

Adult Intraosseous

CRITERIA

- a. Cardiac Arrest (medical or traumatic)
- b. Profound hypovolemia with alteration of mental status
- c. Patient in extremis with immediate need for delivery of medications and or fluids



Intraosseous access is an accepted means for delivery of fluids and medication in the critically ill patient, for whom IV access may be difficult or impossible for various reasons. Each agency choosing to implement this skill is responsible, with the oversight of their Operational Medical Director, for choosing an appropriate device and training their personnel. Evaluation should also be conducted by that agency's QA/QI/Performance Improvement process.



Intraosseous access is not appropriate for prophylactic access!

CONTRAINDICATIONS:

- Suspected narcotic overdose and/or hypoglycemia are **absolute contraindications** for the use of intraosseous access.
- Fracture of the bone selected for IO infusion (consider alternate site)
- Excessive tissue at insertion site with the absence of anatomical landmarks (consider alternate site)
- Previous significant orthopedic procedures (IO within 24 hours, prosthesis; (consider alternate site)
- Infection at the site selected for insertion (consider alternate site)
- Severe osteoporosis or other bone degenerative conditions

PROTOCOL

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|--------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E | I | P | 1. Provide manual cervical-spine immobilization as indicated by traumatic injury. |
| E | I | P | 2. Ensure adequate airway and oxygenation. |
| | I | P | 3. Identify the need for IO access. IV attempts should be attempted prior to IO attempt. |
| [I] | P | | 4. Consider preferred priority of vascular access in the patient in cardiac arrest: Antecubital IV, External Jugular IV, Intraosseous access, other peripheral IV sites. |
| [I] | P | | 5. Insert the IO device according to the manufacturer's recommendation. (IO is an I or P skill in full arrest and [I] P for all other cases). |
| | I | P | 6. Flush IO site with 10 ml of 0.9% Saline to ensure patency and clear IO pathway. |
| | I | P | 7. Initiate IO infusion. A pressure infuser may be necessary to maintain flow rates. |
| [I] | P | | 8. Administer 20-40 mg Lidocaine IO if needed for pain. |
| | I | P | 9. Apply wrist band provided with IO device and a dressing. |