Breast Sarcoma, Clinical Stage I-II[1]

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

INITIAL EVALUATION

- History and physical (H&P), including any history of radiation therapy (RT)
- CBC with differential, CMP, LDH, PT, and PTT
- Imaging
  - Diagnostic mammography with or without tomosynthesis (patients ≥ 30 years old) **and**
  - Ultrasound breast **and**
  - Consider MRI breast bilateral with and without contrast[2]
- Imaging, metastatic
  - CT chest/abdomen/pelvis with and without contrast
- Pre-treatment core needle biopsy
- Lifestyle risk assessment[3]

A

Is patient a candidate for surgical resection?

Yes

- Discuss Goal Concordant Care (GCC) with patient or if clinically indicated, with Patient Representative[4]
- Surgical resection with attempt towards margin negative surgical resection
- Consider Plastic and Reconstructive Surgery consult to discuss the role of breast reconstruction, if desired, and chest wall coverage, if required
- Consider preoperative radiation therapy in patients known to be at increased risk of local recurrence[5,6]
- Consider the role of neoadjuvant chemotherapy for patients with increased risk of metastasis

No

- Discuss GCC with patient or if clinically indicated, with Patient Representative[4]
- Multidisciplinary discussion for management recommendations and consideration for radiation therapy with or without chemotherapy

TREATMENT

Does the patient have positive margin resection on final pathology?

Yes

Is the tumor able to be re-resected?

Yes

- Re-excision. Total mastectomy typically required for T2+ tumors[7].
- Consider postoperative RT if preoperative RT was not given in patients that are at increased risk for local recurrence[5,6]

No

Consider postoperative RT in patients at increased risk of local recurrence who did not receive preoperative RT[5,6]

No

Final pathology shows high grade or large size or primary angiosarcoma?

Yes

Discuss at multidisciplinary tumor board the role for adjuvant systemic therapy

No

SURVEILLANCE[8]

- H&P with mammography **and** breast ultrasound **or** breast MRI with and without contrast to evaluate for local recurrence:
  - Every 6 months for 2 years, then
  - Annually
- Clinical nodal evaluation with physical exam and ultrasound of nodal basin for patients with lymph node involvement
- CBC with differential, CMP and LDH at every visit
- Chest x-ray with H&P as above

CMP = comprehensive metabolic panel

[1] Clinical stage I-II: Patients with low grade tumors ≤ 5 cm
[2] MRI breast can be helpful when lesions are mammographically or sonographically occult and in patients with dense breast tissue
[3] See Physical Activity, Nutrition, Obesity Screening and Management, and Tobacco Cessation Treatment algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice
[4] GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to document GCC discussion. Refer to GCC home page (for internal use only).
[5] Scenarios for increased risk of local recurrence include: High risk histology or concern for ability to achieve widely negative surgical margins
[6] Re-irradiation in patients receiving prior radiation or radiation in patients with secondary radiation-associated sarcoma is generally not recommended but should be discussed in a multidisciplinary setting
[7] Routine lymph node assessment not indicated
[8] Surveillance follow-up frequency and imaging type may vary based on a combination of histology, type of surgery, age at diagnosis and breast density. Annual breast MRI can be considered if dense breasts or if diagnosed before age 50; others with personal history of breast cancer should consider annual breast MRI from age at diagnosis.

Department of Clinical Effectiveness V2
Approved by The Executive Committee of Medical Staff 05/20/2025

Breast Sarcoma, Clinical Stage III[1]

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

INITIAL EVALUATION

- History and physical (H&P), including any history of radiation therapy (RT)
- CBC with differential, CMP, LDH, PT, and PTT
- Imaging
  - Diagnostic mammography (patients ≥ 30 years old) **and**
  - Ultrasound breast **and**
  - Consider MRI breast bilateral with and without contrast[2]
- Imaging, metastatic
  - CT chest/abdomen/pelvis with and without contrast
- If suspicion for axillary involvement (per CT results, physical exam):
  - Axillary ultrasound and fine needle aspiration for suspicious nodes
- Pre-treatment core needle biopsy
- Lifestyle risk assessment[3]
- Multidisciplinary tumor board discussion

TREATMENT

- Discuss GCC with patient or if clinically indicated, with Patient Representative[4]
- Chemotherapy regimens based on patient factors and histologic subtype
- Discuss role of upfront surgical resection if warranted based on histology
- Consider primary surgery if patient is not candidate for systemic therapy

Progression to inoperable or metastasis?

- Yes → Second line chemotherapy **or** clinical trial; Consider palliative local therapy
- No → See Diamond A on Page 1

Tumor response and adequate performance status per ECOG Performance Status Scale?

- Yes → Evaluate for local therapy with or without treatment of metastatic disease
- No → Third line chemotherapy **or** Clinical trial **or** Supportive care

SURVEILLANCE[5]

- H&P with mammography **and** breast ultrasound **or** breast MRI with and without contrast to evaluate for local recurrence:
  - Every 3 months for 2 years, then
  - Every 6 months for 3 years, then
  - Annually
- Clinical nodal evaluation with ultrasound of nodal basin for patients who had lymph node involvement both on exam and imaging
- CBC with differential, CMP and LDH every visit
- Chest x-ray with H&P as above[6]

ECOG = Eastern Cooperative Oncology Group

[1] Clinical stage III: Patients with intermediate or high-grade tumors > 5 cm. For clinical management of soft-tissue sarcoma, see Adult Soft-Tissue Sarcoma for Clinical Stage III Extremity/Superficial Trunk algorithm

[2] MRI breast can be helpful when lesions are mammographically or sonographically occult and in patients with dense breast tissue

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

[4] GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

[5] Surveillance follow-up frequency and imaging type may vary based on a combination of histology, type of surgery, age at diagnosis and breast density. Annual breast MRI can be considered if dense breasts or if diagnosed before age 50; others with personal history of breast cancer should consider annual breast MRI from age at diagnosis.

[6] Consider full body staging imaging (*i.e.,* PET/CT whole body scan or CT chest/abdomen/pelvis with and without contrast) depending on histologic subtype and metastatic patterns

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SUGGESTED READINGS

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