

Critical Care Nurses “Boning Up” on Intraosseous Insertions



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Purpose

Educate critical care nurses to insert intraosseous (IO) devices during Code Blue and Rapid Response situations to :

- improve patient care by ensuring timely establishment of intravascular access
- eliminate delays in the administration of life supporting treatments

Background

Hospitalized patients who do not have intravenous access are at risk for treatment delays during emergencies.

Critical care nurses responding to Cardiac Arrests and Rapid Response situations noted:

- patients often lacked adequate intravenous access
- a responding LIP skilled in IO insertion was not consistent
- a critical care nurse responder is a consistent member of the emergency response team

Methods

- Nurse Executive Board and Critical Care Committee support for the IO project
- Education of all critical care nurses at Annual Competency Day
- Staff nurse volunteers as IO insertion champions
- Additional education sessions including theory and psychomotor sessions to insert IO devices

Critical Care Competency Day



Results

Over 22 intraosseous devices have been successfully inserted.

A chart review of these insertions demonstrates that:

- insertion success rate by critical care nurses on the first attempt at IO access was 100%
- decreased time to first intravenous medication administration with IO access

Proximal Humerus Insertion



Conclusions

Education of critical care nurse responders allows a consistent, knowledgeable responder to establish intravascular access during Code Blue & Rapid Response situations.

Based on success rates for IO insertions, IO insertion kits have been placed on all medical-surgical units.

Next Steps

- Utilize the new electronic health record to develop a formalized process for review of IO insertion data to include:
 - reason for event
 - outcome of event
- Continue annual intraosseous insertion competency for all critical care nurses

Reference

Fenwick, R. Intraosseous approach to vascular access in adult resuscitation. *Emergency Nurse*. 2010; 18(4):22-25.