



FOLFIRINOX - Oxaliplatin 85 / Folinic Acid 400 / Irinotecan 180 / Fluorouracil 2400, Pancreatic Cancer

Protocol-ID: 47 V1.4 (Short), FOLFIRINOX (OXAL85/CFOL400/IRIN180/FU2400), Pankreas-Ca

Indication(s)

- Pancreatic Cancer; ICD-10 C25.-

Protocol classification

- Classification: current standard
- Intensity: Standard dose
- Therapy mode: First line
- Therapy intention: palliative

Cycles

Cycle length 14 days, recommended cycles: 12

Risks

- Emetogenicity (MASCC/ESMO): moderate (30-90%)
- Neutropenia: very high (>41%) Grade 3 and 4; 42.5% with G-CSF
- Febrile Neutropenia: intermediate (10-20%) Grade 3 and 4; 1 death, 42.5% with G-CSF
- Thrombocytopenia below 50 000/ μ l: low (<10%)
- Anemia Hb below 8g/dl: moderate (6-15%)
- Diarrhea: CTC AE \circ 3-4: 12.7%
- Fatigue: CTC AE \circ 3-4: 23.6%
- Vomiting: CTC AE \circ 3-4: 14.5%
- Thromboembolic Event: CTC AE \circ 3-4: 6.6%
- Neuropathy: CTC AE \circ 3-4: 9.0%
- Increase Aminotransferases: CTC AE \circ 3-4: 7.3%

Therapy

Hydration: Balanced Crystalloid Solution

HYD

Access: peripheral venous

Hydration before, during, or after antitumor therapy

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	Balanced Crystalloid Solution	500 ml		i.v.	60 min	60 min before Oxaliplatin (d1)

Antiemesis: Emetogenicity moderate, GRAN i.v., DEXA i.v.

AE

Access: peripheral venous

ASCO 2015, DGHO 2016, DKG 2016, MASCC/ESMO 2016, if palonosetron not available

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	Dexamethasone	8 mg	NaCl 0.9% 50 ml	i.v.	5 min	30 min before Oxaliplatin (d1)
1	Granisetron	1 mg	NaCl 0.9% 50 ml	i.v.	5 min	15 min before Oxaliplatin (d1)
or other 5-HT3 antagonist						
2-3	Dexamethasone	8 mg		p.o.		1-0-0-0

Antineoplastic therapy: FolFlirOx

CTX

Access: central venous

5-FU, folinic acid, irinotecan, and oxaliplatin in pancreatic cancer

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	Oxaliplatin	85 mg/m ² BSA	Dextrose 5% 500 ml	i.v.	2 h	Sequence
1	Folinic acid	400 mg/m ² BSA	NaCl 0.9% 250 ml	i.v.	2 h	Sequence
1	Irinotecan	180 mg/m ² BSA	NaCl 0.9% 250 ml	i.v.	90 min	90 min before Fluorouracil (d1)
Irinotecan is administered 30 minutes after the start of the folinic acid infusion in parallel with folinic acid.						
1	Fluorouracil	400 mg/m ² BSA	none	i.v.	1 min	Sequence
Bolus application						
1	Fluorouracil	2400 mg/m ² BSA	NaCl 0.9% 500 ml	i.v.	46 h	Sequence

The volume of the carrier solution refers to inpatient therapy with infusion pumps. When using syringe pumps or ambulatory systems, a different volume (e.g. 100 ml) can be used.

Hematopoietic growth factors: FN risk 10-20%, G-CSF long-acting, pegylated

HW

Access: - none -

Risk of febrile neutropenia (FN) 10-20% and 1 risk factor: age > 65 y, laboratory parameters (anemia, lymphocytopenia < 700/μl, hypalbuminemia, hyperbilirubinemia) previous chemotherapy, comorbidities, low performance status, advanced symptomatic tumor disease (DKG 2016)

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
4	Pegfilgrastim	6 mg		subc	Bolus	24 h after Fluorouracil (d1)

Use at risk: FN 10-20% and 1 risk factor, other long-acting G-CSF possible.

Concomitant therapy supplements

If a cholinergic syndrome occurs during Irinotecan, according to the summary of product characteristics, 0.25 mg Atropine sulphate should be administered subcentrally; if a history of cholinergic syndrome is known, Atropine should be administered prophylactically before Irinotecan.

Loperamide can be used to treat the onset of delayed diarrhea.

References

- Conroy T, FOLFIRINOX versus gemcitabine for metastatic pancreatic cancer.; N Engl J Med 2011 May 12;364(19):1817-25. doi: 10.1056/NEJMoa1011923. PMID: 21561347. [PMID]
- Conroy T, Irinotecan Plus Oxaliplatin and Leucovorin-Modulated Fluorouracil in Advanced Pancreatic Cancer, A Groupe Tumeurs Digestives of the Fédération Nationale des Centres de Lutte Contre le Cancer Study; J Clin Oncol 2005 Feb 20;23(6):1228-36. doi: 10.1200/JCO.2005.06.050. PMID: 15718320. [PMID]
- Ducreux M, Cancer of the pancreas: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol 2015 Sep;26 Suppl 5:v56-68. doi: 10.1093/annonc/mdv295. PMID: 26314780. [PMID]

Recommendations

- 11/2023: [European Society for Medical Oncology](#)
- 06/2023: [National Comprehensive Cancer Network](#)



The publishers and authors assume no liability for the accuracy of the contents. The application is at the own responsibility of the treating physician. ©Onkopti.

Valid since: 20.09.2024