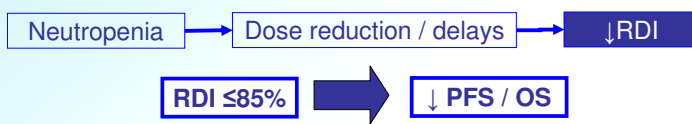
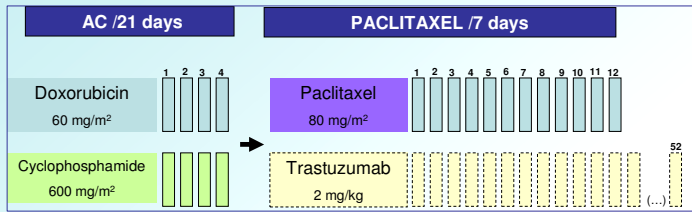


# FIRST CYCLE NEUTROPENIA AND RELATIVE DOSE INTENSITY IN LOCALIZED BREAST CANCER PATIENTS TREATED WITH ADJUVANT AC PROTOCOL FOLLOWED BY WEEKLY PACLITAXEL

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## 1 BACKGROUND

AC protocol followed by weekly paclitaxel (AC-PTXw) is a standard adjuvant treatment in operable breast cancer.



The ability to identify patients at risk of not achieving planned ID according to the occurrence of neutropenia during first cycles might help to guide appropriate hematopoietic growth factors use.  
\*RDI: relative dose intensity

## 2 PURPOSE

To evaluate the predictive value of cycle 1 neutropenia in the chemotherapy RDI achieved by localized breast cancer patients receiving adjuvant treatment with AC-PTXw.

## 3 MATERIAL AND METHODS

All patients with early stage breast cancer treated with AC-PTXw were included.

RDI was calculated for each patient:

$$\text{Received ID} = \frac{\text{Dose (mg/m}^2\text{)}}{\text{Duration (days/7)}} \Rightarrow \text{RDI} = \frac{\text{Received ID}}{\text{Planned ID}}$$

Absolute neutrophil count on the blood test previous to cycle 2 was graded according to neutropenia severity.



- Risk of achieving IDR <85% (groups of patients):
- Neutropenia vs. no neutropenia
  - Neutropenia grade ≥2 vs. no neutropenia grade ≥2
  - Neutropenia grade ≥3 vs. no neutropenia grade ≥3

## 4 RESULTS

AC protocol (n=174)  
PTX<sub>w</sub> protocol (n=194)

\*20 patients received only PTXw as anthracyclines were contraindicated

Myeloid growth factors were administered to 25% and 3% of patients during AC and PTXw phases respectively.

**Risk of achieving IDR <85% depending on the occurrence of neutropenia in first cycle:**

	AC	
		OR (IC95%)
Any grade neutropenia	48,5% vs. 15%	5,33 (2,34-2,17)
Grade ≥ 2 neutropenia	57,7% vs. 15%	7,75 (3,15-19,06)
Grade ≥ 3 neutropenia	68,7% vs. 16,6%	11,08 (3,55-34,58)

	PTX	
		OR (IC95%)
Any grade neutropenia	64,3% vs 23,9%	5,73 (1,82-18,03)
Grade ≥ 2 neutropenia	85,7% vs 25,6%	18,39 (2,16-156,79)
Grade ≥ 3 neutropenia	No patients	-

The occurrence of neutropenia after the first cycle was a statistically significant predictor for not achieving ≥85% RDI during both phases of treatment, especially when neutropenia was moderate or severe

## 5 CONCLUSIONS

- The risk of not reaching programmed DI in these patients greatly increased when neutropenia occurs during the first cycle.

Clinicians should be aware of the fact that maximum benefit might not be obtained in those patients presenting neutropenia on the first cycle and evaluate the whole treatment risk benefit ratio.

**Conflict of interest: Nothing to disclose**

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