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Clinician Management Resource for *TP53* (Li-Fraumeni syndrome)

This overview of clinical management guidelines is based on this patient's positive test result for a *TP53* gene mutation. Unless otherwise stated, medical management guidelines used here are limited to those issued by the National Comprehensive Cancer Network® (NCCN®)[1] in the U.S. Please consult the referenced guideline for complete details and further information.

Clinical correlation with the patient's past medical history, treatments, surgeries and family history may lead to changes in clinical management decisions; therefore, other management recommendations may be considered. Genetic testing results and medical society guidelines help inform medical management decisions but do not constitute formal recommendations. Discussions of medical management decisions and individualized treatment plans should be made in consultation between each patient and his or her healthcare provider, and may change over time.

SCREENING/SURGICAL CONSIDERATIONS[1]	AGE TO START	FREQUENCY
Female Breast Cancer		
Breast Awareness • Women should be familiar with their breasts and promptly report changes to their healthcare provider	18 years old	Periodic and consistent
Clinical Breast Exam	20 years old (or at the age of earilest diagnosed breast cancer in the family)	Every 6-12 months
Breast Screening	20-29 years old: breast MRI with contrast 30-75 years old: breast MRI with contrast and mammogram with consideration of tomosynthesis Women treated for breast cancer and who have not had bilateral mastectomy, screening continued as described above	Every 12 months
	>75 years old	Individualized
Discuss option of risk-reducing mastectomy	Individualized	N/A
Brain Tumors		
Brain MRI as part of whole body MRI (see below, Other Cancers), or a separate exam (Category 2B)*	Individualized	Every 12 months
Neurologic exam**	Individualized	Every 6-12 months
Colorectal and Intestinal Cancer		
Colonoscopy and upper endoscopy	25 years old, or 5 years before earliest known colon cancer in the family (whichever comes first)	Every 2-5 years
Melanoma		
Dermatologic exam	18 years old	Every 12 months
Pancreatic Cancer		
For individuals with exocrine pancreatic cancer in >1 first- or second-degree relative on the same side of the family as the identified pathogenic/likely pathogenic germline variant, consider pancreatic cancer screening.^	50 years (or 10 years younger than the earliest exocrine pancreatic cancer diagnosis in the family)	Annually (with consideration of shorter intervals if worrisome abnormalities seen on screening)

*For individuals considering pancreatic cancer screening, the Guidelines recommends that screening be performed in experienced high-volume centers, ideally under research conditions. The Guidelines recommends that such screening only take place after an in-depth discussion about the potential limitations to screening, including cost, the high incidence of pancreatic abnormalities, and uncertainties about the potential benefits of pancreatic cancer screening.

The Guidelines recommends that screening be considered using annual contrast-enhanced MRI/MRCP and/or EUS, with consideration of shorter screening intervals for individuals found to have worrisome abnormalities on screening. The Guidelines emphasizes that most small cystic lesions found on screening will not warrant biopsy, surgical resection, or any other intervention.

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SCREENING/SURGICAL CONSIDERATIONS[1]	AGE TO START	FREQUENCY
Other Cancers		
The screening and management of LFS is complex; it is preferred that individuals with LFS be followed at centers with expertise in the management of this syndrome.	N/A	N/A
Comprehensive physical exam with high index of suspicion for rare cancers and second malignancies in cancer survivors	Individualized	Every 6-12 months
Whole body MRI (Category 2B)*	Individualized	Every 12 months
Address limitations of screening for many cancers associated with Li-Fraumeni syndrome (LFS). Screening may be considered for cancer survivors with LFS and a good prognosis from their prior tumor(s).	N/A	N/A
Pediatricians: Be aware of the risk of childhood cancers	N/A	N/A
Additional surveillance based on family history of cancer	Individualized	Clinician's discretion
Therapeutic radiation treatment for cancer should be avoided when possible; diagnostic radiation should be minimized to the extent feasible without sacrificing accuracy.	N/A	N/A

* Category 2B: Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.

** This may be done as part of the comprehensive physical exam (see Other Cancers)

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