

CANCER TREATMENT REGIMENS

Genitourinary Cancer

Testicular Cancer

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.

TESTICULAR CANCER¹ (Part 1 of 2)

General treatment notes:

- Good-risk patients (denoted with an *) means those patients with cancer at any primary site and with no nonpulmonary visceral metastases and a normal alpha-fetoprotein (AFP) level, any human chorionic gonadotropin (HCG) value, and any lactate dehydrogenase (LDH) value.
- Intermediate-risk patients (denoted with a †) means those patients with cancer at any primary site and nonpulmonary visceral metastases and normal AFP, any HCG value, and any LDH value.

REGIMEN

DOSING

Pure Seminoma Germ Cell Tumor

Primary Treatment Stage 1A, 1B

Carboplatin (Paraplatin)

Carboplatin AUC=7mg/mL/min IV for 1 or 2 cycles.

Primary Treatment Stage IIB (selected patients) and Stage IIC, III (good-risk patients*)

EP (etoposide [Toposar, VePesid, Etopophos; VP-16] + cisplatin [Platinol; CDDP])

Days 1-5: Etoposide 100mg/m² IV + cisplatin 20mg/m² IV.
Repeat cycle every 3 weeks for 4 cycles.

BEP (bleomycin [Blenoxane] + etoposide + cisplatin)

Days 1-5: Cisplatin 20mg/m² IV, **plus**
Days 1, 8 and 15: Bleomycin 30units IV + etoposide 100mg/m² IV.
Repeat cycle every 3 weeks for 3 cycles.
Some NCCN institutions give bleomycin on Days 2, 9 and 16.

Primary Treatment for Stage IIC, III (intermediate risk patients†)

BEP

Days 1-5: Cisplatin 20mg/m² IV, **plus**
Days 1, 8 and 15: Bleomycin 30units IV + etoposide 100mg/m² IV.
Repeat cycle every 3 weeks for 4 cycles.
Some NCCN institutions give bleomycin on Days 2, 9 and 16.

Nonseminomatous Germ Cell Tumor

Primary Treatment for Stage 1B

BEP

Days 1-5: Cisplatin 20mg/m² IV, **plus**
Days 1, 8 and 15: Bleomycin 30units IV + etoposide 100mg/m² IV.
Repeat cycle every 3 weeks for 2 cycles.
Some NCCN institutions give bleomycin on Days 2, 9 and 16.

Primary Treatment for Stage IIA, IIB, IIC, IIIA (good-risk patients)

EP

Days 1-5: Etoposide 100mg/m² IV + cisplatin 20mg/m² IV.
Repeat cycle every 3 weeks for 4 cycles.

BEP

Days 1-5: Cisplatin 20mg/m² IV, **plus**
Days 1, 8 and 15: Bleomycin 30units IV + etoposide 100mg/m² IV.
Repeat cycle every 3 weeks for 3 cycles.
Some NCCN institutions give bleomycin on Days 2, 9 and 16.

Primary Treatment for Stage IIIB (intermediate risk patients)

BEP

Days 1-5: Cisplatin 20mg/m² IV, **plus**
Days 1, 8 and 15: Bleomycin 30units IV + etoposide 100mg/m² IV.
Repeat cycle every 3 weeks for 4 cycles.
Some NCCN institutions give bleomycin on Days 2, 9 and 16.

VIP (etoposide + ifosfamide + cisplatin + mesna [Mesnex]) (for selected patients)

Days 1-5: Etoposide 75mg/m² IV + ifosfamide 1,200mg/m² IV (give mesna 120mg/m² by slow IV push prior to ifosfamide on Day 1) + cisplatin 20mg/m² + mesna 1,200mg/m² continuous IV infusion.
Repeat cycle every 3 weeks for 4 cycles.

Second-Line Treatment Conventional Dose Chemotherapy

VeIP (vinblastine [Alkaban-AQ, Velban; VLB] + ifosfamide [Ifex] + cisplatin + mesna)

Days 1 and 2: Vinblastine 0.11mg/kg IV push, **plus**
Days 1-5: ifosfamide 1,200mg/m² IV + cisplatin 20mg/m² IV + mesna 1,200mg/m² IV (400mg/m² every 8 hrs).
Repeat cycle every 3 weeks.

continued

TESTICULAR CANCER (Part 2 of 2)

REGIMEN	DOSING
Second-Line Treatment Conventional Dose Chemotherapy (continued)	
TIP (paclitaxel [Taxol] + ifosfamide + mesna + cisplatin)	Day 1: Paclitaxel 250mg/m ² IV, <u>followed by</u> Days 2-5: Ifosfamide 1,500mg/m ² + cisplatin 25mg/m ² IV daily + mesna 500mg/m ² IV before ifosfamide and then 4 hrs and 8 hrs after each dose of ifosfamide. Repeat cycle every 3 weeks.
Second-Line Treatment High-Dose Chemotherapy	
Carboplatin + etoposide	Days -5, -4 and -3: Carboplatin 700mg/m ² IV + etoposide 750mg/m ² IV administered 3 consecutive days 3 days prior to peripheral blood stem cell infusion for 2 cycles.
Paclitaxel + ifosfamide + carboplatin + etoposide + mesna	Day 1: Paclitaxel 200mg/m ² IV as a 24-hr continuous infusion with peripheral stem cell infusion, <u>plus</u> Days 1-3: Carboplatin AUC=7-8mg/mL/min IV + etoposide 400mg/m ² IV over 60 min, <u>plus</u> Days 2-4: Ifosfamide 2,000mg/m ² IV over 4 hrs (with mesna 2,000mg/m ²). Repeat cycle every 2 or 3 weeks for 3 cycles.
Palliative Chemotherapy Regimen	
GEMOX (gemcitabine [Gemzar] + oxaliplatin [Eloxatin])	Days 1 and 8: Gemcitabine 1,000mg/m ² IV, <u>plus</u> Day 1: Oxaliplatin 130mg/m ² IV. Repeat cycle every 3 weeks.OR..... Days 1 and 8: Gemcitabine 1,250mg/m ² IV, <u>plus</u> Day 1: Oxaliplatin 130mg/m ² IV. Repeat cycle every 3 weeks.
References	
1. NCCN Clinical Practice Guidelines in Oncology™. Testicular Cancer. v 2.2011. Available at: http://www.nccn.org/professionals/physician_gls/pdf/testicular.pdf . Accessed October 16, 2011.	
(Revised 11/2011) Copyright © 2011 by Haymarket Media Inc.	