

# Preferred Features for Intraosseous Devices

## CoTCCC

17 November 2010

The CoTCCC has not recommended a particular intraosseous (IO) device for use in the tactical setting, but has defined a set of *preferred* features for IO devices. The current list is as follows:

- FDA approved
- Sternal insertion site as the primary (Clearly labeled for site of insertion and needle size)
- Big bone insertion site if desired as a backup (Clearly labeled for site of insertion and needle size)
- Easily inserted without the need for powered devices
- Supports infusion of all prehospital resuscitation fluids
- Latex-free
- Minimum flow rate of 125cc/min
- Self-retaining once inserted
- Able to be removed without the need for a removal tool
- Easily trained for battlefield or simulated battlefield environments
- Compatible with other systems via a standard luer-lock
- Able to be left in place for up to 24 hours
- Sterile, trauma-resistant packaging
- Meets MILSTAN 8.10G
- Shelf life: 3 years minimum; 5 years goal
- Used with high rate of success in battlefield reports when available
- Includes attachments and instructions to facilitate training
- High rate of user acceptance when data is available
- Device facilitates ease of use in low light environments
- Minimal chance for provider injury
- Minimal chance for retained parts of device after removal
- Unlikely to be traumatically displaced
- Bag friendly – minimal weight and cube - malleable
- Low rate of complications from battlefield use

Additional comments from the group on this topic: (CoTCCC Minutes Aug 2010)

- Mr. Don Parsons: It is more important that the device stay in than that it be easily removed;
- Dr. Mel Otten: Other sites besides the sternum should be included as options;
- Mr. Rick Strayer: The provider may be unsuccessful in his first attempt and should have an alternate site as a backup;

- Dr. John Gandy: The casualty's body armor must be removed in order to use a sternal IO insertion site;
- Mr. Don Parsons – quoting Dr. John Hagmann: Tibial IOs are very painful during fluid infusion;
- MAJ Bob Mabry: It is harder for medics to do tibial insertions than sternal insertions;
- Dr. Frank Butler: There have been multiple reports from AFME of tibial IO placements being done in the wrong location;
- Dr. Don Jenkins: Humeral IO devices are more likely to be traumatically displaced than sternal IOs;
- SFC Ricardo Flores-Artola: There will not be any power drills in my aid bag.