ARTICLE:
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Safety of Peripheral Intravenous Administration of Vasoactive Medication

PURPOSE:
Research Question(s): Is vasoactive medication via peripheral IVs both feasible and safe?

DESIGN:
• Study Design:
  o Prospective observational study

• Dependent / outcome Variable(s): Peripheral access vasoactive medications and side effect profile with a protocol which used phentolamine and nitro paste for extravasation.

SETTING / SUBJECTS:
Research Setting: September 2012 to June 2014. The study site was an 18-bed medical intensive care unit (MICU) staffed by full-time attendings, fellows, and residents at the Long Island Jewish Medical Center, which is an 827-bed tertiary care teaching hospital that is part of the North Shore–Long Island Jewish Health System.

• Subjects:
  o Study population: Adults in ICU setting
  o Number (control / intervention groups): 783

METHODS:
• Interventions: Peripheral IVs for vasoactive medication
• Study Groups: CVC vs peripheral access

DATA ANALYSIS:
• Level of Data: □Interval data

RESULTS:
• *Brief answers to research questions:* Peripheral IVs for vasoactive medications (norepi, phenylephrine, dopamine) are safe if inserted in the upper arm and if a strict protocol including q 2 hour checks, US use, and phentolamine with nitro paste are used when extravasation occurs.

• *Limitations:* Not placebo controlled, not blinded, not a head to head comparison of CVC vs peripheral access.

**IMPLICATIONS FOR PRACTICE:**

• *Applicable to this clinical practice:* Very applicable to our practice

• *Feasible (cost, resources, etc):* Reasonable to propose a similar protocol and create an inter-disciplinary team for approval and use.

• *Clinically Relevant:* Yes

**LEVEL OF EVIDENCE / DECISION FOR USE:**

• *Level of Evidence:*
  ☑ Ila  Evidence obtained from at least one well-designed controlled study without randomization