

## Abstract 1

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**Title:** Cardiac Cath Lab INR Policy

### Background:

Background checking lab values for patients undergoing a cardiac catheterization procedure is standard practice for the Heart and Vascular Center Adult Cardiac Catheterization Laboratory at the Medical University of South Carolina. The International Normalized Ratio (INR) is of particular interest for patients receiving Coumadin therapy. The INR is the standard used to determine whether it is safe, in relation to bleeding risk, for a patient to undergo a cardiac catheterization. The current cutoff for INR is 1.7. This cutoff notably excludes patients from receiving the planned procedure in the cardiac cath lab; thus delaying patient care. Objective to demonstrate how a nurse used the evidence-based process in order to implement an evidence-based policy change to increase the INR cutoff, thus decreasing the number of patients' procedures being postponed.

### Methods:

A registered nurse systematically searched PubMed and Scopus for literature related to adult heart catheterizations, INR and bleeding complications at catheter insertion sites. Each study was formally appraised by its objective, population, INR range, study type, results and study design limitations using the GRADE criteria. Based on the evidence, the nurse implemented the revised policy change to increase the INR cutoff, and engaged staff and stakeholders.

### Results:

In the literature, each patient underwent a LHC and/or a RHC. Various access sites were used; radial, femoral, internal jugular, and brachial. Some patients received heart catheterizations without interruption of anticoagulation and some received fresh frozen plasma (FFP) to decrease INR. Other patients included are end-stage liver disease (ESLD) and patients who underwent a percutaneous coronary intervention (PCI). Each study had little to no complications with the INR ranges from 1.6-4.5.

### Conclusion:

Based on the evidence, the nurse implemented a policy change to increase the INR modestly from 1.7 to 2.0. An INR greater than 2.0 is performed for the urgent or emergent case, as deemed by the physician. The evidence-based process has allowed for an increased number of heart catheterizations without compromising patient safety. There has not been an increase in bleeding site complications in the first and second quarter after the implemented change; as evidence provided by the National Cardiovascular Data Registry (NCDR), CathPCI Registry.