

# Real-world “Chair Time” Burden Associated with Intravenous Treatment Regimens for Patients with Metastatic Pancreatic Ductal Adenocarcinoma

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## Background

- Common treatment regimens for metastatic pancreatic ductal adenocarcinoma (mPDAC) include combination therapies of 2 or more chemotherapies, e.g., leucovorin calcium, fluorouracil, irinotecan hydrochloride, and oxaliplatin, abbreviated FOLFIRINOX (FFX) and gemcitabine+nab-paclitaxel (GnP).
- These regimens have varied dosing schedules that may require multiple hours of intravenous infusions per cycle, i.e., “chair time”.
- Regimens with longer chair time may be less convenient and impact patient quality-of-life.

## Objective

The objective of this study was to characterize treatment chair time and survival among patients with mPDAC by regimen and line of therapy (LOT).

## Methods

- The Flatiron Health Research Database was used to identify adult mPDAC patients initiating treatment sequences with ≥1 LOT (1/1/2015–5/31/2021) including intravenous therapies.
- Administration/chair times were calculated based on product labeling and NCCN treatment guidelines, and excluded time for continuous infusions of 5-FU.
- Median overall survival and chair time per month of follow-up (hrs/mo) were estimated for regimens utilized by > 50 patients.

Characteristic	N=5,650
Age at Metastatic Diagnosis, median [IQR]	69.0 [62.0 - 75.0]
Sex, n (%)	
Male	3,047 (54.8%)
Female	2,513 (45.2%)
Race, n (%)	
White	3,559 (64.0%)
Black or African American	476 (8.6%)
Asian	90 (1.6%)
Hispanic or Latino	15 (0.3%)
Other Race	816 (14.7%)
Missing	604 (10.9%)

## Results

- Of the 5,560 mPDAC patients included in the analysis, median age at diagnosis was 69 years, 55% were male, and 64% were white (Table 1).
  - Approximately 80% (4,426) had 1 LOT. Over half (56%) received GnP, and 25% received FFX in 1L. 12%, 5%, and 2% of patients with 1LOT received gemcitabine monotherapy, FOLFIFOX, or NAPOLI, respectively (Table 2).
  - Median survival was longest with NAPOLI (7.3 months [95%CI: 6.1–11.0 months]) and shortest with FOLFIFOX (3.5 months [95%CI: 3.0–4.3 months]) (Table 2).
  - Median chair time was longest for FFX (3.9 hrs/mo [IQR: 2.4–5.6 hrs/mo]) and shortest for gemcitabine monotherapy (0.9 hrs/mo [IQR: 0.5–1.4 hrs/mo]) (Figure 1).
- 1,055 patients had 2 LOT, and the majority received FFX→GnP (51%) or GnP→NAPOLI (20%).
  - 17% and 13% of patients received GnP→FFX or GnP→FOLFIFOX, respectively. GnP → NAPOLI had the longest median survival among 2 LOT sequences (11.9 months [95%CI: 11.0–12.5 months]) (Table 2).
  - Median chair times were lowest in GnP→NAPOLI and GnP→FOLFIFOX at 2.4 hrs/mo (IQRs: 1.6–3.0 hrs/mo and 1.9-2.9 hrs/mo, respectively) and highest for FFX→GnP at 3.9 hrs/mo (IQR: 2.9–4.8 hrs/mo) (Figure 1).
- 79 (1.4%) patients received the 3 LOT sequence FFX→GnP→NAPOLI (median survival 17.7 months [95% CI: 15.1–21.2 months]) (Table 2). Median chair time was 3.9 hrs/mo (IQR: 3.1–4.7 hrs/mo), comparable to 2-LOT FFX → GnP (Figure 1).

Sequence	N	Median survival, months (95% CI)	Median Cumulative Administration Time, hours (IQR)
Gem/nab	2,472	5.16 (4.9, 5.42)	6.25 ( 2.5 - 12.6)
FFX	1,105	5.82 (5.39, 6.34)	12 ( 8 - 30)
Gem mono	550	3.75 (3.48, 4.21)	2.25 ( 1.5 - 5.25)
FOLFIFOX	206	3.48 (2.99, 4.34)	4 ( 2 - 10)
NAPOLI	93	7.33 (6.05, 11)	8 ( 4 - 18)
FFX → Gem/nab	540	11.3 (10.7, 12)	37.5 ( 25 - 56.4)
GnP→ NAPOLI	208	11.9 (11, 12.5)	25.5 (16.6 - 37.9)
GnP→ FFX	175	9.92 (8.87, 11)	28.5 (18.8 - 45.4)
GnP→ FOLFIFOX	132	9.72 (8.67, 11.6)	21 ( 13 - 31.4)
FFX → GnP→ NAPOLI	79	17.7 (15.1, 21.2)	61.9 (40.3 - 85.6)

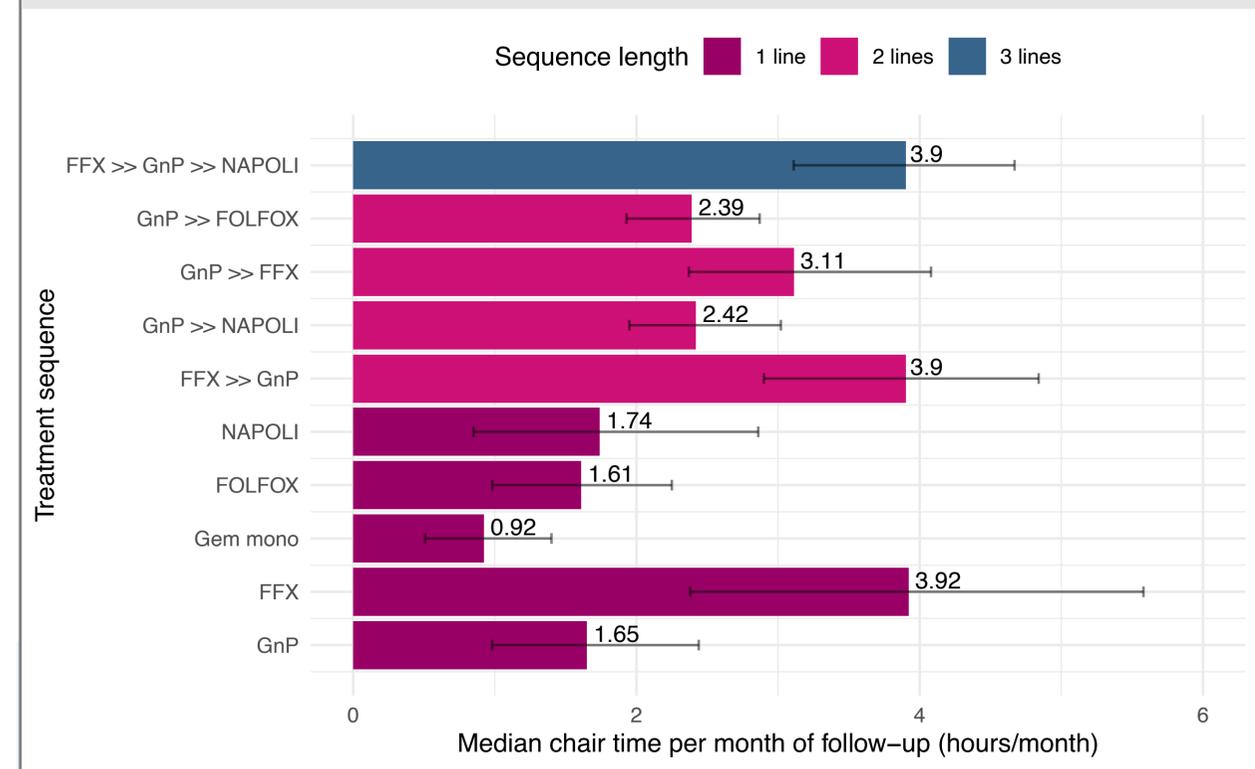
## Abbreviations

FFX, FOLFIRINOX; GnP, gemcitabine+nab-paclitaxel; LOT, line of therapy; mPDAC, metastatic pancreatic ductal adenocarcinoma; NAPOLI, liposomal irinotecan+5-FU/LVs; 5-FU, fluorouracil. 1L, first line.

## Limitations

- The estimated chair time of 5-FU continuous infusion containing regimens (FFX, FOLFIFOX, and NAPOLI) are conservative. Continuous 5-FU infusions are 24-46 hours per cycle.
- Infusion times were calculated based on product labeling and treatment guidelines, not observed infusion times, which are not available in the Flatiron data.

Figure 1. Median chair time per month of follow up by treatment sequence (hours)



## CONCLUSIONS

- Most patients only received 1 LOT.
- 2 LOT sequences containing FFX had longer chair times per month of follow-up.
- The 2 LOT sequence GnP >> NAPOLI had longer median survival and lower median chair time than 2 LOT sequences not containing the NAPOLI regimen.

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