

**EXAMPLE OF RESEARCH STUDY ABSTRACT**

<b>Presentation Topic:</b>	<b>Please type an X into the box next to your selected topic:</b>		
	<input checked="" type="checkbox"/>	<b>Completed Original Study</b>	<input type="checkbox"/> <b>Study in Progress</b>
	<input type="checkbox"/>	<b>Completed Evidence-based Practice Project</b>	<input type="checkbox"/> <b>Project in Progress</b>

**Title:** Comparison of Forearm and Upper Arm Automatic, Noninvasive Blood Pressures in Medical-Surgical Patients Positioned Supine and with Head of Bed Elevated 45°: A Follow-Up Study

<b>Preference-Presentation Display (please choose one)</b>	<input checked="" type="checkbox"/>	<b>Easel (poster mounted on a 30" x 40" foam board)</b>	<i>NOTE: Number of easels limited. Assignment of display format will be included in acceptance letter</i>
	<input type="checkbox"/>	<b>Table-top (poster mounted on a 36" x 48" tri-fold poster board)</b>	

**Presenter(s):** Schell, K., Lyons, D., Bradley, E.,\* Bucher, L., Seckel, M., Wakai, S., Carson, E., Waterhouse, J., Chichester, M., Bartell, D., Foraker, T., Simpson, E. K.

**Credentials:** xxx (Add degrees, certifications for principal presenter and co-presenters)

**Organization:** **University of Delaware and Christiana Care Health Services**

**Abstract text: (300 words max; Please type 12-pt font, Times New Roman or Arial, single-spaced, within the box below.)**

**Purpose:** To compare noninvasive blood pressure (BP) measurements in the forearm (FA) and upper arm (UA) of medical-surgical patients positioned supine and with the head of the bed elevated 45°.

**Background/Significance:** Noninvasive BP measurement in the FA is used when the UA is inaccessible and/or when available BP cuffs do not fit a patient's UA. Research on the use of FA for BP measurement is extremely limited. Accurate BP measurement is critical for making appropriate healthcare decisions.

**Methods:** Subjects were recruited from five Medical-Surgical units in a 780 bed acute care facility in the Mid-Atlantic region of the United States. Cuff size was selected on the basis of FA and UA circumference and manufacturers' recommendations. Using a Welch Allyn Vital Signs 420 Series monitors, BPs were measured in the FA and then in the UA of 221 supine patients with their arms resting at their sides. Patients were repositioned with the head of the bed elevated 45° and after 2 minutes, BPs were repeated. Starting position was alternated on subsequent subjects. There were no significant differences between systolic, diastolic and mean arterial pressures (P > .001). Bland-Altman Analyses revealed that the distances between the mean values for the two measurements were from 15 to 33 mm Hg for individual subjects. Differences in FA and UA BPs were not statistically related to age, gender, cuff size, body mass index, diagnoses, or tobacco use.

**Conclusions and Implications:** FA and UA BPs are not interchangeable in medical-surgical patients positioned supine or with HOB elevated. UA BPs are not recommended but may be the only choice in some patients. Selecting proper-sized cuffs, placing the arm at heart level, indicating "FA" versus "UA" when documenting BP, and using the same site for trending of BP values are key to accurate BP measurement.

**Funding:** This study was funded by a Research Grant from the Southeastern Chapter of the American Association of Critical Care Nurses