

HODGKIN LYMPHOMA TREATMENT REGIMENS (Part 1 of 4)

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.

Classical Hodgkin Lymphoma—First-Line Treatment¹

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

Stage IA, IIA Favorable

REGIMEN	DOSING
Doxorubicin + bleomycin + vinblastine + dacarbazine (ABVD) ²⁻⁵	Days 1 and 15: Doxorubicin 25mg/m ² IV push + bleomycin 10units/m ² IV push + vinblastine 6mg/m ² IV over 5-10 minutes + dacarbazine 375mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 4-6 cycles, or for 2-4 cycles followed by radiation therapy (Category 1).
Doxorubicin + vinblastine + mechlorethamine + etoposide + vincristine + bleomycin + prednisone (Stanford V) ⁶⁻⁸	Days 1 and 15: Doxorubicin 25mg/m ² IV push + vinblastine 6mg/m ² IV over 5-10 minutes Day 1: Mechlorethamine 6mg/m ² IV push Days 8 and 22: Vincristine 1.4mg/m ² (maximum 2mg) IV over 5-10 minutes + bleomycin 5units/m ² IV push Days 15 and 16: Etoposide 60mg/m ² IV over 60 minutes Days 1-28: Prednisone 40mg/m ² orally every other day. Taper prednisone dose by 10mg every other day beginning Day 15 of Cycle 2. Repeat cycle every 4 week for 2 cycles followed by radiation therapy.

Stage I-II Unfavorable (Bulky and Non-Bulky Disease)

Doxorubicin + bleomycin + vinblastine + dacarbazine (ABVD) ^{2-5,9}	Days 1 and 15: Doxorubicin 25mg/m ² IV push + bleomycin 10units/m ² IV push + vinblastine 6mg/m ² IV over 5-10 minutes + dacarbazine 375mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 4-6 cycles with or without subsequent radiation therapy (bulky disease) (Category 1), for 2 cycles when given after escalated BEACOPP and followed by radiation therapy, or for 2-6 cycles with or without subsequent radiation (nonbulky disease).
Doxorubicin + vinblastine + mechlorethamine + etoposide + vincristine + bleomycin + prednisone (Stanford V) ⁶⁻⁸	Days 1 and 15: Doxorubicin 25mg/m ² IV push + vinblastine 6mg/m ² IV over 5-10 minutes Day 1: Mechlorethamine 6mg/m ² IV push Days 8 and 22: Vincristine 1.4mg/m ² (maximum 2mg) IV over 5-10 minutes + bleomycin 5units/m ² IV push Days 15 and 16: Etoposide 60mg/m ² IV over 60 minutes Days 1-28: Prednisone 40mg/m ² orally every other day. Taper prednisone dose by 10mg every other day beginning Day 15 of Cycle 3. Repeat cycle every 4 week for 3 cycles with or without subsequent radiation therapy.
Bleomycin + etoposide + doxorubicin + cyclophosphamide + vincristine + procarbazine + prednisone (Escalated BEACOPP) ^{9,10}	Day 1: Cyclophosphamide 1,250mg/m ² IV over 60 minutes + doxorubicin 35mg/m ² IV push Days 1-3: Etoposide 200mg/m ² IV over 2 hours Days 1-7: Procarbazine 100mg/m ² orally. Day 8: Vincristine 1.4mg/m ² (maximum 2mg) IV over 5-10 minutes + bleomycin 10units/m ² IV push. Days 1-14: Prednisone 40mg/m ² orally daily. Repeat cycle every 3 weeks for 2 cycles followed by ABVD and then by radiation therapy.

Stage III-IV

Doxorubicin + bleomycin + vinblastine + dacarbazine (ABVD) ²⁻⁵	Days 1 and 15: Doxorubicin 25mg/m ² IV push + bleomycin 10units/m ² IV push + vinblastine 6mg/m ² IV over 5-10 minutes + dacarbazine 375mg/m ² IV over 60 minutes. Repeat cycle every 4 weeks for 6 cycles with or without subsequent radiation.
Doxorubicin + vinblastine + mechlorethamine + etoposide + vincristine + bleomycin + prednisone (Stanford V) ⁶⁻⁸	Days 1 and 15: Doxorubicin 25mg/m ² IV push + vinblastine 6mg/m ² IV over 5-10 minutes Day 1: Mechlorethamine 6mg/m ² IV push Days 8 and 22: Vincristine 1.4mg/m ² (maximum 2mg) IV over 5-10 minutes + bleomycin 5units/m ² IV push Days 15 and 16: Etoposide 60mg/m ² IV over 60 minutes Days 1-28: Prednisone 40mg/m ² orally every other day. Taper prednisone dose by 10mg every other day beginning Day 15 of Cycle 3. Repeat cycle every 4 week for 3 cycles with or without subsequent radiation therapy.

continued

HODGKIN LYMPHOMA TREATMENT REGIMENS (Part 2 of 4)

Classical Hodgkin Lymphoma—First-Line Treatment¹ (continued)

Stage III–IV (continued)

REGIMEN	DOSING
Bleomycin + etoposide + doxorubicin + cyclophosphamide + vincristine + procarbazine + prednisone (Escalated BEACOPP)¹⁰	<p>Day 1: Cyclophosphamide 1,250mg/m² IV over 60 minutes + doxorubicin 35mg/m² IV push</p> <p>Days 1–3: Etoposide 200mg/m² IV over 2 hours</p> <p>Days 1–7: Procarbazine 100mg/m² orally daily.</p> <p>Day 8: Vincristine 1.4mg/m² (maximum 2mg) IV over 5–10 minutes + bleomycin 10units/m² IV push.</p> <p>Days 1–14: Prednisone 40mg/m² orally daily.</p> <p>Repeat cycle every 3 weeks for 4–6 cycles with or without subsequent radiation therapy.</p>
Second Line Therapy	
Brentuximab¹¹	<p>Day 1: Brentuximab 1.8mg/kg (maximum 180mg) IV over 30 minutes.</p> <p>Repeat cycle every 3 weeks until maximal response or unacceptable toxicity.</p>
Cyclophosphamide + Vincristine + Procarbazine + Prednisone (C-MOPP) (Category 2B)^{12,13}	<p>Day 1: Cyclophosphamide 650mg/m² IV over 30 minutes + vincristine 1.4mg/m² (maximum 2mg) IV</p> <p>Days 1–7: Procarbazine 100mg/m² orally daily</p> <p>Days 1–14: Prednisone 40mg/m² orally daily.</p> <p>Repeat cycle every 4 weeks for 4–8 cycles.</p> <p style="text-align: center;">OR</p> <p>Days 1 and 8: Cyclophosphamide 500mg/m² IV over 30 minutes + vincristine 1.4mg/m² (maximum 2mg) IV over 5–10 minutes</p> <p>Days 1–14: Procarbazine 100mg/m² orally daily.</p> <p>Days 1–3 and 8–10: Prednisone 40mg/m² orally daily.</p> <p>Repeat cycle every 4 weeks for 4–8 cycles.</p>
Dexamethasone + Cytarabine + Cisplatin (DHAP)^{14,15}	<p>Days 1–4: Dexamethasone 40mg orally or IV daily</p> <p>Day 1: Cisplatin 100mg/m² IV continuous infusion over 24 hours</p> <p>Day 2: Cytarabine 2,000mg/m² IV over 3 hours every 12 hours.</p> <p>Repeat cycle every 3 to 4 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p>
Etoposide + Methylprednisolone + Cytarabine + Cisplatin (ESHAP)^{16,17}	<p>Days 1–4: Etoposide 40mg/m² IV over 60 minutes + methylprednisolone 500mg IV over 15 minutes + cisplatin 25mg/m² continuous IV infusion over 24 hours</p> <p>Day 5: Cytarabine 2,000mg/m² IV over 3 hours.</p> <p>Repeat cycle every 3–4 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p>
Everolimus¹⁸	Everolimus 10mg PO daily until disease progression or unacceptable toxicity.
Gemcitabine + Carboplatin + Dexamethasone (GCD)¹⁹	<p>Days 1 and 8: Gemcitabine 1000mg/m² IV over 30 minutes</p> <p>Day 1: Carboplatin AUC 5mg • min/mL (maximum 800mg) IV over 60 minutes</p> <p>Days 1–4: Dexamethasone 40mg orally daily.</p> <p>Repeat cycle every 3 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p>
Gemcitabine + Vinorelbine + Pegylated liposomal doxorubicin (GVD)²⁰	<p>For transplant-naïve patients:</p> <p>Days 1 and 8: Gemcitabine 1,000mg/m² IV over 30 minutes + vinorelbine 20mg/m² IV over 5–10 minutes + pegylated liposomal doxorubicin 15mg/m² IV over 60 minutes.</p> <p>Repeat cycle every 3 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p> <p>For post-transplant patients:</p> <p>Days 1 and 8: Gemcitabine 800mg/m² IV over 30 minutes + vinorelbine 15mg/m² IV over 5–10 minutes + pegylated liposomal doxorubicin 10mg/m² IV over 60 minutes.</p> <p>Repeat cycle every 3 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p>
Ifosfamide + Carboplatin + Etoposide (ICE)^{15,21}	<p>Days 1–3: Etoposide 100mg/m² IV over 60 minutes</p> <p>Day 2: Carboplatin AUC 5mg • min/mL (max 800mg) IV + ifosfamide 5,000mg/m² IV continuous infusion over 24 hours and mesna 5,000mg/m² IV continuous infusion over 24 hours concurrently with ifosfamide.</p> <p>Repeat cycle every 2–3 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p>
Ifosfamide + Gemcitabine + Etoposide + Vinorelbine (IGEV)²²	<p>Days 1–4: Mesna 400mg/m² IV over 15 minutes prior to ifosfamide dose and at 4 and 8 hours from the start of each ifosfamide dose + ifosfamide 2,000mg/m² over 3 hours</p> <p>Days 1 and 4: Gemcitabine 800mg/m² IV over 30 minutes</p> <p>Day 1: Vinorelbine 20mg/m² IV over 5–10 minutes</p> <p>Days 1–4: Prednisone 100mg PO daily.</p> <p>Repeat cycle every 3 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).</p>

continued

HODGKIN LYMPHOMA TREATMENT REGIMENS (Part 3 of 4)

Classical Hodgkin Lymphoma—First-Line Treatment¹ (continued)

Second Line Therapy (continued)

REGIMEN	DOSING
Carmustine + Cytarabine + Etoposide + Melphalan (Mini-BEAM) ^{23,24}	Day 1: Carmustine 60mg/m ² IV over 2 hours Days 2–5: Etoposide 75mg/m ² IV over 60 minutes daily + cytarabine 100mg/m ² IV over 3 hours every 12 hours Day 6: Melphalan 30mg/m ² IV over 15 minutes. Repeat cycle every 4–6 weeks for 2–4 cycles.
Mitoxantrone + Ifosfamide + Etoposide (MINE) ²⁵	Days 1–3: Mesna 300mg/m ² IV over 15 minutes prior to ifosfamide dose and at 4 and 8 hours after each ifosfamide dose + ifosfamide 1,330mg/m ² over 3 hours + etoposide 65mg/m ² /day IV over 1 hour. Day 1: Mitoxantrone 8mg/m ² IV over 30 minutes. Repeat cycle every 3 weeks for 2–4 cycles (transplant candidates) or 4–8 cycles (nontransplant candidates).

Third Line Therapy

Bendamustine ²⁶	Days 1 and 2: Bendamustine 90–120mg/m ² IV over 30 minutes. Repeat cycle every 4 weeks until maximal response or unacceptable toxicity for a maximum of 6 cycles.
Lenalidomide ²⁷	Days 1–21: Lenalidomide 25mg orally daily. Repeat cycle every 4 weeks until disease progression or unacceptable toxicity.

Nodular Lymphocyte-Predominant Hodgkin Lymphoma—First-Line Treatment¹

Doxorubicin + Bleomycin + Vinblastine + Dacarbazine (ABVD) ± Rituximab ^{28,29,31-34}	Days 1 and 15: Doxorubicin 25mg/m ² IV push + bleomycin 10units/m ² IV push + vinblastine 6mg/m ² IV over 5–10 minutes + dacarbazine 375mg/m ² IV over 60 minutes, ± Day 1: Rituximab 375mg/m ² IV for all cycles. OR Days 1, 8, 15, and 22: Rituximab 375mg/m ² IV for cycle 1 only. Repeat cycle every 4 weeks for 6–8 cycles with or without subsequent radiation therapy.
Cyclophosphamide + Doxorubicin + Vincristine + Prednisone (CHOP) ± Rituximab ³⁰⁻³⁴	Day 1: Cyclophosphamide 750mg/m ² over 60 minutes + doxorubicin 50mg/m ² IV push + vincristine 1.4mg/m ² (maximum 2mg) IV over 5–10 minutes Days 1–5: Prednisone 100mg orally daily, ± Day 1: Rituximab 375mg/m ² IV. Repeat cycle every 3 weeks for 6 cycles with or without subsequent radiation therapy.
Cyclophosphamide + Vincristine + Prednisone (CVP) ± Rituximab ³¹⁻³⁴	Day 1: Cyclophosphamide 750mg/m ² OR 1,000mg/m ² over 60 minutes + vincristine 1.4mg/m ² (maximum 2mg) IV over 5–10 minutes Days 1–5: Prednisone 100mg orally daily, ± Day 1: Rituximab 375mg/m ² IV. Repeat cycle every 3 weeks for 6–8 cycles with or without subsequent radiation therapy.

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HODGKIN LYMPHOMA TREATMENT REGIMENS (Part 4 of 4)

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