

CANCER TREATMENT REGIMENS

Hematologic Cancers

Multiple Myeloma

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. These cancer treatment regimens 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.

MULTIPLE MYELOMA (Part 1 of 2)

General treatment note: Exposure to myelotoxic agents—including alkylating agents and nitrosoureas—should be limited to avoid compromising stem-cell reserve prior to stem-cell harvest in patients who may be candidates for transplant.¹

REGIMEN	DOSING
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Primary Therapy for Transplant Candidates

Bortezomib (Velcade) + doxorubicin (Adriamycin) + dexamethasone^{2,3}	<p>Cycle 1 Days 1, 4, 8 and 11: Bortezomib 1mg/m² OR 1.3mg/m² IV, plus Days 1-4, 8-11 and 15-18: Dexamethasone 40mg orally, plus Days 1-4: Doxorubicin 4.5mg/m² OR 9mg/m² IV.</p> <p>Cycles 2-4 Days 1, 4, 8 and 11: Bortezomib 1mg/m² OR 1.3mg/m² IV, plus Days 1-4: Dexamethasone 40mg orally, plus Days 1-4: Doxorubicin 4.5mg/m² OR 9mg/m² IV. Repeat cycle every 3 weeks for 4 cycles.</p>
Bortezomib + thalidomide (Thalomid) + dexamethasone⁴	<p>Days 1-14: Thalidomide 100mg/day orally, plus Days 1-12: Dexamethasone 40mg/day orally (for 8 of the 12 days, not consecutively but for a total of 320mg), plus Days 1, 4, 8 and 11: Bortezomib 1.3mg/m² IV, followed by Days 15-21: Thalidomide 200mg/day orally. Repeat cycle every 3 weeks for 3 cycles.</p>
Lenalidomide (Revlimid) + dexamethasone⁵	<p>Days 1-21: Lenalidomide 25mg orally once daily, plus Days 1, 8, 15 and 22: Dexamethasone 40mg/day orally. Repeat cycle every 4 weeks for 4 cycles or until disease progression.</p>
Lenalidomide + high-dose dexamethasone^{6,7}	<p>Cycles 1-4 Days 1-21: Lenalidomide 25mg/day orally, plus Days 1-4, 9-12 and 17-20: Dexamethasone 40mg/day orally.</p> <p>Subsequent cycles Days 1-21: Lenalidomide 25mg/day orally, plus Days 1-4: Dexamethasone 40mg/day orally. Repeat cycle every 4 weeks until disease progression or toxicity occurs.</p>

Primary Therapy for Non-Transplant Candidates

Lenalidomide + dexamethasone⁵	<p>Days 1-21: Lenalidomide 25mg orally once daily, plus Days 1, 8, 15 and 22: Dexamethasone 40mg/day orally. Repeat cycle every 4 weeks for 4 cycles or until disease progression.</p>
Lenalidomide + high dose dexamethasone⁸	<p>Induction therapy Days 1-4, 9-12 and 17-20: Dexamethasone 40mg/day orally, plus Days 1-28: Lenalidomide 25mg/day orally. Repeat cycle every 5 weeks for up to 3 cycles.</p> <p>Maintenance therapy Days 1-4 and 15-18: Dexamethasone 40mg/day orally, plus Days 1-21: Lenalidomide 25mg/day orally. Repeat cycle every 4 weeks until disease progression or toxicity occurs.</p>
VMP (bortezomib + melphalan [Alkeran] + prednisone)⁸	<p>Days 1, 4, 15 and 22: Bortezomib 1mg/m² OR 1.3mg/m², plus Days 1-5: Melphalan 6mg/m²/day orally + prednisone 60mg/m²/day orally. Repeat cycle every 5 weeks for 6 cycles.</p>
Bortezomib + melphalan + prednisone OR Bortezomib + thalidomide + prednisone as induction therapy followed by maintenance treatment with bortezomib + thalidomide OR bortezomib + prednisone⁹	<p>Cycle 1 Days 1, 4, 8, 11, 22, 25, 29 and 32: Bortezomib 1.3mg/m² IV, plus Days 1-4: Melphalan 9mg/m² OR thalidomide 100mg/day orally + prednisone 60mg/m² orally.</p> <p>Cycles 2-6 Days 1, 8, 15 and 22: Bortezomib 1.3mg/m² IV, plus Days 1-4: Melphalan 9mg/m² OR thalidomide 100mg/day orally + prednisone 60mg/m² orally. Repeat cycle every 5 weeks for 6 cycles.</p>
Melphalan + prednisone + thalidomide¹⁰	<p>Days 1-4: Melphalan 0.2mg/kg/day orally + prednisone 2mg/kg/day. Repeat cycle every 6 weeks for 12 cycles, plus Days 1-504: Thalidomide 100mg/day orally.</p>

continued

MULTIPLE MYELOMA (Part 2 of 2)

References

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