Protocol for the Examination of Lymphadenectomy Specimens From Patients With Malignant Germ Cell and Sex Cord-Stromal Tumors of the Testis

Version: 4.1.0.0
Protocol Posting Date: June 2021
The use of this protocol is recommended for clinical care purposes but is not required for accreditation purposes.

This protocol should be used for the following procedures AND tumor types:

Procedure	Description
Lymphadenectomy	Includes specimens designated retroperitoneal lymphadenectomy
Tumor Type	**Description**
Germ cell tumors	Includes seminoma and variants, all non-seminomatous germ cell tumors, mixed germ cell tumors, Leydig cell tumors, Sertoli cell tumors, granulosa cell tumors, and placental site trophoblastic tumors
Sex cord-stromal tumors	Includes Leydig cell tumors, Sertoli cell tumors, granulosa cell tumors, and mixed sex cord tumors

The following should NOT be reported using this protocol:

Procedure
Radical orchiectomy (consider Testis Radical Orchiectomy protocol)
Tumor Type
Paratesticular malignancies (consider Soft Tissue protocol)
Non-testis germ cell tumors (consider Extragonadal Germ Cell protocol)
Lymphoma (consider the Hodgkin or non-Hodgkin Lymphoma protocols)
Sarcoma (consider the Soft Tissue protocol)

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With guidance from the CAP Cancer and CAP Pathology Electronic Reporting Committees.
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Accreditation Requirements
The use of this case summary is recommended for clinical care purposes but is not required for accreditation purposes. The core and conditional data elements are routinely reported. Non-core data elements are indicated with a plus sign (+) to allow for reporting information that may be of clinical value.

Summary of Changes

v 4.1.0.0

- General Reformatting
- Removed Prelymphadenectomy Treatment
- Revised Lymph Nodes Section
- Removed pNX Staging Classification

Reporting Template

Protocol Posting Date: June 2021
Select a single response unless otherwise indicated.

CASE SUMMARY: (TESTIS: Retroperitoneal Lymphadenectomy)
Standard(s): AJCC-UICC 8
This template is recommended for reporting retroperitoneal lymphadenectomy specimens, but is not required for accreditation purposes.

CLINICAL

+Prelymphadenectomy Treatment (select all that apply)
___ No known preresection therapy
___ Chemotherapy performed
___ Radiation therapy performed
___ Therapy performed, type not specified
___ Not specified

SPECIMEN

+Regional Nodal Site(s) Examined (specify): _____

+Number of Regional Nodal Groups Examined
___ Specify number: _____
___ Other (specify): _____
___ Cannot be determined: _____

+Nonregional Nodal Site(s) Examined (specify): _____

+Number of Nonregional Nodal Groups Examined
___ Specify number: _____
___ Other (specify): _____
___ Cannot be determined: _____

TUMOR

Histologic Type of Metastatic Tumor (Note A)
___ Seminoma
___ Seminoma with syncytiotrophoblastic cells
___ Embryonal carcinoma
___ Yolk sac tumor, postpubertal type
___ Choriocarcinoma
___ Mixed germ cell tumor (specify components and approximate percentages): _____
___ Non-choriocarcinomatous trophoblastic tumor, NOS
___ Placental site trophoblastic tumor
___ Epithelioid trophoblastic tumor
___ Cystic trophoblastic tumor
___ Teratoma, postpubertal type
___ Teratoma with somatic-type malignancy (specify type): _____

___ Spermatocytic tumor
___ Spermatocytic tumor with a sarcomatous component
___ Well-differentiated neuroendocrine tumor (monodermal teratoma)
___ Other histologic type not listed (specify): _____
___ Cannot be determined: _____
+Histologic Type Comment: _____

Histologic Viability of Tumor (if applicable) (select all that apply)
___ Not applicable
___ Viable teratoma present
___ Viable non-teratomatous tumor present
___ Viable tumor not identified
___ Other (specify): _____
___ Cannot be determined: _____

LYMPH NODES
Regional Lymph Node Involvement
Number of Regional Lymph Nodes with Tumor
___ Exact number (specify): _____
___ At least (specify): _____
___ Other (specify): _____
___ Cannot be determined (explain): _____

Regional Nodal Site(s) with Tumor (select all that apply)
___ Interaortocaval: _____
___ Paraaortic: _____
___ Paracaval: _____
___ Preaortic: _____
___ Precaval: _____
___ Retroaortic: _____
___ Retrocaval: _____
___ Other (specify): _____
___ Cannot be determined: _____

+Size of Largest Nodal Metastatic Deposit
Specify in Centimeters (cm)
___ Exact size: _____ cm
___ At least: _____ cm
___ Greater than: _____ cm
___ Less than: _____ cm
___ Other (specify): _____
___ Cannot be determined (explain): _____

Site of Largest Nodal Metastatic Deposit (select all that apply)
___ Interaortocaval
___ Paraaortic: _____
___ Paracaval: _____
___ Preaortic: _____
___ Retroaortic: _____
___ Retrocaval: _____

___ Other (specify): _____
___ Cannot be determined: _____

Size of Largest Lymph Node or Nodal Mass
Specify in Centimeters (cm)
___ Exact size: _____ cm
___ At least: _____ cm
___ Greater than: _____ cm
___ Less than: _____ cm
___ Other (specify): _____
___ Cannot be determined (explain): _____

Histologic Subtype of Germ Cell Tumor in Largest Involved Lymph Node (if applicable):
_____

Extranodal Extension (ENE)
___ Not identified
___ Present
___ Cannot be determined: _____

Number of Regional Lymph Nodes Examined
___ Exact number: _____
___ At least (specify): _____
___ Other (specify): _____
___ Cannot be determined (explain): _____

Nonregional Lymph Node Status (Note B)
___ All nonregional lymph nodes negative for tumor metastasis
___ Tumor metastasis present in nonregional lymph node(s) (M1a, AJCC 8th edition)
+Number of Nonregional Lymph Nodes with Tumor
___ Exact number (specify): _____
___ At least (specify): _____
___ Other (specify): _____
___ Cannot be determined (explain): _____

+Nonregional Nodal Site(s) with Tumor: _____

+Number of Nonregional Lymph Nodes Examined
___ Exact number (specify): _____
___ At least (specify): _____
___ Other (specify): _____
___ Cannot be determined (explain): _____

___ Other (specify): _____
___ Cannot be determined (explain): _____
___ Not applicable

PATHOLOGIC STAGE CLASSIFICATION (pN, AJCC 8th Edition)

Reporting of pN category is based on information available to the pathologist at the time the report is issued. As per the AJCC (Chapter 1, 8th Ed.) it is the managing physician's responsibility to establish the final pathologic stage based upon all pertinent information, including but potentially not limited to this pathology report.

N Descriptors (select all that apply)

___ Not applicable: _____
___ r (recurrent)
___ y (post-treatment)

pN Category

___ pN not assigned (cannot be determined based on available pathological information)
___ pN0: No regional lymph node metastasis
___ pN1: Metastasis with a lymph node mass 2 cm or smaller in greatest dimension and less than or equal to five nodes positive, none larger than 2 cm in greatest dimension
___ pN2: Metastasis with a lymph node mass larger than 2 cm but not larger than 5 cm in greatest dimension; or more than five nodes positive, none larger than 5 cm; or evidence of extranodal extension of tumor
___ pN3: Metastasis with a lymph node mass larger than 5 cm in greatest dimension

COMMENTS

Comment(s): _____

Explanatory Notes

A. Histologic Type

The protocol mainly applies to malignant tumors of the testis, the vast majority of which are of germ cell origin. It may also be applied to other malignant or potentially malignant tumors of the testis included in the classification shown below.[1,2,3,4,5,6,7,8,9,10,11,12] For hematolymphoid neoplasms involving the testis, refer to the corresponding CAP protocols.

World Health Organization (WHO) Histologic Classification of Testicular Tumors (2016)[13]

Germ Cell Tumors Derived From Germ Cell Neoplasia In Situ

Noninvasive germ cell neoplasia

- Germ cell neoplasia in situ
- Specific forms of intratubular germ cell neoplasia

Tumors of a single histologic type (pure forms)

- Seminoma
- Seminoma with syncytiotrophoblastic cells

Nonseminomatous germ cell tumors

- Embryonal carcinoma
- Yolk sac tumor, postpubertal type
- Trophoblastic tumors
  - Choriocarcinoma
  - Nonchoriocarcinomatous trophoblastic tumors
  - Placental site trophoblastic tumor
  - Epidermoid trophoblastic tumor
  - Cystic trophoblastic tumor
- Teratoma, postpubertal type
- Teratoma with somatic-type malignancy

Nonseminomatous germ cell tumors of more than one histologic type

- Mixed germ cell tumor

Germ cell tumors of unknown type

- Regressed germ cell tumor

Germ Cell Tumors Unrelated to Germ Cell Neoplasia In Situ

Spermatocytic tumor

Teratoma, prepubertal type

Dermoid cyst

Epidermoid cyst

Well-differentiated neuroendocrine tumor (monodermal teratoma)

Yolk sac tumor, prepubertal type

Mixed teratoma and yolk sac tumor, prepubertal type

York sac tumor, prepubertal type

Sex Cord-Stromal Tumors

Pure tumors

Leydig cell tumor

Malignant Leydig cell tumor

Sertoli cell tumor

Malignant Sertoli cell tumor

Large cell calcifying Sertoli cell tumor

Intratubular large cell hyalinizing Sertoli cell neoplasia

Granulosa cell tumor

Adult granulosa cell tumor

Juvenile granulosa cell tumor

Tumors in the fibroma-thecoma group

Mixed and unclassified sex cord stromal tumor

Mixed sex cord-stromal tumor

Unclassified sex cord-stromal tumor

Tumor Containing Both Germ Cell and Sex Cord-Stromal Elements

Gonadoblastoma

Miscellaneous

Ovarian epithelial-type tumors

Serous cystadenoma

Serous tumor of borderline malignancy

Serous cystadenocarcinoma

Mucinous cystadenoma

Mucinous borderline tumor

Mucinous cystadenocarcinoma

- Endometrioid adenocarcinoma
- Clear cell adenocarcinoma
- Brenner tumor

Juvenile xanthogranuloma

Hemangioma

Hematolymphoid Tumors

Diffuse large B-cell lymphoma

Follicular lymphoma

Extranodal NI/T-cell lymphoma, nasal type

Plasmacytoma

Myeloid sarcoma

Rosai-Dorfman disease

Tumors of Collecting Duct and Rete Testis

Adenoma

Adenocarcinoma

Tumors of Paratesticular Structures

Adenomatoid tumor

Mesothelioma

- Well-differentiated papillary mesothelioma

Epididymal tumors

- Cystadenoma of the epididymis
- Papillary cystadenoma
- Adenocarcinoma of the epididymis

Squamous cell carcinoma

Melanotic neuroectodermal tumor

Nephroblastoma

Paraganglioma

Mesenchymal Tumors of the Spermatic Cord and Testicular Adnexa

Apipocytic tumors

- Lipoma
- Well-differentiated liposarcoma

Dedifferentiated liposarcoma

Myxoid liposarcoma

Pleomorphic liposarcoma

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B. Metastatic Tumor

Often the most important distinction in patients with metastatic testicular germ cell tumor following initial chemotherapy is the differentiation of metastatic residual teratoma from nonteratomatous types of germ cell tumor. Pure teratomatous metastasis is generally treated by surgical excision alone, whereas patients who have other residual germ cell tumor components are usually treated with additional chemotherapy.