

DECREASING BACK PAIN IN THE POST CATHERIZATION PATIENT USING A ROTATING BED REST PROTOCOL IN POST ANGIOGRAPHY PATIENTS

Eric D. Cooper , RN, BSN
Stanford Hospital and Clinics
ecooper@stanfordmed.org

Purpose

The aim of this small test of change is to determine if the use of a standardized hourly patient rotating bed rest protocol (PRBP) will decrease the perception of back pain in patients following a diagnostic cardiac or neurologic catheterization procedure.

Background

Multiple outpatient diagnostic catheterization procedures are performed in the Cath Angio Region at Stanford Hospital & Clinics. After catheterization, bed rest is ordered to minimize complications at the puncture site i.e., bleeding or hematoma. Bed rest subjects the patient to prolonged periods of time with restricted movement. The Cath Angio Pre-Procedure and Recovery Unit (CAPR) does not have a standardized protocol to address the safe movement of patients in the bed rest phase of recovery. Published studies that have investigated the use of standardized protocols during the recovery phase, demonstrated that they could be an effective tool in decreasing back pain.

Methods

Baseline data was collected from the Stanford electronic charting system (EPIC). 60 patients were retrospectively evaluated for pain during the recovery phase. CAPR nurses (n=20) participated in a group in-service that explained the aim of the small test of change and the assessment process. An assessment tool for back pain was developed and was similar to the rotation protocol of (Chair, Taylor-Piliae, Lam, & Chan, 2003; Rezaei-Adaryani, Ahmadi, Mohammadi, & Jafar-Abadi, 2009). Back pain was quantified using a (0-10) pain scale. Patients were rotated only after stopping all bleeding from the puncture site (hemostasis). Patient data was separated into three groups; baseline with medication, PRBP alone, and PRBP with medication. After hemostasis, and every hour thereafter, nurses offered patients an opportunity to rotate left, right, or supine.

Results

Data was collected on 51 patients during a six-week period. The baseline data showed that 48% (29/60) of the patients in the recovery phase experienced pain compared to 16% (8/51) of patients recovering using PRBP. PRBP use resulted in a 66% reduction of reported pain in recovery. Using (0-10) numerical pain scale, mean pain level one-hour post intervention for baseline was (3.3) as compared to (.75) for the PRBP group with medication administration. No evidence of minor bleeding, severe bleeding, or hematoma was found during PRBP use.

Conclusion

Use of the PRBP in this small cohort of patients reduced back pain. CAPR unit nurses demonstrated the PRBP was easy to use and witnessed the positive effect PRBP had on the patient during bed rest. It may be beneficial to assess if the use of PRBP would produce similar results for in-patients recovering from interventional procedures done in the Cath Angio Region.

References

1. Chair, S.Y., Taylor-Piliae, R.E., Lam, G., Chan, S., 2003. Effect of positioning on back pain after coronary angiography. *Journal of Advanced Nursing* 42, 470-478.
2. Rezaei-Adaryani, M., Ahmadi, F., Mohammadi, E., Jafar-Abadi, M., 2009. The effect of three positioning methods on patient outcomes after cardiac catheterization. *Journal of Advanced Nursing* 65 (2), 417-424.