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

The chemotherapy regimens recommended are intensified by both dose and schedule, which often requires the specialized monitoring and management provided at a comprehensive cancer center.

INITIAL EVALUATION

- History and physical (H&P)
- CBC with differential, platelets, total protein, albumin, calcium, total bilirubin, alkaline phosphatase, LDH, ALT, sodium, potassium, chloride, CO2, PT, and PTT
- Plain films of primary to include whole bone
- CT primary
- MRI primary
- Bone scan
- Chest x-ray and CT chest
- PET scan (exploratory)
- Consider PET/CT for osteosarcomas and small cell sarcomas
- Core needle biopsy if not done outside
- Histology review by bone tumor pathologist
- Screening MRI spine for small cell
- EKG and cardiac scan (MUGA or ECHO) if history of cardiac disease
- Insert central venous catheter
- Sarcoma Multidisciplinary Planning Conference
- Lifestyle risk assessment

TREATMENT

(Note: See Page 3 for chemotherapy regimen references)

ADIC = doxorubicin and dacarbazine
1 Excluding chondrosarcoma not otherwise specified, and osteosarcoma of head & neck
2 See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice.

SURVEILLANCE

- H&P:
  - Every 3 months for 2 years then
  - Every 4 months for 2 years, then
  - Every 6 months for 2 years, then
  - Annually
- CBC with differential, platelets, total protein, albumin, calcium, glucose, creatinine, total bilirubin, alkaline phosphatase, LDH, and ALT every visit
- Plain films of primary at each visit
- For pelvic primaries: MRI and x-ray each visit with H&P above
- Bone scan for symptomatic patients with history of bone metastases
- Chest x-ray each visit with H&P above
- CT chest if chest x-ray equivocal or for surgical planning
- Sarcoma Multidisciplinary Planning Conference if further multidisciplinary decisions required

Note: See Page 2 for management based on metastatic disease
Adult Primary Bone Sarcoma (High-Grade)\(^1\)

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.

The chemotherapy regimens recommended are intensified by both dose and schedule, which often requires the specialized monitoring and management provided at a comprehensive cancer center.

INITIAL PRESENTATION

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
- CBC with differential and platelets annually
- Total protein, albumin, calcium, glucose, creatinine, total bilirubin, alkaline phosphatase, LDH, and ALT every other visit for 5 years, then annually
- Plain films of primary at each visit
- CT primary at end of treatment for pelvic primaries
- Bone scan for symptomatic patients with history of bone metastases
- Chest x-ray each visit with H&P above
- CT scan chest if chest x-ray equivocal or for surgical planning
- Sarcoma Multidisciplinary Planning Conference if further multidisciplinary decisions required

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\(^1\) Excluding chondrosarcoma not otherwise specified, and osteosarcoma of head & neck

\(^2\) Small cell includes the following: rhabdomyosarcoma, Ewing’s Sarcoma/Primitive, neuroectodermal tumor, mesenchymal chondrosarcoma, and unclassified small cell sarcoma
SUGGESTED READINGS

Adriamycin/cisplatin for osteosarcoma:


Adriamycin/ifosfamide for osteosarcoma and soft-tissue sarcomas:

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

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)  
Janice N. Cormier, MD (Surgical Oncology)  
Beverly Ashleigh Guadagnolo, MD (Radiation Oncology)  
Kelly K. Hunt, MD (Breast Surgical Oncology)  
Pauline Koinis, BSMT*  
Valerae O. Lewis, MD (Orthopaedic Oncology)  
Patrick P. Lin, MD (Orthopaedic Oncology)  
Joseph A. Ludwig, MD (Sarcoma Surgical Oncology)  
Kevin W. McEnery, MD (Diagnostic Imaging)  
Bryan Moon, MD (Orthopaedic Oncology)  
Bilal Mujtaba, MD (Diagnostic Imaging)  
Shreyaskumar Patel, MD (Sarcoma Medical Oncology)  
Vinod Ravi, MD (Sarcoma Medical Oncology)  
Christina Lynn Roland, MD (Surgical Oncology)  
Robert Satcher, MD (Orthopaedic Oncology)  
Neeta Somaiah, MD (Sarcoma Medical Oncology)  
Jennifer Tinkler, BSN, RN, OCN, CEN*  
Keila E. Torres, MD (Surgical Oncology)  
Maria Alejandra Zarzour, MD (Sarcoma Medical Oncology)

*Clinical Effectiveness Development Team

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