

“Our aim was to summarize the first three years experience with the use of a semi-automatic IO device (EZ-IO®) in German Helicopter Emergency Medical Service (HEMS)” Helm et al (2014).

Reference:

Helm, M., Haunstein, B., Schlechtriemen, T., Ruppert, M., Lampl, L. and Gäßler, M. (2014) EZ-IO® intraosseous device implementation in German Helicopter Emergency Medical Service. Resuscitation. December 29th. .

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Abstract:

**BACKGROUND:** Intraosseous access (IO) is a rapid and safe alternative when peripheral venous access is difficult. Our aim was to summarize the first three years experience with the use of a semi-automatic IO device (EZ-IO®) in German Helicopter Emergency Medical Service (HEMS).

**METHODS:** Included were all patients during study period (January 2009-December 2011) requiring an IO access performed by HEMS team. Outcome variables were IO rate, IO insertion success rates, site of IO access, type of EZ-IO® needle set used, strategy of vascular access, procedure related problems and operator’s satisfaction.

**RESULTS:** IO rate was 0.3% (348/120.923). Overall success rate was 99.6% with a first attempt success rate of 85.9%; there was only one failure (0.4%). There were three insertion sites: proximal tibia (87.2%), distal tibia (7.5%) and proximal humerus (5.3%). Within total study group IO was predominantly the second-line strategy (39% vs. 61%,  $p < 0.001$ ), but in children

**CONCLUSIONS:** The IO route was generally used in the most critically ill of patients. Our relatively low rate of usage would indicate that this would be compatible with the recommendations of established guidelines. The EZ-IO® intraosseous device proved feasible with a high success rate in adult and pediatric emergency patients in HEMS.

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