

## **Most physicians surveyed felt comfortable using an IO device in resuscitation of adult trauma patients and would do so for indications broader than current guidelines” Engels et al (2016).**

### Abstract:

**BACKGROUND:** Although used primarily in the pediatric population for decades, the use of intraosseous (IO) devices in the resuscitation of severely injured adult trauma patients has recently become more commonplace. The objective of this study was to determine the experience level, beliefs and attitudes of trauma practitioners in Canada, Australia and New Zealand regarding the use of IO devices in adult trauma patients.

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**METHODS:** We administered a web-based survey to all members of 4 national trauma and emergency medicine organizations in Canada, Australia and New Zealand. Survey responses were analyzed using descriptive statistics, univariate comparisons and a proportional odds model.

**RESULTS:** Overall, 425 of 1771 members completed the survey, with 375 being trauma practitioners. IO devices were available to 97% (353 of 363), with EZ-IO being the most common. Nearly all physicians (98%, 357 of 366) had previous training with IO devices, and 85% (223 of 261) had previously used an IO device in adult trauma patients. Most respondents (79%, 285 of 361) were very comfortable placing an IO catheter in the proximal tibia. Most physicians would always or often use an IO catheter in a patient without intravenous access undergoing CPR for traumatic cardiac arrest (84%, 274 of 326) or in a hypotensive patient (without peripheral intravenous access) after 2 attempts or 90 s of trying to establish vascular access (81%, 264 of 326).

**CONCLUSION:** Intraosseous devices are readily available to trauma practitioners in Canada, Australia and New Zealand, and most physicians are trained in device placement. Most physicians surveyed felt comfortable using an IO device in resuscitation of adult

trauma patients and would do so for indications broader than current guidelines.

Full Text

Reference:

Engels, P.T., Erdogan, M., Widder, S.L., Butler, M.B., Kureshi, N., Martin, K. and Green, R.S. (2016) Use of intraosseous devices in trauma: a survey of trauma practitioners in Canada, Australia and New Zealand. Canadian Journal of Surgery. 59(6), p.11215.

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