21-8843

Documentation of Nephrometry Scores for cT1a Renal Masses Correlates with Avoidance of Radical Nephrectomy Across the MUSIC-KIDNEY Statewide QI Collaborative

Sara Perkins, Amit Patel, Detroit, MI, Anna Johnson, Ji Qi, Ann Arbor, MI, Craig Rogers, Detroit, MI, Brian Lane, Grand Rapids, MI, for the Michigan Urological Surgery Improvement Collaborative, Ann Arbor, MI*

INTRODUCTION AND OBJECTIVE: Tumor complexity (TC) assessment with nephrometry scoring has been shown to help with identification of case complexity and contribute to preoperative planning. Our objective was to assess documentation of TC and its association with performance of radical nephrectomy (RN) for tumors <4cm (cT1aRM).

METHODS: The **M**ichigan **U**rological **S**urgery **I**mprovement **C**ollaborative - **K**idney mass: **I**dentifying and **D**efining **N**ecessary **E**valuation and therap**Y** (MUSIC-KIDNEY) program commenced data collection in September 2017. Data abstractors recorded clinical, radiographic, pathologic, and short-term follow-up data for patients with newly-diagnosed T1 RM at 13 diverse practices with 45 physicians treating cT1RM. An educational session was conducted in Nov 2018 regarding documentation of Nephrometry scoring (RENAL Score) by the Urologist in clinic (rather than solely relying on radiology reports). Correlation coefficient was calculated for the rates of nephrometry documentation for cT1RM and percent of RN performed by urologists (with volume > 10 cases).

RESULTS: A total of 1527 patients with cT1RM were seen by 32 urologists and documentation of TC was performed in 40% (IQR 10.1-44.4%). Overall, management of cT1RM was 52% surveillance, 31% PN/TA, and 15% RN and 2.5% other. Of the 637 surgical patients, RN rates for T1b were 65% (154/236) and for T1a were 18% (74/401) ($p<0.001$). Rates of RN for cT1aRM ranged from 4%-45% among 19 urologists. 42% of RN for cT1aRM had no documentation of TC. The lowest 5 surgeons documented TC for only 4.4% and performed RN for 25%, while the top 5 surgeons documented TC for 74% and performed RN on only 15%. At surgeon level, the correlation coefficient between rates of RENAL documentation and the rates of RN was -0.24 (Figure 1).

CONCLUSIONS: TC assessment with nephrometry scoring throughout our collaborative is an ongoing focus for QI, particularly as it appears to correlate with reduced rates of RN for cT1aRM. There are surely multiple factors that impact the decision to perform a RN for a cT1aRM, and we hope to be gaining traction regionally to help spare every kidney possible. Both improving documentation of TC and reducing RN for cT1aRM are QI goals we aim to address with ongoing initiatives.

Source of Funding: *Funding from Blue Cross Blue Shield of Michigan*

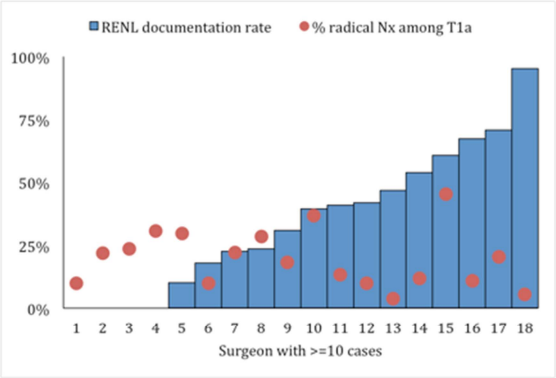

Figure 1. Percentage of nephrometry score documentation(blue bar) and radical nephrectomy rate(red dot), per urologist with volume >10 cases