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**Symptomatic bone lesion** → **Abnormal x-ray**

* **Age < 40**
  + Refer to orthopedic oncologist.
  + Biopsy, if indicated, should be performed at the treating institution.
  + See Bone Cancer Table of Contents for specific bone sarcomas.
* **Age ≥ 40**
  + Workup for potential bone metastasis as clinically indicated:
    - History and physical
    - Bone scan or FDG-PET/CT (category 2B)
    - Chest x-ray
    - Serum protein electrophoresis (SPEP)/labs
    - Chest/abdomen/pelvis (C/A/P) CT with contrast
    - Prostate-specific antigen (PSA)
    - Mammogram
  + **If no other lesions (Possible bone primary)**
    - Refer to orthopedic oncologist.
    - Biopsy should be performed at treating institution.
  + **If other lesions (non-bone primary suspected)**
    - Refer to appropriate **NCCN Guidelines for Treatment by Cancer Type**

Additional Considerations:

* Multidisciplinary Team (TEAM-1)
* Principles of Bone cancer management (BONE-A)
* Labs include complete blood count (CBC) and comprehensive metabolic panel (CMP) with calcium to assess for hypercalcemia

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### **Presentations:**

1. **Atypical cartilaginous tumors** → **CHON-2**
2. **Low-grade extra compartmental appendicular tumors** or  
   **Grade I axial tumors** or  
   **High-grade (Grade II, Grade III) tumors** or  
   **Clear cell chondrosarcoma** or  
   **Extracompartmental tumors** → **CHON-3**
3. **Metastatic disease at presentation** → **CHON-4**
4. **Dedifferentiated chondrosarcoma** → **CHON-3 and CHON-4**
5. **Mesenchymal chondrosarcoma** → **CHON-3 and CHON-4**

**Additional Considerations:**

* **Multidisciplinary Team (TEAM-1)**
* **Principles of Bone cancer management (BONE-A)**
* **There is a considerable controversy regarding the grading of chondrosarcoma. In addition to histology, radiologic features, size, and location of tumors should also be considered in deciding local treatment.**
* **Defined as low-grade intracompartmental appendicular tumors. WHO classification of tumors editorial board. Soft tissue and bone tumors. Lyon (France): International Agency for research on cancer**

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#### **Primary Treatment for Atypical Cartilaginous Tumors**

* + **Intralesional Excision ± Surgical Adjuvant OR**
  + **Observation**

1. **Surveillance** 
   * **Physical Exam**
   * **X-rays of primary site and/or cross-sectional imaging** Every **6–12 months** for **2 years**, then **yearly**, as clinically indicated:
     + **CT with contrast** or
     + **MRI with and without contrast**

#### **Recurrence**

**Local Recurrence?**

* + **Yes → Continue to Workup**

#### **Workup for Recurrence or Initial Diagnosis**

#### **Imaging of Primary Site as Clinically Indicated (eg, X-ray, MRI with and without contrast, and CT with contrast**

#### **Chest Imaging**

#### **Bone Scan (Optional)**

#### **Biopsy to Confirm Diagnosis**

#### **If there is Malignant Transformation, treat as described on CHON-3**

#### **Additional Considerations:**

#### Defined as low-grade intracompartmental appendicular tumors. WHO classification of tumors editorial Board. Soft tissue and bone tumors.

#### There is no known standard chemotherapy options for conventional chondrosarcoma grades 1-3, but ivosidenib is an option for susceptible IDH1 mutations. See Systemic Therapy Agents (BONE-B)

#### Wide excision optional in expendable bones.

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#### **1. Primary Treatment for:**

* Low-grade extra compartmental appendicular tumors OR
* Grade I axial tumors OR
* High-grade tumors (Grade II, Grade III) OR
* Clear cell chondrosarcoma OR
* Extracompartmental
  + Treatment includes:
    - Wide excision if resectable or consider radiation therapy (RT) if borderline resectable or unresectable (category 2B) (BONE-C)
* **Is the tumor dedifferentiated?**
  + **YES:** May consider treating as **osteosarcoma** (category 2B) (See OSTEO-1)
  + **NO:** Proceed to surveillance
* **Is the tumor mesenchymal?**
  + **YES:** Follow **EW-1 protocol**

#### **2. Surveillance**

* **Physical exam**
* **X-rays of primary site and/or cross-sectional imaging** as clinically indicated:
  + **CT with contrast** OR **MRI with and without contrast**
* **Chest imaging every 3–6 months** may include CT at least every 6 months for 5 years, then yearly for a minimum of 10 years, as clinically indicated.
* **Reassess function at every follow-up visit.**

#### **3. Recurrence**

* **Local Recurrence**
  + **→ Wide excision, if resectable or RT, if unresectable (category 2B)**
    - **Surgical margins**
      * **Positive margins→** Consider **radiation therapy (RT)** (category 2B) or Consider **re-excision** to achieve negative surgical margins.
      * **Negative margins → Observe.**
* **Systemic Recurrence**
  + **→** Follow **Metastatic Chondrosarcoma Guidelines (CHON-4)**

#### **Additional Notes**

* **There is no known standard chemotherapy options for conventional chondrosarcoma grades 1-3, but ivosidenib is an option for susceptible IDH1 mutations. See Systemic Therapy Agents (BONE-B).**
* **Wide excision should provide histologically negative surgical margins. This may be achieved by either limb-sparing excision or limb amputation.**
* **Principles of Radiation Therapy (BONE-C).**
* **Based on physician’s concern for risk of recurrence.**
* **Chest CT can be performed with or without contrast as clinically indicated. Low-dose, non-contrast CT is recommended for restaging.**

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Metastatic Chondrosarcoma Decision Tree

1. Metastatic Chondrosarcoma- Differentiated Mesenchymal
   * Oligometastatic Disease
     + Surgical excision of all sites if possible
     + Consider radiation for unresectable sites.
     + Consider clinical trial.
   * Widespread Disease
     + Consider RT (radiation therapy), surgery, and/or ablative therapies for symptomatic sites.
     + Consider systemic therapy (Systemic Therapy Agents {BONE-B})
     + Consider clinical trial.

Additional Considerations

* Genomic Profiling  
  Consider comprehensive genomic profiling (CGP) with a validated and/or FDA-approved assay to determine targeted therapy opportunities.
* Alternative Treatment Approach  
  May consider treating as osteosarcoma (category 2B) (OSTEO-1).
* Tumor Mutational Burden (TMB) and MMR/MSI Testing  
  Consider testing for tumor mutational burden (TMB) and mismatch repair/microsatellite instability (MMR/MSI) as determined by a validated and/or FDA-approved assay to inform treatment options.

Note:

All recommendations are Category 2A unless otherwise indicated.

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### **Chordoma Workup Decision Tree**

1. **All patients should be evaluated and treated by a multidisciplinary team with expertise in chordoma management.**
   * **Workup Steps:** 
     + History and physical examination
     + Adequate cross-sectional imaging of primary site (e.g., x-ray, MRI, CT) and screening MRI of spinal axis
     + C/A/P CT with contrast
     + Consider FDG-PET/CT (skull base to mid-thigh)
     + Consider bone scan if FDG-PET/CT is negative.
2. **Determine Histologic Subtype** 
   * **Conventional or Chondroid**
     + Follow **Presentation and Primary Treatment (CHOR-2)**
   * **Poorly Differentiated or Dedifferentiated**
     + Follow **NCCN Guidelines for Soft Tissue Sarcoma**

#### **Additional Notes:**

* Multidisciplinary Team involvement is emphasized (TEAM-1).
* **All recommendations are Category 2A unless otherwise indicated.**

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### **Chordoma Treatment Decision Tree**

(Based on NCCN Guidelines Version 1.2025)

#### **Step 1: Presentation**

* **Sacrococcygeal and Mobile Spine** → Go to Step 2A.
* **Skull Base/Clival** → Go to Step 2B.

### **Step 2A: Primary Treatment for Sacrococcygeal and Mobile Spine**

**If Resectable:**

* **Wide Excision ± Adjuvant RT** → Go to Step 3

**If Unresectable:**

* **Consider Definitive RT** → Go to Surveillance (CHOR-3)

### **Step 2B: Primary Treatment for Skull Base/Clival**

**If Resectable:**

* **Intralesional Excision (maximal safe excision, maximal tumor removal I recommended when appropriate) ± Adjuvant RT** → Follow-up contrast-enhanced MRI of primary site to assess adequacy of excision→ Go to Step 3B.

**If Unresectable:**

* **Consider Definitive RT** → Go to Surveillance (CHOR-3)

### **Step 3A: Adjuvant Treatment**

* **Consider Adjuvant RT**
  + If **positive surgical margins**
  + If **large extra compartmental tumors**
  + **Go to CHOR-3**

### **Step 3B: Adjuvant Treatment**

* **Consider Adjuvant RT**
  + If **positive surgical margins**
  + If **large extra compartmental tumors**
* **Consider Re-excision if necessary.**
* **Go to CHOR-3**

### **Final Step: Surveillance**

**Proceed to Surveillance Guidelines (CHOR-3)**

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* 1. Surveillance:
* Physical exam
* Imaging of primary site, timing, and modality, as clinically indicated (e.g., X-ray, MRI with & without contrast ± CT with contrast) for up to 10 y.
* Chest imaging (chest CT scan can be performed with or without as clinically indicated Low-dose, non-contrast CT is recommended for restaging) every 6 months may include CT annually for 5 years, then annually thereafter as clinically indicated.
  1. Recurrence:
* Local Recurrence

→ Treatment Options:

* + Surgical excision (Principles of Bone Cancer Management (BONE-A) and/or
  + Radiation therapy (RT) and/or
  + Ablation and or Systemic therapy or
  + Clinical trial
* Metastatic Recurrence

→ Treatment Options:

* Systemic therapy (Bone Cancer Systemic Therapy Agents (BONE-B)), consider testing for TMB and MMR/MSI as determined by a validated and/or FDA approved assay to inform treatment options and/or
* Surgical excision (Principles of Bone Cancer Management (BONE-A)) and/or
* Radiation therapy (RT) (Principles of Radiation Therapy (BONE-C)) or
* Clinical trial and/or
* Best supportive care

Additional Considerations:

* Consider Comprehensive Genomic Profiling (CGP) for targeted therapy.
* Consider chest CT (with/without contrast) for restaging.
* Consider testing for TMB (Tumor Mutational Burden) and MMR/MSI for treatment decisions.

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Presentation:

Ewing Sarcoma

1. Workup:

* History & Physical Exam
* Contrast-enhanced MRI ± CT of the primary site
* Chest CT
* FDG-PET/CT (preferred) (head-to-toe) and/or bone scan
* Consider bone marrow biopsy and/or screening MRI (with/without contrast) of spine & pelvis.
* Cytogenetics and/or molecular studies (may require re-biopsy)
* Lactate dehydrogenase (LDH)
* Fertility consultation should be considered.

1. Primary Treatment:

* Multiagent Chemotherapy (Category 1) for at least 9 weeks prior to local therapy

1. Restage

* Restage with:
* Chest CT
* Contrast-enhanced MRI ± CT (without contrast) of the primary site
* X-rays of the primary site
* Consider FDG-PET/CT (head-to-toe) or bone scan.
* Repeat other abnormal studies.

1. Response Evaluation:

* Localized disease → (Follow EW-2)
* Metastatic disease → (Follow EW-3)
* Progressive disease → (Follow EW-2)

Additional Considerations:

* Multidisciplinary Team (TEAM-1)
* Principles of Bone Cancer Management (BONE-A)
* Ewing Sarcoma can be treated using this algorithm, including primitive neuroectodermal tumor of bone, Askin tumor, and extraosseous Ewing sarcoma.
* Consider CGP or other fusion panel for Ewing sarcoma to identify translocations if pathologic workup of targeted polymerase chain reaction (PCR), fluorescence in situ hybridization (FISH), or cytogenic is negative.
* Chest CT can be performed with or without contrast as clinically indicated. Low-dose, non-contrast CT is recommended for restaging.
* Ninety percent of Ewing sarcoma will have one of the four specific cytogenic translocations. For patients with other primary round cell sarcomas of bone, treating as Ewing sarcoma can be considered. For those who are negative, additional molecular testing is recommended. Other primary round cell sarcoma of bone was previously referred to as Ewing-like sarcoma, which is terminology that is no longer included in the WHO classification.
* Bone Cancer Systematic Therapy Agents (BONE-B)
* Longer treatment prior to local control therapy can be considered in patients with metastatic disease based on response.
* Use the same imaging technique that was performed in the initial workup.

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#### **Step 1: Primary Treatment Response**

* **Stable/Improved Disease Following Primary Treatment** → Proceed to **Local Control Therapy**
* **Progressive Disease Following Primary Treatment** → Consider **RT and/or Surgery for Local Control or Palliation**→ Continue to Progressive Disease/Relapse

#### **Steps 2+3: Local Control Therapy Options and Adjuvant Treatment/Additional Therapy**

* **Wide Excision**
  + **Positive Margins** → **Continue chemotherapy (Category 1) Followed by RT or RT and chemotherapy (category 1, for chemotherapy)** → Continue to Surveillance
  + **Negative Margins** → **Chemotherapy (category 1) and consider RT for pelvic tumors**→ Continue to Surveillance
* **Definitive RT and Chemotherapy**→ Continue to Surveillance
* **Amputation (Selected Cases)** → Continue to Surveillance

#### **Step 4: Surveillance**

* **Physical Exam**
* **Contrast-Enhanced MRI ± CT of Primary Site**
* **Chest Imaging (X-ray or CT) Every 3 Months**
* **X-rays of Primary Site**
* **Complete blood count (CBC) and Other Laboratory Studies as Indicated**
* **Increase Intervals for physical exams, imaging of primary site and chest After 24 Months and Annually After 5 Years as Clinically Indicated (indefinitely) (category 2B)**
* **Consider FDG-PET/CT (Head-to-Toe) or Bone Scan**

#### **Step 5: Progressive Disease/Relapse**

* **Relapse** → **Chemotherapy ± RT ± Surgery**
* **Progressive** Disease → **Chemotherapy or Best Supportive Care**

Additional Considerations:

* Principles of Bone Cancer Management (BONE-A)
* Chest CT can be performed with or without contrast as clinically indicated. Low-dose, non-contrast CT is recommended for restaging.
* Bone Cancer Systemic Therapy Agents (BONE-B)
* Consider preoperative RT for marginally resectable lesions.
* RT may be considered for close margins.
* There is category 1 evidence for between 28 and 49 weeks of chemotherapy depending on the chemotherapy and dosing schedule used.
* Principles of Radiation Therapy (BONE-C).

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#### **1. Metastatic Ewing Sarcoma**

* **Local Control Therapy to Primary Site**
  + **Wide Excision**
    - **Positive Margins** → Continue chemotherapy (category 1) → Followed by Radiation Therapy (RT) or RT and chemotherapy (category 1, for chemotherapy) → Continue to Metastases
    - **Negative Margins** → Chemotherapy (category 1) → Continue to Metastases
  + **Definitive RT + Chemotherapy**→ Continue to Metastases
* **Widely Metastatic**
  + Continuing chemotherapy only with palliative surgery
  + OR Palliative RT to symptomatic areas
  + OR Other techniques for multiple metastases

#### **2. Metastases**

* **Oligometastatic Disease** → Excision of metastases or RT
* **Lung Only (Partial Response)** → Excision ± Whole Lung Irradiation (WLI)
* **Lung Only (Complete Response)** → Consider WLI

Additional Considerations:

* Principles of Bone Cancer Management (BONE-A)
* Bone Cancer Systemic Therapy Agents (BONE-B)
* Consider preoperative RT for marginally resectable lesions.
* RT may be considered for close margins.
* There is category 1 evidence for between 28 and 49 weeks of chemotherapy depending on the chemotherapy and dosing schedule used.
* Principles of Radiation Therapy (BONE-C).
* Consider CGP with a validated and/or FDA-approved assay to determine targetd therapy opportunities.
* Local control cannot be delivered to all areas of disease.
* Consider testing for TMB (category 2B) and MMR/MSI as determined by a validated and/or FDA-approved assay to inform treatment options.

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Step 1: Workup

* History and Physical Examination
* Imaging of the primary site as clinically indicated (eg, X-ray and MRI (with and without contrast ± CT)
* Chest Imaging
* Bone Scan (optional)
* Biopsy to confirm diagnosis.
* If malignant transformation is suspected, treat as osteosarcoma [(Refer to OSTEO-1)]

Step 2: Presentation

* Localized Disease → Follow GCTB-2

Metastatic Disease at Presentation → Follow GCTB-2

Additional Considerations:

* Brown tumor of hyperparathyroidism should be considered as a differential diagnosis.
* Principles of Bone Cancer Management (BONE-A).

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Step 1: Metastatic vs Localized Disease

* Localized disease
  + Is the tumor Resectable?
    - Yes, Resectable→ Perform Excision→ Continue to Surveillance (GCTB-3)
    - No (Resectable with unacceptable morbidity and/or Unresectable axial lesions) → Denosumab (preferred) and/or Serial embolization (preferred) and/or Radiation therapy (RT)
      * Next, Imaging to assess response, Plain X-rays, and contrast-enhanced CT ± MRI.
        + Treatment Response:

Stable/Improved Disease → Proceed to Surveillance (GCTB-3)

Stable/Improved Disease with Incomplete Healing

If it changes to resectable → Perform Excision → Surveillance (GCTB-3)

If remains unresectable → Surveillance (GCTB-3)

If it becomes Progressive Disease → repeat treatment from beginning OR if remains unresectable → Surveillance (GCTB-3)

* Metastatic Disease at Presentation
  + Is the tumor resectable?
    - Yes, resectable → For primary tumor, treat as above Consider excision of metastatic sites→ Continue to Surveillance (GCTB-3)
    - No (Unresectable) → Consider the following options:
      * Denosumab (preferred)
      * Radiation Therapy (RT)
      * Observation
      * Then proceed to Surveillance (GCTB-3)

Additional Considerations:

* Intralesional excision with an effective adjuvant may be adequate.
* Denosumab may be continued until disease progression, in responding disease.
* Bone Cancer Systemic Therapy Agents (BONE-B).
* Consider consultation with dentists prior to initial therapy.
* An FDA-approved biosimilar is an appropriate substitute.
* RT may be associated with an increased risk of malignant transformation.
* Principles of Radiation Therapy (BONE-C)
* Treatment of primary tumor is as described for localized disease.
* Long-term denosumab use may be associated with increased risk of local recurrence.

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#### **Step 1: Surveillance**

* **Physical Exam**
* **Imaging of Surgical Site as Clinically Indicated**  
  (e.g., X-ray, Contrast-Enhanced CT, and/or MRI)
* **Chest Imaging** Every **6–12 months for 4 years** Then **annually thereafter, as clinically indicated.**

#### **Step 2: Recurrence**

* **Local Recurrence**
  + **Resectable** → **Consider Chest Imaging** → **Consider Denosumab Prior to Surgery (GCTB-2)**
  + **Resectable with Unacceptable Morbidity or Unresectable Axial Lesions** → **GCTB-2**
* **Metastatic Recurrence** → **GCTB-2**

**Additional Considerations:**

* An FDA-approved biosimilar is an appropriate substitute.
* Risk of local recurrence is increased when denosumab is used prior to curettage. Denosumab may be beneficial to define peripheral tumor extent when planning wide excision.

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#### **Step 1: Workup**

* **History and Physical**
* Contrast-enhanced MRI ± CT of primary site
* Chest imaging, including chest CT.
* FDG-PET/CT (head-to-toe) and/or bone scan
* MRI (with and without contrast) or CT (with contrast) of skeletal metastatic sites
* **LDH (Lactate Dehydrogenase)**
* **Alkaline Phosphatase (ALP)**
* **Fertility Consultation should be offered.**
* **Consider personal and family history for Genetic consultation and testing.**

#### **Step 2: Primary Treatment**

* **Low-Grade Osteosarcoma (Intramedullary + Surface)** → **Wide Excision**
  + - **High-Grade?** → **Chemotherapy (Category 1) → Surveillance (OSTEO-4)**
    - **Low-Grade?** → **Surveillance (OSTEO-4)**
* **Periosteal Osteosarcoma** → **Consider Chemotherapy** → **Wide Excision** 
  + - **High-Grade?** → **Chemotherapy (Category 1) → Surveillance (OSTEO-4)**
    - **Low-Grade?** → **Surveillance (OSTEO-4)**
* **High-Grade Osteosarcoma (Intramedullary + Surface)** → **Follow OSTEO-2**
* **Metastatic Disease at Presentation** → **Follow OSTEO-3**
* **Extra skeletal Osteosarcoma** → **Follow NCCN Guidelines for Soft Tissue Sarcoma**

**Additional Considerations:**

* Multidisciplinary Team (TEAM-1)
* Principles of Bone Cancer Management (BONE-A).
* Chest CT can be performed with or without contrast as clinically indicated. Low-dose, non-contrast CT is recommended for restaging.
* Dedifferentiated parosteal osteosarcomas are not considered to be low-grade tumors.
* Bone Cancer Systemic Therapy Agents (Bone-B).
* More detailed imaging (CT or MRI) of abnormalities identified on primary imaging is required for suspected metastatic disease.

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High-grade Osteosarcoma (Intramedullary + Surface)

➤ Neoadjuvant Treatment

* Preoperative chemotherapy (Category 1)

➤Restage

* Reassess tumor as appropriate.
* Restage with pretreatment imaging modalities:
  + Chest CT
  + Contrast-enhanced MRI ± CT of primary site
  + X-rays of primary site
  + Consider FDG-PET/CT (head-to-toe) or bone scan
* Restage Result
  + Unresectable tumor:
    - Adjuvant Treatment:
      * Radiation Therapy (RT)
      * Chemotherapy
* Resectable tumor:
  + Proceed to Wide Excision
    - ➤ Surgical Margin Evaluation:
      * Positive Margins:
        + Good Response

Chemotherapy

Consider additional local therapy (surgical excision ± RT)

* Poor Response
  + Consider additional local therapy (surgical excision ± RT)
  + Continue preoperative regimen OR consider changing chemotherapy (Category 3)
* Negative Margins:
  + Good Response
    - Chemotherapy
* Poor Response
  + Continue preoperative regimen OR consider changing chemotherapy (Category 3)

Surveillance:

* Follow OSTEO-4 guidelines for surveillance.

Additional Considerations:

* Principles of Bone Cancer Management (BONE-A)
* Chest CT can be performed with or without contrast as clinically indicated. Low-dose, non-contrast CT is recommended for restaging.
* Bone Cancer Systemic Therapy Agents (BONE-B).
* Other high-grade non-osteosarcoma variants such as undifferentiated pleomorphic sarcoma (UPS) of bone could also be treated using this algorithm.
* Selected older patients may benefit from immediate surgery.
* Response is defined by pathologic mapping per institutional guidelines; the amount of viable tumor is reported as <10% of the tumor area in cases showing a good response and >= 10% in cases showing a poor response.
* Principles of Radiation therapy (BONE-C).
* See discussion for further information.

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### **Presentation:**

### **Metastatic disease at presentation**

#### ➤ **If Resectable (pulmonary, visceral, or skeletal metastases):**

* **Primary Treatment:**
  + **See OSTEO-2** for management of the primary tumor.
  + **Chemotherapy**
  + **Mastectomy** **OR**
  + **Stereotactic RT** (Radiation Therapy), **OR**
  + **Ablation** (if pulmonary mastectomy is not possible).

**Then proceed to: Surveillance (OSTEO-4)**

#### ➤ **If Unresectable:**

* **Primary Treatment:**
  + **Chemotherapy**
  + **Radiation Therapy (RT)**.
  + **Reassess primary site** as appropriate for local control.

**Then proceed to: Surveillance (OSTEO-4)**

### **Footnotes and Considerations:**

* Principles of Bone Cancer Management (BONE-A).
* Bone Cancer Systemic Therapy Agents (BONE-B).
* Principles of Radiation Therapy (BONE-C).
* Consider CGP (Comprehensive Genomic Profiling) with validated and/or FDA-approved assay to determine targeted therapy opportunities.
* Consider testing for **TMB** (Tumor Mutational Burden) and **MMR/MSI** (Mismatch Repair/Microsatellite Instability) as determined by validated and/or FDA-approved assays to guide treatment options.

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1. Surveillance Phase:

* Physical exam, imaging of primary site and chest.
* Follow-up schedule (Orthopedic and Oncologic):
  + Every 3 months for years 1 and 2.
  + Every 4 months for year 3.
  + Every 6 months for years 4 and 5, and yearly thereafter, as clinically indicated.
* CBC and other laboratory studies as clinically indicated.
* Consider FDG-PET/CT (head-to-toe) and/or bone scan (category 2B).
* Reassess function every visit.

2. Relapse Detected:

Chemotherapy and/or excision if possible.

3. Imaging to Assess Response:

* X-rays of primary site.
* Contrast-enhanced CT ± MRI of local sites.
* Chest CT

4. Response Evaluation:

If Response detected→ Return to Surveillance Phase.

If Relapse/Progression detected:

Consider:

* Excision (if possible) OR
* Clinical trial OR
* Radiation Therapy (RT) OR
* Best supportive care.

Notes:

* Principles of Bone Cancer Management (BONE-A).
* Chest CT can be performed with or without contrast as clinically indicated. Low-dose, non-contrast CT is recommended for restaging.
* Bone Cancer Systemic Therapy Agents (BONE-B).
* Principles of radiation Therapy (BONE-C).
* Use the same imaging technique that was performed in the initial workup.
* RT may include radiopharmaceuticals, including radium-223.