ABIM invites diplomates to help develop the Medical Oncology MOC exam blueprint

Based on feedback from physicians that MOC assessments should better reflect what they see in practice, in 2016 the American Board of Internal Medicine (ABIM) invited all certified medical oncologists to provide ratings of the relative frequency and importance of blueprint topics in practice.

This review process, which resulted in a new MOC exam blueprint, will be used on an ongoing basis to inform and update all MOC assessments created by ABIM. No matter what form ABIM's assessments ultimately take, they will need to be informed by front-line clinicians sharing their perspective on what is important to know.

A sample of over 300 medical oncologists, similar to the total invited population of medical oncologists in age, gender, geographic region, and time spent in direct patient care, provided the blueprint topic ratings. The ABIM Medical Oncology Exam Committee and Medical Oncology Board have used this feedback to update the blueprint for the MOC exam (beginning with the Fall 2016 administration).

To inform how exam content should be distributed across the major blueprint content categories, ABIM considered the average respondent ratings of topic frequency and importance in each of the content categories. A second source of information was the relative frequency of patient conditions in the content categories, as seen by certified medical oncologists and documented by national health care data (described further under Content distribution below).

To determine prioritization of specific exam content within each major medical content category, ABIM used the respondent ratings of topic frequency and importance to set thresholds for these parameters in the exam assembly process (described further under Detailed content outline below).

Purpose of the Medical Oncology MOC exam

The MOC exam is designed to evaluate whether a certified medical oncologist has maintained competence and currency in the knowledge and judgment required for practice. The exam emphasizes diagnosis and management of prevalent conditions, particularly in areas where practice has changed in recent years. As a result of the recent blueprint review by ABIM diplomates, future MOC exams will place less emphasis on rare conditions and focus more on situations in which physician intervention can have important consequences for patients. For conditions that are usually managed by other specialists, the focus will be on recognition rather than on management.

Exam format

The exam contains up to 220 single-best-answer multiple-choice questions, of which up to 50 are new questions that do not count in the examinee’s score (more information on how exams are developed can be found at abim.org/about/exam-information/exam-development.aspx).

Examinees taking the MOC exam will have access to an external resource (e.g., UpToDate®) for the entire exam. Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- **Diagnosis:** making a diagnosis or identifying an underlying condition
- **Testing:** ordering tests for diagnosis, staging, or follow-up
- **Treatment/Care Decisions:** recommending treatment or other patient care
- **Risk Assessment/Prognosis/Epidemiology:** assessing risk, determining prognosis, and applying principles from epidemiologic studies
- **Pathophysiology/Basic Science:** understanding the pathophysiology of disease and basic science knowledge applicable to patient care

Reflecting the overall predominance of office-based practice, most questions describe patient encounters that take place in outpatient settings; some encounters will occur in hospital or other inpatient settings because most medical oncologists provide patient care in these settings as well.
Clinical information presented may include patient photographs, radiographs, computed tomograms, photomicrographs, magnetic resonance images, an equianalgesic table, bone scans, family pedigree charts, nomograms, and other media to illustrate relevant patient findings.

A tutorial, including examples of ABIM exam question format, can be found at abim.org/maintenance-of-certification/exam-information/medical-oncology/exam-tutorial.aspx.

## Content distribution

Listed below are the major medical content categories that define the domain for the Medical Oncology MOC exam. The relative distribution of content is expressed as a percentage of the total exam. To determine the content distribution, ABIM considered the average respondent ratings of topic frequency and importance. To cross-validate these self-reported ratings, ABIM also considered the relative frequency of conditions seen in Medicare patients by a cohort of certified medical oncologists. Informed by these data, the Medical Oncology Exam Committee and Board have determined the content category targets shown below.

<table>
<thead>
<tr>
<th>CONTENT CATEGORY</th>
<th>TARGET %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematologic Neoplasms</td>
<td>14%</td>
</tr>
<tr>
<td>Thoracic Cancer</td>
<td>11%</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>13%</td>
</tr>
<tr>
<td>Genitourinary Cancer</td>
<td>12%</td>
</tr>
<tr>
<td>Gynecologic Cancer</td>
<td>4%</td>
</tr>
<tr>
<td>Gastrointestinal Cancer</td>
<td>13.5%</td>
</tr>
<tr>
<td>Skin Cancer, Sarcomas, and Unknown Primary Site</td>
<td>6%</td>
</tr>
<tr>
<td>Anticancer Therapeutics, Clinical Research Methodology, and Ethics</td>
<td>9.5%</td>
</tr>
<tr>
<td>Palliative Care, Survivorship, and Communication</td>
<td>11%</td>
</tr>
<tr>
<td>Head, Neck, Thyroid, and Central Nervous System Malignancies</td>
<td>4%</td>
</tr>
<tr>
<td>Genetics, Genomics, and Tumor Biology</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

### How the blueprint ratings are used to assemble the MOC exam

Blueprint reviewers provided ratings of relative frequency in practice for each of the detailed content topics in the blueprint and provided ratings of the relative importance of the topics for each of the tasks described in Exam format above. In rating importance, reviewers were asked to consider factors such as the following:

- High risk of a significant adverse outcome
- Cost of care and stewardship of resources
- Common errors in diagnosis or management
- Effect on population health
- Effect on quality of life
- When failure to intervene by the physician deprives a patient of significant benefit

Frequency and importance were rated on a three-point scale corresponding to low, medium, or high. The median importance ratings are reflected in the Detailed content outline below. The Medical Oncology Exam Committee and Medical Oncology Board, in partnership with the physician community, have set the following parameters for selecting MOC exam questions according to the blueprint review ratings:

- At least 75% of exam questions will address high-importance content (indicated in green)
- No more than 25% of exam questions will address medium-importance content (indicated in yellow)
- No exam questions will address low-importance content (indicated in red)

Independent of the importance and task ratings, no more than 20% of exam questions will address low-frequency content (indicated by “LF” following the topic description).
The content selection priorities below are applicable beginning with the Fall 2016 MOC exam and are subject to change in response to future blueprint review.

Note: The same topic may appear in more than one medical content category.

Detailed content outline for the Medical Oncology MOC exam

- **High Importance**: At least 75% of exam questions will address topics and tasks with this designation.
- **Medium Importance**: No more than 25% of exam questions will address topics and tasks with this designation.
- **Low Importance**: No exam questions will address topics and tasks with this designation.

**LF** – Low Frequency: No more than 20% of exam questions will address topics with this designation, regardless of task or importance.

### HEMATOLOGIC NEOPLASMS (14% of exam)

#### Diagnosis | Testing | Treatment/Care Decisions | Risk Assessment/Prognosis/Epidemiology | Pathophysiology/Basic Science

#### ACUTE LEUKEMIA AND MYELODYSPLASIA (3% of exam)

**Acute myeloid leukemia (AML)**

- Acute promyelocytic leukemia (APL) **LF**
- AML with recurrent genetic abnormalities **LF**
- AML with myelodysplasia-related changes
- Therapy-related myeloid neoplasms **LF**
- AML not otherwise specified **LF**
- Myeloid sarcoma **LF**

- Acute lymphoblastic leukemia/lymphoma **LF**
- Myelodysplastic syndromes
- Chronic myelomonocytic leukemia

#### CHRONIC MYELOID LEUKEMIA AND MYELOPROLIFERATIVE NEOPLASMS (2% of exam)

- Chronic myeloid leukemia
- Myeloproliferative neoplasms

#### CHRONIC LYMPHOPROLIFERATIVE LEUKEMIAS (2% of exam)

- Chronic lymphocytic leukemia/small lymphocytic lymphoma
- Hairy cell leukemia **LF**
- T-cell prolymphocytic leukemia **LF**

*This topic was added or revised after the blueprint was reviewed by Medical Oncology diplomates; it has been provisionally rated by the Medical Oncology Exam Committee, pending the next blueprint review process.*
<table>
<thead>
<tr>
<th>HEATMOLOGIC NEOPLASMS continued… (14% of exam)</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CHRONIC LYMPHOPROLIFERATIVE LEUKEMIAS continued… (2% of exam)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T-cell large granular lymphocytic leukemia LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Monoclonal B-cell lymphocytosis</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✗</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HODGKIN LYMPHOMA (&lt;2% of exam)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Early-stage disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Advanced disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MULTIPLE MYELOMA AND PLASMA CELL DYSCRASIAS (2% of exam)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple myeloma/plasma cell leukemia</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Solitary plasmacytoma LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Primary amyloidosis LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Cryoglobulinemia LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Monoclonal gammopathy of undetermined significance (MGUS)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Lymphoplasmacytic lymphoma (including Waldenstrom macroglobulinemia) LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NON-HODGKIN LYMPHOMA (4% of exam)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-grade disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Intermediate-grade disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>High-grade disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Less common histologies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mantle cell lymphoma</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>NK-T cell lymphoma LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Anaplastic large cell lymphoma LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT lymphoma)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Nodal marginal zone lymphoma</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Human immunodeficiency virus (HIV)-associated lymphoma LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

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HEMATOLOGIC NEOPLASMS

(14% of exam)

<table>
<thead>
<tr>
<th align="left">Human T-cell lymphotropic virus type 1-associated lymphoma (adult T-cell leukemia/lymphoma)</th>
<th align="left">Diagnosis</th>
<th align="left">Testing</th>
<th align="left">Treatment/ Care Decisions</th>
<th align="left">Risk Assessment/ Prognosis/ Epidemiology</th>
<th align="left">Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">LF</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✗</td>
</tr>
</tbody>
</table>

Cutaneous T-cell lymphoma

Primary central nervous system lymphoma

Post-transplantation lymphoproliferative syndromes

Peripheral T-cell lymphoma

LF

| THORACIC CANCER
(11% of exam) |
|:-----------------|:-----------------|:------------------|:--------------------------|:--------------------------------|:--------------------------------|

NON-SMALL CELL LUNG CANCER (9% of exam)

<table>
<thead>
<tr>
<th align="left">Early-stage disease</th>
<th align="left">Diagnosis</th>
<th align="left">Testing</th>
<th align="left">Treatment/ Care Decisions</th>
<th align="left">Risk Assessment/ Prognosis/ Epidemiology</th>
<th align="left">Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✗</td>
</tr>
</tbody>
</table>

Locally advanced disease

| Stage IIA disease | ✔ | ✔ | ✔ | ✔ | ✗ |
| Stage IIB disease | ✔ | ✔ | ✔ | ✔ | ✗ |
| Pancoast tumor LF | ✔ | ✔ | ✔ | ✔ | ✗ |

Metastatic disease

<table>
<thead>
<tr>
<th align="left">Adenocarcinoma</th>
<th align="left">Diagnosis</th>
<th align="left">Testing</th>
<th align="left">Treatment/ Care Decisions</th>
<th align="left">Risk Assessment/ Prognosis/ Epidemiology</th>
<th align="left">Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">Treatable driver mutation present</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✗*</td>
</tr>
<tr>
<td align="left">Treatable driver mutation not present</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✗*</td>
</tr>
<tr>
<td align="left">Squamous cell carcinoma</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✔*</td>
<td align="left">✗*</td>
<td align="left">✗*</td>
</tr>
</tbody>
</table>

SMALL CELL LUNG CANCER (<2% of exam)

<table>
<thead>
<tr>
<th align="left">Limited disease</th>
<th align="left">Diagnosis</th>
<th align="left">Testing</th>
<th align="left">Treatment/ Care Decisions</th>
<th align="left">Risk Assessment/ Prognosis/ Epidemiology</th>
<th align="left">Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✗</td>
</tr>
</tbody>
</table>

| Extensive disease | ✔ | ✔ | ✔ | ✔ | ✗ |

MESOTHELIOMA AND THYMUS CANCER (<2% of exam)

<table>
<thead>
<tr>
<th align="left">Mesothelioma LF</th>
<th align="left">Diagnosis</th>
<th align="left">Testing</th>
<th align="left">Treatment/ Care Decisions</th>
<th align="left">Risk Assessment/ Prognosis/ Epidemiology</th>
<th align="left">Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✔</td>
<td align="left">✗</td>
</tr>
</tbody>
</table>

| Thymus cancer LF | ✔ | ✔ | ✔ | ✔ | ✗ |
### BREAST CANCER (13% of exam)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Importance</strong></td>
<td>At least 75% of exam questions will address topics and tasks with this designation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medium Importance</strong></td>
<td>No more than 25% of exam questions will address topics and tasks with this designation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Low Importance</strong></td>
<td>No exam questions will address topics and tasks with this designation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LF – Low Frequency</td>
<td>No more than 20% of exam questions will address topics with this designation, regardless of task or importance.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PREMALIGNANT CONDITIONS AND HIGH-RISK FACTORS (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-risk histologies (including atypical ductal hyperplasia and atypical lobular hyperplasia)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Genetic predispositions and other high-risk features</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### CARCINOMA IN SITU (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinoma in situ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### EARLY-STAGE AND LOCALLY ADVANCED INVASIVE CARCINOMA (4.5% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>HER2-positive disease</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
</tr>
<tr>
<td>HER2-negative, hormone receptor-positive disease</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
</tr>
<tr>
<td>HER2-negative, hormone receptor-negative (triple-negative) disease</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
</tr>
</tbody>
</table>

### INFLAMMATORY DISEASE (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflammatory disease</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### LOCALLY RECURRENT DISEASE (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-breast recurrence</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Chest wall recurrence</td>
<td>LF</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### METASTATIC DISEASE (4.5% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>HER2-positive metastatic disease</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
</tr>
<tr>
<td>HER2-negative, hormone receptor-positive metastatic disease</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
</tr>
<tr>
<td>HER2-negative, hormone receptor-negative (triple-negative) metastatic disease</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
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### LESS COMMON CLINICAL SCENARIOS (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubular carcinoma</td>
<td>LF</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Male breast cancer</td>
<td>LF</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Pregnancy-associated breast cancer</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
<td>✓*</td>
</tr>
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</table>

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### GENITOURINARY CANCER (12% of exam)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
</tr>
</thead>
</table>

**GERM CELL TUMORS (<2% of exam)**

<table>
<thead>
<tr>
<th></th>
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<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminoma</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
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<tr>
<td>Nonseminoma</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
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<tr>
<td>Germ cell tumor type not specified</td>
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<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
</tr>
</tbody>
</table>

**PROSTATE CANCER (5% of exam)**

| Localized disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |
| Locally advanced disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |

Prostate-specific antigen-only nonmetastatic disease

| Castration-sensitive disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |
| Castration-resistant disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |

Metastatic disease

| Metastatic castration-sensitive disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |
| Metastatic castration-resistant disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |

Special issues in prostate cancer

| Small cell carcinoma | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |

**RENAL CELL CANCER (2.5% of exam)**

| Localized disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |
| Metastatic disease | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |

Special issues in renal cell cancer

| Bilateral renal tumors | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |
| Non-clear cell histologies | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ | ✔ ✔ ✔ ✔ ✔ |

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---

### GENITOURINARY CANCER continued...

(12% of exam)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
</table>

**UROTHELIAL AND OTHER GENITOURINARY CANCERS** (2.5% of exam)

<table>
<thead>
<tr>
<th>Bladder cancer</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-muscle invasive disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Muscle-invasive disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Metastatic disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other urothelial cancers</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper tract urothelial cancer</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Urethral cancer</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
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</tbody>
</table>

**GYNECOLOGIC CANCER** (4% of exam)

<table>
<thead>
<tr>
<th>CERVICAL CANCER (&lt;2% of exam)</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local-regional disease (Stages II and III)</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
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</table>

**OVARIAN, FALLOPIAN TUBE, AND PRIMARY PERITONEAL CANCERS** (2% of exam)

<table>
<thead>
<tr>
<th>Epithelial ovarian, fallopian tube, and primary peritoneal cancers</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Stages II–IV</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Nonepithelial ovarian cancers</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low malignant potential (borderline) cancers</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
</tbody>
</table>

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### Gynecologic Cancer
(4% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endometrial cancer</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Uterine sarcoma</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Gestational trophoblastic disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Cancers of the vulva and vagina</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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</tr>
</tbody>
</table>

### Other Gynecologic Malignancies (<2% of exam)

<table>
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<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endometrial cancer</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Uterine sarcoma</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Gestational trophoblastic disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Cancers of the vulva and vagina</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
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### Gastrointestinal Cancer
(13.5% of exam)

### Anal Cancer (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local-regional disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
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</tbody>
</table>

### Biliary Tree and Gallbladder Cancer (<2% of exam)

<table>
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<tr>
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<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local-regional disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
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### Colorectal Cancer (4.5% of exam)

<table>
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<tr>
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<th>Testing</th>
<th>Treatment/Care Decisions</th>
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<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colon cancer</td>
<td>✔</td>
<td>✔</td>
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</tr>
<tr>
<td>Local-regional disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Recurrent and metastatic disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectal cancer</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Local-regional disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
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<td>✔</td>
<td>✔</td>
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### Esophageal Cancer (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local-regional disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>GASTROINTESTINAL CANCER</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>continued…</strong>&lt;br&gt;(13.5% of exam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GASTRIC CANCER (&lt;2% of exam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resectable disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unresectable and metastatic disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEPATOCELLULAR CANCER (&lt;2% of exam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resectable disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unresectable, liver-only disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metastatic disease</td>
<td>LF</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GASTROINTESTINAL NEUROENDOCRINE TUMORS (&lt;2% of exam)</td>
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<td></td>
</tr>
<tr>
<td>Gastrointestinal neuroendocrine tumors</td>
<td>LF</td>
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<td>✔</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Resectable disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unresectable disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metastatic and recurrent disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMALL BOWEL AND APPENDICEAL CANCER (&lt;2% of exam)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Small bowel cancer</td>
<td>LF</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Appendiceal cancer</td>
<td>LF</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>SKIN CANCER, SARCOMAS, AND UNKNOWN PRIMARY SITE&lt;br&gt;(6% of exam)</td>
<td>Diagnosis</td>
<td>Testing</td>
<td>Treatment/ Care Decisions</td>
<td>Risk Assessment/ Prognosis/ Epidemiology</td>
<td>Pathophysiology/ Basic Science</td>
</tr>
<tr>
<td><strong>continued…</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MELANOMA (2% of exam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive melanoma</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional nodal and in-transit metastasis</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metastatic disease</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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- **Medium Importance**: No more than 25% of exam questions will address topics and tasks with this designation.
- **Low Importance**: No exam questions will address topics and tasks with this designation.

LF – **Low Frequency**: No more than 20% of exam questions will address topics with this designation, regardless of task or importance.

## SKIN CANCER, SARCOMAS, AND UNKNOWN PRIMARY SITE

### OTHER SKIN CANCERS (<2% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squamous cell and basal cell cancer of the skin</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Local-regional disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Merkel cell carcinoma</td>
<td>LF</td>
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### BONE AND SOFT-TISSUE SARCOMAS (<2% of exam)

<table>
<thead>
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<th>Topic</th>
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<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized primary disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Local disease recurrence</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Metastatic disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Gastrointestinal stromal tumor (GIST)</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
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<tr>
<td>Local-regional disease</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
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<tr>
<td>Recurrent and metastatic disease</td>
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### UNKNOWN PRIMARY SITE (2% of exam)

<table>
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<tr>
<th>Topic</th>
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<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown primary site</td>
<td>✔️</td>
<td>✔️</td>
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</tbody>
</table>

## ANTICANCER THERAPEUTICS, CLINICAL RESEARCH METHODOLOGY, AND ETHICS (9.5% of exam)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
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</table>

## PRINCIPLES OF ALLIED DISCIPLINES (<2% of exam)

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
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</thead>
<tbody>
<tr>
<td>Surgical oncology</td>
<td>✔️</td>
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<td>✗</td>
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<tr>
<td>Radiation oncology</td>
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<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Interventional radiology</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Pathology</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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</table>
### ANTAGONIST THERAPEUTICS, CLINICAL RESEARCH METHODOLOGY, AND ETHICS
(continued...)

(9.5% of exam)

<table>
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<tr>
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<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
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</thead>
<tbody>
<tr>
<td><strong>Cytotoxic chemotherapy agents</strong></td>
<td></td>
<td></td>
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<tr>
<td>Alkylating agents</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Antimetabolites</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Antitubulin agents</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Anthracyclines</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Topoisomerase I inhibitors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Topoisomerase II inhibitors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Bleomycin and other DNA-damaging agents</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Chemotherapy-drug interactions</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td><strong>Hormonal therapies</strong></td>
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<td></td>
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<tr>
<td>Estrogens and selective estrogen response modifiers</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Progestins and antiprogestins</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Aromatase inhibitors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Androgens and antiandrogens</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Gonadotropin-releasing hormone analogues</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Glucocorticoids</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>

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**Anticancer Therapeutics, Clinical Research Methodology, and Ethics**

*(9.5% of exam)*

### Anticancer Therapeutics continued... *(8% of exam)*

<table>
<thead>
<tr>
<th>Small molecule kinase inhibitors</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BCR-ABL1 inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Epidermal growth factor receptor (EGFR) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Vascular endothelial growth factor receptor (VEGFR)/multitargeted inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>BRAF inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Anaplastic lymphoma kinase (ALK) and mesenchymal epithelial transition (MET) growth factor inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>RET, ROS1, and NTRK inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Mitogen-activated protein kinase (MEK) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Bruton’s tyrosine kinase (BTK) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Janus kinase (JAK) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Phosphoinositide-3 kinase (PI3K) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Mammalian target of rapamycin (mTOR) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Cyclin-dependent kinase (CDK) inhibitors</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

**Agents with epigenetic activity**

| **Histone deacetylase (HDAC) inhibitors** | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |
| **DNA methyltransferase inhibitors** | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |
| **Metabolic inhibitors other than antimetabolites** | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |

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### ANTICANCER THERAPEUTICS, CLINICAL RESEARCH METHODOLOGY, AND ETHICS continued...

(9.5% of exam)

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<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
</table>

## ANTICANCER THERAPEUTICS continued… (8% of exam)

### Monoclonal antibodies and antibody conjugates other than immune checkpoint inhibitors

- **Monoclonal antibodies targeting EGFR, HER2, HER3, HER4**
- **Monoclonal antibodies targeting VEGFR pathway**
- **Monoclonal antibodies targeting B cell antigens (including CD20)**
- **Monoclonal antibodies targeting interleukin-6 (IL6)**
- **Bispecific monoclonal antibodies**

### Monoclonal antibody immune checkpoint inhibitors

- **Agents targeting cytotoxic T-lymphocyte-associated antigen 4 (CTLA4)**
- **Agents targeting programmed cell death protein 1 (PD-1) and programmed cell death ligand 1 (PD-L1)**
- **Tumor vaccines and viral-based immunotherapeutics**
- **Cytokines**

### Agents with other novel or specific targets

- **Proteasome inhibitors**
- **Immunomodulatory drugs (IMiDs)**
- **Hedgehog (Hh) inhibitors**
- **Poly(ADP-ribose) polymerase (PARP) inhibitors**
- **Arsenicals**

### Cellular therapeutics

- **High-dose therapy with stem cell rescue (autologous and allogeneic)**
- **Chimeric antigen receptor (CAR) T-cell therapy**

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<tr>
<th>ANTICANCER THERAPEUTICS, CLINICAL RESEARCH METHODOLOGY, AND ETHICS continued... (9.5% of exam)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
</tr>
<tr>
<td>Diagnosis</td>
</tr>
</tbody>
</table>

### CLINICAL RESEARCH METHODOLOGY AND ETHICS (<2% of exam)

**Clinical research methodology**

| Design and interpretation of clinical trials | Not Applicable |  |  |
| Tumor assessment, imaging, and end points |  |  |  |
| Surrogate end points |  |  |  |

**Ethics**

| Human subjects and regulatory and legal issues |  |  |  | Not Applicable |
| Physician behavior and conflict of interest |  |  |  | Not Applicable |

### PALLIATIVE CARE, SURVIVORSHIP, AND COMMUNICATION (11% of exam)

**CLINICAL MANIFESTATIONS OF ADVANCED CANCER AND ITS TREATMENT (4.5% of exam)**

| Cutaneous and mucosal manifestations |  |  |  |
| Endocrine manifestations |  |  |  |

**Gastrointestinal manifestations**

| Ascites and peritoneal metastases |  |  |  |
| Liver manifestations |  |  |  |
| Constipation |  |  |  |
| Diarrhea |  |  |  |
| Nausea and vomiting |  |  |  |
| Bowel obstruction |  |  |  |
| Esophagitis |  |  |  |

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**PALLIATIVE CARE, SURVIVORSHIP, AND COMMUNICATION** continued…

<table>
<thead>
<tr>
<th></th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematologic manifestations</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Bleeding</td>
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<tr>
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<td>Transfusion reactions</td>
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<tr>
<td><strong>Musculoskeletal manifestations</strong></td>
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</table>

**Neurologic manifestations***

<table>
<thead>
<tr>
<th></th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinal cord compression</td>
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<td>Increased intracranial pressure</td>
<td>✓</td>
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<td>Progressive multifocal leukoencephalopathy</td>
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<td>✓</td>
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<tr>
<td>Radiation-related toxicity</td>
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<td>✓</td>
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</tr>
</tbody>
</table>

**Renal, metabolic, and nutritional manifestations***

<table>
<thead>
<tr>
<th></th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
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<tbody>
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<td>Tumor lysis syndrome</td>
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<tr>
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<td>Paraneoplastic syndromes</td>
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</tbody>
</table>

**Cardiothoracic manifestations**

<table>
<thead>
<tr>
<th></th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleural and pericardial effusions</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pneumonitis</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cough</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Superior vena cava syndrome</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
### PALLIATIVE CARE, SURVIVORSHIP, AND COMMUNICATION

*(11% of exam)*

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
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<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
</table>

#### CLINICAL MANIFESTATIONS OF ADVANCED CANCER AND ITS TREATMENT

*(4.5% of exam)*

<table>
<thead>
<tr>
<th>Fatigue</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
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</table>

#### Psychiatric manifestations

<table>
<thead>
<tr>
<th>Depression</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Delirium</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Infectious risks and complications</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Febrile neutropenia</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Lymphedema</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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</tbody>
</table>

#### CANCER PAIN

*(2% of exam)*

<table>
<thead>
<tr>
<th>Use of opioids</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of nonopioids</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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#### SURVIVORSHIP ISSUES

*(<2% of exam)*

<table>
<thead>
<tr>
<th>Fertility</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
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</thead>
<tbody>
<tr>
<td>Second primary cancers</td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Secondary cancer prevention</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Nonmalignant sequelae</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Surveillance</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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#### END-OF-LIFE ISSUES

*(2% of exam)*

<table>
<thead>
<tr>
<th>Hospice</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
<th>✔</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeding and nutrition</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Decision making</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

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### PALLIATIVE CARE, SURVIVORSHIP, AND COMMUNICATION (11% of exam)

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<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td></td>
<td></td>
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</tbody>
</table>

### PROCEDURE-RELATED ISSUES (<2% of exam)

<table>
<thead>
<tr>
<th>Procedure</th>
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<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemotherapy administration</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Bone marrow aspiration, biopsy, and interpretation</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Tumor assessment</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Thoracentesis</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>Paracentesis</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Feeding tubes</td>
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<td>✔️</td>
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</tr>
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### COMMUNICATION (<2% of exam)

<table>
<thead>
<tr>
<th>Task</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating prognosis and other clinical information</td>
<td>Not Applicable</td>
<td>✔️</td>
<td>✔️</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Discussing goals of care</td>
<td>Not Applicable</td>
<td>✔️</td>
<td>✔️</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Discussing survivorship issues</td>
<td>Not Applicable</td>
<td>✔️</td>
<td>✔️</td>
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<td></td>
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</tbody>
</table>

### HEAD, NECK, THYROID, AND CENTRAL NERVOUS SYSTEM MALIGNANCIES (4% of exam)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td></td>
<td></td>
<td></td>
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</tbody>
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### SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK (<2% of exam)

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human papillomavirus–positive disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>Local-regional disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>Human papillomavirus–negative disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>Local-regional disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>Recurrent and metastatic disease</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
</tbody>
</table>

### SALIVARY GLAND TUMORS (<2% of exam)

<table>
<thead>
<tr>
<th>Tumor Type</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salivary Gland Tumors</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>❌</td>
</tr>
</tbody>
</table>
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**Low Importance**: No exam questions will address topics and tasks with this designation.

**Low Frequency**: No more than 20% of exam questions will address topics with this designation, regardless of task or importance.

### HEAD, NECK, THYROID, AND CENTRAL NERVOUS SYSTEM MALIGNANCIES (4% of exam)  

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
</table>

#### THYROID CANCER (<2% of exam)

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papillary</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Medullary</td>
<td>LF</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</table>

#### NASOPHARYNGEAL CARCINOMA (<2% of exam)

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local and regional disease</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Metastatic disease</td>
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#### CENTRAL NERVOUS SYSTEM MALIGNANCIES (<2% of exam)

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary central nervous system lesions</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>High-grade gliomas (astrocytoma and glioblastoma)</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Oligodendroglioma and other central nervous system lesions</td>
<td>LF</td>
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<td>×</td>
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<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/Care Decisions</th>
<th>Risk Assessment/Prognosis/Epidemiology</th>
<th>Pathophysiology/Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metastatic central nervous system lesions</td>
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<td>✓</td>
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<td>✓</td>
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<tr>
<td>Parenchymal metastases</td>
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<td>✓</td>
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<tr>
<td>Meningeal metastases</td>
<td>LF</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>GENETICS, GENOMICS, AND TUMOR BIOLOGY (2% of exam)</th>
<th>Diagnosis</th>
<th>Testing</th>
<th>Treatment/ Care Decisions</th>
<th>Risk Assessment/ Prognosis/ Epidemiology</th>
<th>Pathophysiology/ Basic Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CANCER BIOLOGY AND GENETICS (&lt;2% of exam)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcinogenesis</td>
<td>LF</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
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<td>LF</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

**TUMOR IMMUNOLOGY (<2% of exam)**

| Tumor immunology                                 | ✔️        | ✔️      | ✔️                        | ☑️                                       | ✔️                            |

**HERITABLE CANCER SYNDROMES (<2% of exam)**

| Li-Fraumeni syndrome (TP53)                       | LF        | ✔️      | ✔️                        | ✔️                                       | ✔️                            |
| BRCA1 and BRCA2 syndromes                         | ✔️        | ✔️      | ✔️                        | ✔️                                       | 🔴                            |
| Familial colorectal cancer                        |           |         |                           |                                          |                               |
| Familial adenomatous polyposis                    | LF        | ✔️      | ✔️                        | ✔️                                       | ✔️                            |
| Lynch syndrome (hereditary nonpolyposis colorectal cancer) | ✔️        | ✔️      | ✔️                        | ✔️                                       | ✔️                            |
| Multiple endocrine neoplasia and familial medullary thyroid cancer syndromes | LF        | ✔️      | ✔️                        | ✔️                                       | 🔴                            |

**CANCER EPIDEMIOLOGY AND STATISTICS (<2% of exam)**

| Cancer epidemiology                              | ✔️        | ✔️      | ✔️                        | ✗                                        | ✔️                            |