INTRODUCTION

- Immune checkpoint inhibitors (ICI) were approved for metastatic renal cell carcinoma (mRCC) in 2015
- Current clinical use of cytoreductive nephrectomy (CN) is guided by extrapolation from studies using other classes of systemic therapy in mRCC

**Objective:** To evaluate survival outcomes, timing, and safety of combining CN with modern immunotherapy (IO) approaches for mRCC

METHODS

**Inclusion (NCDB):** Surgical candidates (CCI ≤2) Dx with clear cell mRCC between 2015-2016 who were Tx with IO±CN and no other systemic therapies:

- Baseline clinicopathologic characteristics of entire IO cohort, stratified by receipt of CN:
  - Number of patients: 170
  - Median age (IQR), yrs.: 64 (57-72)
  - Male sex (%): 70.6
  - Charlson-Deyo comorbidity score (%): -0
  - Presence of sarcomatoid features (%): 6.5
  - Median primary tumor size (IQR), cm: 8.0 (5.8-11.0)
  - cN stage (%): -cN0 52.9, -cN1 31.7, -cNx 15.4
  - Presence of bone, brain, liver, or lung involvement (%): 7.94

**Primary outcome:** OS stratified by performance of CN (CN+IO vs. IO alone)

- OS outcomes (available for 2015 diagnoses only): median f/u 14.7 months:
  - Overall Survival: Immuno-therapy Alone vs. Combined with Nephrectomy
  - Overall Survival: Immuno-therapy Before vs. After Nephrectomy

**Secondary outcomes:**

- Whether timing of IO (vs. CN) impacts OS, pathologic findings, and periop outcomes

RESULTS

- Baseline clinicopathologic characteristics of entire IO cohort, stratified by receipt of CN:
  - IO alone: N=170
  - IO and CN: N=221
  - IO given before CN: N=187
  - Final cohort: N=564

- CONCLUSIONS

- In a large, national, population-based database of mRCC, patients who received CN with modern IO had better OS than those treated with IO alone – interpreted in the context of limitations inherent to the NCDB
- Performing CN after prior IO appears safe with pathologically favorable tumor characteristics
- Our results support the role for CN in the modern IO era and call for prospective validation