The AAOS Musculoskeletal Tumor Registry (MsTR)

The American Academy of Orthopaedic Surgeons (AAOS), in collaboration with the Musculoskeletal Tumor Society (MSTS), announced the launch of a Musculoskeletal Tumor Registry (MsTR) feasibility pilot in December 2018. The goal of the pilot was to begin capturing data on orthopaedic oncology bone tumor procedures in a structured and scalable way. The decision was made to broaden the MsTR program from a pilot to a full registry at the end of 2019. The MsTR is the third subspecialty registry to be incorporated into the AAOS family of registries.

The collaboration involves six pilot sites from major U.S. academic centers. The MsTR pilot sites are large, academic referral centers serving a regional population of sarcoma patients. Each site was charged with using individual institutional resources and workflows to determine the most efficient, simplest, and most accurate methods to capture and submit data. Learnings from the MsTR pilot translated into templates and lessons that will inform future work on the Registry.

Pilot Sites

Listed below are the sites and the key surgeon lead at each.

- Cleveland Clinic Foundation - Nathan Mesko, MD; Luke Nystrom, MD
- Dartmouth-Hitchcock Medical Center - Eric Henderson, MD
- Johns Hopkins Medicine - Adam Levin, MD
- Ohio State University-The James Cancer Hospital - Joel Mayerson, MD
- Stanford Health Care- Stanford Hospital - Robert J. Steffner, MD
- University of Iowa Hospital and Clinics - Benjamin Miller, MD, MS *Physician leader for MsTR

Data Elements

Data elements will include but are not limited to patient demographics, patient baseline and examination, tumor baseline, treatment and post-treatment, and surgery detail along with post-operative data (oncologic failure, surgery complication, and vital status) and patient-reported outcomes as conveyed in applicable instruments.

Get Started

Organizations interested in participating in the MsTR after the pilot period can contact RegistryEngagement@aaos.org.
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Data Elements

Baseline

Patient
- Name (Last, First)
- Date of Birth
- Social Security Number
- Diagnosis (ICD-10)
- Gender
- Race/Ethnicity
- Payer Status

Hospital/Practice
- Name and Address

Surgeon
- Name
- National Provider Identifier

Surgical Intervention
- Procedure Type (ICD-10)
- Date of Surgery
- Implants
- Details surrounding surgery type
- Comorbidities (ICD-10)

Non-Surgical Intervention
- Chemotherapy
- Radiation
- Clinical Trial

Tumor Baseline
- Size
- Metastasis at diagnosis
- Margins
- Tissue Type
- Biopsy Type

Encounters and Patient-Reported Outcomes

Encounters
- Comorbidities (ICD-10)
- Hospital Admission
- Procedure (ICD-10)
- Diagnosis (ICD-10)
- Recurrence
- Chemotherapy
- Radiation

Patient-reported Outcomes
- PROMIS-10 Global
- VR-12
- MSTS
- TESS

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