26437 - PRESENCE OF WHITE-COAT EFFECT IN THE PRE-ANESTHETIC CARE UNIT

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INTRODUCTION: White-coat effect and hypertension are known entities in physician offices and community pharmacy practice. 1,2 An accurate blood pressure reading preoperatively is important to anesthesiologists, as common management is to keep the systolic blood pressure within 20% of baseline. 3 BpTRU is a blood pressure measurement device that has been used in an attempt to address the issue of white coat effect. 4,5 This is a quality assurance study to determine if white coat effect exists in the pre-anesthetic care unit.
METHODS: A total of 37 consenting subjects were included in the study. Registered nurses in the pre-anesthetic care unit would record a manual sitting blood pressure in each patient. BpTRU measurements were taken in the same arm within ten minutes of the nurse reading. Results were compared using standard statistical analysis.
RESULTS: Relative effectiveness of the two blood pressure readings was determined by examining paired t-test results. Both systolic BP and diastolic BP readings were not found to significantly differ from each other ($p = 0.231$ and $p = 0.153$, respectively). The mean differences for systolic and diastolic BP were 2.37 (S.D. 11.98) and 2.21 (S.D. 9.34), respectively. Prevalence of white coat effect was found to be 8.1% (3/37).
DISCUSSION: The prevalence of white coat effect was found to quite low in this study at 8.1%. The statistical analysis also showed that blood pressure readings taken by nurse and BpTRU were not significantly different. This data suggests that the blood pressure readings taken by nurses in the pre-anesthetic care unit can be relied upon to make intra-operative decisions.
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