neoplasm	
3	Unspecified malignant neoplasm	8000-8005

Skin (C43-44)
The skin has been added since the last edition of *Histological Groups for Comparative Studies*. Basal cell carcinoma is registered and reported by several cancer registries and has thus been included.

1	Carcinoma	8010-8576
1.1	Squamous cell carcinoma	8050-8078, 8083-8084
1.2	Basal cell carcinoma	8090-8098
1.3	Other specified carcinoma	
1.4	Unspecified carcinoma	8010-8035
2	Melanoma	8720-8790
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Cervix uteri (C53)
Mucoepidermoid carcinoma (8430) and adenosquamous carcinomas (8560) are included with Other specified carcinoma. The Other specified malignant neoplasm category includes mullerian mixed tumour (8950), carcinosarcoma (8980) and melanoma (8720-8790).

1	Carcinoma	8010-8380, 8382-8576
1.1	Squamous cell carcinoma	8050-8078, 8083-8084
1.2	Adenocarcinoma	8140-8141, 8190-8211, 8230-8231, 8260-8263, 8310, 8380, 8382-8384, 8440-8490, 8570-8574, 8576
1.3	Other specified carcinoma	
1.4	Unspecified carcinoma	8010-8035
2	Sarcoma	8800-8811,8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Corpus uteri (C54)
Squamous cell carcinomas are grouped with Other specified carcinoma because of their rarity at this site. Contrary to other sites, mucoepidermoid (8430) and adenosquamous carcinoma (8560) are included in Adenocarcinoma because squamous differentiation is very common in adenocarcinoma of the corpus uteri, and it is assumed that partial squamous differentiation does not change the behaviour of these neoplasms. As opposed to other sites, metaplastic carcinoma (8575) is grouped with Other specified malignant neoplasm in the corpus uteri because metaplastic carcinoma of the endometrium has been equated with carcinosarcoma. Endometrioid adenofibroma, malignant (8381) is classified as Other specified malignant neoplasm.

1	Carcinoma	8010-8574, 8576
1.1	Adenocarcinoma (include mucoepidermoid and adenosquamous carcinoma)	8140-8141, 8190-8211, 8230-8231, 8260-8263, 8310, 8380, 8382-8384, 8430, 8440-8490, 8510, 8560, 8570-8574, 8576
1.2	Other specified carcinoma	
1.3	Unspecified carcinoma	8010-8035
2	Sarcoma	8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Ovary (C56)
The first four carcinomas correspond to malignant serous, mucinous, endometrioid and clear cell tumours. Among the carcinomas not encompassed within these four groups, there are various adenocarcinomas that cannot with certainty be allocated to any of the above groups, and are hence included in Adenocarcinoma, NOS. In this category are grouped papillary adenocarcinoma (8260), cystadenocarcinoma (8440) and other variants of adenocarcinoma. Within adenocarcinoma, NOS, there are most likely a substantial number of tumours that actually belong to categories 1.1-1.4. Truly unclassified adenocarcinomas of the ovary are uncommon. Sex cord/stromal tumours have their own group. Germ cell tumours include dysgerminomas, embryonal carcinomas and teratomas, as well as the rare carcinoid tumours of the ovary, and the very rare gonadoblastomas. Lipid cell tumours, malignant Brenner tumours and sarcomas are very rare and are consigned to Other specified malignant neoplasm.

1	Carcinoma	8010-8231, 8246-8576, 9014-9015, 9110
1.1	Serous carcinoma	8441, 8460-8463, 9014
1.2	Mucinous carcinoma	8470-8490, 9015
1.3	Endometrioid carcinoma	8380-8383, 8560, 8570
1.4	Clear cell carcinoma	8310-8313, 9110
1.5	Adenocarcinoma NOS	8140-8147, 8170-8190, 8211-8231, 8260, 8384, 8440, 8576
1.6	Other specified carcinoma	
1.7	Unspecified carcinoma	8010-8035
2	Sex cord-stromal tumours	8590-8671
3	Germ cell tumours	8240-8245, 9060-9102
4	Other specified malignant neoplasm (include Mullerian mixed tumour, carcinosarcoma)	
5	Unspecified malignant neoplasm	8000-8005

Testis (C62)
The grouping of the testicular tumours has been completely revised. Spermatocytic seminoma has a more favourable prognosis than seminoma, and these tumours should not be grouped. Embryonal carcinoma, malignant teratoma, Yolk sac tumour, choriocarcinoma and mixed germ cell tumours are included in non-seminomatous germ cell tumours. Sex cord-stromal tumours are included in Other specified malignant neoplasm.

1	Germ cell tumours	9060-9102
1.1	Seminoma	9060-9062, 9064
1.2	Spermatocytic seminoma	9063
1.3	Non-seminomatous germ cell tumours	9065-9102
2	Other specified malignant neoplasm	
3	Unspecified malignant neoplasm	8000-8005

Kidney (C64) and Renal Pelvis (C65)
There are several major difficulties with the histological grouping of kidney tumours. Transitional cell and squamous carcinomas in the kidney usually originate from the renal pelvis, although it may be difficult to trace the origin of the tumour. It can be assumed that some of these are site coded kidney (C64) and others renal pelvis (C65). Hence, these two sites are now grouped.
Renal cell carcinomas have recently undergone a reclassification based on molecular, cytogenetic, morphological and clinical data. However, a substantial portion of these tumours are coded as renal cell carcinoma, NOS (8312) or adenocarcinoma, NOS (8140), while others are subtyped. Therefore, the renal cell carcinomas are grouped together with adenocarcinoma, NOS (8140), specific subtypes of renal cell carcinoma and also obsolete entities such as granular cell carcinoma (8320). Papillary carcinoma, NOS (8050) is listed under squamous cell neoplasm in ICD-O-3. When used for renal tumours most of these are probably miscoded papillary renal carcinomas, and are therefore included in 1.2.

1	Carcinoma	8010-8576
1.1	Squamous, transitional cell carcinoma	8051-8084, 8120-8122, 8130-8131
1.2	Renal cell carcinoma	8050, 8140, 8260, 8270, 8280-8312, 8316-8320, 8340-8344
1.3	Other specified carcinoma	
1.4	Unspecified carcinoma	8010-8035
2	Other specified malignant neoplasm	
3	Unspecified malignant neoplasm	8000-8005

Urinary bladder (C67)
The classification of urinary bladder tumours has undergone several revisions in recent years. Some low-grade papillary transitional cell tumours are now designated as papillary urothelial neoplasia of low malignant potential, PUNLMP (8130/1). In order to enable longitudinal comparisons, flat carcinoma *in situ* (8120/2) and PUNLMP (8130/1, 8130/2) have been grouped with Transitional cell carcinoma.

Papillary carcinomas (NOS 8050) are listed under squamous cell neoplasm in ICD-O-3. When used for bladder tumours, most of these are probably miscoded transitional cell carcinomas, and are therefore included in the Transitional cell carcinoma group. Pheochromocytoma, malignant paraganglioma, melanoma and carcinosarcoma are included in Other specified malignant neoplasm.

1	Carcinoma	8010-8576
1.1	Squamous cell carcinoma	8051-8078, 8083-8084
1.2	Transitional cell carcinoma (include transitional cell carcinoma with squamous and/or glandular differentiation)	8050, 8120-8122, 8130-8131
1.3	Adenocarcinoma	8140-8145, 8190-8231, 8260-8263, 8310, 8401, 8480-8490, 8550-8551, 8570-8574, 8576
1.4	Other specified carcinoma	
1.5	Unspecified carcinoma	8010-8035
2	Sarcoma	8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Eye (C69)
The principal eye cancers—retinoblastoma and malignant melanoma—form two groups. The carcinomas (11.4% of eye cancers in the IARC database) are divided into three subgroups: Squamous cell carcinomas (70% of the carcinomas, principally tumours of the conjunctiva and cornea), Other specified carcinomas (comprising almost entirely adenocarcinomas, 14.6%, and mainly originating in the lacrimal gland and duct), and Unspecified carcinoma. Squamous cell carcinomas that are site coded for the eye (C69) probably include some cancers that originate in the skin (C44) of the eyelids.

1	Retinoblastoma	9510-9513
2	Malignant melanoma	8720-8790
3	Carcinoma	8010-8576
3.1	Squamous cell carcinoma	8050-8078, 8083-8084
3.2	Other specified carcinoma	
3.3	Unspecified carcinoma	8010-8035
4	Sarcoma	8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581

5	Other specified malignant neoplasm	
6	Unspecified malignant neoplasm	8000-8005

Brain and central nervous system (C71-C72)

The categories are based upon those of the WHO Pathology & Genetics classification (Kleihues & Webster, 1997). Atypical teratoid/rhabdoid tumour (9508) is included in Embryonal tumours. Olfactory, pineal and some pituitary tumours are lumped together under Other neuroepihelial tumours. These are craniopharyngioma (9350-9352), pinealoma, pineocytoma, pineoblastoma (9360-9362) and olfactory neuroepitheliomatous neoplasms (9520-9523). Pinealoma (9360) encompasses pineocytoma (9361) and pineoblastoma (9362). The lymphomas and haemopoietic neoplasms are not included.

1	Tumours of neuroepithelial tissue	8680, 9350-9362, 9380-9508, 9520-9523
1.1	Gliomas	9380-9384, 9391-9460
1.1.1	Astrocytic tumours	9384, 9400-9421, 9424, 9440-9442
1.1.2	Oligodendroglial tumours and mixed gliomas	9382, 9450-9451
1.1.3	Ependymal tumours	9383, 9391-9394
1.1.4	Gliomas, others	9380-9381, 9423, 9430, 9444, 9460
1.2	Embryonal tumours	9470-9474, 9490, 9500-9504, 9508
1.2.1	Medulloblastoma	9470-9472, 9474
1.2.2	Other	9473, 9490, 9500-9504, 9508
1.3	Other neuroepithelial tumours	
2	Other specified malignant neoplasm	
3	Unspecified malignant neoplasm	8000-8005

Thyroid (C73)

Follicular and Papillary carcinomas make up the majority of thyroid cancers; the latter includes follicular carcinomas with a papillary component (8340). It is assumed that the vast majority of cases of Papillary squamous carcinoma (8050) are actually papillary carcinomas, and they are therefore included in this category. Minimally invasive follicular carcinoma (8335) is a new code in ICD-O-3 and is included among Follicular carcinomas.

Squamous carcinomas are no longer recognised as a major histological type in the *WHO Classification of Tumours* and are included in Other specified carcinomas.

Anaplastic carcinomas (undifferentiated, giant cell, spindle cell carcinomas) are separated from Unspecified carcinomas. The entity Poorly differentiated carcinoma is controversial and has been lumped with Anaplastic carcinoma. Small cell carcinoma (8040-8045) is specifically excluded, since the great majority of tumours previously so diagnosed are in fact lymphomas.

Insular thyroid carcinoma (8337) is a distinctive clinicopathologic entity that has been included in Other specified carcinoma. Mixed medullary-follicular carcinoma (8346) and mixed medullary-papillary carcinoma (8347) are also included in Other specified carcinoma.

1	Carcinoma	8010-8576
1.1	Follicular carcinoma	8290, 8330-8335
1.2	Papillary carcinoma	8050, 8260, 8340-8344, 8350, 8450-8460
1.3	Medullary carcinoma	8345, 8510-8513
1.4	Anaplastic carcinoma	8020-8035
1.5	Other specified carcinoma	
1.6	Unspecified carcinoma	8010-8015
2	Sarcoma	8800-8811, 8830, 8840-8921, 8990-8991, 9040-9044, 9120-9133, 9150, 9540-9581
3	Other specified malignant neoplasm	
4	Unspecified malignant neoplasm	8000-8005

Haematopoietic and lymphoid tissues (9590-9989)

In the previous edition of *Histological Groups for Comparative Studies*, haematologic tumours were listed separately as Hodgkin disease and Leukaemias, but are now included in the same grouping based on cellular origin. Hodgkin lymphoma has been reclassified and lymphocytic predominance (9657-9659, 9660) is replaced by the new categories nodular lymphocytic predominance (9659) and classical lymphocyte-rich (9651). The category Non-Hodgkin lymphoma NOS is used because some cancer registries lack sufficiently specific data for lineage-based classification.

1	Hodgkin lymphoma	9650-9667
1.1	Nodular lymphocytic predominance	9659
1.2	Classical lymphocyte-rich	9651
1.3	Nodular sclerosis	9663-9667
1.4	Mixed cellularity	9652
1.5	Lymphocytic depletion	9653-9655
1.6	Unspecified	
2	B-cell neoplasms	9670-9699, 9728, 9731-9734, 9761-9764, 9823-9826, 9833, 9836, 9940
3	T-cell and NK-cell neoplasms	9700-9719, 9729, 9827-9831, 9834, 9837, 9948
4	Myeloid neoplasms	9840, 9860-9931, 9945-9946, 9950, 9960-9964, 9975, 9980-9989
5	Non-Hodgkin lymphoma NOS	9591
6	Other specified malignant neoplasms	
7	Unspecified malignant neoplasms	9590, 9596, 9727, 9760, 9800-9801, 9805, 9820, 9832, 9835

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