

# National Variation in Lymph Node Dissection and Pathological Yield at the time of Radical Cystectomy

## MP 61

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# INTRODUCTION

- Pelvic lymph node dissection (LND) is an integral component of the surgical treatment of invasive urothelial carcinoma of the bladder.
- Although an extended surgical template appears to improve staging and outcome of the disease, there continues to be substantial variation in the performance of LND.
- **We aimed to evaluate the factors associated with the performance and yield of LND during radical cystectomy and pelvic lymph node dissection in non-metastatic muscle-invasive bladder cancer.**

# METHODS

- National Cancer Database from 2006-2016
- Inclusion:
  - Adults.
  - Patients with stage II-III urothelial carcinoma of the bladder.
  - Treated with radical cystectomy and pelvic lymph node dissection.
  - With or without neoadjuvant chemotherapy.
- Model:
  - Univariable and multivariable linear regression models.
  - Outcome: lymph node yield
  - Predictors: sociodemographic, clinical, and regional characteristics

# RESULTS

- We identified 17,169 patients with urothelial carcinoma of the bladder who underwent cystectomy
  - 2,009 (11.7%) did not receive lymph node dissection
- Cohort: 15,160 patients with cystectomy and LND ± NAC
  - Mean age 69 y/o
  - 75.1% males
  - 92.8% whites
  - 87.3% stage II disease
  - 42.3% received NAC.
  - 53.6% treated in Academic/Research programs
- Median (IQR) lymph node examined: 13 (17-21)

# RESULTS AND CONCLUSION

Independent variable	B coefficient	95% Confidence Interval	P value
NAC	1.35	0.85, 1.84	<0.001
Age	-0.07	-0.97, -0.04	<0.001
Academic/Research Program	3.44	2.61, 4.40	<0.001
Facility location			
-Middle Atlantic	3.11	1.91, 4.49	<0.001
-East North Central	3.92	2.69, 5.16	<0.001
-Pacific	6.34	5.43, 7.53	<0.001
Urban	2.23	1.23, 3.30	<0.001
Male sex	0.15	-0.3, 0.64	0.52
Insurance	-0.17	-0.44, 0.08	0.19
Education	-0.19	-0.47, 0.08	0.17
Charlson: 2	-1.11	-1.92, -0.29	0.008
Recent year of diagnosis	0.42	0.33, 0.49	<0.001
Clinical Stage III	-0.88	-1.51, -0.26	0.005

→ Pelvic lymph node dissection is not universal at the time of RC for urothelial carcinoma of the bladder.

→ Several factors were associated with greater lymph node yield including receipt of neoadjuvant chemotherapy, specific regions of the country, as well as sociodemographic factors.