Proximal Humerus

**Arm Positioning**
Using either method below, adduct elbow, rotate humerus internally.

1. Place the patient’s hand over the abdomen with arm tight to the body.
2. Place the arm tight against the body, rotate the hand so the palm is facing outward, thumb pointing down.

**Landmarking**

1. Place your palm on the patient’s shoulder anteriorly.
   - The area that feels like a “ball” under your palm is the general target area
   - You should be able to feel this ball, even on obese patients, by pushing deeply

2. Place the ulnar aspect of one hand vertically over the axilla. Place the ulnar aspect of the opposite hand along the midline of the upper arm laterally.

3. Place your thumbs together over the arm.
   - This identifies the vertical line of insertion on the proximal humerus

4. Palpate deeply as you climb up the humerus to the surgical neck.
   - It will feel like a golf ball on a tee – the spot where the “ball” meets the “tee” is the surgical neck

The insertion site is on the most prominent aspect of the greater tubercle, 1 to 2 cm above the surgical neck.

5. Point the needle tip at a 45-degree angle to the anterior plane and posteromedial.
Arrow® EZ-IO®

Intraosseous Vascular Access System

The Arrow® EZ-IO® Intraosseous Vascular Access System from Teleflex is a Proven™, Fast, and Effective solution when IV access is difficult or impossible to obtain in emergency situations. The EZ-IO® System is indicated anytime vascular access is difficult to obtain in emergent, urgent, or medically necessary cases for up to 24 hours and provides peripheral venous access with central venous catheter performance. Insertion sites include proximal humerus, proximal tibia, distal tibia, and distal femur (pediatrics only).

Proximal Humerus Site Advantages

- Average flow rate of 6.3 L/hr under pressure for humerus, 1 L/hr for tibia
- 3 seconds to heart with medications/fluids
- Lower insertion and infusion pain
- Less medication required for patient pain management

Proximal Humerus Anatomy

Arrow® EZ-IO® System Ordering Information

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>DESCRIPTION</th>
<th>PATIENT WEIGHT</th>
<th>QTY/CASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>9058</td>
<td>EZ-IO® Vascular Access Driver</td>
<td>NA</td>
<td>1</td>
</tr>
<tr>
<td>9079P-VC-005</td>
<td>EZ-IO 45 mm Needle Set + EZ-Stabilizer Dressing</td>
<td>≥40 kg</td>
<td>5</td>
</tr>
<tr>
<td>9079-VC-005</td>
<td>EZ-IO 45 mm Needle Set</td>
<td>≥40 kg</td>
<td>5</td>
</tr>
<tr>
<td>9001P-VC-005</td>
<td>EZ-IO 25 mm Needle Set + EZ-Stabilizer Dressing</td>
<td>≥3 kg</td>
<td>5</td>
</tr>
<tr>
<td>9001-VC-005</td>
<td>EZ-IO 25 mm Needle Set</td>
<td>≥3 kg</td>
<td>5</td>
</tr>
<tr>
<td>9018P-VC-005</td>
<td>EZ-IO 15 mm Needle Set + EZ-Stabilizer Dressing</td>
<td>3-39 kg</td>
<td>5</td>
</tr>
<tr>
<td>9018-VC-005</td>
<td>EZ-IO 15 mm Needle Set</td>
<td>3-39 kg</td>
<td>5</td>
</tr>
<tr>
<td>9066-VC-005</td>
<td>EZ-Stabilizer Dressing</td>
<td>NA</td>
<td>5</td>
</tr>
</tbody>
</table>

*Each Needle Set includes a 15 gauge sterile EZ-IO Needle, EZ-Connect® Extension Set, Patient Wrist Band and NeedleVISE® Sharps Block

Rx only

Potential complications may include local or systemic infection, hematoma, extravasations, or other complications associated with percutaneous insertion of sterile devices. See Instructions For Use for detailed information regarding the Instructions For Use, Contraindications, Potential Adverse Events, Warnings, and Cautions. This material is not intended to replace standard clinical education and training by Teleflex Incorporated and should be utilized as an adjunct to more detailed information which is available about the proper use of the product.

View educational resources at www.teleflex.com/ezioeducation or contact a Teleflex clinical professional for any detailed questions related to product insertion, maintenance, removal and other clinical education information.

References:
6. Compared to single lumen Central Venous Catheters (CVCs).
7. Based on Adult Proximal Humerus EZ-IO® insertion data.
9. Based on Adult Proximal Humerus data.
11. Based on Adult Proximal Tibial data.
13. Compared to EZ-IO System tibial insertion.

NeedleVISE is a trademark or registered trademark of Atrion Medical Products, Inc.

Teleflex, the Teleflex Logo, Arrow, EZ-Connect, EZ-IO, and EZ-Stabilizer are trademarks or registered trademarks of Teleflex Incorporated or its affiliates, in the U.S. and/or other countries.

© 2019 Teleflex Incorporated. All rights reserved. MC-000620 Rev 2