

Evidence Associated with the Use of Oxazolidinones in the Treatment of Skin and Skin Structure Infections: A Retrospective Study

Evidência Associada ao Uso de Oxazolidinonas no Tratamento de Infecções da Pele e das Estruturas da Pele: Estudo Retrospectivo

Keywords: Hospitalization; Oxazolidinones; Skin Diseases; Bacterial/drug therapy; Soft Tissue Infections/drug therapy

Palavras-chave: Doenças Bacterianas da Pele/tratamento; Hospitalização; Infecções dos Tecidos Moles/tratamento; Oxazolidinonas

Dear editor,

We have read with interest the recent manuscript published in this journal by Gonçalves-Pereira *et al*,¹ regarding the use of oxazolidinones for treatment of skin and skin structure infections (SSSI) in hospital care. We are pleased with the information presented in this manuscript since real world data always provides important knowledge about how and when antimicrobial agents are being used.

Diabetic foot infection (DFI) represents an important proportion of SSSI in the Portuguese population and we became intrigued when we noticed that, according to the information presented in the manuscript, and considering the whole country, only 0.1% (one patient) was treated with oxazolidinones during the hospital stay due to diabetic foot infection, between 2010 to 2015.

In order to question these results, we retrospectively analyzed the electronic discharge reports of our 700-bed

tertiary hospital center, which includes a diabetic foot unit (DFU) with a specialized ward reserved for DFI, during the same time frame. Our aim was to identify DFI episodes admitted in our DFU treated with oxazolidinones. From a total of 1752 episodes, we obtained 57 DFI episodes (3.2%), referring to 51 patients, who were discharged from our DFU with reported in-hospital oxazolidinone use. Mean age was 61.5 years (SD 14.5) including 33.3% (n = 17) older than 65 years and 17.6% (n = 9) older than 75 years. Male sex was predominant (75%, n = 38). Hospital length of stay was long, with a median of 22 days (inter quartile range of 19 days) and an in-hospital mortality rate of 9,8% (n = 5).

As our data show, the use of oxazolidinones in diabetic foot infection is far more prevalent than what is presented in the manuscript by Gonçalves-Pereira *et al*¹ and represent an addition of at least 50 more patients to the database presented, which corresponds to an increase of 3.6 percentage points (0.1% to 3.7%) to the reported oxazolidinone use in DFI. Methicillin-resistant *Staphylococcus aureus* (MRSA) has emerged as a serious problem in diabetic foot infections^{2,3} also in Portugal, with oxazolidinones (such as linezolid) being a useful therapeutic option in patients at high risk of MRSA foot infections.⁴

Relevant coding procedures are essential to fully understand and evaluate health care outcomes. However, when incorrect, they could be misleading. Lack of appropriate clinical records and the absence of standardization in coding procedures may help to explain some of frailties found in central Portuguese health databases.⁵

REFERENCES

- Gonçalves-Pereira J, Froes F, Santos FP, Antão HS, Guimarães JP. Evidence associated with the use of oxazolidinones for the treatment of skin and skin structure infections: a retrospective study. *Acta Med Port.* 2019;32:453-8.
- Lipsky BA, Itani K, Norden C. Treating foot infections in diabetic patients: a randomized, multicenter, open-label trial of linezolid versus ampicillin-sulbactam/amoxicillin-clavulanate. *Clin Infect Dis.* 2004;38:17-24.
- Luiz HV, Carvalho AC, Freitas C, Amaral C, Neto H, Carvalho R, et al. Factores associados à falência da antibioterapia oral em doentes com pé diabético infectado: estudo de caso-controlo. *Rev Port Endocrinol Diabetes Metab.* 2017;12:169-76.
- Weigelt J, Itani K, Stevens D, Lau W, Dryden M, Knirsch C. Linezolid versus vancomycin in treatment of complicated skin and soft tissue infections. *Antimicrob Agents Chemother.* 2005;49:2260-6.
- Mateus. Portugal: Results of 25 years of experience with DRGs. In: Busse R, Geissler A, Quentin W, Wiley M, editors. *Diagnosis-related groups in Europe moving towards transparency, efficiency and quality in hospitals.* Glasgow: McGraw Hill - Open University Press; 2011. p. 381-400.

Tiago SANTOS^{1,2}, Rui CARVALHO^{1,2}, Miguel Araújo ABREU^{2,3}, Ernestina REIS⁴, André COUTO DE CARVALHO^{1,2}

- Division of Endocrinology, Diabetes and Metabolism. Department of Medicine. Centro Hospitalar e Universitário do Porto. Porto. Portugal
- Diabetic Foot Unit. Division of Endocrinology, Diabetes and Metabolism. Department of Medicine. Centro Hospitalar e Universitário do Porto. Porto. Portugal.
- Division of Infectious Diseases. Department of Medicine. Centro Hospitalar e Universitário do Porto. Porto. Portugal.
- Commission for Infections and antibiotics resistance control. Centro Hospitalar e Universitário do Porto. Porto. Portugal.

Autor correspondente: Tiago Santos. tiagosilvasantos91@gmail.com

Recebido: 06 de novembro de 2019 - Aceite: 08 de novembro de 2019 | Copyright © Ordem dos Médicos 2020

<https://doi.org/10.20344/amp.13080>

