

UNPLANNED ADMISSIONS AFTER SHOCK WAVE LITHOTRIPSY AT HIGH VOLUME CENTERS

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DEFINITIONS

- ▶ **Unplanned Admission(UPA):** Any and all (*all cause*) visits to the Emergency Department and/or admission to Hospital within thirty (30) days of SWL.
- ▶ **Patient Cohort:** Privately insured patients. Medicare and Medicaid patients excluded from study group.
- ▶ **High Volume Center (HVC):** A lithotripsy center that performs a minimum of one thousand (1000) SWL procedures annually.
- ▶ **Geographic Diversity:** Data from 3 centers in Texas, Illinois, and New Jersey.

STUDY METHODS

- ▶ Three HVC chose three consecutive months between April 1, 2014 and September 1, 2014 to contact study patients at least thirty (30) days after SWL.
- ▶ All Unplanned Admissions of successfully contacted patients were documented, including the reason for the unplanned admission.
- ▶ Patients contacted by telephone, email and/or text messaging.
- ▶ Failure to successfully contact patient resulted in exclusion of that individual's data.

RESULTS

- ▶ 1330 Patients received SWL during study period.
- ▶ 1123 (84%) successfully contacted at least 30 days post SWL.
- ▶ 82 (7%) experienced an unplanned admission.

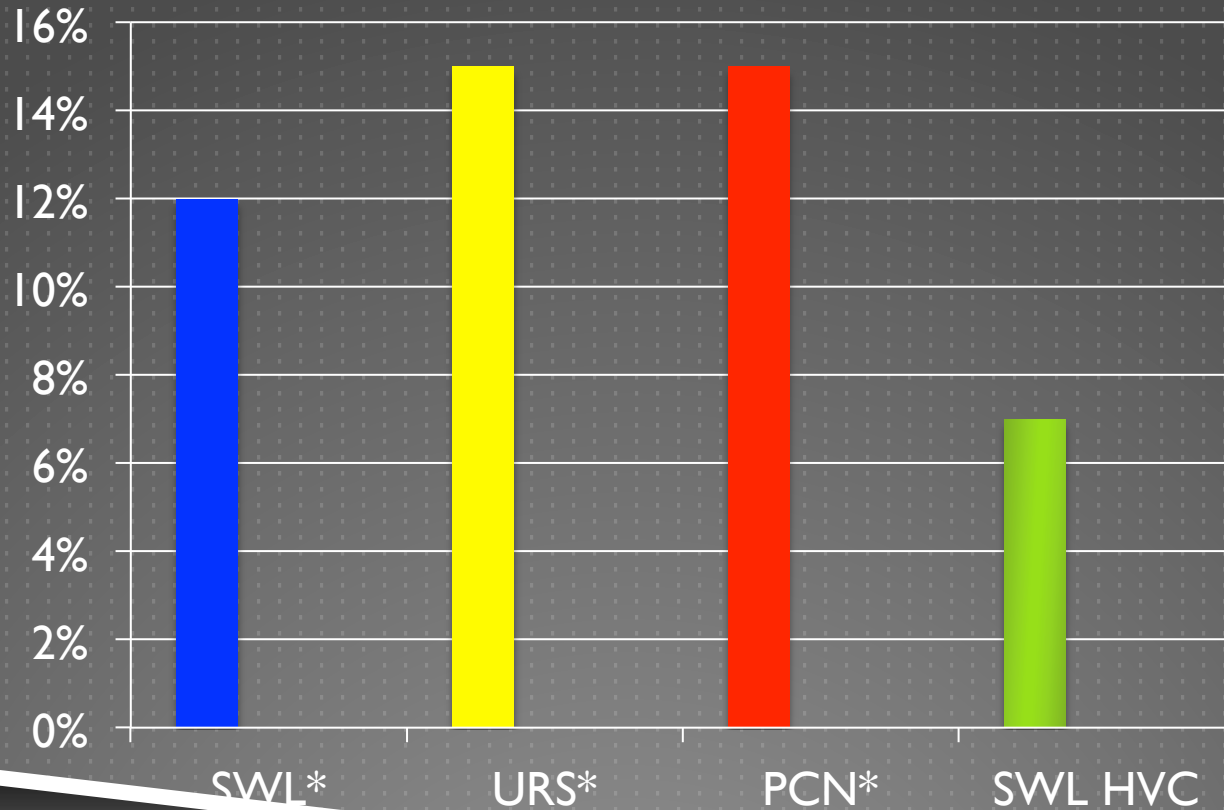
PATIENT DEMOGRAPHICS: TOTAL V. UNPLANNED ADM. GROUP

- ▶ Successfully contacted (n 1123)
- ▶ Unplanned Admissions (n 82)
- ▶ M/F 675/448 (60%/40%)
- ▶ M/F 50/32 (61%/39%)
- ▶ Renal/Uret 820/303 (73%/27%)
- ▶ Renal/Uret 60/22 (73%/27%)
- ▶ Stents 360 (32%)
- ▶ Stents 26 (32%)

CAUSES OF UNPLANNED ADMISSIONS

- ▶ Uncontrolled Pain 41 (50%)
- ▶ Ancillary Procedures 16 (20%)
- ▶ UTI 8 (10%)
- ▶ Bleeding or hematoma 3 (4%)
- ▶ Other Medical Conditions 14 (17%)

UNPLANNED ADMISSION COMPARISON BY PROCEDURE



COMPARATIVE COSTS OF SWL & URS

Estimated per case “cost” of Unplanned Admission (Scales)

A) SWL \$32,156

B) URS \$23,436

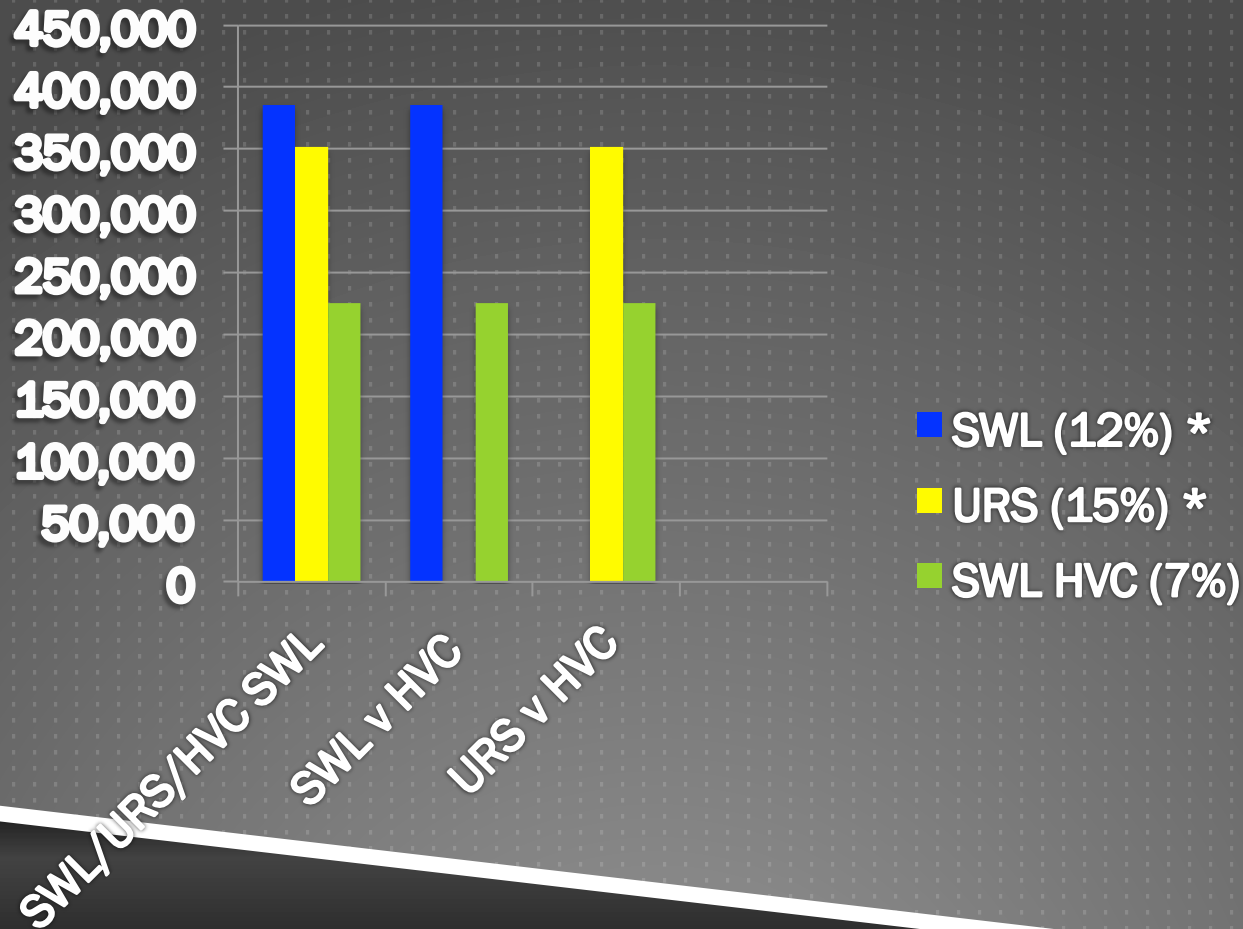
Cost by technique of Unplanned Admission per 100 Pts.

A) SWL (12%) \$385,872 (Scales)

B) URS (15%) \$351,540 (Scales)

C) SWL (7%) \$225,092 (High Volume Centers)

COST COMPARISONS PER 100 PATIENTS



CONCLUSIONS

- ▶ High Volume SWL Centers have a lower Unplanned Admission Rate after lithotripsy than the average center that performs SWL.
- ▶ The reduction in UPAs at HVC centers for SWL produces a 42% decrease in costs when compared to the average center.
- ▶ HVCs doing SWL create a 36% cost savings in UPAs when compared to national URS data for UPAs.
- ▶ Fifty Percent of UPAs resulted from uncontrolled pain, calling into question the appropriateness of post-SWL pain protocols and patient education.
- ▶ Value is created by eliminating the avoidable and recognizing the unavoidable.