Clinical Trials: The NCCN recommends cancer patient participation in clinical trials as the gold standard for treatment.

Cancer therapy selection, dosing, administration, and the management of related adverse events can be a complex process that should be handled by an experienced healthcare team. Clinicians must choose and verify treatment options based on the individual patient; drug dose modifications and supportive care interventions should be administered accordingly. The cancer treatment regimens below may include both U.S. Food and Drug Administration-approved and unapproved indications/regimens. These regimens are only provided to supplement the latest treatment strategies.

These Guidelines are a work in progress that may be refined as often as new significant data becomes available. The NCCN Guidelines® are a consensus statement of its authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult any NCCN Guidelines® is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient’s care or treatment. The National Comprehensive Cancer Network makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way.

**Systemic Therapy**

**Note:** All recommendations are Category 2A unless otherwise indicated.

### First-Line Combination Chemotherapy Regimens

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP (preferred for thymoma)</td>
<td><strong>Day 1:</strong> Cisplatin 50mg/m² IV + doxorubicin 50mg/m² IV + cyclophosphamide 500mg/m² IV. Repeat every 21 days for a max of 8 cycles.</td>
</tr>
<tr>
<td>CAP with prednisone</td>
<td><strong>Day 1:</strong> Cyclophosphamide 500mg/m² IV&lt;br&gt;<strong>Days 1-3:</strong> Cisplatin 30mg/m² IV&lt;br&gt;<strong>Days 1-3:</strong> Doxorubicin 20mg/m² via 24-hour continuous IV infusion&lt;br&gt;<strong>Days 1-5:</strong> Prednisone 100mg. Repeat every 3 weeks for 3 cycles.</td>
</tr>
<tr>
<td>ADOC</td>
<td><strong>Day 1:</strong> Cisplatin 50mg/m² IV and doxorubicin 40mg/m² IV&lt;br&gt;<strong>Day 3:</strong> Vincristine 0.6mg/m² IV&lt;br&gt;<strong>Day 4:</strong> Cyclophosphamide 700mg/m² IV. Repeat every 3 weeks for 5 cycles.</td>
</tr>
<tr>
<td>PE</td>
<td><strong>Day 1:</strong> Cisplatin 60mg/m² IV over 1 hour&lt;br&gt;<strong>Days 1-3:</strong> Etoposide 120mg/m² IV over 30 minutes. Repeat every 3 weeks for a max of 8 cycles.</td>
</tr>
<tr>
<td>VIP</td>
<td><strong>Days 1-4:</strong> Etoposide 75mg/m² + ifosfamide 1.2g/m² + cisplatin 20mg/m² IV. Repeat every 3 weeks for 4 cycles.</td>
</tr>
<tr>
<td>Carboplatin/paclitaxel (preferred for thymic carcinoma)</td>
<td><strong>Day 1:</strong> Paclitaxel 225mg/m² IV over 3 hours followed by carboplatin AUC = 6 IV over 30 minutes. Repeat every 3 weeks for a max of 6 cycles.</td>
</tr>
</tbody>
</table>

### Second-Line Chemotherapy

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etoposide</td>
<td><strong>Days 1-3:</strong> Etoposide 120mg/m² IV over 30 minutes. Repeat every 3 weeks for a max of 8 cycles.</td>
</tr>
<tr>
<td>Ifosfamide</td>
<td><strong>Days 1-5:</strong> Ifosfamide 1.5g/m² IV. Repeat every 3 weeks for a max of 9 cycles.</td>
</tr>
<tr>
<td>Pemetrexed</td>
<td><strong>Day 1:</strong> Pemetrexed 500mg/m². Repeat every 3 weeks for a max of 6 cycles.</td>
</tr>
<tr>
<td>Octreotide (including LAR) ± prednisone</td>
<td>Octreotide 0.5 mg SQ TID ± Prednisone 0.6 mg/kg/day. Treat for a maximum of 1 year.</td>
</tr>
<tr>
<td>5-FU + leucovorin</td>
<td><strong>Days 1-5:</strong> 5-FU 300-370mg/m² IV + leucovorin 200mg/m² IV rapid infusion. Repeat every 28 days.</td>
</tr>
<tr>
<td>Gemcitabine</td>
<td><strong>Days 1, 8, and 15:</strong> Gemcitabine 1000mg/m² IV over 30 minutes. Repeat every 28 days in patients with acceptable toxicity and no evidence of disease progression.</td>
</tr>
<tr>
<td>Paclitaxel</td>
<td><strong>Days 1, 8, 15, 22, 29, and 36:</strong> Paclitaxel 80mg/m² IV. Repeat every 8 weeks until tumor response.</td>
</tr>
<tr>
<td>Sunitinib (thymic carcinomas only)</td>
<td>Sunitinib 50mg PO once daily for 4 weeks, followed by 2 weeks off. Repeat every 6 weeks until disease progression.</td>
</tr>
<tr>
<td>Everolimus</td>
<td>Everolimus 10mg PO once daily. Continue treatment until disease progression or unacceptable toxicity.</td>
</tr>
</tbody>
</table>

**continued**
References


