

Retrospective Analysis of Outcomes of Neoadjuvant FLOT Chemotherapy in Locally Advanced Gastric and Gastroesophageal Tumours

Faisal Qayum¹, Shahzeb Ahmed¹, Muhammad Imran¹, Syed Abdul Manan Hamdani¹, Tahira Yasmeen¹, Sameen Bin Naeem¹
¹Department of Medical Oncology, Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan

Abstract

- Background:** FLOT is the Western perioperative standard for gastric/GOJ cancer; South Asian real-world data are limited.
- Methods:** retrospective study of 190 patients given neoadjuvant FLOT at SKMH, Lahore (2020–2025).
- Results:** 82.1% had surgery; R0 in 85.9%; pCR 7.1%. Median PFS 24.0 months; 2-year OS 87.8%.
- R0 resection independently improved OS and PFS; poor differentiation worsened PFS.
- Conclusion:** FLOT is feasible and effective in Pakistani patients.

Introduction

- Gastric cancer caused ~968,000 new cases and ~660,000 deaths worldwide in 2022 (1).
- FLOT4 trial: R0 84%, pCR 16%, median OS 50 months (2).
- Most Pakistani patients present with locally advanced disease.
- Real-world South Asian FLOT data are scarce.
- Aim:** assess PFS, OS, R0 resection and pCR after neoadjuvant FLOT.

Methods

- Single-centre retrospective cohort, SKMH Lahore, Jan 2020 – Jan 2025; IRB approved.
- Non-metastatic gastric/GOJ adenocarcinoma (cT2–4, N0–3, M0); ≥2 FLOT cycles.
- FLOT every 2 weeks (median 4 cycles) → restaging → surgery → adjuvant FLOT (target 4 cycles).
- Endpoints: PFS, OS, R0, pCR (ypTON0); RECIST 1.1.
- Kaplan–Meier and Cox regression; P<0.05.

Results

Cohort (N=190)

Median age (range)	48.5 y (21–64)
Male	67.4%
GOJ primary	53.7%
ECOG 0–1	99.5%
cT3 / node-positive	94.7% / 84.7%
Poorly differentiated	57.9%

Treatment cascade

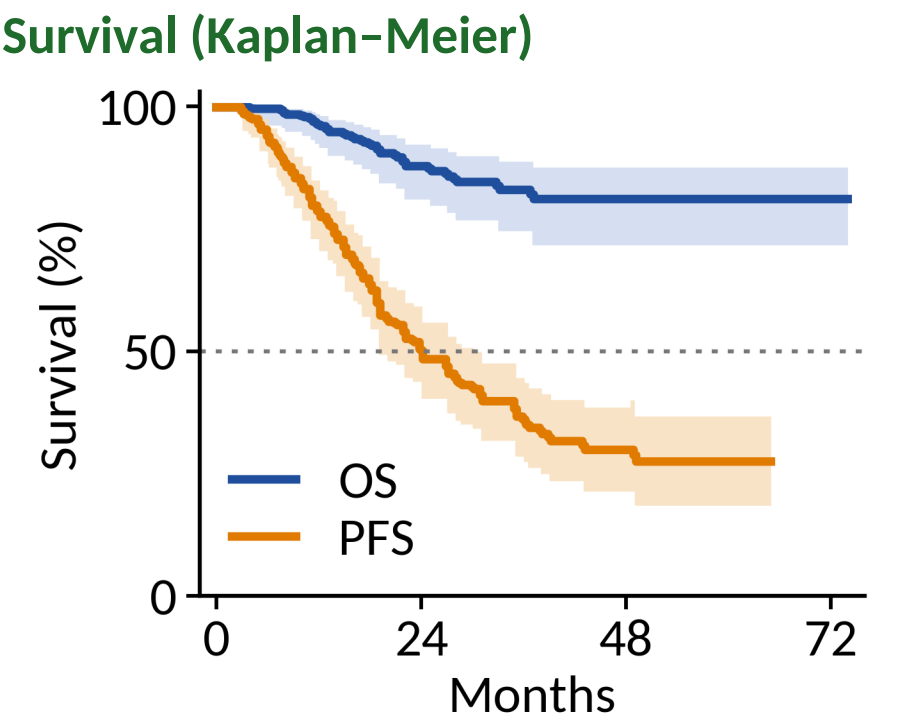
Neoadjuvant FLOT 190

Surgery 156 (82.1%)

R0 resection 134 (85.9%*)

pCR (ypTON0) 11 (7.1%*)

**of 156 operated patients. 34 not resected: 17 progression, 10 unresectable.*



- Median PFS **24.0 mo** (95% CI 17.6–30.4); 2-yr PFS **48.4%**.
- 2-yr OS **87.8%**; median OS not reached (23 mo follow-up).

Predictors

R0 resection → OS P=0.003

HR 0.21 (0.08–0.59)

R0 resection → PFS P=0.024

HR 0.51 (0.29–0.92)

Poor differentiation → PFS P=0.001

HR 2.05 (1.34–3.13)

HR<1: lower risk

Conclusion

- Neoadjuvant FLOT is **feasible and effective** in Pakistani patients with locally advanced gastric/GOJ cancer.
- R0 rate 85.9%** matches FLOT4 (84%); pCR 7.1% is in line with Asian real-world series.
- R0 resection** was the strongest independent predictor of survival.
- Supports FLOT as the perioperative standard of care at SKMH and similar centres.

Comparison

Study	N	R0	pCR	mPFS
FLOT4 (2)	356	84%	16%	30
Möhring (3)	99	~80%	~8%	NR
Bhargava (4)	~100	77%	7%	~18
This study	190	85.9%	7.1%	24.0

mPFS in months; NR = not reported.

Limitations

- Retrospective, single-centre design.
- No uniform molecular profiling (HER2, MSI, PD-L1, EBV).
- Toxicity not systematically graded.
- Median follow-up 23 months; OS immature.
- Next:** prospective, biomarker-guided, multicentre studies.

Declarations

- IRB approved (27 Feb 2026); consent waived.
 - No external funding; no conflicts of interest.
- References:** (1) Bray F, GLOBOCAN 2022. (2) Al-Batran SE, Lancet 2019. (3) Möhring C, Int J Cancer 2023. (4) Bhargava P, South Asian J Cancer 2022.