

Nebraska Board of Nursing

ADVISORY OPINION

OPINION: Deployment of Vascular

Closure Devices

ADOPTED: 8/2013 **REVISED**: 7/2018

REAFFIRMED: 01/1996, 08/2016

Deployment of Vascular Closure Devices

Vascular closure devices are designed to reduce the time to hemostasis at the femoral artery access site after diagnostic angiography and percutaneous endovascular interventional procedures. These devices also decrease the time to patient mobilization and are associated with greater satisfaction and comfort than manual artery compression. Evidence is inconclusive, however, that the use of these devices is associated with meaningful changes in the risk of bleeding and vascular complications post-procedure.

Deployment of vascular closure devices is within the scope of practice of a qualified Cardiac Catheterization Lab and/or Interventional Radiology Registered Nurses (RNs) under the following circumstances:

- The ordering provider remains readily accessible post-procedure to manage complications;
- 2. Deployment is permitted by facility policy and procedure;
- 3. Protocols for the use of the devices are based on best evidence for a particular device; and
- 4. There is documentation of training and ongoing competency assessment.

References:

- Biancari F., D'Andrea V., Di Marco C., Savino G., Tiozzo V. & Catania A. (2010) Metaanalysis of randomized trials on the efficacy of vascular closure devices after diagnostic angiography and angioplasty. *Am Heart J.* 159(4):518-531.
- Khatri, R., Rostambeigi, N., Hassan, A.E., Carlson, B., Rodriquez, G.J. & Qureshi, A.I. (2012).

 The use of vascular closure devices outside the catheterization laboratory after neurointerventional procedures is safe and effective: Evidence from a retrospective study. *J Endovasc Ther* 19:239-245.
- Rieban, M.A., Applin, S, & MacDonald, R., (2013). Wire vascular closure device: Evaluation of an evidence-based protocol for post-endovascular procedure patients. *Journal of Vascular Nursing 31*:68-71.
- Robertson, L., Andras, A., Colgan, R. & Jackson, R. (2016). Effectiveness and safety of devices t close femoral artery puncture sites. *Cochrane Review*. Retrieved from http://www.cochrane.org/CD009541/PVD effectiveness-and-safety-devices-designed-close-femoral-artery-puncture-sites.
- Wimmer, N.J., Secemsky, E.A., Mauri, L., Roe, M.T., Saha-Chaudhuri, P., Dai, D., . . . Yeh., R.W. (2016). Effectiveness of arterial closure devices for preventing complications with percutaneous coronary intervention: An instrumental variable analysis. *Circulation:*Cardiovascular Interventions 9(4). Retrieved from http://circinterventions.ahajournals.org/content/9/4/e003464.