Adult Soft-Tissue Sarcoma for Clinical Stage III[1] Extremity/Superficial Trunk

Note: Consider Clinical Trials as treatment options for eligible patients.

INITIAL EVALUATION

- Sarcoma Multidisciplinary Planning Conference
- History and physical (H&P)
- Baseline laboratory studies: CBC with differential and platelets, comprehensive metabolic panel (CMP)
  - Nutrition labs if appropriate/indicated
- Plain film radiographs of primary tumor location
- CT chest with contrast
- Pre-treatment biopsy (core-needle biopsy preferred)
- Histology review of soft tissue sarcoma by pathologist
- MRI primary tumor with and without contrast (if not intra-abdominal)
- MRI thoracic and lumbar spine with and without contrast (if small cell or myxoid liposarcoma)
- CT abdomen and pelvis with and without contrast (on initial assessment) if myxoid liposarcoma or with evidence of nodal metastases for lower extremity primary sarcomas
- EKG and cardiac scan (MUGA or ECHO) (if cardiac history or high risk)
- Bone scan (if indicated by history)
- Post excision MRI[2] with and without contrast
- Lifestyle risk assessment[3]

TREATMENT

(Note: See Page 2 for chemotherapy regimen references)

Treatment of sarcoma should not be initiated until the histologic subtype is known.

PRE-OP CHEMOTHERAPY (Up to 6 cycles)

Chemotherapy regimens based on patient factors and histologic subtype

Progression to inoperable or metastasis?

Yes

- Second line chemotherapy **or** clinical trial
- Evaluation for palliative local therapy as appropriate

Response and good performance status?

Yes

Evaluate for resection of metastasis

No

- Third line chemotherapy **or**
- Clinical trial **or**
- Supportive care

No

- Surgery then radiation therapy **or**
- Radiation therapy then surgery

LOCAL THERAPY

Consider chemotherapy[4]

SURVEILLANCE

- H&P:
  - Every 3 months for 2 years, then
  - Every 4 months for 2 years, then
  - Every 6 months for 1 year, then
  - Annually
- Nodal evaluation for those who had nodal disease both on exam and imaging
- CBC with differential, platelets, total protein, albumin, calcium, glucose, creatinine, total bilirubin, alkaline phosphatase, LDH, and ALT every visit
- Chest x-ray every visit with H&P as above (optional if CT chest ordered)
- CT chest with contrast for 2 years if initial staging CT chest with abnormalities, or chest x-ray becomes equivocal or for pre-operative surgical planning to exclude occult lung metastatic disease
- Ultra-sound or MRI primary with and without contrast (CT abdomen and pelvis with contrast for intra-abdominal) every visit with H&P above
- Cardiac scan as needed

[1] Not applicable to all histologies such as gastrointestinal stromal tumor (GIST), chondrosarcoma, alveolar soft-parts sarcoma, clear cell sarcoma. Clinical Stage III: patients with Intermediate Grade (greater than or equal to 10 cm) and High Grade (greater than or equal to 5 cm).

[2] Post excision MRI - allow a minimum of 6 weeks post excision to allow for resolution of post-operative change

[3] See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

[4] Consider the following for chemotherapy: performance status 0-1 post local therapy, significant radiologic or pathologic response, adequate organ function

Department of Clinical Effectiveness V9
Approved by The Executive Committee of Medical Staff 04/19/2022

SUGGESTED READINGS

Adriamycin/ifosfamide for osteosarcoma and soft-tissue sarcomas:

Patel S.R., Vadhan-Raj S., Burgess M.A., Plager C., Papadopoulos N., Jenkins J., & Benjamin R.S. (1998). Results of two consecutive trials of dose-intensive chemotherapy with doxorubicin and ifosfamide is highly active in patients with soft-tissue sarcomas. *American Journal of Clinical Oncology, 21*(3), 317-321.

Eribulin versus dacarbazine for advanced liposarcoma or leiomyosarcoma:

Schöffski, P., Chawla, S., Maki, R. G., Italiano, A., Gelderblom, H., Choy, E., … Patel, S. R. (2016). Eribulin versus dacarbazine in previously treated patients with advanced liposarcoma or leiomyosarcoma: A randomised, open-label, multicentre, phase 3 trial. *The Lancet, 387*(10028), 1629-1637. doi:10.1016/S0140-6736(15)01283-0

High-dose ifosfamide for osteosarcoma and soft-tissue sarcoma:

Patel, S. R., Vadhan-Raj, S., Papadopolous, N., Plager, C., Burgess, M. A., Hays, C., & Benjamin, R. S. (1997). High-dose ifosfamide in bone and soft tissue sarcomas: Results of phase II and pilot studies - dose-response and schedule dependence. *Journal of Clinical Oncology, 15*(6), 2378-2384. doi:10.1200/JCO.1997.15.6.2378

Gemcitabine +/- Taxotere for soft-tissue sarcomas:

Patel, S. R., Gandhi, V., Jenkins, J., Papadopolous, N., Burgess, M. A., Plager, C., & Benjamin, R. S. (2001). Phase II clinical investigation of gemcitabine in advanced soft tissue sarcomas and window evaluation of dose rate on gemcitabine triphosphate accumulation. *Journal of Clinical Oncology, 19*(15), 3483-3489. doi:10.1200/JCO.2001.19.15.3483

Maki, R. G., Wathen, J. K., Patel, S. R., Priebat, D. A., Okuno, S. H., Samuels, B., … Thall, P. F. (2007). Randomized phase II study of gemcitabine and docetaxel compared with gemcitabine alone in patients with metastatic soft tissue sarcomas: Results of sarcoma alliance for research through collaboration study 002 [corrected]. *Journal of Clinical Oncology*, *25*(19), 2755-2763. doi:10.1200/JCO.2006.10.4117

Pazopanib for metastatic soft-tissue sarcoma:

Van der Graaf, W. T., Blay, J. Y., Chawla, S. P., Kim, D. W., Bui-Nguyen, B., Casali, P. G., … Hohenberger, P. (2012). Pazopanib for metastatic soft-tissue sarcoma (PALETTE): A randomised, double-blind, placebo-controlled phase 3 trial. *The Lancet*, *379*(9829), 1879-1886. doi:10.1016/S0140-6736(12)60651-5

Trabectidin or dacarbazine for metastatic liposarcoma or leiomyosarcoma:

Demetri, G. D., von Mehren, M., Jones, R. L., Hensley, M. L., Schuetze, S. M., Staddon, A., … Patel, S. R. (2016). Efficacy and safety of trabectedin or dacarbazine for metastatic liposarcoma or leiomyosarcoma after failure of conventional chemotherapy: Results of a phase III randomized multicenter clinical trial. *Journal of Clinical Oncology, 34*(8), 786. doi:10.1200/JCO.2015.62.4734

Post treatment follow-up schedule:

Patel, S. R., Zagars, G. K., & Pisters, P. W. (2003). The follow-up of adult soft-tissue sarcomas. *Seminars in Oncology 30*(3), 413-416. *Elsevier*. doi:10.1016/S0093-7754(03)00101-5

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DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Sarcoma Center Faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

Core Development Team Leads

Beverly Ashleigh Guadagnolo, MD (Radiation Oncology)
Valerae O. Lewis, MD (Orthopaedic Oncology)
Kevin W. McEnery, MD (Diagnostic Imaging)
Bilal Mujtaba, MD (Diagnostic Imaging)
Shreyaskumar Patel, MD (Sarcoma Medical Oncology)
Christina Lynn Roland, MD (Surgical Oncology)

Workgroup Members

Dejka M. Araujo, MD (Sarcoma Medical Oncology)
Robert S. Benjamin, MD (Sarcoma Medical Oncology)
Justin Bird, MD (Orthopaedic Oncology)
Andrew J. Bishop, MD (Radiation Oncology)
Anthony Conley, MD (Sarcoma Medical Oncology)
Olga N. Fleckenstein, BS♦
Michael S. Frei, PharmD (Pharmacy Clinical Programs)
Kelly K. Hunt, MD (Breast Surgical Oncology)
Emily Z. Keung, MD (Surgical Oncology)
Patrick P. Lin, MD (Orthopaedic Oncology)
Joseph A. Ludwig, MD (Sarcoma Medical Oncology)
Bryan S. Moon, MD (Orthopaedic Oncology)
Vinod Ravi, MD (Sarcoma Medical Oncology)
Ravin Ratan, MD (Sarcoma Medical Oncology)
Robert Satcher, MD (Orthopaedic Oncology)
Neeta Somaiah, MD (Sarcoma Medical Oncology)
Keila E. Torres, MD (Surgical Oncology)
Maria Alejandra Zarzour, MD (Sarcoma Medical Oncology)
Milena Zhang, PharmD♦

♦ Clinical Effectiveness Development Team