MP66-10

HOSPITAL-LEVEL QUALITY INDICATORS FOR KIDNEY CANCER SURGERY: A VETERAN'S AFFAIR NATIONAL HEALTH SYSTEM VALIDATION OF CONCEPT

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INTRODUCTION AND OBJECTIVE

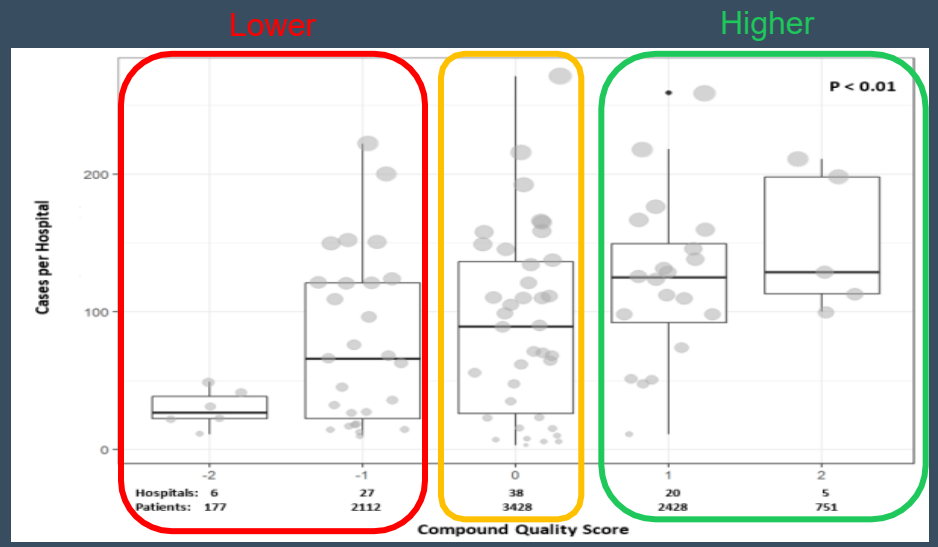
- Validation and implementation of quality indicators (QIs) for oncological surgical care is imperative in National Health Care Systems
- QIs must be adjusted for significant case-mix variations among hospitals and to capture disparate patient outcomes
- **We aimed to explore and validate a compound quality score (CQS) as a metric for hospital-level quality of care in kidney cancer patients**

METHODS

- **8233** kidney cancer patients treated at the VA from 2005 to 2015 were identified
- Two previously validated *process* QIs[1] were explored: the proportion of patients with
  a) T1a tumors undergoing PN
  b) T1-T2 tumors undergoing MIS RN
- Demographics / comorbidities / tumor characteristics / treatment year were used for case-mix adjustment using indirect standardization and multivariable regression models
- **The predicted versus observed ratio of cases was calculated to generate each QI score and CQS represents the sum of both QIs scores**
- **96 hospitals** were benchmarked by CQS and patient-level outcomes were regressed on CQS levels to assess for:
  - Length of stay
  - 30-day complications/readmission rate
  - 90-day overall mortality
  - Total cost of surgical admission

1. Lawson KA, Saarela O, Abouassaly R, et al. Eur Urol 72 (2017) 379-38

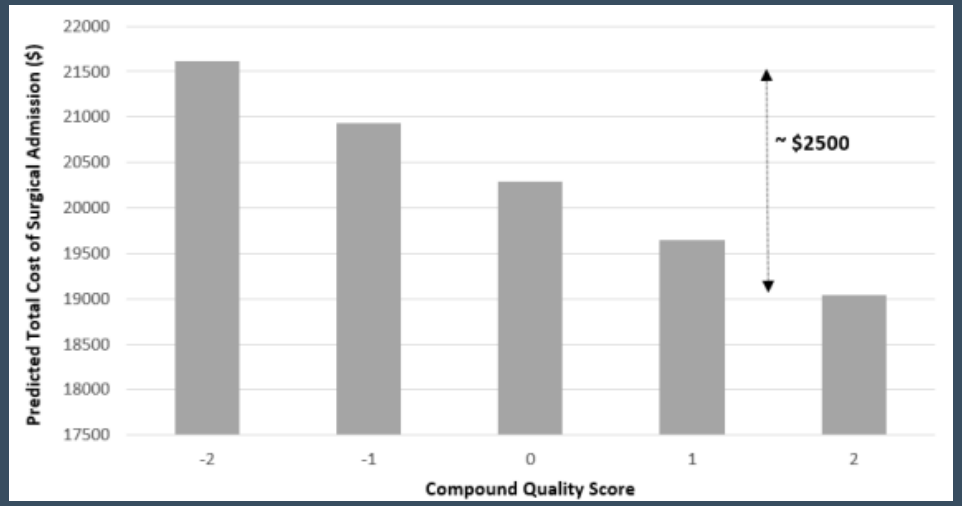
Hospital's benchmarking per CQS on quality of care



Hospitals: **33** **38** **25**

*Each circle represent an individual hospital

Predicted cost of surgical admission at hospital-level per CQS



Per MVA total CQS score was independently associated with length of stay [predicted LOS 0.84 days shorter for CQS = 2 vs. CQS = -2], 30-day surgical complications [OR = 0.88, p < 0.01] or 30-day medical complications [OR = 0.93, p < 0.01] and total cost of surgical admission [predicted 12% lower cost for CQS = 2 vs. CQS = -2]

CONCLUSION

- Variability in quality of surgical care at a hospital-level can be captured with our CQS among kidney cancer patients
- CQS is associated with length of stay, post-operative complications and total cost of surgical admission
- QIs should be used to identify, audit and implement quality improvement strategies across health systems