

2006 Update of the ASCO Guideline for the Use of Tumor Markers in Gastrointestinal (GI) Cancer

Previous Recommendation (2000)		Current Recommendation (2006)
Guideline Title	<i>2000 Update of Recommendations for the Use of Tumor Markers in Breast and Colorectal Cancer: Clinical Practice Guidelines of the American Society of Clinical Oncology</i>	<i>American Society of Clinical Oncology 2006 Update of Recommendations for the Use of Tumor Markers in Gastrointestinal Cancer</i>
Carcinoembryonic Antigen (CEA) as a Marker for Colorectal Cancer		
Postoperative	If resection of liver metastases would be clinically indicated, it is recommended that postoperative serum CEA testing may be performed every 2-3 months in patients with stage II or III disease for 2 or more years after diagnosis. An elevated CEA, if confirmed by retesting, warrants further evaluation for metastatic disease but does not justify the institution of adjuvant therapy or systemic therapy for presumed metastatic disease.	Postoperative serum CEA testing should be performed every 3 months in patients with stage II or III disease for at least 3 years after diagnosis, if the patient is a candidate for surgery or systemic therapy. An elevated CEA, if confirmed by retesting, warrants further evaluation for metastatic disease, but does not alone justify systemic therapy for presumed metastatic disease. Since chemotherapy may falsely elevate CEA levels, waiting until chemotherapy is finished to initiate surveillance is advised.
Monitoring Response to Therapy	Present data are insufficient to recommend routine use of the serum CEA alone for monitoring response to treatment. If no other simple test is available to indicate a response, CEA should be measured at the start treatment for metastatic disease and every 2-3 months during active treatment. Two values above baseline are adequate to document progressive disease even in the absence of corroborating radiographs. CEA is regarded as the marker of choice for monitoring colorectal cancer.	CEA is the marker of choice for monitoring metastatic colorectal cancer during systemic therapy. CEA should be measured at the start of treatment for metastatic disease and every 1-3 months during active treatment. Persistently rising values above baseline should prompt restaging, but suggest progressive disease even in the absence of corroborating radiographs. Caution should be used when interpreting a rising CEA level during the first 4-6 weeks if a new therapy since spurious early rises may occur, especially after Oxaliplatin.
Lipid-Associated Sialic Acid (LASA) as a Marker for Colorectal Cancer		
Cancer Management	Present Data are insufficient to recommend LASA for screening, diagnosis, staging, surveillance, or monitoring treatment of patients with colorectal cancer.	Removed from guideline.
DNA Ploidy or Flow Cytometric Proliferation Analysis as a Marker for Colon Cancer		
Management/Prognosis	Present data are insufficient to recommend DNA flow cytometrically derived ploidy (DNA index) for the management of colorectal cancer.	Neither flow cytometrically derived DNA ploidy (DNA index) nor DNA flow cytometric proliferation analysis (%S phase) should be used to determine prognosis of early stage colorectal cancer.

GI Tumor Markers (New)

Thymidine Synthase (TS), Dihydropyrimidine Dehydrogenase (DPD), and Thymidine Phosphorylase (TP) as Markers for Colorectal Cancer

Screening	TS, DPD, and TP are tissue markers that have been used to predict response to treatment of established carcinomas and thus are not useful for screening.
Prognosis	None of the three markers—TS, DPD, or TP—are recommended for use in determining the prognosis of colorectal carcinoma.
Predicting Response to Therapy	There is insufficient evidence to recommend use of TS, DPD, or TP as predictors of response to therapy.
Monitoring Response to Therapy	There is insufficient evidence to recommend use of TS, DPD, or TP for monitoring response to therapy.

Microsatellite Instability (MSI) as a Marker in Colorectal Cancer

Prognosis/Prediction	MSI ascertained by PCR is not recommended at this time to determine the prognosis of operable colorectal cancer nor to predict the effectiveness of 5-FU adjuvant chemotherapy.
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18q-LOH/DCC as Markers for Colorectal Cancer

Prognosis/Prediction	Assaying for loss of heterozygosity (LOH) on the long arm of chromosome 18 (18q) or DCC protein determination by immunohistochemistry should not be used to determine the prognosis of operable colorectal cancer, nor to predict response to therapy.
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CA 19-9 as a Marker for Pancreatic Cancer

Screening	CA 19-9 is not recommended for use as a screening test for pancreatic cancer.
Operability	The use of CA19-9 testing alone is not recommended for use in determining operability or the results of operability in pancreatic cancer.
Evidence of Recurrence	CA19-9 determinations by themselves cannot provide definitive evidence of disease recurrence without seeking confirmation with imaging studies for clinical findings and/or biopsy.
Monitoring Response to Therapy	Present data are insufficient to recommend the routine use of serum CA19-9 levels alone for monitoring response to treatment. However, CA19-9 can be measured at the start of treatment for locally advanced metastatic disease and every one to three months during active treatment. If there is an elevation in serial CA19-9 determinations, this may be an indication of progressive disease and confirmation with other studies should be sought.

This table is derived from recommendations in the 2006 Update of Recommendations for the Use of Tumor Markers in Gastrointestinal Cancer. 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 is available at <http://www.asco.org/guidelines/gitm>. Copyright © 2006 by the American Society of Clinical Oncology. All rights reserved.