

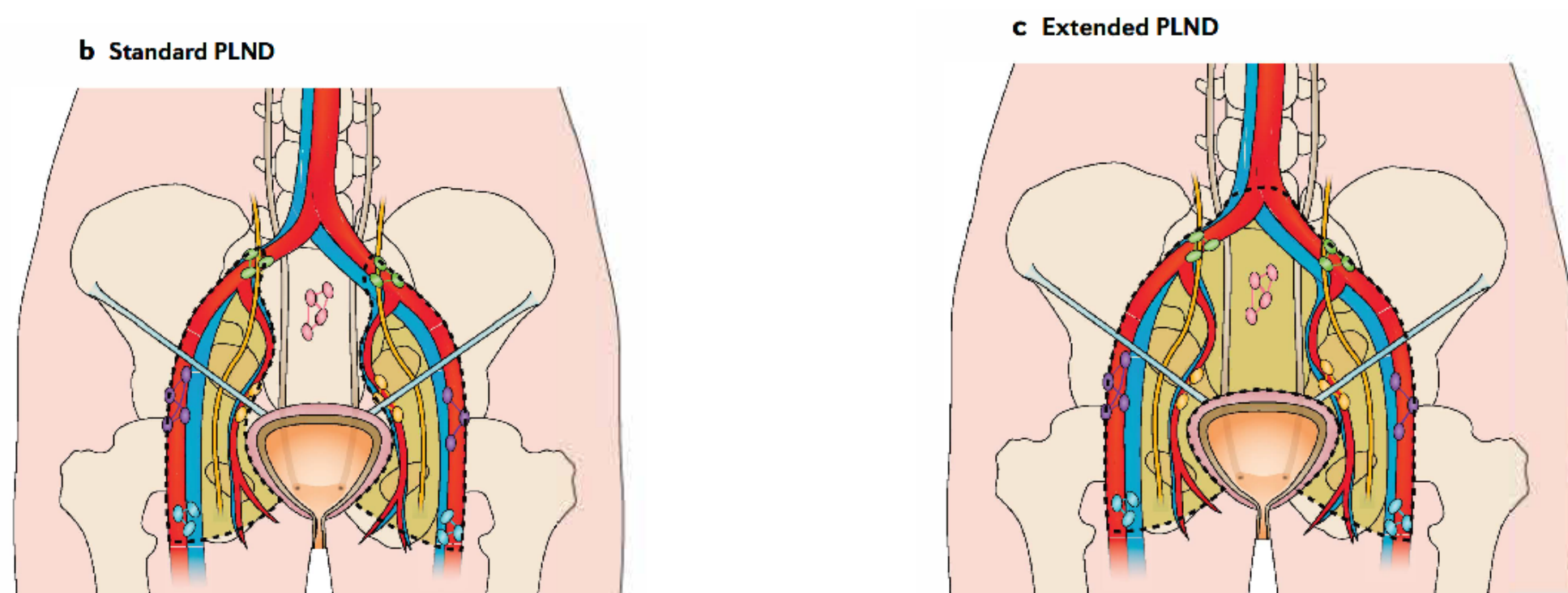
INTRODUCTION

An estimated 81,400 bladder cancer diagnoses were made in 2020 in the United States, with 25% of these patients presenting with muscle invasion.

Gold standard treatment for muscle invasive bladder cancer (MIBC) consists of platinum-based neoadjuvant chemotherapy (NAC) with radical cystectomy (RC), pelvic lymph node dissection (PLND), and urinary diversion.

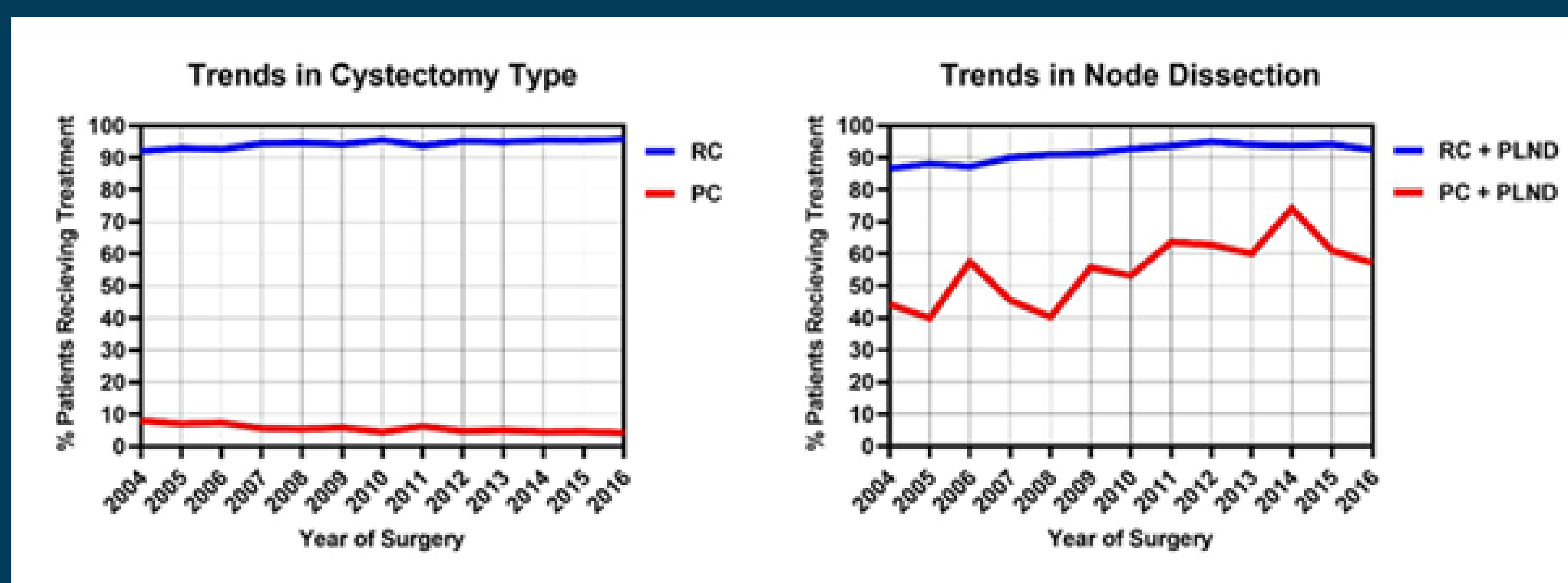
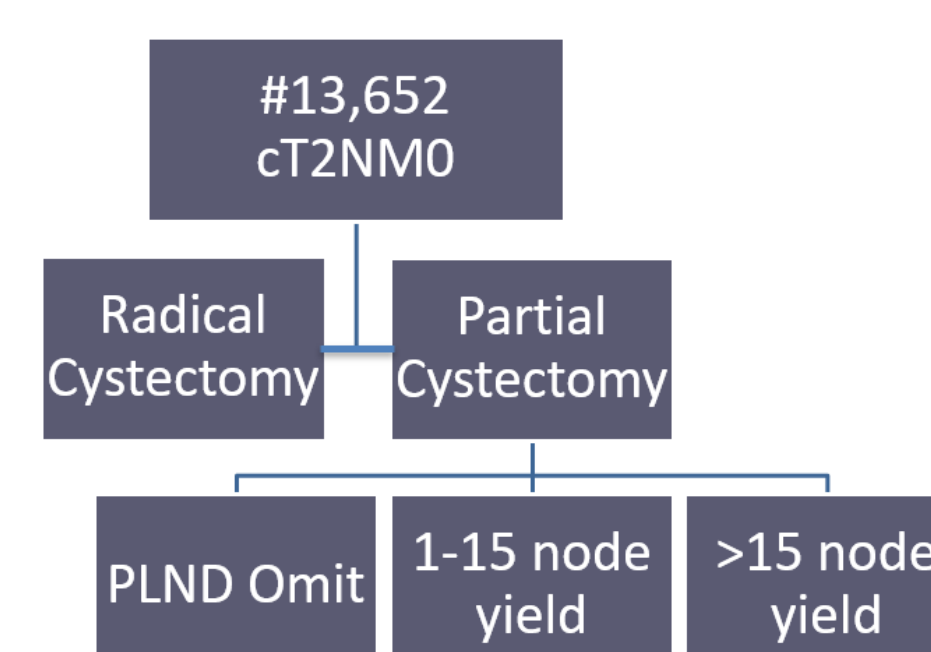
Alternatively, partial cystectomy (PC) provides a full thickness excision of the bladder that preserves organ function with significantly less surgical morbidity.

Although the appropriate extent of PLND remains undefined ahead of the results of the SWOG 1011 trial, previous work has demonstrated the survival benefit of a node dissection in RC with a yield higher than 10.



METHODS

n=13,652 cT2N0M0 patients underwent PC and RC between 2004-2016 stratified by node yield was performed using the National Cancer Database. The primary outcome was overall survival, analyzed using the Kaplan-Meier method and multivariable Cox-proportional hazard. Multivariable models were adjusted for confounding clinicopathologic variables.

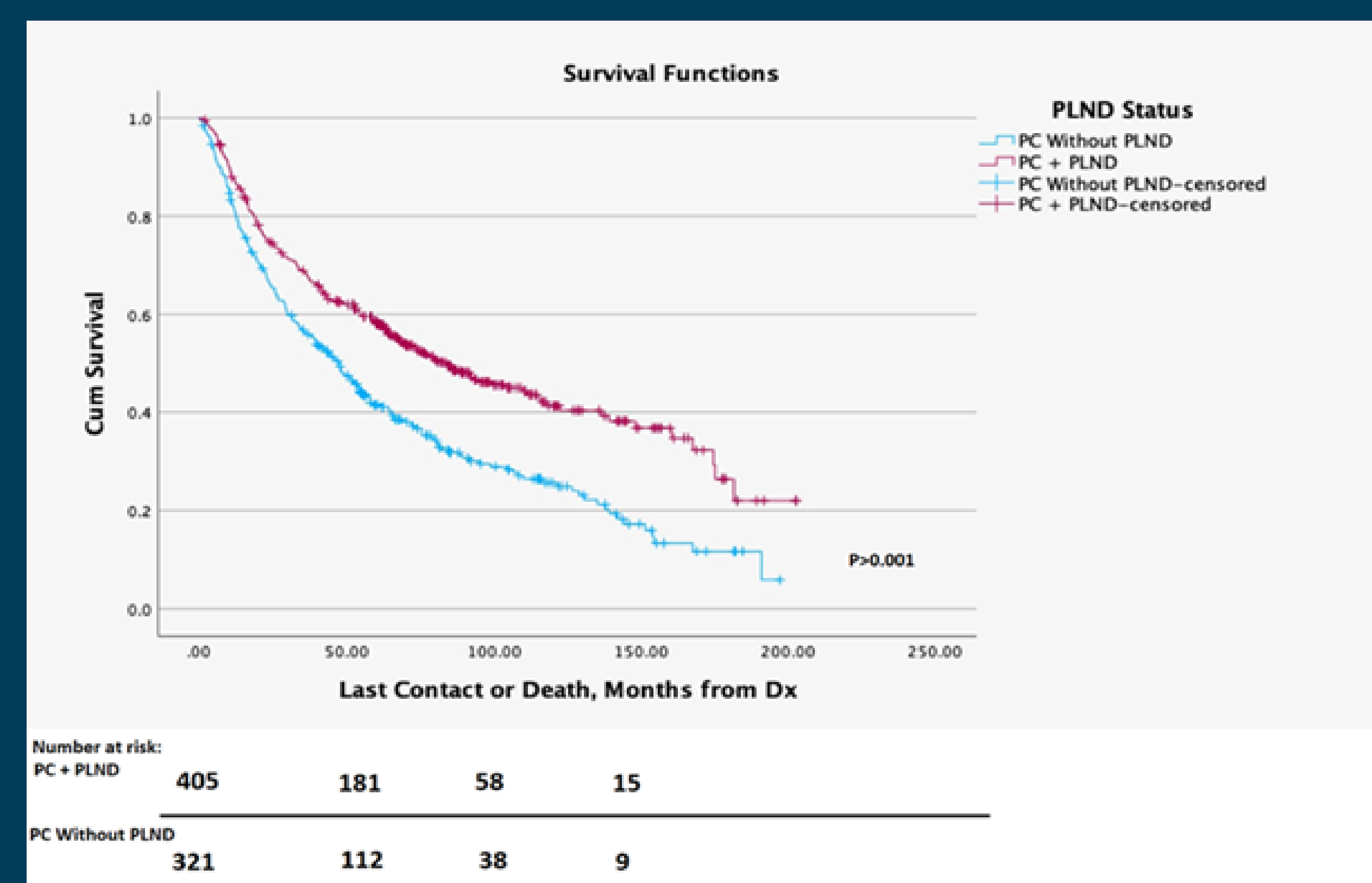


Abbreviations: RC: Radical Cystectomy, PC: Partial cystectomy PLND: Pelvic lymph node dissection

PC made up a minority of cases with a lower rate of PLND when compared to RC

PC with PLND was associated with a 25% reduction in overall, adjusted mortality hazard versus PC alone (aHR=0.75; p<0.05)

Categorizing node yield into 1-15 and >15, adjusted hazard ratios for overall survival compared to none were 0.78 and 0.54, respectively (p<0.05)



Abbreviations: RC: Radical Cystectomy, PC: Partial cystectomy PLND: Pelvic lymph node dissection

CONCLUSIONS

PLND and NAC is underutilized in the setting of PC for MIBC, resulting in a significant number of patients receiving unimodal approach for T2 disease.

Although not a primary outcome of our study, NAC rates were observed to be low. NAC rate of 9.2% in PC and 18.8% in RC.

Increased node yield contributed to a larger reduction of adjusted mortality hazard in a linear fashion.

Although PLND in PC has risen in recent years, numbers are low compared to RC contributing to worse survival outcomes.

Limitations are intrinsic to the NCDB, including lack of cancer specific survival, rates of recurrence, or information about PLND template.

Therefore we must assume that higher node yield can surrogate for extended dissection template.

In patients with MIBC that are appropriately selected for PC, PLND with a high yield resection should be prioritized given the significantly improved survival outcomes

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