

Stone Decision Engine

Information

Kidney stones can cause intense pain by obstructing the urinary tract. Shockwave lithotripsy (SWL) and laser ureteroscopy (URS) are two treatment interventions employed to fragment stones into small pieces ($\leq 4\text{mm}$), facilitating their natural passage out of the body. This Decision Engine program recommends the optimal treatment option for patients by analyzing their characteristics relative to 17,242 patient treatments [pdf]. Please note that the predictions are for informational purposes and not a substitute for professional medical advice.

Personal Information

Age:

Sex: Male Female

Body Mass Index:

BMI can be determined here: https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm

Serious Medical Condition (e.g., Diabetes)? Yes No

Anticoagulants used 3 day prior to treatment? Yes No

Stone Characteristics

Stone Length:

Stone Width:

Stone Location: Kidney Ureters Other

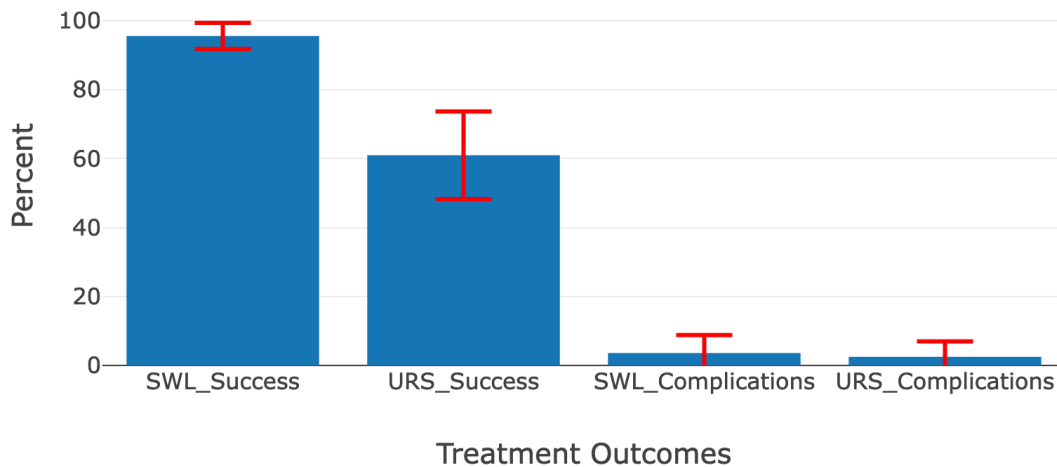
Stone Side: Left Right

SWL Machine Type (select one)

Dornier Compact Delta II Dornier Compact Delta III Dornier Compact Sigma Storz F2 Storz SLX-T

URS Machine Type (select one)

Dornier Medilas H20 Dornier Medilas H30 Dornier Medilas H35 Lumenis Versapulse 100 watt Lumenis Versapulse 20 watt Odyssey Convergent 30 watt



For each outcome, the percent average and standard deviation of ten AI models is shown.
SWL and URS success: the probability the stone is fragmented to ≤ 4 mm after treatment.
SWL and URS complications: the probability of a complication after treatment.

Additional information can be obtained here [\[pdf\]](#).

Interpretation

Based on the input data and the means and standard deviations of the AI models, both SWL and URS interventions are preferred options.