



## Comparison of Stone Free Rate and Perceived Cost Between Ultrasonography and Fluoroscopi-Ultrasonography As A Target Device in Extra Corporeal Shock Wave Lithotripsy in Kidney Stones Less Than 1.5 Centimeters

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### ABSTRACT

**Background:** In Indonesia, kidney stones are the most common cases in urology. Treatment modalities for urinary tract stones are based on the size, location, stone composition, kidney anatomy abnormalities, complications, hospital facilities and infrastructure, and patient-urologist preferences. ESWL is one of the therapeutic modalities with the aid of fluoroscopy and/or ultrasonography to visualize the location of the stone. To date there is no research in Indonesia of the stone free rate (SFR) and perceived cost of ESWL.

**Purpose:** To compare the stone free rate and perceived cost of using the ESWL with its target device such as fluoroscopy ultrasonography (FU-ESWL) compared to ultrasonography (U-ESWL) in type C hospital in Denpasar.

**Methods:** This research is a quantitative prospective cohort study which involved two group. The intervention done using FU-ESWL and U-ESWL as target device. The population of this study were all patients with kidney stones, with a size of the stones less than 1.5 cm, who underwent ESWL. There were no significant differences between the two of groups in baseline observation. Furthermore another observation done after the treatment by measuring safety (SFR) and perceived cost. **Results:** FU-ESWL has better SFR than U-ESWL. Also the frequency number of ESWL was

lower and re-treatment showed better result. The perceived cost of combination FU-ESWL is better than U-ESWL

**Conclusion:** The combination FU-ESWL has better SFR and perceived cost than U-ESWL. Important findings in this research are expected to contribute to the monitoring and evaluation of JKN implementation in the field of Urology.

**Keywords:** ESWL; Nephrolithiasis; Perceived Cost; Stone Free Rate