

## **Modern Biopsy Practice Patterns: A Survey of the MSTS Membership**

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### **INTRODUCTION:**

Both percutaneous core needle biopsy and open biopsy techniques can be utilized in sampling of bone tumors. The goal of this survey is to understand how musculoskeletal oncologists utilize different biopsy techniques and how they manage biopsy tracts at the time of resection.

### **METHODS:**

We surveyed the MSTS membership with specific case examples and asked which type of biopsy techniques would be used to achieve a diagnosis. We then compared response rates by physician demographics and clinical scenario in effort to identify trends.

### **RESULTS:**

29 respondents participated in the survey. The majority (61%) had been in practice over 10 years. 90% were part of an academic practice with 79% having a high-volume tumor practice (>50% of practice) with an even distribution across the USA, Canada and other international locations. Core needle biopsy technique was the preferred modality amongst survey respondents in the majority of scenarios. Factors associated with choice to consider open biopsy included pediatric vs adult patients (35% vs. 7%), primary vs. metastatic vs. benign disease consideration (24% vs. 14% vs. 45%), and type of tissue suspected (hematologic malignancies 35%). When core needle biopsy was being utilized, most indicated that this would be done by interventional radiology. Most did not have a guideline for number of cores retrieved. The majority would excise an open biopsy tract (90%) while 50% would not excise a core needle biopsy tract.

### **DISCUSSION AND CONCLUSION:**

The results above provide insight into biopsy practice patterns in the diagnostic tissue sampling of bone tumors. This information can help prompt further insight into best practice guidelines for tissue sampling for both clinical diagnosis and research.