

ASSESSMENT OF LINEZOLID'S HAEMATOLOGICAL TOXICITY AND RELATED RISK FACTORS IN CLINICAL PRACTICE



José Marco del Río, Eva María García Martínez, Ana Valladolid Walsh, Francisca Sánchez Rubio, Ismael Pérez Alpuente, Sonia Ruiz Sanchez, Gregorio Romero Candel.

Gerencia de Atención Integrada de Albacete. Pharmacy Department

Objectives

To assess Linezolid's related **Haematological Toxicity** (HT) and its relationship with risk factors (RF) such as age > 65 years, Creatinine Clearance at the beginning of treatment (CICr) <30 ml/min/S and Duration of Treatment (DT) > 10 days.

Methods

A 5 month (July-November 2016) retrospective study was conducted.

Inclusion criteria: treatment with Linezolid for more than one day.

Exclusion criteria: pediatric patients, critically ill patients, oncologic patients and major bleeding or surgery during treatment.

Data collected: age, gender, DT, CICr, requirement of blood transfusion; Hemoglobin (Hb), neutrophil and platelet counts (per mcL) at the beginning and at the end of treatment.

It was considered that the patient developed HT if any of the following criteria were met during treatment:

- (A) Decrease of 25% in Hb (g/dL).
- (B) Decrease of 25% in platelet count.
- (C) Decrease from a neutrophil level in rank (1500-8000/mcL) to a neutropenic level (<1500/mcL).
- (D) Requirement of blood transfusion.

The statistical analysis was performed using Stata 13®.

Results

n= 48. Mean age was 67.8 years (SD=11.3) with 64.6% of men. Mean DT and CICr were 7.9 days (SD=5.8) and 61.6 mL/min/S (SD=28.9), respectively.

13/48 patients (27.1%) developed HT.

To assess the relationship of HT with the RF, we performed a two-way table and a Fisher's exact test.

Risk factor	P-value
Age>65 years	0.594
DT>10 days	0.077
CICr <30 mL/min/S	0.415

Discussion

Linezolid's related HT in our hospital is relatively high (27.1%), but there is no statistically significant relationship (p-values > 0.05) with the proposed RF.

Conclusions

It is very important to monitor tightly treatments with Linezolid in order to avoid HT in our patients, specially those with longer durations.

Author for correspondence:
jmarcodelrio@gmail.com

