## **ARROW**®



# Access at the speed of life

When every moment matters, it's time to rethink difficult vascular access (DVA).

Arrow°  $EZ\text{-}IO^{\circ}$  Intraosseous Vascular Access System







## A serious clinical challenge

### Treatment delays for patients can lead to adverse outcomes<sup>12-15</sup>

Non-shockable cardiac arrest



in drug treatment is associated with decreased survival<sup>12\*</sup>

Acute severe hemorrhage cases



in drug treatment decreases survival<sup>13†</sup>



in antibiotic administration increases risk of mortality<sup>14</sup>

Stroke cases



in thrombolytic administration increases mortality<sup>15‡</sup>



Guidance on Peripheral IV access in DVA patients

"If attempts at IV access are unsuccessful or IV access is not feasible, we suggest IO access as a route for drug administration during adult cardiac arrest."

- International Liaison Committee on Resuscitation (ILCOR) Advanced Life Support Task Force<sup>16</sup>

"IO access may be considered if attempts at IV access are unsuccessful or not feasible."

- American Heart Association (AHA) Guidelines for CPR and ECC<sup>17</sup>

<sup>†</sup>Analysis limited to administration of tranexamic acid.Data captured until 3 hours had elapsed. <sup>‡</sup>Door-to-needle time for tPA.

## The Arrow<sup>®</sup> EZ-IO<sup>®</sup> System

Immediate access via the IO route<sup>1</sup> for DVA cases that are emergent, urgent, or medically necessary, including:



CARDIAC • Cardiac arrest • STEMI / NSTEMI



SHOCKTraumaSepsis/SIRS



RESPIRATORY
• Intubation (RSI)
• Pneumonia



**NEUROLOGICAL** • Stroke

• TBI

### The speed you need

**10 SECONDS** to achieve vascular access<sup>1\*</sup>

## **3** seconds

for fluid and medication delivery to the heart through the proximal humerus<sup>2†</sup>

# The success you depend on

97% FIRST-ATTEMPT success rate<sup>3</sup>

### **CONSISTENT** availability regardless of vein condition<sup>4</sup>

The safety profile you trust

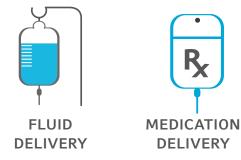
## LESS THAN 1%

serious complication rate⁵

### DEPENDABLE

for the vulnerable patients in your care

# Performs these same critical functions as peripheral IV (PIV) access:





The number of infusates that can be delivered via the IO route—

many at the same dose, rate, and concentration as with PIV access<sup>4,6,7</sup>

\*Time to access is measured as insertion of the needle set through the bone cortex and into the intraosseous space. \*Based on adult proximal humerus study conducted in healthy individual.

# A versatile solution



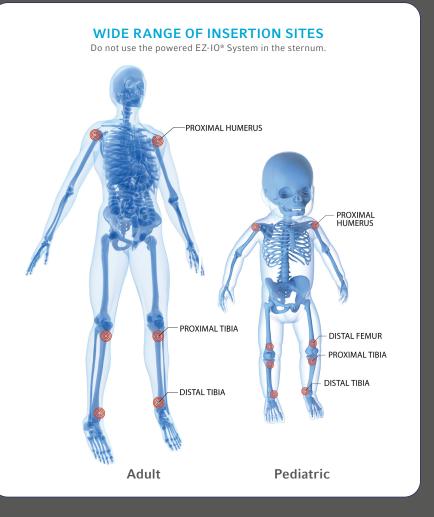
Can be used by ALL qualified healthcare professionals...



...across multiple settings...



...in virtually all patient types, regardless of underlying cause of vein inaccessibility\*





Helping you fast-track patients with DVA Provides a reliable bridge<sup>8</sup> until longer-term vascular access can be established<sup>9</sup>

In a prospective, observational study on IO vs. CVC during in-patient medical emergencies

IO had HIGHER FIRST-PASS SUCCESS<sup>10</sup>

• IO: 90.3% • CVC: 37.5%





\*The Arrow<sup>®</sup> EZ-IO<sup>®</sup> System is indicated any time in which vascular access is difficult to obtain in emergent, urgent, or medically necessary cases, for up to 24 hours. For patients ≥12 years old,the device may be extended for up to 48 hours when alternative intravenous access is not available or reliably established. †Placement mean time is measured from package opening to confirmation of blood/marrow aspirate.

‡All complications, including non-serious. Insertion sites were inspected 24 hours after initial placement.

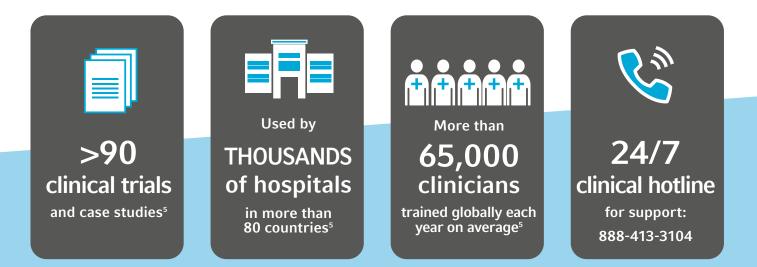
## Easy to learn, easy to use, easy to choose

### Easy to learn



## Easy to choose

Trusted for more than 15 years



## Our parts set us apart



Controlled tactile feedback<sup>18</sup>

- **EZ-IO®** Power Driver
- No charging necessary
- · Fully sealed for easy cleaning
- Battery indicator light



Fast, gentle insertion<sup>1,18</sup>

#### **EZ-IO®** Needle Set

- Diamond needle tip for precision performance
- Color-coded needle system enables quick selection



Secure catheter placement

#### **EZ-Stabilizer® Dressing**

- Designed to protect the insertion site
- · Recommended for use with all
- EZ-IO® Needle Set insertions

### **Ordering information**

DESCRIPTION		ITEM NUMBER	PATIENT WEIGHT	QTY/CASE
EZ-IO <sup>®</sup> Power Driver		9058	NA	1
EZ-IO <sup>®</sup> Needle Sets*	45 mm Needle + Stabilizer Kit	9079P-VC-005	≥40 kg	5
	45 mm Needle Set	9079-VC-005	≥40 kg	5
	25 mm Needle + Stabilizer Kit	9001P-VC-005	≥3 kg	5
	25 mm Needle Set	9001-VC-005	≥3 kg	5
	15 mm Needle + Stabilizer Kit	9018P-VC-005	3-39 kg	5
	15 mm Needle Set	9018-VC-005	3-39 kg	5
EZ-Stabilizer® Dressing		9066-VC-005	NA	5
EZ-IO <sup>®</sup> Wall Mounted Storage Cabinet		9070	NA	1

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

#### References:

- References:
  1. Davidoff J, Fowler R, Gordon D, et al. *JEMS*. 2005;30(10):s20-s23. Research sponsored by Teleflex Incorporated.
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  4. Neumar RW, Otto CW, Link MS, et al. *Circulation*. 2010;122(18 suppl 3):S729-S767.
  5. Teleflex Internal Data on File 2018.
  6. Orlowski JP, Porembka DT, Gallagher JM, et al. *Am J Dis Child*. 1990;144(1):112-117.
  7. Von Hoff DD, Kuhn JG, Burris HA, et al. *Am J Emerg Med*. 2008;26:31-38.
  8. Leidel BA, Kirchhoff C, Bogner V, et al. *Resuscitation*. 2012;83(1):40-45.
  9. Dolister M, Miller S, Borron S, et al. *J Vasc Access*. 2013;14(3):216-224. Research sponsored by Teleflex Incorporated.
  10. Lee PJ, Lee C, Rattner P, et al. *Crit Care Med*. 2009;54(5):692-694.
  12. Donnino MW, Salciccioli JD, Howell MD, et al. *BMJ*. 2014;348:g3028.
  13. Gayet-Ageron A, Prieto-Merino D, Ker K, et al. *Lancet*. 2018;391(10116):125-132.
  14. Ferrer R, Martin-Loeches I, Phillips G, et al. *Crit Care Med*. 2014;42(8):1749-1755.
  15. Fonarow GC, Smith EE, Saver JL, et al. *Circulation*. 2011;123(7):750-758.
  16. Granfeldt A, Avis SR, Lind PC, et al; International Liaison Committee on Resuscitation (ILCOR) Advanced Life Support Task Force. https://costr.ilcor.org/document/iv-vs-io-administration-of-drugs-during-cardiac-arrest-systematic-review Updated April 19, 2021. Accessed July 16, 2021.
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- 17. American Heart Association. Highlights of the 2020 AHA Guidelines Update for CPR and ÉCC. October 2020. Accessed July 23, 2021.
- https://cpr.heart.org/en/resuscitation-science/cpr-and-ecc-guidelines 18. Miller L, Philbeck T, Bolleter S, et al. Ann Emerg Med. 2010;56(3):S133. Research sponsored by Teleflex Incorporated.

The Arrow® EZ-10® System is indicated for intraosseous access anytime in which vascular access is difficult to obtain in emergent, urgent or medically necessary cases for up to 24 hours. For patients  $\geq$  12 years old, the device may be extended for up to 48 hours when alternate intravenous access is not available or reliably established.

#### Rx Only

CAUTIÓN: Federal (USA) law restricts this device to sale by or on the order of a physician.

The Arrow® EZ-10® Needle Set is Sterile, Single Use: Do not reuse, reprocess or re-sterilize. Reuse of device creates a potential risk of serious injury and/or infection which may lead to death. Refer to Instructions for Use for complete warnings, indications, contraindications, precautions, and potential complications.

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