In adult patients following femoral arterial access in the United States, vascular closure devices (VCDs) were developed in the 1990s to reduce hemostasis time and time to ambulation. Vascular closure complications were found to reduce vascular injury and site morbidity and mortality. Safety and efficacy remain controversial. Vascular access complications negatively impact time, money, and length of stay; increases morbidity and mortality. VCDs were found to reduce vascular injury and site complications. Literature suggested there was no safety concerns regarding the use of VCDs. VCDs were associated with fewer complications, faster hemostasis, and improved patient comfort. Literature reported VCD use is equally as safe as manual compression. Adequately powered randomized controlled trials and systematic reviews in multiple settings are needed on use of VCDs to inform practice. More robust research is needed to inform nursing practice regarding use of manual compression versus VCD use in obtaining arterial hemostasis.

**BACKGROUND**
- Common femoral artery remains most frequently accessed site in United States (Schulz-Schupke et al., 2014; Yeni et al., 2016)
- Vascular closure devices (VCDs) were developed in the 1990s to reduce hemostasis time and time to ambulation (Hackl et al., 2015; Jiang et al., 2015; Robertson et al., 2016)
  - Use a variety of methods for arterial closure
  - Associated with earlier hemostasis, improved patient throughput, and decreased length of stay (Das et al., 2011; Holm et al., 2014; Robertson et al., 2016)
  - Designed to overcome traditional problems associated with manual compression
  - Safety and efficacy remain controversial (Das et al., 2011; Robertson et al., 2016; Schulz-Schupke et al., 2014)

**LITERATURE FLOW DIAGRAM**
- Level 1: Studies with lower risk of bias
- Level 2: Studies with moderate risk of bias
- Level 3: Studies with high risk of bias
- Level 4: Observational or non-empirical studies

**RESULTS**
- Sixty articles identified with twelve included in the final sample

**LITERATURE SYNTHESIS**
- Current literature reports no significant difference in complication rates between the use of VCDs and manual compression (Das et al., 2011; Hackl et al., 2015; Robertson et al., 2016; Yeni et al., 2016)
- Current research suggests that time to hemostasis was faster and more consistent with VCD use (Nikolsky et al., 2004; Robertson et al., 2016; Schulz-Schupke et al., 2014)