

Non-Small Cell Lung Cancer Treatment Regimens

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 National Comprehensive Cancer Network 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.

Note: All recommendations are category 2A unless otherwise indicated.

► Systemic Therapy for Advanced or Metastatic Disease¹

REGIMEN	DOSING
Sensitizing EGFR Mutation Positive: First-Line	
Afatinib (Category 1) ²⁻⁴	Afatinib 40mg orally once daily.
Erlotinib (Category 1) ⁵⁻⁸	Erlotinib 150mg orally once daily.
Dacomitinib (Category 1) ^{9,10}	Dacomitinib 45mg orally once daily.
Gefitinib (Category 1) ^{11,12}	Gefitinib 250mg orally once daily.
Osimertinib (Category 1; preferred) ¹³⁻¹⁶	Osimertinib 80mg orally once daily.
Sensitizing EGFR Mutation Positive: Subsequent Therapy	
Afatinib + Cetuximab (if T790M-) ^{2,17-18}	Days 1-14: Afatinib 40mg orally once daily Day 1: Cetuximab 500mg/m ² IV. Repeat cycle every 2 weeks.
Osimertinib (if T790M+) (Category 1, if not previously given) ¹³⁻¹⁶	Osimertinib 80mg orally once daily.
ALK Rearrangement Positive: First-Line	
Alectinib (Category 1; preferred) ^{19,20}	Alectinib 600mg orally twice daily
Brigatinib (Category 1) ²¹⁻²³	Days 1-7: Brigatinib 90mg once daily, followed by: Days 8-28: Brigatinib 180mg orally once daily Administer for one 28-day cycle, followed by: Days 1-28: Brigatinib 180mg orally once daily. Repeat cycle every 4 weeks.
Ceritinib (Category 1) ²⁴⁻²⁸	Ceritinib 450mg orally once daily.
Crizotinib (Category 1) ²⁹⁻³²	Crizotinib 250mg orally twice daily.
ALK Rearrangement Positive: Subsequent Therapy	
Alectinib ^{19,20}	Alectinib 600mg orally twice daily
Brigatinib ²¹⁻²³	Days 1-7: Brigatinib 90mg once daily, followed by: Days 8-28: Brigatinib 180mg orally once daily Administer for one 28-day cycle, followed by: Days 1-28: Brigatinib 180mg orally once daily. Repeat cycle every 4 weeks.
Ceritinib ²⁴⁻²⁸	Ceritinib 450mg orally once daily.
Lorlatinib ³³⁻³⁵	Lorlatinib 100mg orally once daily.
ROS1 Rearrangement Positive: First-Line	
Ceritinib ²⁴⁻²⁸	Ceritinib 450mg orally once daily.
Crizotinib (preferred) ²⁹⁻³²	Crizotinib 250mg orally twice daily.
Entrectinib (preferred) ^{36,37}	Entrectinib 600mg orally once daily.

continued

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► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
ROS1 Rearrangement Positive: Subsequent Therapy	
Lorlatinib ³³⁻³⁵	Lorlatinib 100mg orally once daily.
BRAF V600E Mutation Positive: First-line and Subsequent Therapy	
Dabrafenib ^{38-40,a}	Dabrafenib 150mg orally twice daily.
Dabrafenib + Trametinib ^{38,41-43,a}	Dabrafenib 150mg orally twice daily Trametinib 2mg orally once daily.
Vemurafenib ^{44-46,a}	Vemurafenib 960mg orally twice daily.
NTRK Gene Fusion Positive^c	
Entrectinib ^{36,37}	Entrectinib 600mg orally once daily.
Larotrectinib ⁴⁷⁻⁴⁹	Larotrectinib 100mg orally twice daily.
PD-L1 expression positive (≥1%) and EGFR, ALK negative or unknown, adenocarcinoma, large cell, NSCLC NOS: First-Line^b	
Carboplatin + Paclitaxel + Bevacizumab + Atezolizumab (Category 1) ^{50-53,c,d}	Day 1: Atezolizumab 1,200mg IV Day 1: Bevacizumab 15mg/kg IV Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^d
Carboplatin + Pemetrexed + Pembrolizumab (Category 1 if PD-L1 ≥50%; category 1 and preferred if PD-L1 1-49%) ^{53-55,e}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat every 3 weeks for 4-6 cycles. ^e
Cisplatin + Pemetrexed + Pembrolizumab (Category 1 if PD-L1 ≥50%; Category 1 and preferred if PD-L1 1-49%) ^{53,54,e}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^e
Pembrolizumab (Category 1 and preferred if PD-L1 ≥50%; Category 2B is PD-L1 1-49%) ^{53,56-58,f,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for a total maximum of 35 cycles of Pembrolizumab. ^g
PD-L1 expression positive (≥1%) and EGFR, ALK negative or unknown, adenocarcinoma, large cell, NSCLC NOS: Continuation Maintenance Therapy^b	
Atezolizumab and/or Bevacizumab (Category 1) ^{50-52,59,60,c}	Day 1: Atezolizumab 1,200mg IV. Repeat cycle every 3 weeks. OR Day 1: Atezolizumab 1,200mg IV Day 1: Bevacizumab 15mg/kg IV. Repeat cycle every 3 weeks. OR Bevacizumab 15mg/kg IV. Repeat cycle every 3 weeks.
Pembrolizumab (Category 1) ^{53,56-58}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for a maximum total of 35 cycles of Pembrolizumab.
Pembrolizumab + Pemetrexed (Category 1) ⁵³⁻⁵⁵	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Repeat cycle every 3 weeks for a maximum total of 35 cycles of Pembrolizumab, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat cycle every 3 weeks. ¹
PD-L1 expression positive (≥1%) and EGFR, ALK negative or unknown, squamous cell carcinoma: First-Line^b	
Carboplatin + Albumin-Bound Paclitaxel + Pembrolizumab (Category 1 if PD-L1 ≥50%; Category 1 and preferred if PD-L1 1-49%) ^{53,61,g}	Day 1: Pembrolizumab 200mg IV ^h over 30 minutes, followed by: Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat every 3 weeks for 4 cycles.

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► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
PD-L1 expression positive (≥1%) and EGFR, ALK negative or unknown, squamous cell carcinoma: First-Line^b (continued)	
Carboplatin + Paclitaxel + Pembrolizumab (Category 1 if PD-L1 ≥50%; Category 1 and preferred if PD-L1 1-49%) ^{53,61,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat every 3 weeks for 4 cycles. ^g
Cisplatin + Albumin-Bound Paclitaxel + Pembrolizumab (Category 1 if PD-L1 ≥50%; Category 1 and preferred if PD-L1 1-49%) ^{53,61-63,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4 cycles. ^g
Cisplatin + Paclitaxel + Pembrolizumab (Category 1 if PD-L1 ≥50%; Category 1 and preferred if PD-L1 1-49%) ^{53,61-63,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4 cycles. ^g
Pembrolizumab (Category 1 and preferred if PD-L1 ≥50%; Category 2B is PD-L1 1-49%) ^{53,56-58,f,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for a maximum of 35 cycles. ^g
PD-L1 expression positive (≥1%) and EGFR, ALK negative or unknown, squamous cell carcinoma: Continuation Maintenance^b	
Pembrolizumab ^{53,56-58}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat every 3 weeks for a maximum total of 35 cycles of Pembrolizumab.
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 0-1): Initial Therapy^{h,j}	
No contraindications to the addition of Pembrolizumab or Atezolizumab	
Atezolizumab + Carboplatin + Paclitaxel + Bevacizumab (Category 1) ^{50-53,c,d}	Day 1: Atezolizumab 1,200mg IV Day 1: Bevacizumab 15mg/kg IV Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^d
Pembrolizumab + Carboplatin + Pemetrexed (Category 1; preferred) ^{53-55,e}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat every 3 weeks for 4-6 cycles. ^e
Pembrolizumab + Cisplatin + Pemetrexed (Category 1; preferred) ^{53,54,e}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat every 3 weeks for 4-6 cycles. ^e
Contraindications to the addition of Pembrolizumab or Atezolizumab	
Bevacizumab + Carboplatin + Paclitaxel (Category 1) ^{51,64,c,k}	Day 1: Bevacizumab 15mg/kg IV Day 1: Paclitaxel 200mg/m ² IV over 3 hours, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 6 cycles. ^k
Bevacizumab + Carboplatin + Pemetrexed ^{51,65,c,l}	Day 1: Bevacizumab 15mg/kg IV Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^l
Bevacizumab + Cisplatin + Pemetrexed ^{51,66,c,l}	Day 1: Bevacizumab 7.5mg/kg IV Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^l
Carboplatin + Albumin-bound Paclitaxel (Category 1) ⁶²	Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.

continued

Non-Small Cell Lung Cancer Treatment Regimens

► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 0-1): Initial Therapy^{h-j} (continued)	
Contraindications to the addition of Pembrolizumab or Atezolizumab (continued)	
Carboplatin + Docetaxel (Category 1) ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Etoposide (Category 1) ^{68,69}	Days 1-3: Etoposide 100mg/m ² IV over 30 minutes daily Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Gemcitabine (Category 1) ^{70,m}	Days 1,8,15: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles. ^m
Carboplatin + Paclitaxel (Category 1) ^{71,72}	Day 1: Paclitaxel 200mg/m ² IV over 3 hours, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Pemetrexed (Category 1) ^{73,n}	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ⁿ
Cisplatin + Docetaxel (Category 1) ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Cisplatin + Etoposide (Category 1) ⁷⁴	Day 1: Cisplatin 100mg/m ² IV over 60 minutes Days 1-3: Etoposide 100mg/m ² IV over 60 minutes daily. Repeat cycle every 3 weeks for 4-6 cycles.
Cisplatin + Gemcitabine (Category 1) ^{71,75,m}	Days 1 and 8: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes, followed by: Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Cisplatin + Paclitaxel (Category 1) ^{66,71,75}	Day 1: Paclitaxel 135mg/m ² IV over 3 hours, followed by: Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Cisplatin + Pemetrexed (Category 1) ^{75,77,n}	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ⁿ
Gemcitabine + Docetaxel (Category 1) ^{78,m}	Days 1 and 8: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes Day 8: Docetaxel 85mg/m ² IV over 60 minutes, followed by: Day 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Gemcitabine + Vinorelbine (Category 1) ^{79,m}	Days 1 and 8: Vinorelbine 25mg/m ² over 5-10 minutes Days 1 and 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 2): Initial Therapy^{h-j}	
Albumin-bound Paclitaxel ^{80,81}	Day 1: Albumin-bound Paclitaxel 260mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. OR Days 1,8,15: Albumin-bound Paclitaxel 125mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles.
Carboplatin + Albumin-bound Paclitaxel ⁶²	Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Docetaxel ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.

continued

Non-Small Cell Lung Cancer Treatment Regimens

► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 2): Initial Therapy^{h-j} (continued)	
Carboplatin + Etoposide ^{68,69}	Days 1-3: Etoposide 100mg/m ² IV over 30 minutes daily Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Gemcitabine ^{70,m}	Days 1,8,15: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles. ^m
Carboplatin + Paclitaxel ^{71,72}	Day 1: Paclitaxel 200mg/m ² IV over 3 hours, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Pemetrexed ^{73,n}	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ⁿ
Docetaxel ^{82,83}	Day 1: Docetaxel 75mg/mg IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Gemcitabine ^{8,84,85,m}	Days 1,8,15: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles. ^m OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Gemcitabine + Docetaxel ^{78,m}	Day 1: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 8: Docetaxel 85mg/m ² IV over 30 minutes, followed by: Day 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat every 3 weeks for 4-6 weeks. ^m
Gemcitabine + Vinorelbine ^{79,m}	Days 1 and 8: Vinorelbine 25mg/m ² IV over 5-10 minutes Days 1 and 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Paclitaxel ⁸⁶⁻⁸⁸	Day 1: Paclitaxel 200-225mg/m ² IV over 3 hours. Repeat cycle every 3 weeks for 4-6 cycles. OR Days 1,8,15: Paclitaxel 80mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 4-6 cycles.
Pemetrexed ^{89-91,n}	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ⁿ
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 0-2): Continuation Maintenance	
Atezolizumab (Category 1) ^{50,59,60}	Day 1: Atezolizumab 1,200mg IV. Repeat cycle every 3 weeks.
Atezolizumab and Bevacizumab (Category 1) ⁵⁰⁻⁵²	Day 1: Atezolizumab 1,200mg IV Day 1: Bevacizumab 15mg/kg IV. Repeat cycle every 3 weeks.
Bevacizumab (Category 1) ^{50,64,c}	Day 1: Bevacizumab 15mg/kg IV. Repeat cycle every 3 weeks.
Pemetrexed (Category 1) ⁸⁹⁻⁹¹	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat every 3 weeks.
Bevacizumab + Pemetrexed ^{51,65,66,c}	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Bevacizumab 7.5-15mg/kg IV. Repeat cycle every 3 weeks.
Pembrolizumab + Pemetrexed (Category 1) ⁵³⁻⁵⁵	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Repeat every 3 weeks until a total maximum of 35 cycles of Pembrolizumab has been completed, followed by: Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat cycle every 3 weeks.

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► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 0-2): Continuation Maintenance (continued)	
Gemcitabine (Category 2B) ^{8,84,85}	Days 1,8,15: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks. OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks.
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 0-2): Switch Maintenance	
Pemetrexed ⁸⁹⁻⁹¹	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat cycle every 3 weeks.
Adenocarcinoma, Large Cell, NSCLC, NOS (PS 0-2): Subsequent Therapy^{i,o}	
Atezolizumab (Category 1) ^{50,59,60}	Day 1: Atezolizumab 1,200mg IV. Repeat cycle every 3 weeks.
Docetaxel ^{82,83}	Day 1: Docetaxel 75mg/m ² IV over 60 minutes. Repeat every 3 weeks.
Gemcitabine ^{8,84,85}	Days 1,8,15: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks. OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks.
Nivolumab (Category 1) ^{92,96}	Day 1: Nivolumab 240mg IV over 30 minutes. Repeat cycle every 2 weeks. OR Day 1: Nivolumab 480mg IV over 30 minutes. Repeat cycle every 4 weeks.
Pembrolizumab (Category 1) ^{53,56-58}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for a total maximum of 35 cycles of Pembrolizumab.
Pemetrexed ⁸⁹⁻⁹¹	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat cycle every 3 weeks.
Ramucirumab + Docetaxel ^{97,98}	Day 1: Ramucirumab 10mg/kg IV over 60 minutes Day 1: Docetaxel 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks.
Squamous Cell Carcinoma (PS 0-1): Initial Therapy^{h,j}	
No contraindications to the addition of Pembrolizumab	
Pembrolizumab + Carboplatin + Albumin-bound Paclitaxel (Category 1; preferred) ^{53,61,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4 cycles. ^g
Pembrolizumab + Carboplatin + Paclitaxel (Category 1; preferred) ^{53,61,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Carboplatin AUC 6 over 30 minutes. Repeat cycle every 3 weeks for 4 cycles. ^g
Pembrolizumab + Cisplatin + Albumin-bound Paclitaxel ^{53,61-63,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes. Repeat cycle every 3 week for 4 cycles. ^g
Pembrolizumab + Cisplatin + Paclitaxel ^{53,61,63,g}	Day 1: Pembrolizumab 200mg IV over 30 minutes, followed by: Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4 cycles. ^g

continued

Non-Small Cell Lung Cancer Treatment Regimens

► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
Squamous Cell Carcinoma (PS 0-1): Initial Therapy^{h-j} (continued)	
Contraindications to the addition of Pembrolizumab	
Carboplatin + Albumin-bound Paclitaxel (Category 1) ⁶²	Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Docetaxel (Category 1) ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Gemcitabine (Category 1) ^{70,m}	Days 1,8,15: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles. ^m
Carboplatin + Paclitaxel (Category 1) ^{71,72}	Day 1: Paclitaxel 200mg/m ² IV over 3 hours, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Cisplatin + Docetaxel (Category 1) ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Cisplatin 75mg/m ² over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Cisplatin + Etoposide (Category 1) ⁷⁴	Day 1: Cisplatin 100mg/m ² over 60 minutes Days 1-3: Etoposide 100mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Cisplatin + Gemcitabine (Category 1) ^{8,71,75,m}	Days 1 and 8: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes, followed by: Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Cisplatin + Paclitaxel (Category 1) ^{66,71,75}	Day 1: Paclitaxel 135mg/m ² IV over 3 hours, followed by: Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat every 3 weeks for 4-6 cycles.
Gemcitabine + Docetaxel (Category 1) ⁷⁸	Day 1: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 8: Docetaxel 85mg/m ² IV over 30 minutes, followed by: Day 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat every 3 weeks for 4-6 weeks.
Gemcitabine + Vinorelbine (Category 1) ^{79,m}	Days 1 and 8: Vinorelbine 25mg/m ² IV over 5-10 minutes Day 1 and 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Squamous Cell Carcinoma (PS 2): Initial Therapy^{h-j}	
Albumin-bound Paclitaxel ^{80,81}	Day 1: Albumin-bound Paclitaxel 260mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. OR Days 1, 8, 15: Albumin-bound Paclitaxel 125mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles.
Carboplatin + Albumin-bound Paclitaxel ⁶²	Days 1,8,15: Albumin-bound Paclitaxel 100mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Docetaxel ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Etoposide ⁶⁹	Days 1-3: Etoposide 100mg/m ² IV over 30 minutes daily Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Carboplatin + Paclitaxel ^{71,73}	Day 1: Paclitaxel 200mg/m ² IV over 3 hours, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles.

continued

Non-Small Cell Lung Cancer Treatment Regimens

► Systemic Therapy for Advanced or Metastatic Disease¹ (continued)

REGIMEN	DOSING
Squamous Cell Carcinoma (PS 2): Initial Therapy^{h,j} (continued)	
Docetaxel ^{82,83}	Day 1: Docetaxel 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Gemcitabine ^{8,84,85,m}	Days 1,8,15: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles. OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. ^m
Gemcitabine + Docetaxel ^{78,m}	Day 1: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 8: Docetaxel 85mg/m ² IV over 60 minutes, followed by: Day 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 weeks. ^m
Gemcitabine + Vinorelbine ^{79,m}	Days 1 and 8: Vinorelbine 25mg/m ² IV over 5-10 minutes Days 1 and 8: Gemcitabine 1,000mg/m ² IV over 30 minutes. Repeat every 3 weeks for 4-6 cycles. ^m
Paclitaxel ⁸⁶⁻⁸⁸	Day 1: Paclitaxel 200-225mg/m ² IV over 3 hours. Repeat cycle every 3 weeks for 4-6 cycles. OR Days 1,8,15: Paclitaxel 80mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 4-6 cycles.
Squamous Cell Carcinoma (PS 0-2): Continuation Maintenance	
Gemcitabine (Category 2B) ^{8,84,86}	Days 1,8,15: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks. OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks.
Pembrolizumab ^{53,56,58}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for a maximum total of 35 weeks of Pembrolizumab.
Squamous Cell Carcinoma (PS 0-2): Switch Maintenance	
Docetaxel (Category 2B) ^{82,83}	Day 1: Docetaxel 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks.
Squamous Cell Carcinoma (PS 0-2): Subsequent Therapy^{l,o}	
Atezolizumab (Category 1) ^{50,59,60}	Day 1: Atezolizumab 1,200mg IV. Repeat cycle every 3 weeks.
Docetaxel ^{82,83}	Day 1: Docetaxel 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks.
Gemcitabine ^{8,84,85}	Days 1,8,15: Gemcitabine 1,000-1,250mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks. OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks.
Nivolumab (Category 1) ⁹²⁻⁹⁶	Day 1: Nivolumab 240mg IV over 30 minutes. Repeat cycle every 2 weeks. OR Day 1: Nivolumab 480mg IV over 30 minutes. Repeat cycle every 4 weeks
Pembrolizumab (Category 1) ^{53,56-58}	Day 1: Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for a total maximum of 35 cycles of Pembrolizumab.
Ramucirumab + Docetaxel ^{97,98}	Day 1: Ramucirumab 10mg/kg IV over 60 minutes Day 1: Docetaxel 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks.

continued

Non-Small Cell Lung Cancer Treatment Regimens

► Chemotherapy Regimens for Neoadjuvant and Adjuvant Therapy^{1,p,q}

REGIMEN	DOSING
Cisplatin + Docetaxel ⁶⁷	Day 1: Docetaxel 75mg/m ² IV over 60 minutes, followed by: Day 1: Cisplatin 75mg/m ² over 60 minutes. Repeat cycle every 3 weeks for 4 cycles.
Cisplatin + Etoposide ⁹⁹	Day 1: Cisplatin 100mg/m ² IV over 60 minutes Days 1-3: Etoposide 100mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 4 cycles.
Cisplatin + Gemcitabine ^{8,75}	Days 1,8: Gemcitabine 1,250mg/m ² IV over 30 minutes, followed by: Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4 cycles.
Cisplatin + Pemetrexed (nonsquamous) ^{75,100}	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat cycle every 3 weeks for 4 cycles.
Cisplatin + Vinorelbine ^{99,101-103}	Day 1: Cisplatin 75-80mg/m ² IV over 60 minutes Days 1 and 8: Vinorelbine 25-30mg/m ² IV over 5-10 minutes. Repeat cycle every 3 weeks for 4 cycles. OR Days 1 and 8: Cisplatin 50mg/m ² IV over 60 minutes Days 1,8,15,22: Vinorelbine 25mg/m ² IV over 5-10 minutes. Repeat cycle every 4 weeks for 4 cycles. OR Day 1: Cisplatin 100mg/m ² over 60 minutes Days 1,8,15,22: Vinorelbine 30mg/m ² IV over 5-10 minutes. Repeat cycle every 4 weeks for 4 cycles.
For patients with comorbidities or patients not able to tolerate cisplatin	
Carboplatin + Gemcitabine ¹⁰⁰	Days 1 and 8: Gemcitabine 1,000mg/m ² IV over 30 minutes Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 3 weeks for 4 cycles.
Carboplatin + Paclitaxel ^{71,72}	Day 1: Paclitaxel 200mg/m ² IV over 3 hours, followed by: Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat cycle every 3 weeks for 4 cycles.
Carboplatin + Pemetrexed (nonsquamous) ¹⁰⁴	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Carboplatin AUC 5 IV over 30 minutes. Repeat cycle every 3 weeks for 4 cycles.

► Chemotherapy Regimens Used With Radiation Therapy (RT)^{1,r}

Carboplatin + Paclitaxel ¹⁰⁵	Day 1: Paclitaxel 45-50mg/m ² IV over 60 minutes, followed by: Day 1: Carboplatin AUC 2 IV over 30 minutes. Repeat induction therapy weekly for 7 weeks with radiation, followed by: Day 1: Paclitaxel 200mg/m ² IV over 3 hours Day 1: Carboplatin AUC 6 IV over 30 minutes. Repeat consolidation therapy every 3 weeks for 2 cycles starting 3-4 weeks after completion of concurrent chemoradiation.
Carboplatin + Pemetrexed (nonsquamous) ⁹¹	Day 1: Carboplatin AUC 5 IV over 30 minutes Day 1: Pemetrexed 500mg/m ² IV over 10 minutes. Repeat cycle every 3 weeks for 4 cycles with radiation.
Cisplatin + Etoposide ^{106,107}	Days 1 and 8: Cisplatin 50mg/m ² IV over 60 minutes Days 1-5: Etoposide 50mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 2 cycles with radiation.
Cisplatin + Pemetrexed (nonsquamous) ¹⁰⁸	Day 1: Pemetrexed 500mg/m ² IV over 10 minutes Day 1: Cisplatin 75mg/m ² IV over 60 minutes. Repeat induction therapy every 3 weeks for 3 cycles with radiation, followed by: Day 1: Pemetrexed 500mg/m ² over 10 minutes. Repeat consolidation therapy every 3 weeks for 4 cycles following concurrent chemotherapy/radiation.

continued

Non-Small Cell Lung Cancer Treatment Regimens

► Chemotherapy Regimens Used With Radiation Therapy (RT)^{1,r} (continued)

REGIMEN	DOSING
Cisplatin + Vinblastine ¹⁰⁹	Days 1 and 29: Cisplatin 100mg/m ² IV over 60 minutes Days 1,8,15,22,29: Vinblastine 5mg/m ² IV over 5-10 minutes. Administer for one 35-day cycle with radiation.

► Consolidation Therapy¹

Note: For patients with unresectable stage III NSCLC, PS 0-1, and no disease progression after 2 or more cycles of definitive chemoradiation.

Durvalumab (Category 1) ^{10,111,s}	Day 1: Durvalumab 10mg/kg IV over 60 minutes. Repeat cycle every 2 weeks for a maximum of 12 months.
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- Single-agent vemurafenib or dabrafenib are treatment options if the combination of dabrafenib + trametinib is not tolerated.
- No contraindications to the addition of pembrolizumab or atezolizumab.
- Criteria for treatment with bevacizumab, non-squamous NSCLC, and no recent history of hemoptysis. Bevacizumab should not be given as a single agent. An FDA-approved biosimilar is an appropriate substitute for bevacizumab.
- See atezolizumab and/or bevacizumab continuation maintenance if response or stable disease.
- See pembrolizumab + pemetrexed continuation maintenance if response or stable disease.
- Pembrolizumab monotherapy can be considered in PD-L1, 1-49%, in patients with poor PS, or other contraindications to combination therapy
- See pembrolizumab continuation maintenance therapy if response or stable disease.
- Albumin-bound paclitaxel may be substituted for either paclitaxel or docetaxel in patients who have experienced hypersensitivity reactions after receiving paclitaxel or docetaxel despite premedication, or for patients where the standard premedications (ie, dexamethasone, H2 blockers, H1 blockers) are contraindicated.
- Carboplatin-based regimens are often used for patients with comorbidities or those who cannot tolerate cisplatin.
- Upon disease progression, if patient has not received platinum-doublet chemotherapy, refer to initial therapy. If patient received platinum chemotherapy and antiPD-1/PD-L1, refer to subsequent therapy.
- See bevacizumab continuation maintenance therapy if response or stable disease.
- See pemetrexed, bevacizumab, or pemetrexed + bevacizumab continuation maintenance if response or stable disease.
- See gemcitabine continuation maintenance therapy if response or stable disease.
- See pemetrexed continuation maintenance therapy if response or stable disease.
- If progression on a PD-1/PD-L1 inhibitor, switching to another PD-1/PD-L1 inhibitor is not routinely recommended.
- After surgical evaluation, patients likely to receive adjuvant chemotherapy may be treated with induction chemotherapy as an alternative.
- All regimens can be used for sequential chemotherapy/RT.
- Concurrent chemotherapy/RT is recommended for patients with inoperable stage II (node-positive) and stage III NSCLC. Sequential chemotherapy/RT or RT alone is appropriate for frail patients unable to tolerate concurrent therapy.
- Durvalumab may be used after any of the concurrent chemo/RT regimens listed above for eligible patients.

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