

## SMALL CELL LUNG CANCER TREATMENT REGIMENS (Part 1 of 3)

**Clinical Trials:** The National Comprehensive Cancer Network 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 health care 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 provided only to supplement the latest treatment strategies.

These Guidelines are a work in progress that may be refined as often as new significant data become 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 NCCN 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.

### Principles of Systemic Therapy

#### Response Assessment for Limited-stage

- For patients receiving adjuvant therapy, response assessment should occur only after completion of adjuvant therapy; do not repeat scans to assess response during adjuvant treatment.
- For patients receiving systemic therapy + concurrent radiotherapy, response assessment should only occur after completion of initial therapy; do not repeat scans to assess response during initial treatment.
- For patients receiving systemic therapy alone or sequential systemic therapy followed by radiotherapy, response assessment by chest/abdomen CT with contrast should occur after every 2 cycles of systemic therapy and at completion of therapy.

#### Response Assessment for Extensive-stage

- During systemic therapy, response assessment by chest/abdomen CT with contrast should occur every 2-3 cycles of systemic therapy and at completion of therapy.
- For patients with asymptomatic brain metastases receiving systemic therapy before whole-brain radiotherapy, brain MRI (preferred) or CT with contrast should be repeated after every 2 cycles of systemic therapy and at completion of therapy.

#### Response Assessment of Subsequent Systemic therapy

- Response assessment by chest/abdomen CT with contrast should occur after every 2-3 cycles of systemic therapy.

### Systemic Therapy as Primary or Adjuvant Therapy<sup>1,a</sup>

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

#### Limited Stage (maximum of 4-6 cycles)<sup>1,b,c</sup>

##### Cisplatin + etoposide<sup>2,3</sup>

**Day 1:** Cisplatin 60mg/m<sup>2</sup> IV  
**Days 1-3:** Etoposide 120mg/m<sup>2</sup> IV.  
 Repeat cycle every 3 weeks for at least 4 cycles.  
**OR**  
**Day 1:** Cisplatin 80mg/m<sup>2</sup> IV  
**Days 1-3:** Etoposide 100mg/m<sup>2</sup> IV.  
 Repeat cycle every 4 weeks for 4-6 cycles.

##### Carboplatin + etoposide<sup>4</sup>

**Day 1:** Carboplatin AUC 5-6mg • min/mL IV  
**Days 1-3:** Etoposide 100mg/m<sup>2</sup> IV.  
 Repeat cycle every 3 weeks for 4-6 cycles.

#### Extensive Stage (maximum of 4-6 cycles)<sup>1,d</sup>

##### Carboplatin + etoposide<sup>5</sup>

**Day 1:** Carboplatin AUC 5-6mg • min/mL IV  
**Days 1-3:** Etoposide 100mg/m<sup>2</sup> IV.  
 Repeat cycle every 4 weeks for 4-6 cycles.

##### Cisplatin + etoposide<sup>6-8</sup>

**Day 1:** Cisplatin 75mg/m<sup>2</sup> IV  
**Days 1-3:** Etoposide 100mg/m<sup>2</sup> IV.  
 Repeat cycle every 3 weeks for 4-6 cycles.  
**OR**  
**Day 1:** Cisplatin 80mg/m<sup>2</sup> IV  
**Days 1-3:** Etoposide 80mg/m<sup>2</sup> IV.  
 Repeat cycle every 3 weeks for 4-6 cycles.  
**OR**  
**Days 1-3:** Cisplatin 25mg/m<sup>2</sup> IV + etoposide 100mg/m<sup>2</sup> IV.  
 Repeat cycle every 3 weeks for 4-6 cycles.

##### Carboplatin + irinotecan<sup>9</sup>

**Day 1:** Carboplatin AUC 5mg • min/mL IV  
**Days 1, 8, and 15:** Irinotecan 50mg/m<sup>2</sup> IV.  
 Repeat cycle every 4 weeks for 4-6 cycles.

##### Cisplatin + irinotecan<sup>10,11</sup>

**Day 1:** Cisplatin 60mg/m<sup>2</sup> IV  
**Days 1, 8, and 15:** Irinotecan 60mg/m<sup>2</sup> IV.  
 Repeat cycle every 4 weeks for 4 cycles.  
**OR**  
**Day 1 and 8:** Cisplatin 30mg/m<sup>2</sup> IV + irinotecan 65mg/m<sup>2</sup> IV.  
 Repeat cycle every 3 weeks for 4-6 cycles.

*continued*

## SMALL CELL LUNG CANCER TREATMENT REGIMENS (Part 2 of 3)

### Subsequent Systemic Therapy<sup>1,e</sup>

#### Relapse ≤6 months, PS 0-2<sup>1</sup>

<b>Topotecan</b> <sup>12-14</sup>	<b>Days 1-5:</b> Topotecan 1.5mg/m <sup>2</sup> IV daily over 30 minutes. Repeat cycle every 3 weeks. <b>OR</b> <b>Days 1-5:</b> Topotecan 2.3mg/m <sup>2</sup> orally once daily. Repeat cycle every 3 weeks.
<b>Irinotecan</b> <sup>15</sup>	<b>Day 1:</b> Irinotecan 100mg/m <sup>2</sup> IV over 90 minutes. Repeat cycle every week.
<b>Paclitaxel</b> <sup>16,17</sup>	<b>Day 1:</b> Paclitaxel 80mg/m <sup>2</sup> IV over 1 hour. Repeat every week for 6 weeks, followed by a 2-week break.
<b>Docetaxel</b> <sup>18</sup>	<b>Day 1:</b> Docetaxel 100 mg/m <sup>2</sup> IV over 1 hour. Repeat cycle every 3 weeks.
<b>Temozolomide</b> <sup>19,20</sup>	<b>Day 1-21:</b> Temozolomide 75mg/m <sup>2</sup> orally. Repeat cycle every 4 weeks.
<b>Nivolumab ± ipilimumab</b> <sup>21,22</sup>	<b>Day 1:</b> Nivolumab 3mg/kg IV. Repeat cycle every 2 weeks until disease progression or unacceptable toxicity. <b>OR</b> <b>Day 1:</b> Nivolumab 1mg/kg IV + ipilimumab 3mg/kg IV. Repeat cycle every 3 weeks for 4 cycles, followed by nivolumab 3mg/kg IV every 2 weeks. <b>OR</b> Nivolumab 3mg/kg IV + ipilimumab 1mg/kg IV. Repeat cycle every 3 weeks for 4 cycles, followed by nivolumab 3mg/kg IV every 2 weeks.
<b>Vinorelbine</b> <sup>23,24</sup>	<b>Day 1:</b> Vinorelbine 25-30mg/m <sup>2</sup> IV. Repeat cycle every week.
<b>Etoposide</b> <sup>25,26</sup>	<b>Day 1-21:</b> Etoposide 50mg/m <sup>2</sup> orally. Repeat cycle every 4 to 5 weeks.
<b>Gemcitabine</b> <sup>27,28</sup>	<b>Days 1, 8, and 15:</b> Gemcitabine 1,000mg/m <sup>2</sup> IV. Repeat cycle every 4 weeks.
<b>Cyclophosphamide + doxorubicin + vincristine (CAV)</b> <sup>12</sup>	<b>Day 1:</b> Cyclophosphamide 1,000mg/m <sup>2</sup> IV + doxorubicin 45mg/m <sup>2</sup> IV + vincristine 2mg IV. Repeat cycle every 3 weeks.
<b>Bendamustine (Category 2B)</b> <sup>29</sup>	<b>Days 1 and 2:</b> Bendamustine 120mg/m <sup>2</sup> IV. Repeat cycle every 3 weeks for up to 6 cycles.

#### Relapse >6 months<sup>1</sup>

- Original regimen<sup>29,30</sup>

<sup>a</sup> The regimens included are representative of the more commonly used regimens for small cell lung cancer. Other regimens may be acceptable.

<sup>b</sup> During systemic therapy + radiotherapy, cisplatin/etoposide is recommended (category 1).

<sup>c</sup> The use of myeloid growth factors is not recommended during concurrent systemic therapy plus radiotherapy (category 1 for not using GM-CSF).<sup>32</sup>

<sup>d</sup> If not used as original regimen, may be used as therapy for primary progressive disease.

<sup>e</sup> Subsequent systemic therapy refers to second-line and beyond therapy.

### References

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