



# EMS System for Metropolitan Oklahoma City and Tulsa 2026 Medical Control Board Treatment Protocols



Approved 9/17/25, Effective 1/15/26, replaces all prior versions

## 16Z – LIDOCAINE 2% INTRAVASCULAR (XYLOCAINE®)

EMT-INTERMEDIATE 85

Intraosseous local anesthetic use only - 9I

ADVANCED EMT

Intraosseous local anesthetic use only - 9I

PARAMEDIC

**Class:** Intraosseous Local Anesthetic & Antidysrhythmic

**Therapeutic Actions/Pharmacodynamics:** As a local anesthetic, reduces nerve activation that carries painful stimulus from intraosseous fluid and/or medication administration. As an antidysrhythmic, suppresses ventricular automaticity, chemically converting ventricular tachycardia.

**Indications:** Tachycardia - Stable (5F)  
Wide complex tachycardia, refractory to amiodarone  
**\*\*OLMC Order Only**  
Vascular Access - Intraosseous (9I)

**Contraindications:** Narrow complex tachycardia  
Second degree AV Block-Type II (Classic Type)  
Third degree AV Block (Complete Heart Block)  
Premature ventricular contractions with underlying bradycardias  
No indication for IO anesthetic (unresponsive patients)

**Pharmacokinetics:** Onset of action within 3 minutes IVP/IOP. Duration for 10-20 minutes.

**Side Effects:** None expected in indicated dosing. Erroneous use in high degree heart blocks can lead to complete ventricular suppression/cardiac arrest.

**Dosage:** **Tachycardia - Stable - Wide Complex Tachycardia - Adult (5F)**  
**Refractory to Amiodarone**  
Up to 1 mg/kg, slow IVP/IOP at < 50 mg/minute  
**\*\*OLMC Order Only**

**Tachycardia - Stable - Pediatric (5F)**  
Consult with OLMCP for use and dosing.

**Vascular Access - Intraosseous (Local Anesthetic) - Adult & Pediatric (9I)**  
1 mg/kg up to 40 mg IOP

**How Supplied:** 100 mg/5 mL (20 mg/mL of 2% lidocaine) prefilled syringe.  
(Always check concentration and dose per container at time of patient medication administration)