Abstract

Coronary heart disease is a significant cause of mortality and morbidity in the United States; Healthy People 2020 set an objective to reduce the rate of the disease by 20% to the baseline rate of 126 deaths per 100,000 populations per year. In the local healthcare setting, heart disease was responsible for a high percentage of mortality and morbidity. To address this, the local site developed a plan to improve outcomes for patients seeking care at the facility. Because the femoral approach to percutaneous coronary intervention (PCI) was used to treat coronary heart conditions at the site and complications were frequent, a quality improvement initiative was begun that included a shift to the use of radial artery PCI. The purpose of this project was to evaluate whether the new approach lowered the complication rates. The project focused question asked how the complication rate of transradial and transfemoral approach to PCI compared. Data from nonrandom aggregate PCI results for 158 adult patients, ages 40-80 years; data from the National Cardiovascular Data Registry; and summarized unit reports were used to compare the transfemoral and transradial outcomes. Two-samples *t* test results indicated the complications were clinically and significantly lower ($p < .01$) with patients who underwent the transradial approach ($n = 82$) compared to those who had the transfemoral approach ($n = 76$). Study results suggest the new initiative using the transradial approach for PCI reduced the complications for patients undergoing PCI at the site. Positive social change is possible as the morbidity and mortality rates were reduced and consumers who need the procedure may experience a lower burden of physical and fiscal cost.