

TESTICULAR CANCER TREATMENT REGIMENS (Part 1 of 2)

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.

Primary Chemotherapy for Germ Cell Tumors¹

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

REGIMEN	DOSING
Etoposide + cisplatin²	Days 1–5: Etoposide 100mg/m ² IV + cisplatin 20mg/m ² IV. Repeat cycle every 3 weeks for 4 cycles.
Bleomycin + etoposide + cisplatin³	Days 1–5: Cisplatin 20mg/m ² IV + etoposide 100mg/m ² IV Days 1, 8 and 15*: Bleomycin 30 units IV weekly. Repeat cycle every 3 weeks for 3 cycles.
Etoposide + ifosfamide + cisplatin + mesna⁴	Day 1: (prior to ifosfamide) mesna 120mg/m ² by slow IV push Days 1–5: Etoposide 75mg/m ² IV + mesna 1,200mg/m ² continuous IV infusion + ifosfamide 1,200mg/m ² IV + cisplatin 20mg/m ² . Repeat cycle every 3 weeks for 4 cycles.

Second-Line Chemotherapy For Metastatic Germ Cell Tumors¹

Conventional-dose Chemotherapy Regimens

Vinblastine + ifosfamide + cisplatin + mesna⁵	Days 1 and 2: Vinblastine 0.11mg/kg IV push; plus Days 1–5: Mesna 400mg/m ² IV every 8 hours + ifosfamide 1,200mg/m ² IV + cisplatin 20mg/m ² IV. Repeat cycle every 3 weeks.
Paclitaxel + ifosfamide + mesna + cisplatin⁶	Day 1: Paclitaxel 250mg/m ² IV Days 2–5: Ifosfamide 1,500mg/m ² + cisplatin 25mg/m ² IV daily + mesna 500mg/m ² IV before ifosfamide, and then 4 and 8 hours after each dose of ifosfamide. Repeat cycle every 3 weeks.

High-dose Chemotherapy Regimens

Carboplatin + etoposide⁷	Carboplatin 700mg/m ² IV + etoposide 750mg/m ² IV Administer 5, 4, and 3 days before peripheral blood stem cell infusion for 2 cycles.
Paclitaxel + ifosfamide + mesna + carboplatin + etoposide⁸	Day 1: Paclitaxel 200mg/m ² IV over 24 hours. Days 2–4: Ifosfamide 2,000mg/m ² over 4 hours with mesna protection Repeat every 14 days for 2 cycles; followed by Days 1–3: Carboplatin AUC 7–8 IV over 60 minutes Days 1–3: Etoposide 400mg/m ² IV. Administer with peripheral blood stem cell support at 14- to 21-day intervals for 3 cycles.

Subsequent Chemotherapy For Metastatic Germ Cell Tumors¹

Gemcitabine + oxaliplatin^{9–11}	Days 1 and 8: Gemcitabine 1,000mg/m ² IV, plus Day 1: Oxaliplatin 130mg/m ² IV Repeat cycle every 3 weeks. OR Days 1 and 8: Gemcitabine 1,250mg/m ² IV, plus Day 1: Oxaliplatin 130mg/m ² IV. Repeat cycle every 3 weeks.
Gemcitabine + paclitaxel^{12,13}	Days 1, 8 and 15: Gemcitabine 1,000mg/m ² IV over 30 minutes + paclitaxel 100mg/m ² IV over 1 hour. Repeat every 4 weeks for a max 6 cycles.
Gemcitabine + paclitaxel + oxaliplatin¹⁴	Days 1 and 8: Gemcitabine 800mg/m ² IV + paclitaxel 80mg/m ² IV Day 1: Oxaliplatin 130mg/m ² IV. Repeat every 3 weeks for at least 2 cycles.
Etoposide¹⁵	Etoposide 50mg/m ² PO daily until progression or toxicity.

* Some NCCN institutions give bleomycin on Days 2, 9 and 16.

continued

TESTICULAR CANCER TREATMENT REGIMENS (Part 2 of 2)

References

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