**IARC/IACR Multiple Primary Rules (2004)**

**Cancer registries use different rules for defining multiple primaries when registering cancer cases. The rules given here are for reporting data on cancer incidence and survival, so that cancer risk and outcome are comparable between different populations. For collection, it is recommended that registries collect and register more detailed data and some suggestions are given in the Recommendations for Recording which follow. Such cases should be collapsed to conform to the international rules for analysis.**

**RULES FOR REPORTING INCIDENCE AND SURVIVAL**

**1. The recognition of the existence of two or more primary cancers does not depend on time.   
2. A primary cancer is one that originates in a primary site or tissue and is not an extension, nor a recurrence, nor a metastasis.   
3. Only one tumour shall be recognised as arising in an organ or pair of organs or tissue. Some groups of codes are considered to be a single organ for the purposes of defining multiple tumours. These topography code groups are shown in Table 1. Multifocal tumours – that is, discrete masses apparently not in continuity with other primary cancers originating in the *same* primary site or tissue, for example bladder – are counted as a single cancer.   
4. Rule 3 does not apply in two circumstances:**

1. **Systemic (or multicentric) cancers potentially involving many different organs are only counted once in any individual. These are Kaposi sarcoma (group 15 in Table 2) and tumours of the haematopoietic system (groups 8-14 in Table 2).**
2. **Neoplasms of different morphology should be regarded as multiple cancers (even if they are diagnosed simultaneously in the same site).   
     
   If the morphological diagnoses fall into one category in Table 2, and arise in the same primary site, they are considered to be the same morphology for the purpose of counting multiple primaries. If the morphological diagnoses fall into two or more of the categories in Table 2, even if they concern the same site, the morphology is considered to be different, and two or more cases should be counted.   
     
   Single tumours containing several different histologies which fall into one histological group in Table 2 are registered as a single case, using the numerically highest ICD-O morphology code.   
     
   If, however, one morphology is not specific (groups (5), (14) and (17)) and a specific morphology is available, the case should be reported with the specific histology and the non-specific diagnosis should be ignored.**

**Table 1. Groups of topography codes considered a single site in the definition of multiple cancers**

|  |  |  |
| --- | --- | --- |
| ICD-O-3 site code | Label | If diagnosed at a different times, code first diagnosis. If diagnosed at the same time, use codes given below |
|  |  |  |
| C01 | Base of tongue |  |
|  |  |  |
| C02 | Other and unspecified parts of tongue | C02.9 |
|  |  |  |
| C00 | Lip |  |
|  |  |  |
| C03 | Gum |  |
|  |  |  |
| C04 | Floor of mouth |  |
|  |  |  |
| C05 | Palate |  |
|  |  |  |
| C06 | Other and unspecified parts of mouth | C06.9 |
|  |  |  |
| C09 | Tonsil |  |
|  |  |  |
| C10 | Oropharynx |  |
|  |  |  |
| C12 | Pyriform sinus |  |
|  |  |  |
| C13 | Hypopharynx |  |
|  |  |  |
| C14 | Other and ill-defined sites in sip, oral cavity and pharynx | C14.0 |
|  |  |  |
| C19 | Rectosigmoid junction |  |
|  |  |  |
| C20 | Rectum | C20.9 |
|  |  |  |
| C23 | Gallbladder |  |
|  |  |  |
| C24 | Other and unspecified parts of biliary tract | C24.9 |
|  |  |  |
| C33 | Trachea |  |
|  |  |  |
| C34 | Bronchus and lung | C34.9 |
|  |  |  |
| C40 | Bones, joints and articular cartilage of limbs |  |
|  |  |  |
| C41 | Bones, joints and articular cartilage of other and unspecified sites | C41.9 |
|  |  |  |
| C65 | Renal pelvis |  |
|  |  |  |
| C66 | Ureter |  |
|  |  |  |
| C67 | Bladder |  |
|  |  |  |
| C68 | Other and unspecified urinary organs | C68.9 |
|  |  |  |

**Table 2. Groups of malignant neoplasms considered to be histologically ‘different’ for the purpose of defining multiple tumours (adapted from Berg JW. Morphologic classification of human cancer. In: Schottenfeld D & Fraumeni JF Jr. *Cancer Epidemiology and Prevention*, 2nd edition, Chapter 3 of Section 1: Basic Concepts. Oxford, New York, Oxford University Press, pp. 28-44)**

|  |  |
| --- | --- |
| Carcinomas |  |
| 1. Squamous and transitional cell carcinomas | 8051-8084,8120-8131 |
| 2. Basal cell carcinomas | 8090-8110 |
| 3. Adenocarcinomas | 8140-8149,8160-8162,8190-8221,8260-8337,8350-8551,8570-8576,8940-8941 |
| 4. Other specific carcinomas | 8030-8046,8150-8157,8170-8180,8230-8255,8340-8347,8560-8562,8580-8671 |
| (5.) Unspecified carcinomas (NOS) | 8010-8015,8020-8022, 8050 |
| 6. Sarcomas and soft tissue tumours | 8680-8713,8800-8921,8990-8991,9040-9044,9120-9125,9130-9136,9141-9252,9370-9373,9540-9582 |
| 7. Mesothelioma | 9050-9055 |
| Tumours of haematopoietic and lymphoid tissues |  |
| 8. Myeloid | 9840,9861-9931,9945-9946,9950,9961-9964,9980-9987,9991-9992 |
| 9. B-cell neoplasms | 9597,9670-9699,9712,9728,9731-9738,9761-9767,9769,9811-9818,9823-9826,9833,9836,9940 |
| 10. T-cell and NK-cell neoplasms | 9700-9726,9729,9768,9827-9831,9834,9837,9948 |
| 11. Hodgkin lymphoma | 9650-9667 |
| 12. Mast-cell Tumours | 9740-9742 |
| 13. Histiocytes and accessory lymphoid cells | 9750-9759 |
| (14.) Unspecified types | 9590-9591,9596,9727,9760,9800-9809,9820,9832,9835,9860,9960,9965-9975,9989 |
| 15. Kaposi sarcoma | 9140 |
| 16. Other specified types of cancer | 8720-8790,8930-8936,8950-8983,9000-9030,9060-9110,9260-9365,9380-9539 |
| (17.) Unspecified types of cancer | 8000-8005 |

**RECOMMENDATIONS FOR RECORDING**

**1. Two tumours of the same morphology diagnosed simultaneously in paired organs (e.g. breast) should be registered separately unless stated to have originated from a single primary. Exceptions to this rule are:**

**a) Tumours of the ovary (of the same morphology)  
b) Wilm's tumour (nephroblastoma) of the kidney.  
c) Retinoblastoma  
d) Pleural mesothelioma  
If these are diagnosed simultaneously, they should be recorded as a single bilateral registration.  
Reminder: tumours in paired organs of completely different histology should be registered separately.**

**2. Cancers which occur in any 4th character subcategory of colon (C18) and skin (C44) should be registered as multiple primary cancers.**