4CPS-109

THERAPEUTIC DRUG MONITORING OF VANCOMYCIN IN ONCOLOGIC AND HAEMATOLOGIC PATIENTS: REAL -WORLD DATA

M. Bardoll Cucala, M. Gilabert Sotoca, J. Rius Perera, I. Mangues-Bafalluy, B. Martinez Castro, M. Mir Cros, A. Morales Portillo, J.A. Schoenenberger Arnaiz

Hospital Arnau de Vilanova, Lleida, Spain

BACKGROUND AND IMPORTANCE

Vancomycin clearance tends to be higher in patients with neutropenia[1]; consequently, therapeutic drug monitoring (TDM) is highly recommended[2].

AIM AND OBJECTIVES

To assess the achievement of a therapeutic pharmacokinetics/pharmacodynamics (PK/PD) target of vancomycin in oncologic and haematologic patients using trough-only TDM.

MATHERIAL AND METHODS

Retrospective and descriptive study

Oncologic and haematologic patients who started treatment with vancomycin

TDM used the PKS® software.

15-20 mg/kg/dose and trough levels between 10 and 20 µg/ml were considered optimal

Data collected

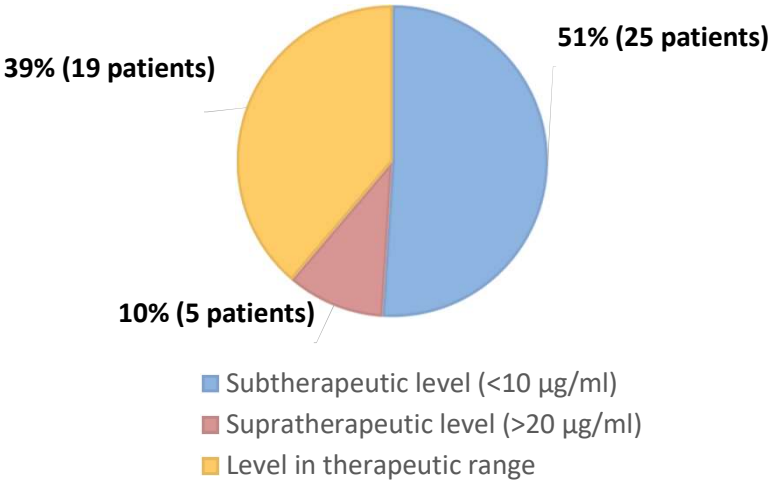
- Demographic variables
- Cockcroft-Gault creatinine clearance (CrCl)
- Initial dosage
- Dose adjustments
- First trough level
- Duration of treatment
- Reason for withdrawal

Dosing adjustment report

RESULTS

N determinations	49 patients • 12 oncologic • 37 haematologic
Initial mean dosage	**13,7±2,5mg/kg/12h** (except for three patients who started every 24h because of renal impairment)
After dosage adjustment	• 18 patients → **14±3mg/kg/8h** • 12 patients → **13,6±7,6mg/kg/12h** • 19 patients → **No dosage adjustment**
Mean duration treatment	7±4,2 days
Reason for stopping treatment	• Clinical improvement (n=29) • Switch to a target treatment (n=10) • Clinical deterioration (n=9) • Nephrotoxicity (n=1)

DOSAGE ADJUSTMENT



CONCLUSION AND RELEVANCE

- ❖ More than half of the patients had subtherapeutic vancomycin levels and required antibiotic dose adjustment.
- ❖ Most patients required shorter dosing intervals rather than increased doses to reduce the incidence of nephrotoxicity.

References: [1] Bury D, et al. Eur J Clin Pharmacol 2019;75:921–928/ [2] Rybak MJ et al. Am J Health-Syst Pharm. 2020;77:835-864

Disclosure: None of the authors of this study have to disclose any possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this study.

Correspondence to: **jrius.lleida.ics@gencat.cat**

Salut/ Hospital Universitari Arnau de Vilanova Lleida

eahp european association of hospital pharmacists