HODGKIN LYMPHOMA TREATMENT REGIMENS (Part 1 of 2)

The selection, dosing, and administration of anticancer agents and the management of associated toxicities are complex. Drug dose modifications and schedule and initiation of supportive care interventions are often necessary because of expected toxicities and because of individual patient variability, prior treatment, and comorbidities. Thus, the optimal delivery of anticancer agents requires a healthcare delivery team experienced in the use of such agents and the management of associated toxicities in patients with cancer. The cancer treatment regimens below may include both FDA-approved and unapproved uses/regimens and are provided as references only to the latest treatment strategies. Clinicians must choose and verify treatment options based on the individual patient.

NOTE: GREY SHADED BOXES CONTAIN UPDATED REGIMENS.

REGIMEN	DOSING
Classical Hodgkin Lymphoma—First-Line Treatment	
General treatment note: Routine use of growth factors is not recommended. Leukopenia is not a factor for treatment delay or dose reduction (except for escalated BEACOPP).[1]	
CR=complete response PR=partial response	IPS=International Prognostic Score RT=radiation therapy
PD=progressive disease SD=stable disease	PFTs=pulmonary function tests
Stage IA, IIA Favorable	
ABVD (doxorubicin [Adriamycin] + bleomycin + vinblastine + dacarbazine [DTIC-Dome]) + **involved-field radiotherapy** (IFRT)[1–4]	**Days 1 and 15:** Doxorubicin 25mg/m² IV + bleomycin 10mg/m² IV + vinblastine 6mg/m² IV + dacarbazine 375mg/m² IV. Repeat cycle every 4 weeks for 2–4 cycles. Follow with IFRT after completion of chemotherapy.
Abbreviated Stanford V (doxorubicin + vinblastine + mechlorethamine + etoposide [Etopophos; Toposar] + vincristine [Oncovin, Vincasar PFS] + bleomycin + prednisone) + **IFRT**[1,5]	**Weeks 1, 3, 5 and 7:** Vinblastine 6mg/m² IV + doxorubicin 25mg/m² IV. **Weeks 1 and 5:** Mechlorethamine 6mg/m². **Weeks 1–6:** Prednisone 40mg/m² orally every other day. **Weeks 2, 4, 6 and 8:** Vincristine 1.4mg/m² IV (max dose 2mg) + bleomycin 5units/m² IV. **Weeks 3 and 7:** Etoposide 60mg/m² IV daily for 2 days. **Weeks 7 and 8:** Taper prednisone dose. Follow with IFRT. Absolute neutrophil count (ANC) <1,000/µL: reduce doses of doxorubicin, vinblastine, mechlorethamine, and etoposide to 65%. ANC <500/µL: delay treatment.
Stage I–II Unfavorable (Bulky and Non-Bulky Disease)	
ABVD (doxorubicin + bleomycin + vinblastine + dacarbazine)[1–4]	**Days 1 and 15:** Doxorubicin 25mg/m² IV + bleomycin 10mg/m² IV + vinblastine 6mg/m² IV + dacarbazine 375mg/m² IV. Repeat cycle every 4 weeks for 4 cycles then evaluate PFTs and restage. Restage. CR: ABVD x 2 additional cycles followed by IFRT or IFRT alone. PR/SD: ABVD x 2 additional cycles. Restage. If CR then IFRT; if PR/SD consider biopsy or IFR. PD: biopsy.
Stanford V (doxorubicin + vinblastine + mechlorethamine + etoposide + vincristine + bleomycin + prednisone)[1,6–8]	**Weeks 1, 3, 5, 7, 9 and 11:** Vinblastine 6mg/m² IV + doxorubicin 25mg/m² IV. **Weeks 1, 5 and 9:** Mechlorethamine 6mg/m². **Weeks 1–10:** Prednisone 40mg/m² orally every other day. **Weeks 2, 4, 6, 8, 10 and 12:** Vincristine 1.4mg/m² IV (max dose 2mg) + bleomycin 5units/m² IV. **Weeks 3, 7 and 11:** Etoposide 60mg/m² IV daily for 2 days. **Weeks 11 and 12:** Taper prednisone dose. ANC <1,000/µL: reduce doses of doxorubicin, vinblastine, mechlorethamine, and etoposide to 65%. ANC <500/µL: delay treatment. Restage after Week 12: CR: RT to initial sites >5cm and residual PET positive sites. PR: RT to initial sites >5cm and residual PET positive sites or biopsy. SD/PD: biopsy.
Stage III–IV	
ABVD (doxorubicin + bleomycin + vinblastine + dacarbazine)[1–4]	**Days 1 and 15:** Doxorubicin 25mg/m² IV + bleomycin 10mg/m² IV + vinblastine 6mg/m² IV + dacarbazine 375mg/m² IV. Repeat cycle every 4 weeks for 2–4 cycles. Restage. CR: repeat for 2–4 cycles, total 6 cycles; repeat PFTs after 4 cycles. PR or SD: repeat for 2–4 cycles, total 6 cycles; repeat PFTs after 4 cycles; or biopsy. If biopsy negative repeat for 2–4 cycles, total 6 cycles, repeat PFTs after 4 cycles.
Stanford V (doxorubicin + vinblastine + mechlorethamine + etoposide + vincristine + bleomycin + prednisone)[1,6–8]	<u>If IPS ≥3</u> **Weeks 1, 3, 5, 7, 9 and 11:** Vinblastine 6mg/m² IV + doxorubicin 25mg/m² IV. **Weeks 1, 5 and 9:** Mechlorethamine 6mg/m². **Weeks 1–10:** Prednisone 40mg/m² orally every other day. **Weeks 2, 4, 6, 8, 10 and 12:** Vincristine 1.4mg/m² IV (max dose 2mg) + bleomycin 5units/m² IV. **Weeks 3, 7 and 11:** Etoposide 60mg/m² IV daily for 2 days. **Weeks 11 and 12:** Taper prednisone dose. ANC <1,000/µL: reduce doses of doxorubicin, vinblastine, mechlorethamine, and etoposide to 65% ANC <500/µL: delay treatment. Restage after Week 12. If CR or PR, then RT to initial sites >5cm, involved spleen and residual PET positive sites.

continued

HODGKIN LYMPHOMA TREATMENT REGIMENS (Part 2 of 2)

REGIMEN	DOSING
Stage III–IV (continued)	
Escalated BEACOPP (bleomycin + etoposide + doxorubicin + cyclophosphamide + vincristine + procarbazine [Matulane] + prednisone)[1,2,9,10] NOTE: Requires granulocyte colony-stimulating factor (GC-SF) support to prevent leukopenia.	If IPS ≥4 **Day 1:** Cyclophosphamide 1,200mg/m² orally + doxorubicin 35mg/m² IV. **Days 1–3:** Etoposide 200mg/m² IV. **Days 1–7:** Procarbazine 100mg/m² orally. **Days 1–14:** Prednisone 40mg/m² orally. **Day 8:** Vincristine 1.4mg/m² IV (max dose 2mg) + bleomycin 10mg/m² IV. Repeat cycle every 3 weeks for 4 cycles. Restage. CR: follow with 4 cycles of BEACOPP. PR or SD: repeat for 4 cycles; or biopsy. If biopsy is negative repeat for 4 cycles. **BEACOPP:** Dosages are reduced for the following: cyclophosphamide 650mg/m², doxorubicin 25mg/m², etoposide 100mg/m².
Lymphocyte-Predominant Hodgkin Lymphoma—First-Line Treatment	
Ongoing clinical trials will help clarify the role of a watch-and-wait strategy or systemic therapy, including anthracycline (epirubicin or doxorubicin), bleomycin, and vinblastine-based chemotherapy or antibody-based approaches.[1] Common chemotherapy regimens include: **ABVD** (doxorubicin, bleomycin, vinblastine, dacarbazine) ± rituximab[1,11] **CHOP** (cyclophosphamide, doxorubicin, vincristine, prednisone) ± rituximab[1,12] **CVP** (cyclophosphamide, vincristine, prednisone) ± rituximab[1] **EPOCH** (cyclophosphamide, doxorubicin, etoposide, vincristine, prednisone) ± rituximab[1]	
Rituximab[1,13-15]	Rituximab 375mg/m² IV infusion weekly for 4 consecutive weeks.

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