

Real world outcomes of locally advanced gastric/GOJ cancers receiving perioperative chemotherapy with FLOT regimen during the COVID19 pandemic– results from a single cancer care centre in the UK.

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Background

Survival outcomes have remained dismal in locally advanced gastric/gastroesophageal (GOJ) cancers, with 5 year survival rates of only 30-40%.It is in these patients that pre/peri-operative chemotherapy has come to the rescue by improving radical resection rates, controlling preoperative micrometastases and ultimately improving survival. At present the standard of care preoperative regimen consists of 4 cycles of preoperative FLOT regimen followed by 4 postoperative cycles. FLOT regimen consists of docetaxel (50 mg/m²), oxaliplatin (85 mg/m²), leucovorin (200 mg/m²), and 5-fluorouracil (2,600 mg/m² as a 24 hr infusion), all given on day 1 and administered every 2 weeks. We report our experience using this regimen in terms of efficacy and tolerability amidst the Covid-19 pandemic.

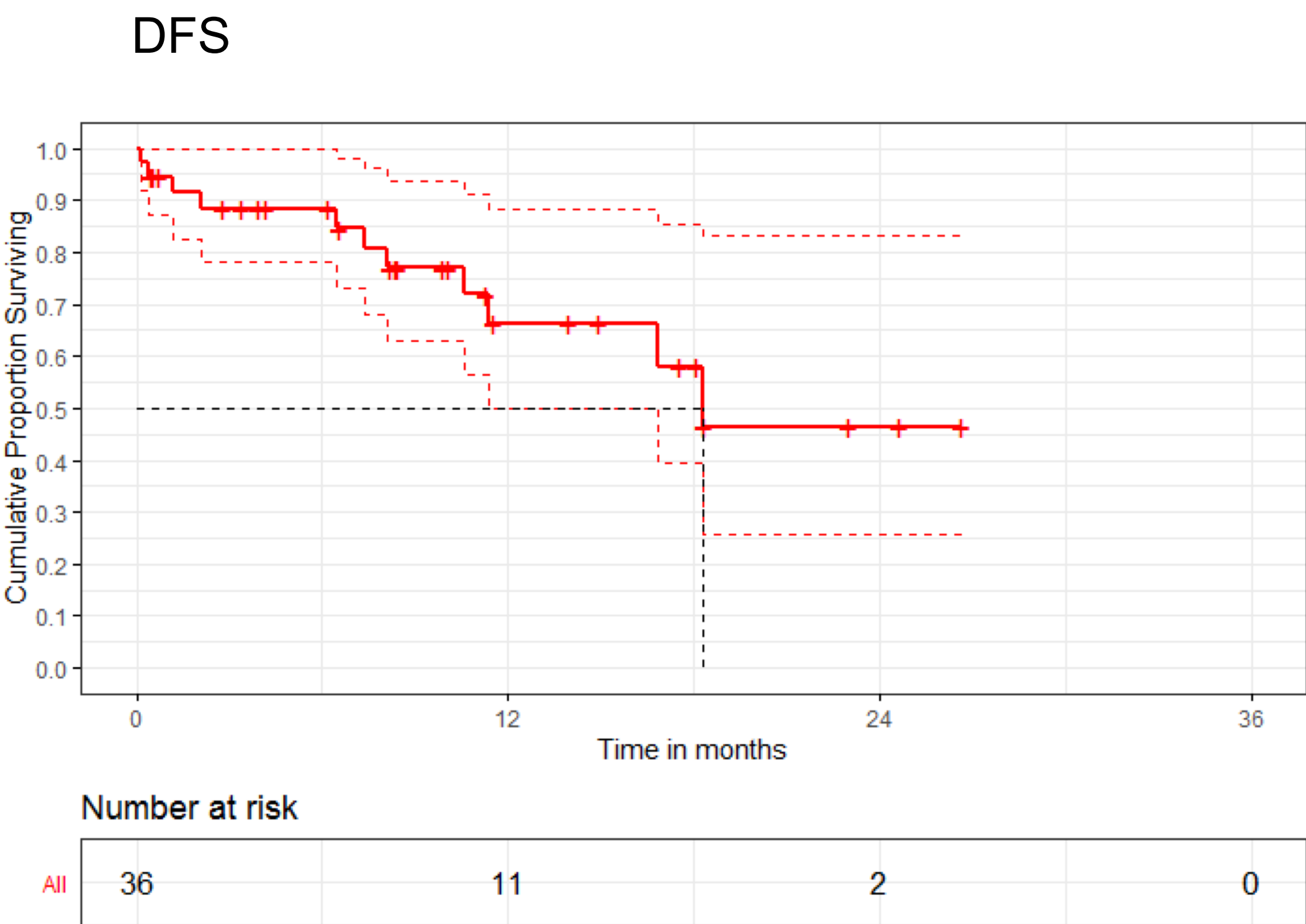
Objectives

- Our main aim was to analyze these parameters in our patients -
- 1 year Median Overall survival(OS) and Disease free survival (DFS)
 - Number of patients completing all preoperative cycles and postoperative cycles
 - Number of patients undergoing surgery.
 - Pathological response – R0 rates, Pathological tumour regression (TRG)rates.
 - Toxicity profile.

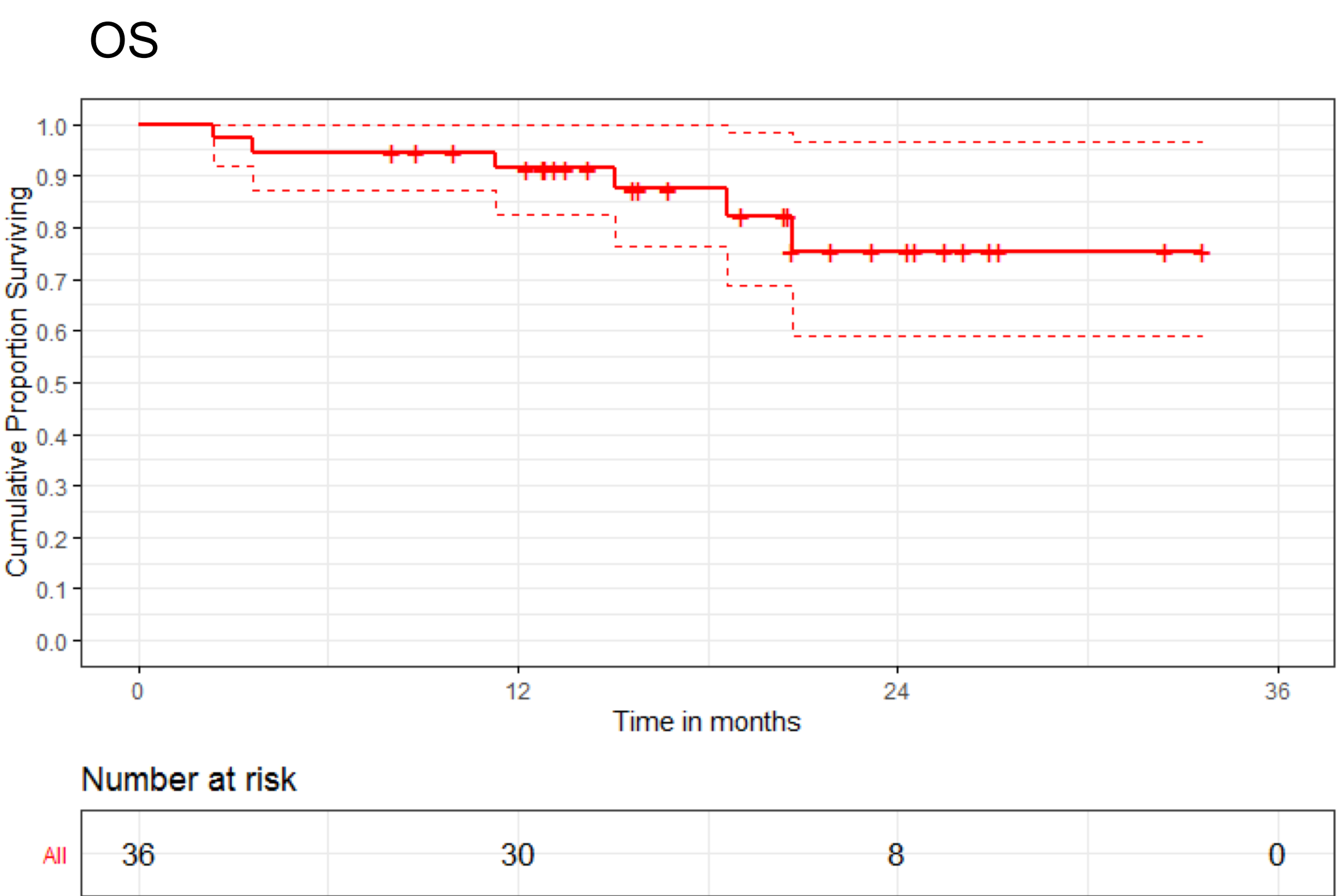
Methodology

We analyzed 36 patients who were treated with perioperative FLOT protocol in our institute from August 2019-March 2020.77% were GOJ and 23% were gastric cancers, with 85% being T3/T4,N1/N2 tumours. Dates, dosing, dose reductions, delays, toxicity charting data were extracted from ChemoCare v6 live system and Clinical Web Portal. Details of surgery, intraoperative notes, postoperative complication rates and histopathological parameters were retrieved from the ICE workstation platform. The data was tabulated in Excel (version2016, MICROSOFT, WA) and analyzed with SPSS (version 26, IBM,Armonk,NY).

TRG (Tumour regression grade)	Frequency	Percentage
1 (complete response)	1	2.8
2(presence of residual tumour cells scattered through the fibrosis)	4	11.1
3 (increase in number of residual cells, with fibrosis predominant)	13	36.1
4 (residual cancer outgrowing fibrosis)	10	27.8
5 (no regression)	4	11.1



Patient characteristics	N=36
Age	68 years (43-81)
SEX	
Female	3(8.3%)
Male	33(91.7%)
ECOG PS	
0	4(11%)
1	32(89%)
Primary site	
Gastric	8 (23%)
GOJ	28 (77%)
cT stage	
T2	4(11%)
T3	26(72%)
T4	6(17%)
cN Stage	
N0	10(28%)
N1	20(56%)
N2	6(16%)
Histology	
Adenocarcinoma	36(100%)
Grade	
1	2 (6%)
2	12 (33%)
3	22 (61%)



Results

1. With a median follow up of 16.2 months , 1 year OS was **91.4%**(82.5-100) and 1 year DFS was **66%**(49.8-88.3).
2. **80.6%** patients completed all 4 preoperative cycles and **89%** patients underwent curative surgery. Median time from last dose of chemo to surgery was 7.31 weeks.**52.8%** patients completed all 4 cycles of adjuvant FLOT chemotherapy.
3. The main causes of treatment breaks were **COVID in 11%**,cardiotoxicity in 5.6%, Grade 3 diarrhea in 5.6% and Grade3 mucositis and neutropenia in 3% patients respectively.
4. Majority of the patients had TRG(Tumour regression grade) of **3 or 4 (36% and 28%)**,which reflect significant percentage of patients having residual disease and the rate of pathological complete response(TRG1) was only 3%.
5. The main toxicities were diarrhea (G 3 in 5.6%),mucositis(G1-2 in 88.9%),CINV(G1-2 in 86%),CIPN(G1-2 in 3%)and neutropenia(G1-2 in 90% and G3 in 3%).3 patients died due to postoperative complications.

Conclusion

In the seminal FLOT4/AIO trial, the 5 year overall survival was 45% (38-51). In terms of operative outcomes, 94% patients proceeded to surgery post the preoperative chemotherapy with 12.8% achieving complete pathological response and 16.7% subtotal pathological response rates .In our analysis, our response rates are quite low in comparison(CR in 3%), however our operative rates, chemotherapy completion rates and toxicity profiles are comparable. The essence of the study shows that even in the face of the pandemic more than half of the patients completed all treatment with this intensive triplet chemotherapy regimen . A longer follow up will allow us to better understand survival and patterns of failure.

No conflicts of interest.