COMPARISON OF INDIRECT TREATMENT FOR FIRST-LINE METASTATIC PANCREATIC CANCER

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There are not head to head clinical trials to compare the main alternatives available to first line **metastatic pancreatic cancer** (mPC).

PURPOSE: To know relative effectiveness of treatments which have demonstrated overall survival increase in mPC

MATERIAL AND METHODS:

➤ Was performed a search in Pubmed and were selected Phase III trials with overall survival dates in first-line mPC and drugs approved in FDA or EMEA.

➤ Similarity among trials was assessed according patient-selection criteria, study population and results of control group.
➤ The effectiveness outcome selected was overall survival.

➤ Was established a therapeutic equivalence interval: 0.75 to 1.33 using hazard ratio (HR) obtained for sample calculation of erlotinib/gemcitabine study.

➤ Was determinated therapeutic equivalence among treatments according to a previous guideline for positioning of equivalent therapeutic alternative.

➤ Grades 3 or 4 neutropenia data were used to assess relative safety.
➤ Bucher´s method was used for adjusted therapeutic comparison and the indirect treatment comparison application (ITC), developed by Canadian Agency for Drugs and Technologies in Health (CADTH)

RESULTS:

Three trials were selected: FOLFIRINOX, Nab-paclitaxel/gemcitabine and Erlotinib/gemcitabine treatments compared with gemcitabine alone. They were similar for patient-selection criteria, study population and results of control group. The results are summarized in the table:

STUDIES	OS/ differences of median	HR/p
FOLFIRINOX vs Gemcitabine	11.1 months - 6.8 months **4.3 months**	HR= 0.57 (CI95% 0.45 to 0.73) **p<0.001**
Nab-paclitaxel/ gemcitabina vs Gemcitabiana	8.5monts-6.7months **1.8 months**	HR= 0.72 (CI95% 0.617 to 0.835) **p<0.001**
Erlotinib/ gecitabina vs Placebo/ gemcitabina	6.24 monts-5.91 months **0.33 months**	HR=0.82 (CI95% 0.69 to 0.99) **p=0.038**

INDIRECT COMPARISON (IC) Bucher´s Method, ITC calculator		
Equivalence interval :(0.75 to 1.33)		

OS	HR (CI 95%)	p
Overall Survival FOLFIRINOX vs Nab-paclitaxel/gemcitabine	HR=0.79 (CI95% 0.6 to 1.05)	p>0.05
Overall Survival Nab-paclitaxel/gemcitabine vs Erlotinib/gemcitabine	HR=0.88 (CI95% 0.74 to 1.04)	p>0.05
Overall Survival Folfirinox vs Erlotinib/gemcitabina	HR=0.70 (CI95% 0.69 to 0.49)	p=0.04

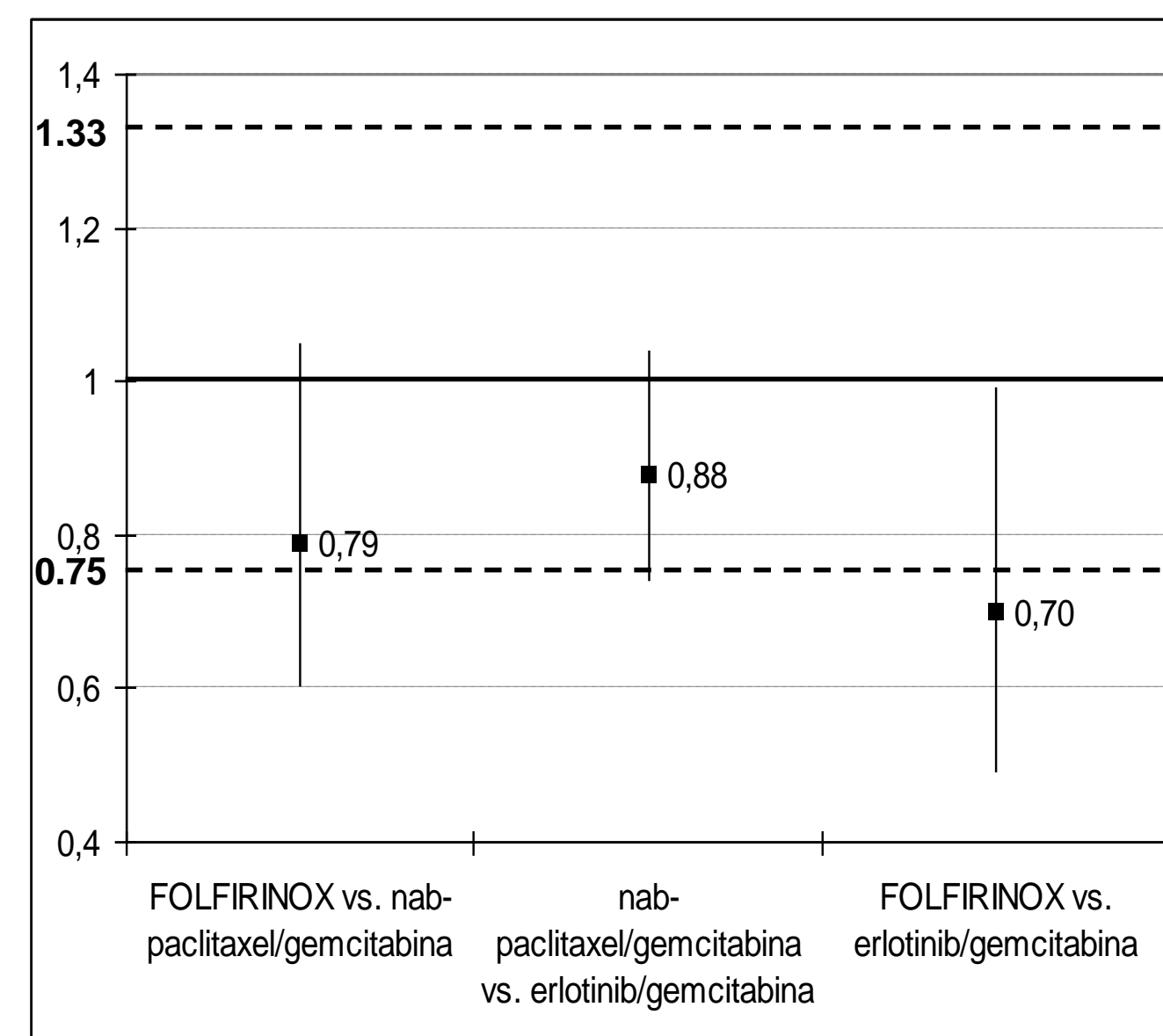| Adverse event	Risk difference (IC 95%)	p
Neutropenia G3/4 FOLFIRINOX vs Nab-paclitaxel/gemcitabine	RAR=13.5% (CI95% 1.7 to 25.3)	p<0.05
Neutropenia G3/4 Nab-paclitaxel/gemcitabine vs Erlotinib/gemcitabine	RAR= -3 % (CI95% -11.5 to 5.5)	p>0.05
Neutropenia G3/4 Folfirinox vs Erlotinib/gemcitabina	RAR=10.7% (CI95% -0.7 to 22.1)	p>0.05

Figure1:Graphical representation IC results.

CONCLUSIONS:

➤ FOLFIRINOX showed more efficacy than Erlotinib/gemcitabine.
➤ Erlotinib/gemcitabine and Nab-paclitaxel/gemcitabine are not therapeutic equivalent to FOLFIRINOX
➤ FOLFIRINOX showed more grade 3/4 neutropenia than Nab-paclitaxel/gemcitabine.