British Orthopaedic Association

BOA STANDARD

Management of Metastatic Bone Disease (MBD)

June 2022

Background and justification
Patients presenting with suspected MBD should be managed along a defined pathway from presentation to rehabilitation. Low energy fractures in the non-osteoporotic population, antecedent pain, night pain, absence of injury, and insidious pain are suspicious for underlying malignancy.

Inclusions:
Suspected MBD of the appendicular skeleton, pelvis and scapula.

Exclusions:
Osteoporotic or stress fractures. Spinal metastases.

Standards for Practice

1. Each unit should have an agreed policy for the multidisciplinary discussion and management of MBD including clear pathways for onward referral.
2. All specialist centres should have agreed pathways to enable prompt opinion, advice, and transfers within their network.
3. Prodromal pain, history of malignancy, or night pain raise suspicion of MBD and should be documented along with any circumstances of injury.
4. A patient with radiographic features of a primary bone tumour, including bone destruction, new bone formation, periosteal reaction, or soft-tissue swelling should be referred to a bone sarcoma centre* within 72 hours#
5. Biopsy of a suspected primary bone tumour must be performed at a bone sarcoma centre.
6. The following investigations should be conducted when MBD is suspected:
    - FBC, U+E, LFT, calcium & bone profile, PSA in men, myeloma screen
    - Orthogonal radiographs of the whole bone
    - Staging CT of the thorax, abdomen and pelvis (CT-TAP) within 24 hours of orthopaedic assessment
7. A CT-TAP without evidence of malignancy may indicate a primary bone tumour and requires referral to a bone sarcoma centre within 72 hours#
8. MBD without an obvious primary site, should be discussed with the local acute oncology service.
9. Referral to a recognised tertiary centre** is required for patients with a solitary bone metastasis.
10. Multidisciplinary decisions on the use of (neo)adjuvant therapy should be recorded prior to surgery.
11. Surgery for MBD should be consultant led.
12. Surgical interventions should outlast the lifetime of the patient. Where internal fixation is used, curettage and cement augmentation is recommended to replace bone loss. All patients require a construct to allow immediate weight-bearing.
13. All patients require thromboprophylaxis. Contraindications must be documented.
14. Patients should continue under orthopaedic surveillance if they have ongoing pain. This may indicate disease progression and/or impending failure of the reconstruction.
15. Failed MBD surgical intervention must be discussed with a recognised tertiary centre.
16. Decisions regarding adjuvant therapy, rehabilitation and/or palliation should involve the patient, their family, and carers.

*Bone Sarcoma Centre – a specialised commissioned service for the management of bone sarcoma
**Recognised Tertiary Centre – a unit managing complex MBD with appropriate multidisciplinary capabilities
- 72 hours is time from first suspicious or diagnostic imaging.