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Olivia Toner

Dennis M. Sopka MD

Savitri P. Skandan MD

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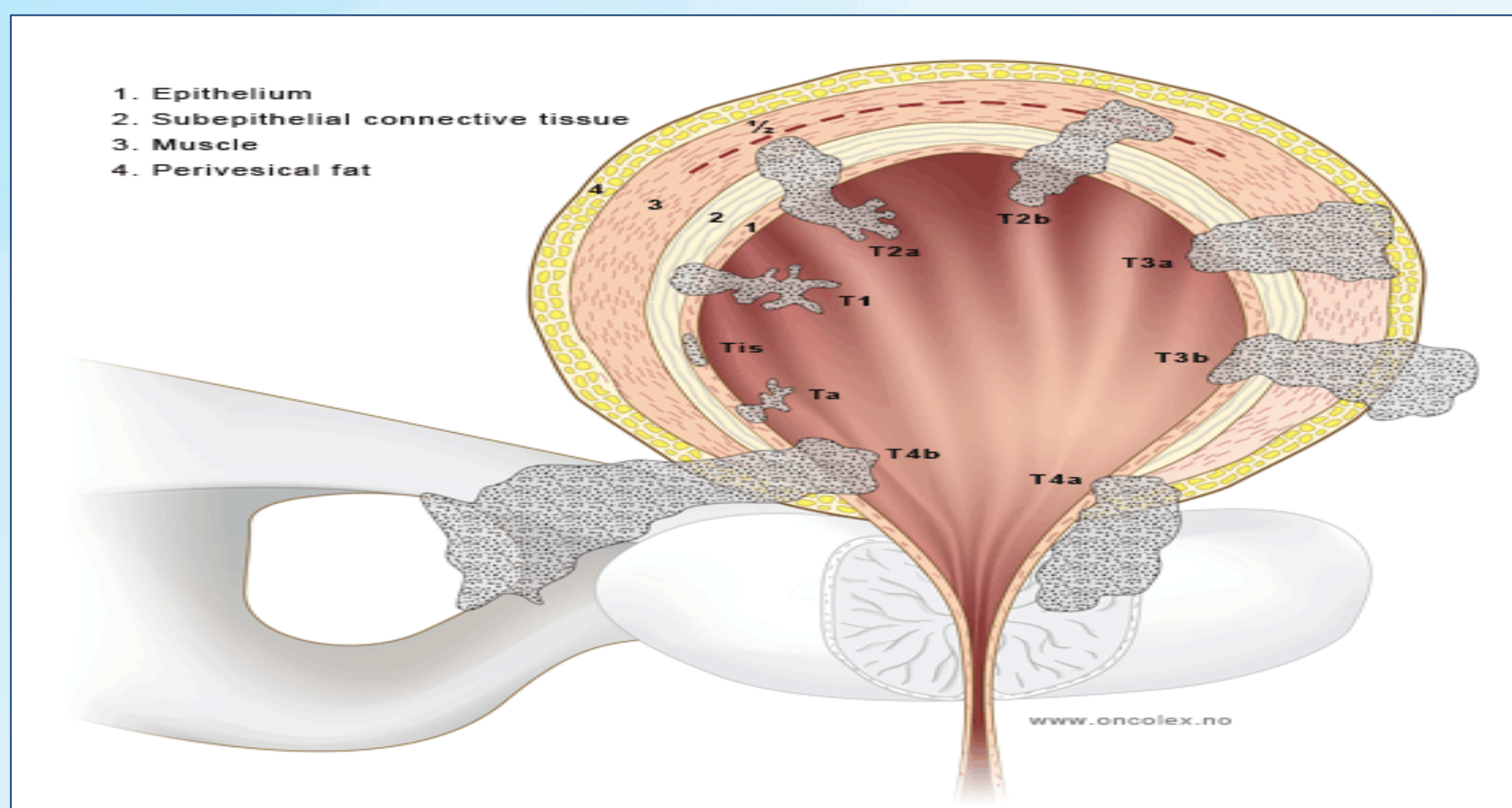
Lehigh Valley Health Network, Allentown, Pennsylvania

## INTRODUCTION & BACKGROUND

- Every year, approximately **80,670 people** are diagnosed with bladder cancer with **90% over the age of 55** and the **majority of them men**<sup>1,2</sup>
- This study focused on **Stage II and Stage III bladder cancer**

Stage II (T2a and T2b)	Stage IIIA & IIIB (T2a-b, T3a-b)
Invasion of <b>muscularis propria</b> (T2a: inner half, T2b: outer half)	Invasion of <b>perivesical fat tissue</b> Potential lymph node involvement (N1-3)

- 2019 NCCN Guidelines define **Category 1** Treatments for Stage II & Stage III to be **neoadjuvant cisplatin-based chemotherapy and radical cystectomy OR concurrent chemoradiotherapy**<sup>3</sup>



## PROJECT GOALS

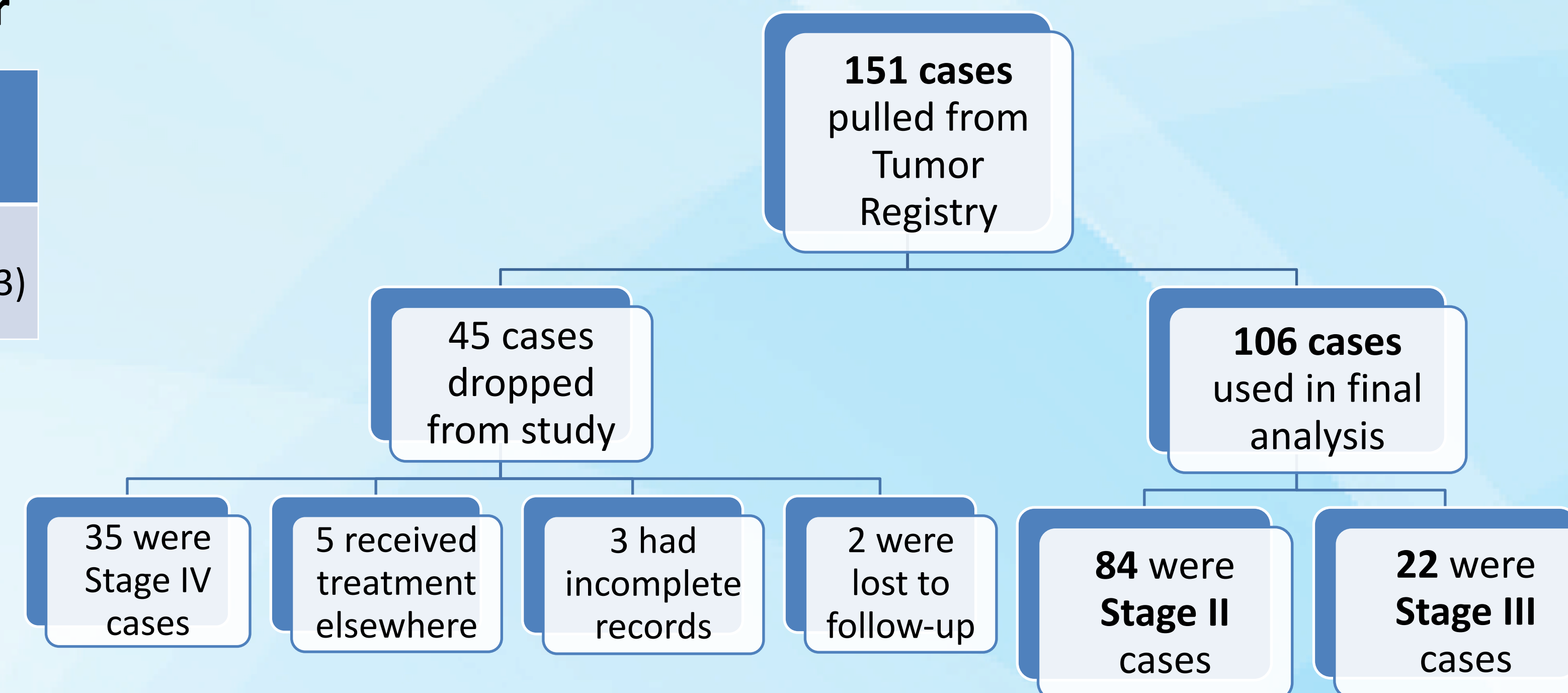
Determine patient **demographics** and compare to national statistics.

Examine **overall survival status** with regards to different treatment modalities utilized.

Conclude by ensuring that **LVHN treatment protocol** was in **accordance** with the 2019 **NCCN Guidelines**.

## METHODS

- Cases were examined for: Date of Diagnosis, Age at Diagnosis, Staging, Gender, Treatment Modalities, Survival Status and Comorbidities Present



## RESULTS

- **Age at Diagnosis**
  - ACSO Mean Age: **73 years**<sup>1</sup>
  - LVHN Age Range: 49-94 years; Mean: **75 years**
- **Gender**
  - ACSO: **77% male**, 23% female<sup>1</sup>
  - LVHN: **74% male**, 26% female
- **Category 1 Treatment Use**
  - Surgery + Chemo: Stage II - 26.2%; Stage III - 36.4%
  - Chemo + RT: Stage II - 23.8%; Stage III - 9.1%

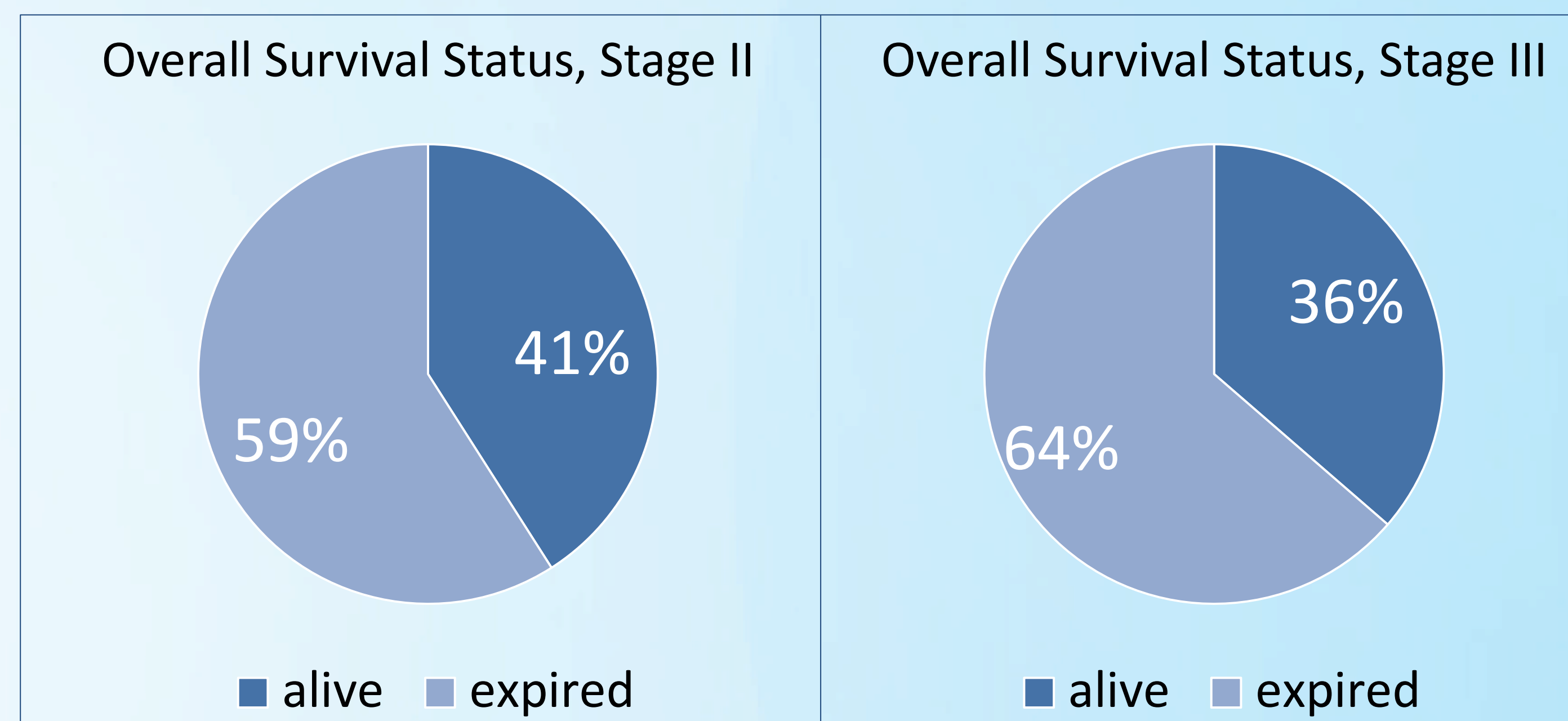
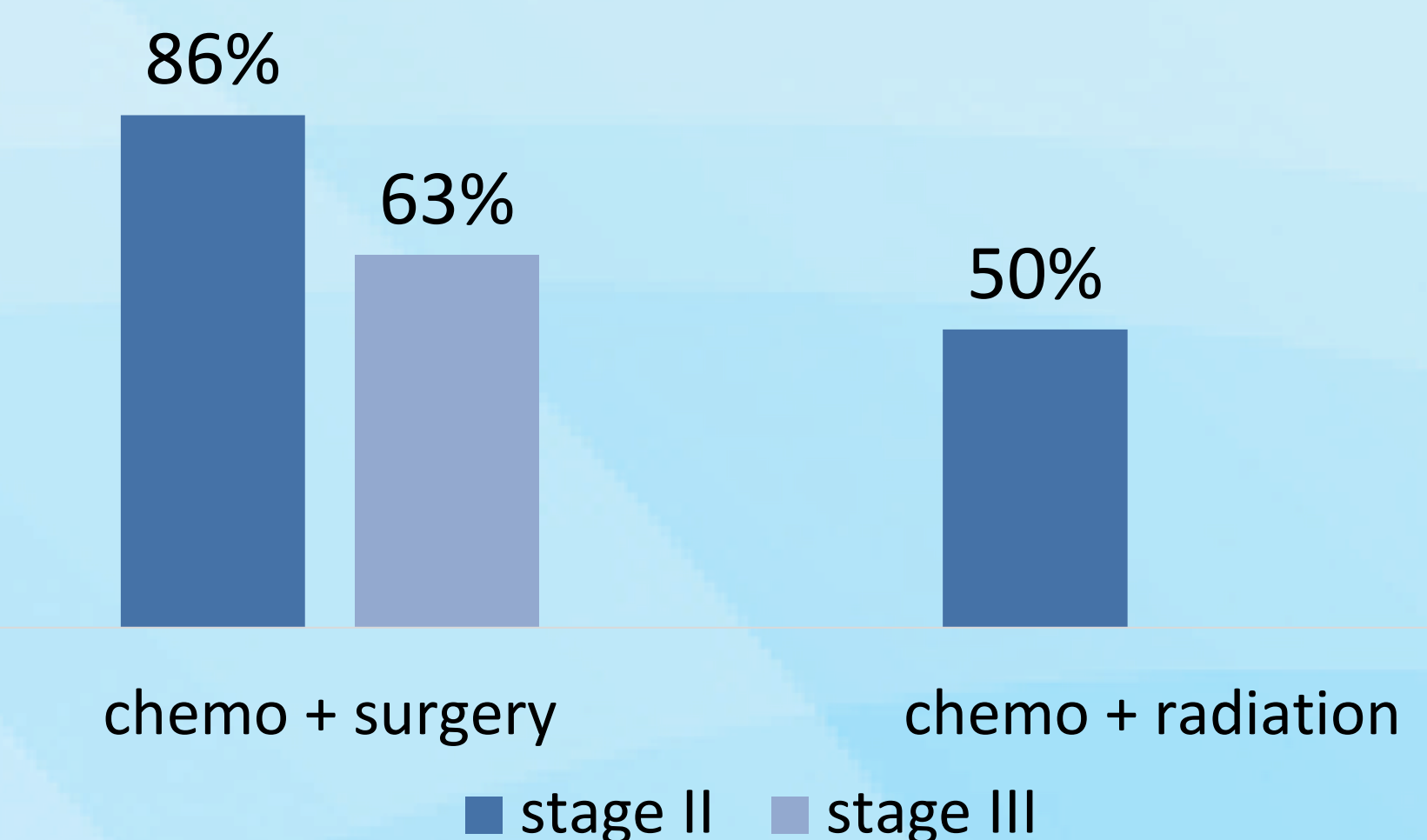


Figure 1. Overall Survival Status of Patients Diagnosed with Stage II (L) and Stage III (R)

## FURTHER ANALYSIS

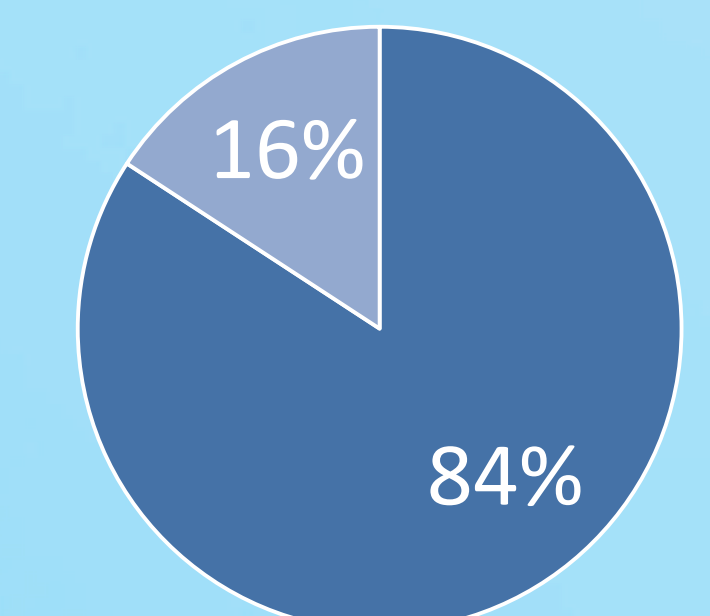
### Disease-Specific Control Rates by Treatment



**Figure 2.** Disease-Specific Control Rates by Category 1 Treatment. Determined by eliminating patients that expired due to other causes and accounting for both alive & expired patients with disease control.

### Current Status of Patients who were Smokers at Time of Diagnosis

**Figure 3.** Current status of patients who were smokers at time of diagnosis. The majority of all patients (66%) diagnosed with Stage II or Stage III were smokers (current or former).



■ current ■ former, quit after Dx

## CONCLUSIONS

- When compared to the 2019 NCCN Guidelines, **Category 1 Treatment** was administered to **50%** of Stage II patients and **46%** of Stage III patients at LVHN
  - All exceptions to this practice were justified by patient preference and/or comorbidities present
- **Surgery + Chemotherapy** had the **highest** disease-specific control rate
- **66%** of bladder cancer patients were current or former **smokers**

## REFERENCES

- <sup>1</sup> American Society of Clinical Oncology (ASCO). Bladder Cancer: Statistics, Risk Factors. Cancer.net. 2019. Available from: <https://www.cancer.net/cancer-types/bladder-cancer/statistics>
- <sup>2</sup> National Collaborating Centre for Cancer (UK). Bladder Cancer: Diagnosis and Management. London: National Institute for Health and Care Excellence (UK); 2015 Feb. (NICE Guideline, No. 2.) 5, Managing muscle-invasive bladder cancer. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK356289/>
- <sup>3</sup> National Comprehensive Cancer Network. Bladder cancer (version 3.2019 – April 2019). 2019.
- <sup>4</sup> Oncology Encyclopedia (Oncolex). Staging of bladder cancer. 2016. Available from: <http://oncolex.org/Bladder-cancer/Background/Staging>