

Germ Cell Tumor Markers

PRESENTATION	RECOMMENDED		NOT RECOMMENDED
	Test name	Purpose [Recommendation #]	Purpose [Recommendation #]
Suspected testicular GCT	<ul style="list-style-type: none"> • AFP and hCG 	<ul style="list-style-type: none"> • Diagnosis: Collecting baseline at diagnosis (collect pre-orchietomy) [2A] 	<ul style="list-style-type: none"> • Screening [1] • Determining need for orchietomy [2A]
NSGCTM – all	<ul style="list-style-type: none"> • AFP and hCG 	<ul style="list-style-type: none"> • Diagnosis: Collecting baseline [2A] • Monitoring: measure at start of and after each chemotherapy cycle [I-3C] • Surveillance* [I-4] 	<ul style="list-style-type: none"> • Screening [1] • Determining need for orchietomy or biopsy [2A]
Testicular NSGCT	<ul style="list-style-type: none"> • AFP and hCG 	<ul style="list-style-type: none"> • Collecting baseline at diagnosis[2A] • Monitoring response to treatment [I-3C] • Surveillance [I-4] 	<ul style="list-style-type: none"> • Screening [1] • Determining need for orchietomy [2A]
	<ul style="list-style-type: none"> • AFP, hCG, and LDH 	<ul style="list-style-type: none"> • Staging – measure after orchietomy, before other treatment [I-3A-1] • See below for men with stage II-III [I-3B-2] 	<ul style="list-style-type: none"> • Screening [1]
Extragonadal NSCGT	<ul style="list-style-type: none"> • AFP, hCG, and LDH 	<ul style="list-style-type: none"> • At the time of diagnosis (AFP and hCG)[2A] • Measure tumor markers immediately before chemotherapy to guide chemotherapy regimen and treatment duration [I-3A-2] • Monitoring response to treatment (AFP and hCG)[I-3C] • Surveillance after treatment (AFP and HCG)[I-4] 	<ul style="list-style-type: none"> • Screening [1]
Clinical Stage I or II NSGCT	<ul style="list-style-type: none"> • AFP and hCG 	<ul style="list-style-type: none"> • Monitoring: Measure shortly before RPLND [I-3B-1] • Surveillance [I-4] 	<ul style="list-style-type: none"> • Screening [1]
Clinical Stage II or III testicular NSGCT	<ul style="list-style-type: none"> • AFP, hCG, and LDH 	<ul style="list-style-type: none"> • Measure tumor markers immediately before chemotherapy to guide chemotherapy regimen and treatment duration for men with stage II-III [I-3B-2] • Monitoring response to treatment (AFP and HCG)[I-3C] • Surveillance after treatment (AFP and HCG)[I-4] 	<ul style="list-style-type: none"> • Screening [1]

This table is derived from recommendations in the ASCO Clinical Practice Guideline on Uses of Serum Tumor Markers in Adult Males with Germ Cell Tumors. This table is a practice tool based on ASCO® practice guidelines and is not intended to substitute for the independent professional judgment of the treating physician. Practice guidelines do not account for individual variation among patients. This tool does not purport to suggest any particular course of medical treatment. Use of the practice guidelines and this table are voluntary. The practice guideline and additional information are available at <http://www.asco.org/guidelines/germcelltm>. Copyright © 2010 by the American Society of Clinical Oncology. All rights reserved.

Seminoma – all	<ul style="list-style-type: none"> • hCG, LDH, AFP 	<ul style="list-style-type: none"> • See Below 	<ul style="list-style-type: none"> • Screening [1] • To predict response to or benefit from treatment [II-3B] • Monitoring response or progression during treatment [II-3C] • Monitoring/staging for those with involved nodes and/or metastases [II-3A]
Testicular seminoma	<ul style="list-style-type: none"> • AFP and hCG 	<ul style="list-style-type: none"> • Diagnosis: Collecting baseline at diagnosis [2A] • See below for men with stages II-III 	<ul style="list-style-type: none"> • Screening [1] • Monitoring response or progression during treatment [II-3C]
	<ul style="list-style-type: none"> • hCG and/or LDH 	<ul style="list-style-type: none"> • Monitoring/staging – measure post-orchietomy in patients with elevated pre-orchietomy levels [II-3A] • See below for men with stages II-III 	<ul style="list-style-type: none"> • Screening [1] • Monitoring/staging for those with involved nodes and/or metastases [II-3A] • Monitoring response or progression during treatment [II-3C]
Extragenital seminoma	<ul style="list-style-type: none"> • hCG and AFP 	<ul style="list-style-type: none"> • At the time of diagnosis [2A] • Surveillance after treatment concludes [II-3C] and periodically thereafter*[II-4] 	<ul style="list-style-type: none"> • Screening [1] • Routine monitoring of LDH • Monitoring response or progression during treatment [II-3C]
Clinical Stage I seminoma	<ul style="list-style-type: none"> • hCG and/or LDH 	<ul style="list-style-type: none"> • Monitoring/staging – measure post-orchietomy in patients with elevated pre-orchietomy levels [II-3A] 	<ul style="list-style-type: none"> • Screening [1] • Monitoring response or progression during treatment [II-3C] • Surveillance*[II-4]
Clinical Stage II-III testicular seminoma	<ul style="list-style-type: none"> • hCG and AFP 	<ul style="list-style-type: none"> • Diagnosis: Collecting baseline at diagnosis [2A] • Surveillance after treatment concludes [II-3C] and periodically thereafter*[II-4] 	<ul style="list-style-type: none"> • Screening [1] • Routine monitoring of LDH • Monitoring response or progression during treatment [II-3C]
CUP/indeterminate histology	<ul style="list-style-type: none"> • All markers [2B] 	N/A	<ul style="list-style-type: none"> • Screening, Diagnosis, Monitoring, Surveillance

Abbreviations: RP: retroperitoneal, NSGCT: non-seminomatous germ cell tumor, CUP: cancer of unknown primary

*see www.asco.org/guidelines/germcelltm for recommended intervals

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