Updated February 2025

Frequently Asked Questions – TNM Helpdesk

Contents

Frequently Asked Questions

General Questions

AJCC and UICC

Question

Does the AJCC classification differ from the UICC TNM classification?

Answer

Although the aim is that there should be as little difference as possible between the two classifications there is sometimes some difference in wording between the UICC [1] and AJCC [2] TNM classifications. For instance, the UICC does not use the terms advanced, moderately advanced or very advanced in its definitions of the T category, preferring to use descriptive definitions (see head and neck chapters). Some differences have arisen from typographical errors and readers are encouraged to review the list of errata on the UICC and AJCC websites.

In addition, in certain tumour sites such as breast the UICC publish stage consisting of anatomical extent of disease only and tables essential prognostic factors that can be used in treatment guidelines. The AJCC publishes both anatomical stage and also prognostic groups consisting of anatomical extent of disease and prognostic factors.

Question

Should the rules of mathematics for rounding values be used? Should a tumour measuring 10.3 mm be rounded down to 1 cm?

Does AJCC interpret this the same way?

Answer

The rules of mathematics should not be used. No mathematical rounding is applied on the tumour dimensions.

We are aware that the AJCC applies the mathematical rounding -up or down- and this could indeed give rise to some small differences for the T category assigned for a limited number of cases.

Date of Implementation

Question

When should the new 8th edition of UICC TNM staging system [1] be applied to the clinical practice? Since the 1st of January 2017 it has been stated, but there are still some discrepant interpretations.

Answer

The UICC TNM Project has published the 8th Edition of the TNM Classification of Malignant Tumours that came into effect on January 1, 2017. Since some organizations may not be ready to adopt the new classification, we recommend that the edition of the TNM classification be always included in data reporting.

Question

Were there any corrections carried out following the first print of the 8th edition of the UICC TNM booklet?

Answer

The first print of the UICC TNM 8th edition (English version) had some errors that were corrected afterwards in consecutive prints. Also, small clarifications are added. Different print runs of the English edition and TNM 8th edition booklets printed in different countries and in different languages should all have the same content and descriptions. However, some errors may have occurred for different reasons. You can find the list of clarifications and errata on the website of the UICC (https://www.uicc.org/what-we-do/sharing-knowledge/tnm/publications-and-resources). Readers are encouraged to keep reporting possible errata to the UICC.

In Situ Carcinoma

Question

Can one stage in situ carcinoma if the regional lymph nodes have not been assessed, e. g. in a completely resected colonic polyp?

Answer

Although considered NX (Regional lymph nodes cannot be assessed), NX is assumed to be N0 because lymph node metastasis is not consistent with an in-situ lesion.

Question

There seems to be no histological grading system for an oesophageal intraepithelial neoplasia. Is stage 0 (TisN0M0) enough to assign a tumour as Stage 0?

Answer

Stage 0 = TisN0M0 is sufficient to assign a case to a stage. Consideration of a grading is not necessary. It should, however, be emphasized that the “Tis” should only be used for a high-grade intraepithelial neoplasia.

Pathological versus Clinical TNM

Question

Does the pathological TNM replace the clinical TNM?

Answer

TNM is a dual system with a (pre-treatment) clinical classification (cTNM or TNM) and a (post-surgical histopathological) pathological classification (pTNM). Both classifications are retained unaltered in the patient's record. The former is used for the choice of treatment; the latter is used for the estimation of prognosis and the possible selection of adjuvant therapy.

Question

Who is responsible for the assessment of the TNM stage? We as pathologists are often asked to define the TNM stage, but in most cases, we do not have access to all clinical information regarding distant metastases.

Answer

The question you raise is specifically treated in the TNM Supplement, 5th edition, page 12: “Who Is Responsible for TNM Coding? Data for TNM are derived from a variety of sources, e.g. the examining physician, the radiologist, the gastroenterologist, the operating surgeon and the histopathologist. The final TNM classification and/or stage rest with a designated individual physician who has access to the most complete data.”

Question

pT requires the examination of the primary tumour with no gross tumour at the margins of resection. How should pT be documented in a pathology report when the margins of the specimen are grossly positive? Does pT require the examination of the primary tumour with no microscopic tumour at the margins of resection?

Answer

If the margins are grossly positive, it is assumed that the true category may be higher if a complete resection had been performed; therefore, we recommend using the cT category. If, however you are able to confirm on the surgical material that the tumour is pT4 even if the margin is positive, pT4 is appropriate.

Question

The following is stated in the TNM UICC 8th edition on page 11: If only a distant metastasis has had microscopic confirmation, the classification is pathological (pM1) and the stage is pathological. Does this, for example, mean that the stage of a patient with a cT3cN1pM1 colon adenocarcinoma is pathological UICC stage IV?

Answer

Yes, the classification is pathological since the microscopic confirmation of a distant metastasis (=pM1) provides the highest level of certainty.

Question

A patient has a needle biopsy of a left upper lobe mass that is positive for squamous cell carcinoma. A CT of the thorax shows a 4 cm left upper lobe mass more than 2 cm from the carina. The clinical category is cT2. What is the pathologic classification?

Answer

Biopsy alone is not sufficient for pathological staging in this instance. Resection of the primary tumour is needed for pT1 or pT2 lung tumours to define their limits. Biopsy, without resection, could be used, for example, for pT4 (showing invasion of the oesophagus).

Question

If a biopsy or another surgical procedure confirms malignancy (cT1b), followed by primary surgery in which no tumour is found, should it be classified as pT0 or does the cT1b also become pT1b on the rationale that the 'biopsy' became the excision?

Site examples would be:

- Cervix and the Lletz procedure (assigned a clinical TNM e.g., cT1b1) and then follow on hysterectomy that shows no malignancy. Is the pathological T recorded as pT0 or pT1b1 on the basis that the Lletz procedure excised the tumour?
- Breast biopsy and clinical workup show cT1b and wide local excision is clear: is the pathological T recorded as pT0 or pT1b?

Answer

The general rule states that the pT can be assigned after resection of the primary tumour and may also include clinical stage information as well as operative findings (by the surgeon). It is indeed possible to assign a pT category in a few cases (especially for very small tumours) where the biopsy procedure already may have removed the tumour completely (e.g., core needle biopsy for breast cancer). You can apply this rule for the two examples given and indeed conclude with a 'pT'-category.
Cervix lesion with LLETZ procedure, assign the pT category according to the measurements of the pathologist. Breast cancer lesion removed by core needle biopsy and no tumour found anymore at the pathological examination of the surgical specimen: your example pT1b.

Question

I would like to know if, for encoding a pN0, it is really necessary that regional lymph nodes actually are removed, or a biopsy /cytology from the lymph nodes without removal also suffices and justifies a pN0?

Answer

Some general rules have to be applied to assign the pN category: The pathological assessment of the regional lymph nodes (pN) entails histopathological evaluation of at least one lymph node to validate the absence or presence of cancer. The assignment of the regional lymph nodes (pN) requires pathological assessment of the primary tumour (pT), except in cases of an unknown primary (T0). An excisional biopsy of a lymph node without assessment of the pT category is insufficient to fully evaluate the pN category and is considered a clinical classification. It is not necessary to pathologically confirm the status of the highest N category to assign the pN. The reliability of the pN classification depends on the number of histologically examined regional lymph nodes. Thus, it is recommended to add the number of examined and involved lymph nodes in parentheses to the pN category, e.g. in colorectal tumours pN1b (3/15). If pT is available (resection), then indeed, any microscopic evaluation of nodes could be classified as pN. It is suggested in our publication UICC TNM Supplement, 5th edition (linked to the 8th ed. of the TNM classification) to add suffix 'f' if only fine needle aspiration (FNA) or core biopsy is performed in the absence of complete dissection of the nodal basin e.g. pN0(f) but this does not seem to be frequently used.

Question

Following primary surgery of, e.g. head and neck cancers, are there any TNM guidelines regarding the time frame to include subsequently removed tumour manifestations (lymph node metastases, skin metastases) into the pTNM of the primary tumour?

Answer

Pathological classification pTNM, is based on evidence acquired before treatment, supplemented or modified by additional evidence acquired from surgery and from pathological examination After assigning pT, pN and pM categories, these may be grouped into stages and must remain unchanged in the patient's record. Information obtained about the extent of cancer up through completion of definitive surgery can be included in the pT, pN and pM categories if the cancer has not clearly progressed during the time window. Following two surgical procedures for a single lesion, the pTNM classification should be a composite of the histological examination of the specimens from both operations. Of course, these surgical procedures within the primary treatment strategy, should be in a 'reasonable' time frame and only include the information if the cancer had not clearly progressed during the time window. If there is any sign of progression, then the (initial) stage should remain unchanged.

When in doubt

Question

If I am not sure of the correct T, N, or M category, e.g. because of unclear measurements, which do I select?

Answer

Select the lower (i.e., less advanced) category.
Example: Ultrasound of the liver shows a lesion suspicious but not definite for a metastasis. Select M0 (not M1).

R Classification

Question

Does R0 mean a complete tumour-free situation or is the R classification limited to the primary?

Answer

R classification is described in detail on page 15 of the UICC TNM Supplement, 5th edition. When originally described, the R classification not only considered a locoregional residual tumour but also distant residual tumour in the form of unresected metastases (R2). The R classification, however, is used in different ways in different countries and may be limited to the primary alone or additionally to metastatic disease; therefore, if using the R classification the specific R usage should be indicated.

Question

If there is residual tumour after surgery, is it Stage IV?

Answer

No, Stage IV refers to the anatomical extent of disease at the time of diagnosis. The extent of residual tumour may be classified using the R classification (see page 10 of the 8th edition of TNM classification of malignant tumours [1] or page 15 of the UICC TNM Supplement, 5th ed.). The two classifications are distinct.

RX: Presence of residual tumour cannot be assessed.
R0: No residual tumour.
R1: Microscopic residual tumour.
R2: Macroscopic residual tumour.

Positive Cytology

Question

If peritoneal washing cytology, taken before any other procedure during laparotomy is positive, how to classify and stage the patient? Grossly visible peritoneal metastases were not found. Is it considered a form of peritoneal metastasis and thus Stage IV?

Answer

Positive cytology on lavage of the peritoneal cavity performed during laparoscopy or immediately after opening the abdomen (beginning of laparotomy) corresponds to M1 (except for tumours of the corpus uteri, ovary and Fallopian tube). Newer data indicate that the worsening of prognosis indicated by positive lavage cytology may have been overestimated. Thus, it seems important to analyze such cases separately. For identification of cases with positive cytology from pleural or peritoneal washings as the

sole basis for M1, the optional addition of "cy+" is recommended, e.g. M1(cy+) and in the R classification R1(cy+) may be used.

Question

The pN and pM category demands confirmation by histology. Will confirmation by cytology be sufficient as many metastases are diagnosed by this type of specimen (fine needle aspiration or exudates)?

Answer

To confirm pM a microscopic confirmation is requested, meaning histologic as well as cytologic confirmation. Some general rules have to be applied to assign the pN category: The pathological assessment of the regional lymph nodes (pN) entails histopathological evaluation of at least one lymph node to validate the absence or presence of cancer. The assignment of the regional lymph nodes (pN) requires pathological assessment of the primary tumour (pT), except in cases of an unknown primary (T0). An excisional biopsy of a lymph node without assessment of the pT category is insufficient to fully evaluate the pN category and is considered a clinical classification. It is not necessary to pathologically confirm the status of the highest N category to assign the pN. The reliability of the pN classification depends on the number of histologically examined regional lymph nodes. Thus, it is recommended to add the number of examined and involved lymph nodes in parentheses to the pN category, e.g. in colorectal tumours pN1b (3/15). If pT is available (resection), then indeed, any microscopic evaluation of nodes could be classified as pN. It is suggested in our publication UICC TNM Supplement, 5th edition (linked to the 8th ed. of the TNM classification) to add suffix ‘f’ if only fine needle aspiration (FNA) or core biopsy is performed in the absence of complete dissection of the nodal basin e.g. pN0(f) but this does not seem to be frequently used.

Question

If we detect isolated tumour cells after neoadjuvant therapy in the wall, e.g. of the stomach or rectum, how is this classified? (i+)?

Answer

The described isolated tumour cells correspond to residual viable tumour after neoadjuvant therapy. If they are found up till the muscular layer the case would be classified as ypT2. A classification as (i+) does not exist.

T0 and TX

Question

What is the difference between T0 and TX.

Answer

TX Primary tumour cannot be assessed
T0 No evidence of primary tumour

TX means you were not able to evaluate the tumour, e.g. the extent of a primary testis tumour requires radical orchiectomy; if there is no radical orchiectomy TX is used (see also [3]). For most of the tumours, the use of TX should be avoided as this will make it impossible in many cases to assign the stage (especially when c/pN0 cM0).

T0 means that a primary tumour was not found by any clinical methods; e.g. if you found a cervical lymph node with metastatic squamous cell carcinoma and you examined the mouth, pharynx, and larynx and

found no primary tumour, you would code T0N1M0 on the assumption that the primary was in the head and neck region.

Some other specific remarks on TX

- cTX means that it is not possible to evaluate the tumour, it denotes the absence of assigning a given category when all reasonable clinical or pathological methods of assessment have been used or are unavailable to assess the patient. 'X' should not be used to simply fill in the blanks when data are unavailable to one individual of the assessment team.
- Since pathological assessment is based on resection of the primary tumour, pTX is rarely appropriate.
- pTx could be assigned if the pathologist doesn't receive the necessary relevant specimens to evaluate the pT
- The pT category should best be based on the resection of a single specimen. However, the general rule recommends that a reasonable estimate of size and extension of the tumour should be made if two consecutive interventions are undertaken (e.g. core biopsy prior to a surgical intervention for breast cancer): the pT category should be a composite of the histological examination of the specimens from both interventions (if possible).
- The pT category should not be used after a surgical intervention for a local and/or regional recurrence.

Synchronous Tumours

Question

What is the rule for classifying a synchronous versus a metachronous second primary tumour?

Answer

If a new primary cancer in the same organ is diagnosed within four months, the new cancer is considered synchronous; otherwise it is metachronous. This rule is based on criteria used by the SEER Program of the National Cancer Institute (USA), but which could differ from other regions and/or continents where a shorter or longer period is considered to define synchronous tumours.
In the case of a synchronous tumour in the same organ, the T category is assigned to the highest T category using the 'm' suffix if multiple invasive foci, e.g. pT2(m) or pT(2).
Synchronous tumours in paired organs are staged as separate tumours (except for tumours of the ovary and fallopian tube, where multiplicity is a criterion of the T category).

Question

In an oesophagogastrectomy specimen, a squamous cell carcinoma (SCC) is found in the middle third of the oesophagus extending to the adventitia. There is also an incidental finding of an intramucosal adenocarcinoma of the oesophagogastric junction (OGJ) in a background of Barrett's disease. What is the pTNM of the synchronously detected but histologically different tumours?

Answer

These tumours should be classified separately since they have a different histology.
- SCC in the middle third of the oesophagus: pT3
- Intramucosal Adenocarcinoma of the OGJ: pT1a

Question

How should one categorize a patient with multiple synchronous malignant melanomas of the skin, in different sites of the body? Skin is not a paired organ, and thus I assume that only 1 clinical and 1

pathological TNM classification should be given (Rule No. 5), but one could argue that you should classify tumours in different sites separately.

Answer

It is recommended to classify the malignant melanomas of skin of different sites separately because they may have different regional lymph node groups. It might be acceptable to classify malignant melanomas in a region with the same lymphatic drainage as multiple and, for example, classify 3 tumours as pT2b(3).

Simultaneous Tumours

Question

I have a case of a colon with two carcinomas, one invasive into the muscularis propria and the other invasive into the submucosa. How do I code them?

Answer

T2(m) or T2(2). When there are simultaneous (synchronous) tumours in one organ, the tumour with the highest T category is classified and the multiplicity (m) or number of tumours (2) is indicated in parentheses.
In colon tumours it is possible to classify them separately according to the localization (anatomic subsite) of the tumour: e.g. colon transversum: pT1, colon descendens: pT2

If bilateral cancers occur simultaneously in paired organs, each tumour is classified independently.
For carcinomas of the liver, ovary and Fallopian tube, multiplicity is a criterion of the T classification.

Single Tumour Cells and Micrometastasis in Lymph Nodes

Question

How does one classify single tumour cells detected immunohistochemically in lymph nodes?

Answer

There has been considerable debate in recent years on how to classify tumour cells in lymph nodes or bone marrow that are detected by immunohistochemical or molecular methods. In the 8th edition of TNM [1] these are classified as subsets of N0 (with exclusion of malignant melanoma and Merkel cell tumours where ITC in a lymph node are classified as pN1a (clinically occult) or pN2). Isolated tumour cells (ITC) are defined as single tumour cells or small clusters of cells not more than 0.2 mm in greatest extent that can be detected by routine H and E stains or immunohistochemistry (see page 10).
Single tumour cells should be distinguished from cases with morphologic evidence of micrometastasis, i.e. no metastasis larger than 0.2 cm (see page 10).
These can be identified by the addition of (mi) in the N/pN or M/pM categories as follows:

pN1(mi)	Regional lymph node micrometastasis
pM1(mi)	Distant micrometastasis

Further studies are needed to determine the significance of micrometastases across many cancer sites.

Question

How should one classify the finding of tumour cells in the sinus of a lymph node without evidence of stromal invasion? As L1 N0 or better as N0(i+) or should it be classified as micrometastasis if the size is >0.2 mm?

Answer

The general rule on ITCs -single tumour cells or small clusters not exceeding 0.2 mm in greatest extent- states that nodes containing only ITCs (wherever located, in the subcapsular nodal sinuses and/or in the nodal parenchyma) should indeed be classified as pN0(i+). Nodes containing only ITCs are excluded from the total positive node count, but they should be included in the total number of nodes evaluated. The exceptions to this rule are e.g. in skin melanoma and Merkel cell carcinoma. Tumour cells where the deposit is >0.2 mm are considered positive for assigning the N category. If deposit >0.2 mm in diameter but less or equal to 2 mm, they can be identified with the addition of 'mi' (micrometastasis) e.g. N1mi.

Number of Lymph Nodes

Question

If less than the desired number of lymph nodes is found, and none shows metastasis, should it be classified as pNX or pN0?

Answer

If the examined lymph nodes are negative, but the number ordinarily resected is not met, classify as pN0. The number of lymph nodes examined, and the number involved by tumour should be recorded in the pathology report. This information may be added in parentheses, e.g. for colorectal carcinoma pN0 (0/10) or pN1 (2/11).

Question

How to indicate the N category if no lymph nodes were found during a lymphadenectomy? pN0?

Answer

When no lymph nodes are found by the pathologist in a resection specimen at all, then it should be classified as pNX because lymph nodes could not be assessed histologically.

Pathological Assessment of Distant Metastasis

Question

Should liver metastasis diagnosed by fine-needle aspiration (FNA) be considered pM1 or pMX? The primary site is the breast.

Answer

General Rule No. 2 of TNM states: ‘The pathologic assessment of distant metastasis (pM) entails microscopic examination.’ This statement intentionally uses the term "microscopic" rather than "histologic" to allow for FNA and cytology. In this case the classification would be pM1.

Question

Considering that there is no MX and pM0 is only available for autopsy cases, what should be put on the pathology reports?

Answer

In case you are informed by the clinicians about the metastasis status you can put cM0 or cM1 on the pathology report. In case you have no information omit the “M” category and give only information about the T and N categories. Classification of "No metastasis found at pathological assessment" would indeed only be possible at autopsy and with the prefix 'a' (apM0) to be used. The latter is very rarely used.

Question

Why are cMX, pMX and pM0 not valid?

Answer

pMx and pM0 are not valid categories at *pathology assessment*. pM is 'not applicable' in this case and should not be mentioned or just left blank by pathologists when you are evaluating a specimen which does not give you the full information on the M-category to be assigned.
Only the coordinating physician can assign cM0 after taking into account physical examination, imaging results, and all other available information.
Also the cMX category is considered to be inappropriate as clinical assessment of metastasis can and may also be based on physical examination alone. The use of the cMX assignment may result in exclusion from staging and this should be avoided.

Question

If there is no metastasis in autopsy, could we abstract the apM as apM0?

Answer

We agree that assignment of “pM0” by pathological assessment is possible only at autopsy. Although less frequently used, it can be classified as apM0 for cancer registration purposes, where the prefix 'a' clearly indicates that this has been determined at autopsy.

Classification of Brain Tumours

Question

The Fourth Edition of TNM [4, 5] included a classification for brain tumours. Why has this been left out of the 5th to 8th editions?

Answer

The application of TNM to CNS tumours has not been successful. This particularly concerns the classification as a predictor of outcome. That carries little weight compared with other factors such as histological type, tumour location and patient age [6]. The N does not apply at all, and the M rarely plays a role. However, in the 9th edition, a new TNM classification for brain and spinal cord tumours will be published.

Tumours of the Frontal and Sphenoidal Sinuses

Question

Current TNM classifications exist for nasal and paranasal sinuses especially for both maxillary sinus and ethmoid sinus. Is there a TNM classification for tumours of frontal and sphenoidal sinuses?

Answer

There is no TNM classification for tumours of the frontal and sphenoidal sinuses.

Carcinoma of the Trachea

Question

How is squamous cell carcinoma of the distal trachea with invasion of the mediastinum staged?

Answer

There is no specific TNM classification for tumours of the trachea.

Carcinoma of the Urachus

Question

Is there a TNM classification for carcinomas of the urachus? If not, should they be classified as tumours of the bladder?

Answer

There is no specific TNM classification for tumours of the urachus. The TNM classification of bladder tumours can be used.

Tumour Spillage

Question

If tumour is spilled into the abdomen during surgery how does this affect classification?

Answer

Tumour spillage is considered only in the T classification of tumours of the ovaries, Fallopian tube and primary peritoneal carcinomas. In the ovary: T1c1 and T1c2 rupture of the capsule, includes spontaneous rupture and rupture during surgery. At other sites, it does not affect the TNM or stage.

Question

Is there a TNM classification for a trocar metastasis/vaccination metastasis?

Answer

Post-surgical port site tumour deposits are not changing the pT, pN or pM category. We would consider the development of tumour deposits in the port site (post-surgery) as a recurrent disease. As a general TNM classification rule, the pathological stage, once established, should remain unchanged in the medical record. The port site tumour deposits should be documented and reported in the pathology protocol but it does not influence the originally established pathological stage.

Tumour Cells in Lymphatics

Question

If I have a carcinoma of the colon with invasive tumour in the submucosa, but with lymphatics in the muscularis propria containing tumour cells, which do I select, T1 or T2?

Answer

T1 (submucosa). The microscopic presence of tumour cells in lymphatics or veins does not qualify as local spread in the T classification (except for liver, penis and testis). The optional L(ymphatic) and V(enous) classifications can be used to record such involvement (see page 10, TNM 8th edition [1]).

Question

When we find lymphatic invasion without any node involvement, we write: pN0(x/y) L1 etc. But when we have a node involvement without any evidence of lymphatic invasion, should we write: 1) pN1a (1/3) L0 etc. or 2) pN1a (1/3) L1 etc. as for the second option being physiologically “logical”? Is the L1 finding an independent prognostic factor even in the case of node metastasis?

Answer

We agree to write pN1a (1/3) L0. Although lymphatic involvement is probable if there is nodal involvement

as you suggest, we would recommend to document the findings and not assume that lymphatic invasion must be present.

Direct Spread

Question

Is a tumour that has spread directly from a gastric primary into an adjacent regional lymph node coded in the T or N category?

Answer

N category. Direct spread into a regional lymph node is classified as lymph node metastasis; direct spread into an adjacent organ, e.g. the liver from a gastric primary, is recorded in the T classification (see page 7, TNM 8th edition [1]).

N versus M

Question

For gastric carcinoma, when we find tumour nodules in the omentum, should we classify them as lymph node metastasis?

Answer

Unless the nodules are in the lymphatic drainage region (regional lymph nodes) they should be considered distant metastasis and classified M1 or pM1.

Recurrent tumour

Question

How is the TNM classification and staging applied for a recurrent tumour in general?

Answer

The UICC TNM booklet, 8th edition indeed mentions the existence of recurrence and the designation rTNM. While it may be used in certain diseases as a descriptor, limited evidence about the overall use and prognostic value of rTNM is available in the literature. We would suggest only using the 'r' as a prefix when there has been a legitimate and explicit statement of a disease-free period followed by proven re-emergence of disease, preferably supported by biopsy evidence. We also recommend reporting the rTNM and stage separately from the clinical and pathological stage at diagnosis.

Question

If a patient has a primary resected colorectal carcinoma classified as pT3pN1bM0 and one year later develops metastatic disease, what is the correct TNM classification? T3N1M1?

Answer

The stage at the time of recurrence would be rT0N0M1 provided no recurrent primary tumour or regional lymph node metastasis are present. The original TNM status is not considered in a recurrent tumour.

Question

If the initial tumour was treated with chemotherapy and had a disease-free interval, should the recurrent tumour be classified rpT or rypT?

Answer

The recurrent tumour could be classified as rcT or rpT.

Question

If the recurrent tumour was treated with chemotherapy, should yrpT be used or not?

Answer

No, we do not recommend to use this annotation.

Unknown Primary

Question

Unknown primary in the head and neck region. Cervical nodes are EBV positive. Histological methods should be used to identify EBV. Is immunohistochemistry EBV-LMP good enough? Is in situ hybridization required?

Answer

The UICC recommends the use of immunohistochemical methods to decide on HPV and EBV positivity. Molecular methods are not required [1].

Question

How do I classify a patient who has metastatic melanoma in a cervical lymph node less than 3 cm in greatest dimension without a primary or other metastasis?

Answer

T0pN1M0, stage III. The staging is based on the regional lymph node and/or distant metastasis status. In this case the site of nodal metastasis is assumed to be regional.

Question

In staging CUP with ipsilateral supraclavicular, mediastinal and hilar lymph nodes, I wonder which classification can be used. According to classification for lung tumours, is this staged as cT0 cN3 cM0, cStage IIIB?

Answer

A specific TNM classification system for cancer of unknown primary exists if you have cervical lymph nodes and an assumed (but undetected) primary tumour of the head and neck. This classification has been introduced in the 8th edition of the UICC TNM classification (see page 40 Unknown primary – Cervical Nodes). This classification assumes that the primary tumour is located in the head and neck region.
If you highly suspect that the primary tumour is a lung cancer, but if you don't have further evidence for the primary localization, you could use the lung cancer TNM classification and assign the clinical TNM as cT0 N3 M0. These cases should be documented and reported separately. There is no specific TNM classification if the localization of the primary tumour is completely unknown.

Sentinel Lymph Node

Question

How do I classify sentinel lymph node status?

Answer

The following is applicable when sentinel lymph node assessment is attempted:

pNX(sn)	Sentinel lymph node could not be assessed
pN0(sn)	No sentinel lymph node metastasis
pN1(sn)	Sentinel lymph node metastasis

Question

A patient underwent sentinel node biopsy prior to neoadjuvant treatment followed by surgery. The sentinel node was positive at that time but at resection, the nodes were negative (ypN0 – no fibrosis) However, in view of the previous sentinel biopsy, the final TNM was given pN1(sn) - is that correct? What would be the final TNM in case the original sentinel lymph node was core biopsied only?

Answer

A sentinel lymph node biopsy without removal of the primary breast carcinoma should be classified in this case as cN1(sn).
After the neo-adjuvant therapy, the examination of the primary tumour and the axillary regional lymph nodes, the lymph node findings should be classified as ypN0 if negative. The previous cN1(sn) findings should of course be taken into account for a treatment decision but there is no recommendation to have an overall summary classification.

Venous Invasion

Question

To classify a case as V1 or V2 do we have to demonstrate tumour cells in the lumen of the vessel or is an invasion sufficient to classify as V1 or V2?

Answer

Invasion of the vessel wall is sufficient to classify as V1 or V2.

Perineural Invasion

Question

On page 8 of the TNM Supplement, 5th edition, it is stated: "A tumour in perineural spaces at the primary site is considered part of the T classification, but can also be recorded separately as Pn1, as it may be an independent prognostic factor." Could you clarify this?
Does Pn1 mean perineural invasion to be found irrespective of the location (inside or outside the carcinoma)?

Answer

We agree that the wording about perineural invasion in the 5th edition of the TNM supplement on page 8 could be somewhat misleading: we wanted to express that perineural invasion is sometimes integrated in the description of the T category itself (e.g. in skin carcinoma, penis carcinoma) and if not, then it does not affect the T category and should be annotated as Pn1, either if it is within the tumour or outside.
For colon cancer e.g., the CAP mentions in its pathology protocol in the context of perineural invasion that 'extramural invasion may have a greater adverse prognostic effect, but the distinction between intramural and extramural perineural invasion has not been well studied.' We would recommend describing the location in the written pathology protocol.

Neoadjuvant Therapy

Question

How was the prefix modifier "y" defined: is it associated with a word?

Answer

The y-prefix to indicate neoadjuvant treatment had to be specific and clear for its use as prefix but is not related to (an abbreviation of) a specific word.

Question

In a posttreatment tumour, when the resection specimen is received and there is complete response, is it best to use ypTX or ypT0?

Answer

The case should be classified ypT0 if the primary tumour has completely disappeared after neoadjuvant therapy.

Question

The prefix "y" should be added to the TNM after multimodality therapy. What is the meaning of “multimodality” therapy? Is only chemotherapy or only radiotherapy before the surgical operation sufficient? Also, is history of TUR for urinary bladder cancer or EMR for colon cancer eligible for "y"?

Answer

'Neoadjuvant therapy' includes systemic therapy (chemotherapy, hormone therapy and immunotherapy) AND/OR radiotherapy before surgery. This also means that chemotherapy or radiotherapy alone before surgery should indeed be classified with the y-prefix. A surgical approach followed by another surgical procedure is not considered as a neoadjuvant treatment (and the y-prefix should not be used in that case).

Question

Should the stage in neoadjuvant treated patients be based on the cTNM or ypTNM or the higher values from the two?

Answer

Clinical Stage and ypStage in patients treated with neoadjuvant therapy are clearly not comparable for different reasons and should be reported separately. It is not recommended to combine the information from the clinical T and N categories with the ypT and ypN categories to conclude on a (final) Stage because the latter already include regression phenomena due to therapy and thus do not represent extent of disease at diagnosis. In analysing and reporting on results, we recommend differentiating between patients treated with primary surgery (registered with the pTNM stage) and those treated by surgery following neoadjuvant treatment (recorded with ypTNM and yp Stage) and to describe in the report which stage was used.

Question

In patients treated with hormone therapy only in a neoadjuvant setting, the correct pT category is ypT. What if the hormone therapy wasn't used as neoadjuvant treatment as a means of therapeutic purpose but rather as "bridging" the time to surgery, i.e. hormone treatment in breast cancer for 2-3 weeks? Does this equally qualify for a ypT category? Is there a minimal time of treatment required before surgery for the prefix "y"?

Answer

Not all medication given to a patient meets the criteria for neoadjuvant therapy. This case with a few days of endocrine therapy in breast cancer is -as you suggest more provided in a rather unconventional context- and should not be categorized as neoadjuvant therapy. It can be noted in the pathology report, but it should not be completely considered as neoadjuvant therapy with the use of a ypTNM. It is difficult to define a specific time frame. We consider it neoadjuvant therapy (systemic therapy and/or radiotherapy) when it is intended as such in the treatment strategy and given before surgery.

References

[1] UICC (Union for International Cancer Control) *TNM Classification of Malignant Tumours*, 8th edn, Brierley JD, Gospodarowicz MK, Wittekind C (eds). Oxford: Wiley Blackwell; 2017.

[2] American Joint Committee on Cancer (AJCC) *Cancer Staging Manual*, 8th edn, Amin MB, Edge SB, Green FL, et al. (eds). New York: Springer, 2017.

[3] UICC TNM Atlas, 7th edn, Brierley JD, Asamura H, Van Eycken E, Rous B (eds). Hoboken NJ: Wiley Blackwell; 2020

[4] UICC TNM Supplement A commentary on Uniform Use, 5th edn, Wittekind C, Brierley JD, Lee A, Van Eycken E (eds).Geneva, Switzerland: Wiley Blackwell; 2019

[5] Green FL, Brierley JD, O'Sullivan B, et al. On the use and abuse of X in the TNM Classification. *Cancer* 2005; 103:647-649.

[6] Ohkagi H, Reifenberger G, Nomura K, et al. Brain Tumours: Gliomas. In *UICC Prognostic Factors in Cancer*, Gospodarowicz MK, Henson DE, Hutter RVP, et al. (eds), 2nd edn. New York: Wiley; 2001.

[7] UICC (Union for International Cancer Control) *TNM Classification of Malignant Tumours*, 7th edn, Sobin LH, Gospodarowicz MK, Wittekind C (eds). Oxford: Wiley-Blackwell, 2009.