

BLADDER SCAN VS URETHRAL CATHETERIZATION FOR MEASUREMENT OF IMMEDIATE POST PARTUM BLADDER VOLUME.

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Introduction: Bladder scan is a well known non invasive and cost effective tool for the measurement of post void residual urine(PVR) however with some limitation. Literature on the efficacy of bladder scan on big uterus is limited and not promising.

Study Objective: To determine the validity of bladder scan BV13000 in detection of bladder volume in immediate postpartum women.

Methodology: A prospective cross sectional study conducted in Hospital Tengku Ampuan Afzan, Pahang from 1st September to 30 November 2010, A total of 193 women who had undergone Caesarean section were recruited on postpartum day 1. Prior to removal of Foley's catheter, their bladder volumes were first estimated by bladder scan BV13000. Immediately the bladder was then catheterized for the true bladder volume followed by 2D ultrasound bladder scanning to ensure that it was completely emptied. The data was analyzed using SPSS software version 18(SPSS Inc. Chigaco, Illinois). *P* value of less than 0.05 is considered as statistically significant.

Result : There were a total of 193 women recruited with the mean age of 28.84 years (SD 5.516) with mean BMI of 29.69(SD 5.69) kg/m² and fundal height of 16cm (SD 2.382). The mean for time interval between bladder scan and catheterization was 3 min(range between 1-8 min). There is a linear relationship between the bladder scan-estimated and catheter bladder volumes ($r^2=0.82$). The patient's body weight also is significantly ($p=0.01$) correlated with the bladder scan-estimated volume with r^2 of 0.25. The size of the uterus however does not correlate with the bladder-scan volume

Conclusion : Bladder scan is comparable to urethral catheterization in the measurement of postpartum bladder volume.