

# OsteoAccess™

Enabling Angled Bone Entry



**Improve sample volume, increase sample quality and enable easier target site access.**

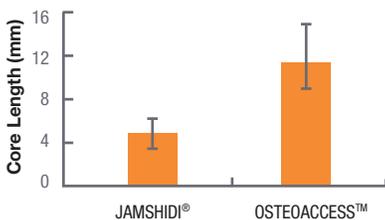
Samples with inadequate length and/or artifacts can confound clinical diagnoses and lead to repeat procedures.\* Actuated Medical developed the OsteoAccess System to assist clinicians in bone marrow biopsy and aspiration procedures. The System uses controlled, micron-scale needle vibration to reduce the penetration force enabling easier cortical bone access.

## Key Advantages

The OsteoAccess System improves bone access procedures by:

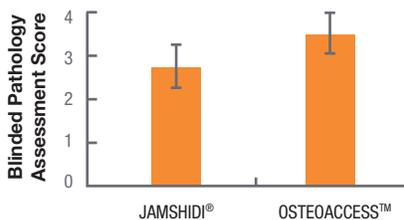
- + Allowing sampling of small, curved bones (i.e., ribs, sternum)
- + Improving trajectory control
- + Reducing clinician fatigue
- + Enabling sampling at oblique angles (<math><50^\circ</math>)

### 2.5 times longer sample length over the standard of care



The average core length of samples collected with the OsteoAccess System was 2.5 times greater compared to samples collected with the Jamshidi® needle. Samples were obtained from a tissue model (N=3 Samples/System). Error bars = Standard error of the mean.

### 24% greater sample quality score over the standard of care



The average blinded pathology assessment score of samples collected with the OsteoAccess System was 24% higher compared to samples collected with the Jamshidi® needle. Pathology assessment was based on a scale of 1-4, denoting the worst degree (Score 1) and best degree (Score of 4) of artifacts and percentage of trabeculae with tears / crush. Samples were obtained from a tissue model (N=3 Samples/System). Error bars = Standard error of the mean.

**“ The ability to enter bone tangentially is difficult with current technology and limits the ability to sample certain lesions, for example rib lesions... In denser bone the [OsteoAccess System] is a huge difference. ”**

+ Timothy J. Mosher, MD., Professor Radiology and Orthopaedics, Penn State Milton S. Hershey Medical Center

## Other Applications of the Technology

- + Bone marrow transplantation
- + Non-urgent intraosseous access
- + Fracture reduction
- + Scoliosis surgery
- + Pedicle probe placement

\* Wilkins, BS. “Pitfalls in bone marrow pathology: avoiding errors in bone marrow trephine biopsy diagnosis.” *J Clin Pathol.* 2011; 64(5):380-386.

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Pending 510(k), not available for sale within the United States.

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