**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 biopsy if with and without contrast
- Lifestyle risk assessment 1

**PRE-OP CHEMOTHERAPY**
(Up to 6 cycles)

- Chemotherapy regimens based on patient factors and histologic subtype

**LOCAL THERAPY**

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

**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

**TREATMENT**
(Note: See Page 2 for chemotherapy regimen references)

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

---

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

---

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.

---

Note: Consider Clinical Trials as treatment options for eligible patients.
Adult Soft-Tissue Sarcoma for Clinical Stage III Extremity/Superficial Trunk

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.

SUGGESTED READINGS

Adriamycin/ifosfamide for osteosarcoma and soft-tissue sarcomas:

Eribulin versus dacarbazine for advanced liposarcoma or leiomyosarcoma:

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

Gemcitabine +/- Taxotere for soft-tissue sarcomas:

Pazopanib for metastatic soft-tissue sarcoma:

Trabectedin or dacarbazine for metastatic liposarcoma or leiomyosarcoma:

Post treatment follow-up schedule:
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

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.