

TEXTBOOK OUTCOMES AFTER TOTAL GASTRECTOMY FOR GASTRIC CANCER: DUCA VS DELPHI DEFINITIONS AND ASSOCIATION WITH RECURRENCE

Muhammad Hammad Ur Rehman, Mariam Asad, Shahzeb Khan, Malaika Imran, Tayyaba Ayaz, Mehrub Munawar, Parsa Mustafa, Haider Abid, Zubair Shabbir Khanzada

Department of Surgical Oncology, Shaukat Khanum Memorial Cancer Hospital & Research Centre, Peshawar, Pakistan

SHAUKAT KHANUM
MEMORIAL CANCER HOSPITAL
AND RESEARCH CENTRE

BACKGROUND / OBJECTIVE



Textbook outcome (TO) is a composite surgical-quality measure, but definitions vary across studies and registries.



This study compared the Dutch Upper Gastrointestinal Cancer Audit (DUCA)-based definition with the international Delphi consensus definition after curative-intent total gastrectomy, and explored associations with recurrence and recurrence-free survival.

METHODS



STUDY DESIGN

Retrospective single-centre cohort study.



PATIENTS

Curative-intent total gastrectomy for gastric adenocarcinoma between January 2023 and July 2025 at Shaukat Khanum Memorial Cancer Hospital and Research Centre, Peshawar.



KEY ANALYSES

- Both DUCA-based and Delphi textbook outcomes were calculated.
- Recurrence patterns, recurrence-free survival, and exploratory Cox analysis were assessed.

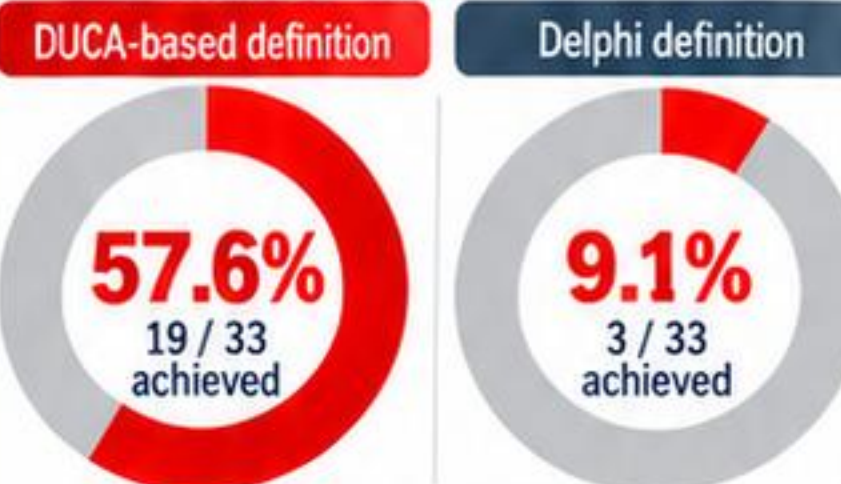


OUTCOMES

- Textbook outcome achievement (DUCA vs Delphi).
- Perioperative outcomes and pathological results.
- Recurrence patterns and timing.
- Recurrence-free survival.
- Factors associated with recurrence.

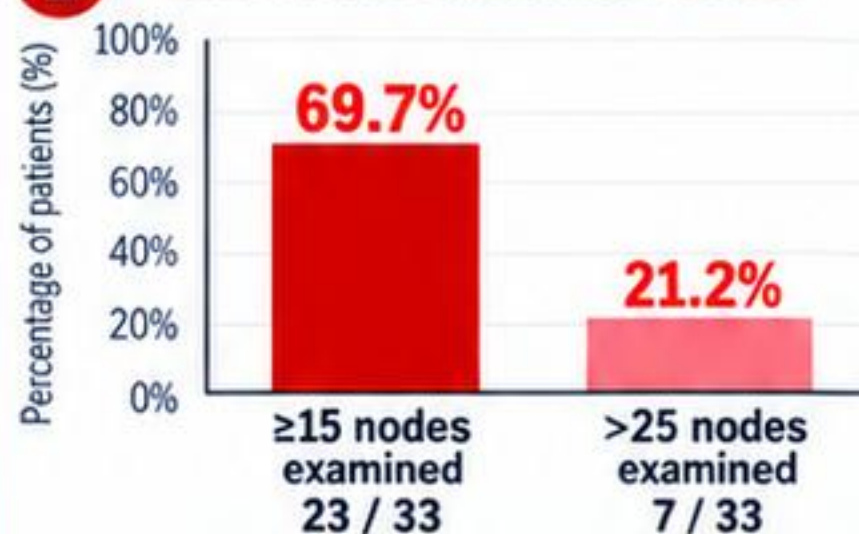
MAIN RESULTS

1 TEXTBOOK OUTCOME ACHIEVEMENT: DUCA VS DELPHI

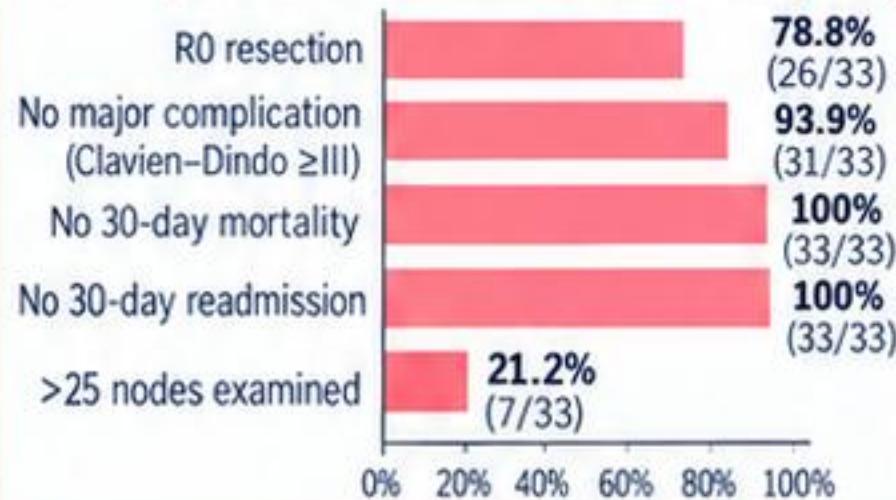


The Delphi definition sharply reduced textbook-outcome achievement, mainly because few patients exceeded 25 examined nodes.

2 LYMPH-NODE RETRIEVAL RATES



3 COMPONENT FAILURE ANALYSIS (WHY DELPHI OUTCOME WAS LESS FREQUENT)

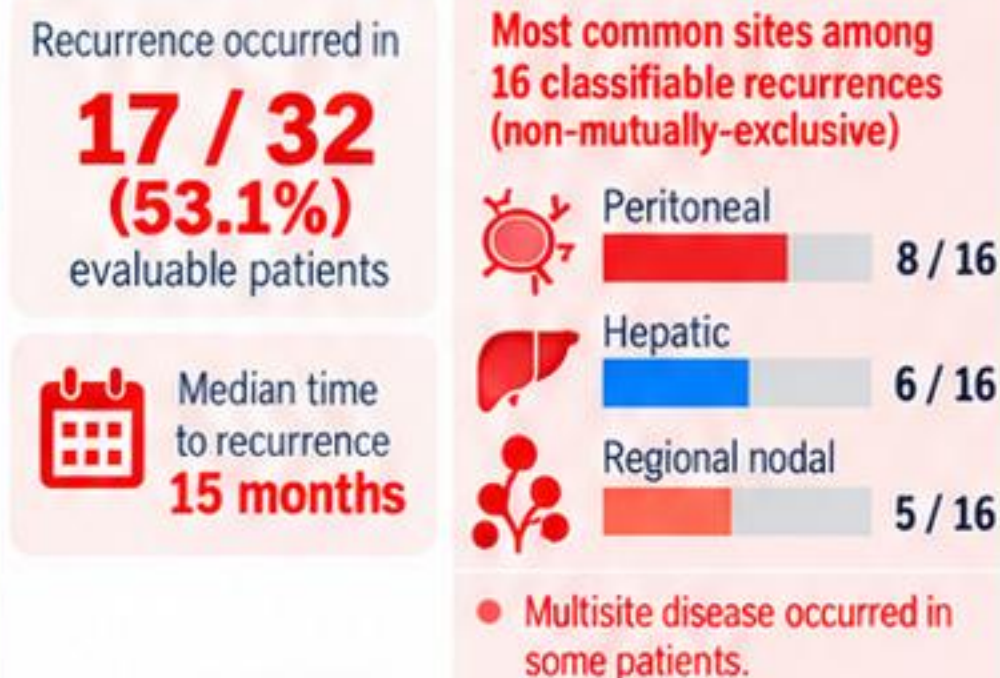


4 BASELINE AND PERIOPERATIVE RESULTS

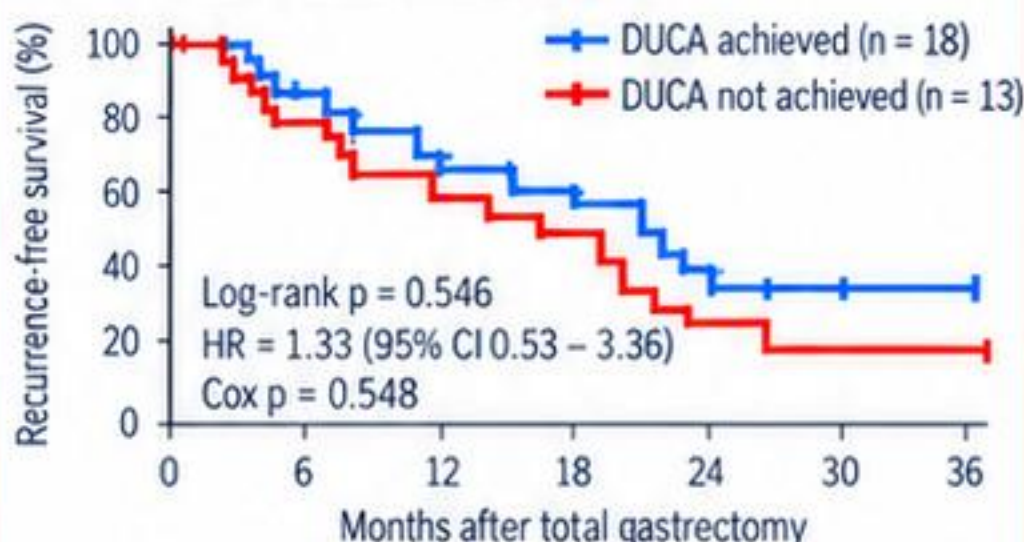
Variable	n / N (%) or median (IQR)
Total patients	33
Preoperative chemotherapy	32 / 33 (97.0%)
FLOT regimen	31 / 33 (93.9%)
Major complications (Clavien-Dindo ≥III)	2 / 33 (6.1%)
30-day mortality	0 / 33 (0%)
30-day readmission	0 / 33 (0%)
Median lymph-node yield	19
≥15 nodes examined	23 / 33 (69.7%)
>25 nodes examined	7 / 33 (21.2%)
R0 resection	26 / 33 (78.8%)

RECURRENCE AND SURVIVAL

1 RECURRENCE PATTERNS



2 RECURRENCE-FREE SURVIVAL BY ORIGINAL DUCA TEXTBOOK OUTCOME



Number at risk	0	6	12	18	24	30	36
DUCA achieved	18	13	11	7	3	1	1
DUCA not achieved	13	11	8	4	1	1	0

3 EXPLORATORY ADVERSE FACTORS FOR RECURRENCE-FREE SURVIVAL

Variable	HR (95% CI)	p value
ypT4 vs ypT3	3.87 (1.30 – 11.48)	0.015
ypN2-3 vs ypN0-1	2.69 (1.09 – 6.64)	0.032
Lymphovascular invasion (present vs absent)	2.39 (0.98 – 5.82)	0.054

CONCLUSION

- The international Delphi definition sharply lowers textbook-outcome achievement after total gastrectomy, driven primarily by the >25-node requirement.
- Recurrence appears to reflect residual tumour biology more than attainment of textbook outcome.
- Lymph-node retrieval and proximal margin clearance are the main institutional targets for quality improvement.



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