

LYMPH NODE YIELD IN WILMS TUMOR SURGERY: A TWO-CYCLE AUDIT (SIOP UMBRELLA PROTOCOLS)

Rija Khalid, Ifrah Ahmad, Yasar Rashid, Sajid Ali, Tariq Latif
Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan

Introduction

- Accurate staging and risk stratification are the main goals of **Wilms tumor** surgery
- Lymph Node (LN) sampling refines staging and guides adjuvant therapy; **positive nodes** predict relapse and lower survival
- Sampling extent is not clearly defined; yield depends on technique and histopathologist experience

Objective & Audit Standard

To determine the number of lymph nodes sampled according to the defined protocol.

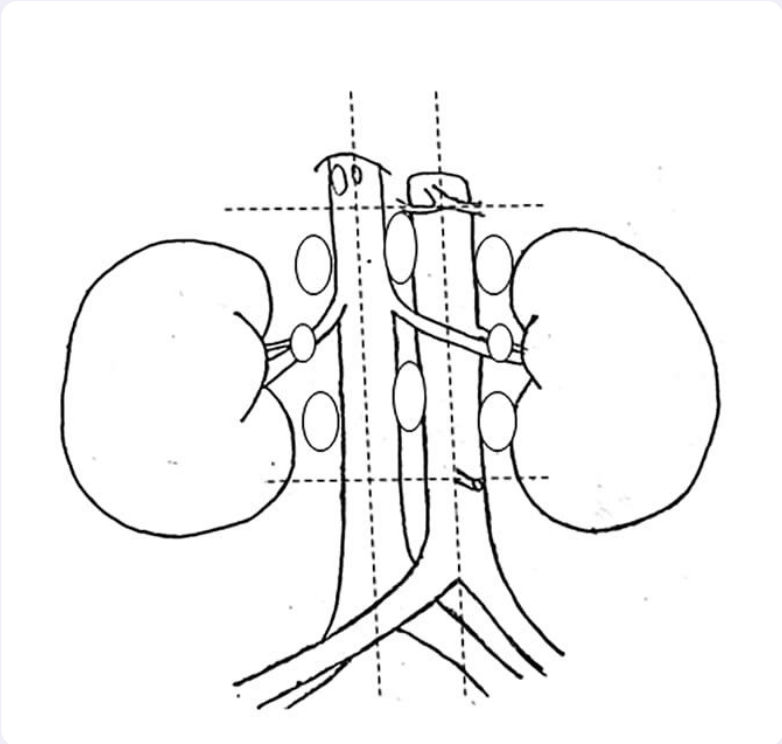
Audit standard

- Positive-LN yield highest at **7 Lymph Nodes** harvested^{1 2}

≥ 7

Re-audit AIM: LNs sampled in every patient

Proposed Sites for LN Sampling



Right-sided tumors: hilar, supra-/infrahilar paracaval and interaortocaval LNs

Left-sided tumors: hilar, supra-/infrahilar paraaortic and interaortocaval LNs

Diagram: Qureshi et al.²

Material & Methods

	Cycle 1	Cycle 2
Protocol	SIOP UMBRELLA	SIOP UMBRELLA
Period	Jan 2022 – May 2023	Jun 2025 – May 2026
Patients	n = 27	n = 32

- Retrospective audit, Surgical Oncology, SKMCH, Lahore
- Approved by Quality & Patient Safety Dept.
- **Inclusion:** radical nephrectomy for Wilms tumor after preoperative chemotherapy
- **Data:** HIS review; total LNs sampled, positive LNs, stage

Conclusion / Take-Home

Conclusion

- Routine intraoperative LN sampling is warranted; **higher yield** improves staging and reduces understaging
- Station-wise systematic sampling gives surgeons a **template**

Recommendations

- Adhere fully to the defined surgical protocol and LN sampling for **accurate staging**
- Assess long-term recurrence and survival

Project Team & Disclosure

Cycle 1 (SIOP)

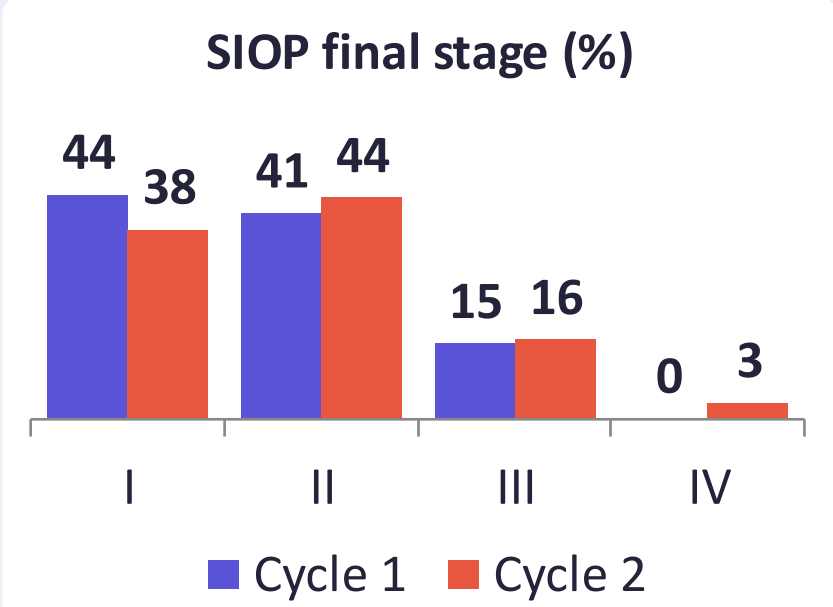
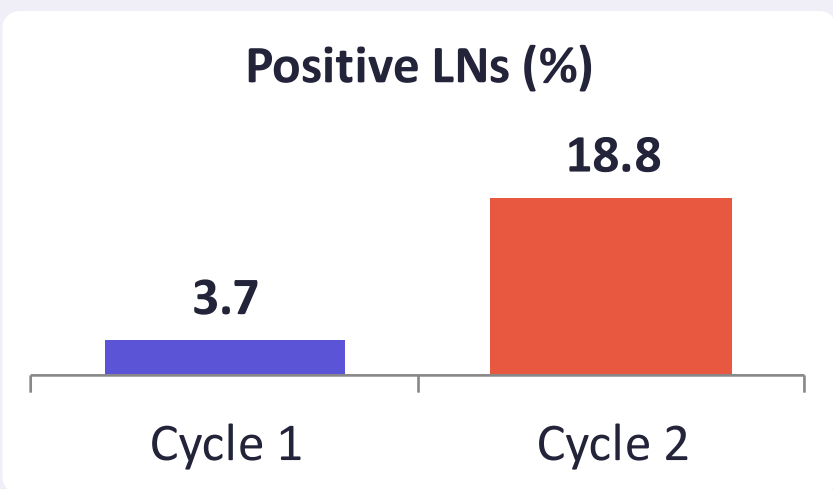
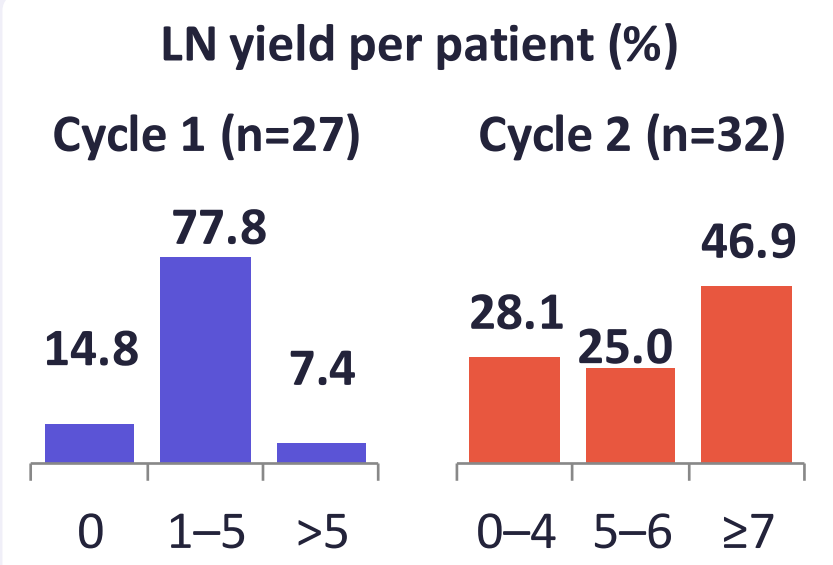
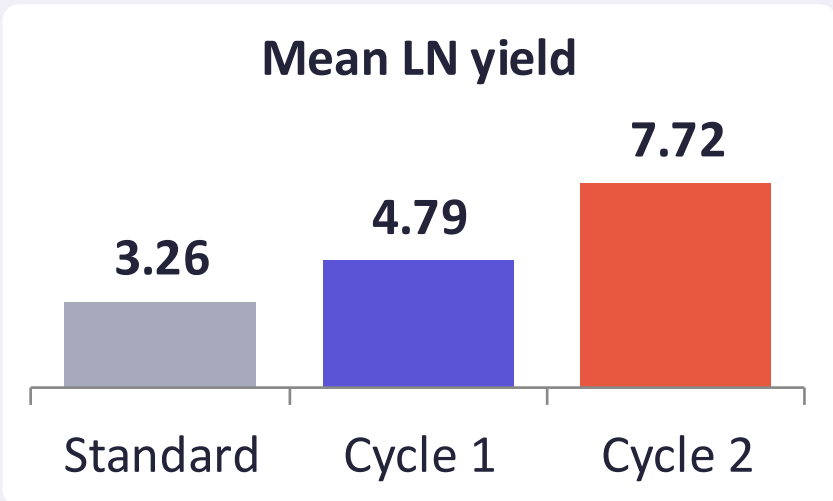
Dr. Tariq Latif, Dr. Muhammad Ali Sheikh, Dr. Sajid Ali, Dr. Areej Muhammad Salim, Dr. Talha Javed

Cycle 2 (UMBRELLA)

Dr. Tariq Latif, Dr. Sajid Ali, Dr. Rija Khalid, Dr. Yasar, Dr. Ifrah Ahmad, Dr. Hassan Zaheer

No conflict of interest to declare.

Results: Cycle 1 vs Cycle 2



- Mean yield was **4.79** in first cycle and **7.72** in 2nd cycle.
- Positive LNs: **1/27** (cycle 1), **6/32** (cycle 2)
- **15/32 (46.9%)** met the ≥ 7 LN aim in cycle 2

References

1. Flores P, et al. J Pediatr Urol. 2021;17(2):227.e1.
2. Qureshi SS, et al. J Pediatr Surg. 2020. doi:10.1016/j.jpedsurg.2020.07.026