



# Predictive factors for infection in burn patients

## *Fatores preditivos para infecção em pacientes queimados*

JEFFERSON LESSA SOARES DE  
MACEDO<sup>1,2,3,4,5\*</sup>  
SIMONE CORRÊA ROSA<sup>1,2,4</sup>

Dear Editor,

I commend the authors of the work entitled “Risk factors for infection in children and adolescents with burns: cohort study”, which was published in the Brazilian Journal of Plastic Surgery (volume 31, number 4, pages 553-545, 2016). The work stands out because it describes the predictive factors for infection in children and adolescents with burns admitted to the Burn Unit of the João XXIII Hospital in Belo Horizonte, Minas Gerais. However, I would like to highlight a few characteristics of this study. The study is a prospective series of cases, not a cohort study as mentioned by the authors in the title. Therefore, it is not a study to determine risk factors, but predictive or associated factors.

A cohort study has a specific design. In the most simple cohort study model, at least two groups are formed (the “exposed” group and the “unexposed” group), and their results are compared. In the case of research into the effects of smoking, for example, the people involved are initially divided into two groups: the exposed group (smokers) and the unexposed group (non-smokers)<sup>1</sup>. In the published study, we were presented with the data of burn patients (patients), and factors associated with infectious complications were analyzed. In addition, the main predictors for infection in burn patients in this study were hospitalization time and burned body surface, because these factors remained significantly associated with infection after multivariate analysis. These data are in line with those of other studies<sup>2-5</sup>.

Length of hospital stay was the main predictor of infection. This was an important finding because this factor is amenable to intervention and reduction, in contrast to the burnt body surface itself, which is inherent to the injury and always present. Therefore, this study result reinforces the need to always seek a decrease in the hospitalization time of burn patients at Burn Units throughout Brazil. One of the possible ways to achieve such a reduction would be structuring a team that is fully focused on early wound closure, creating skin banks, implementing outpatient follow-up with constant medical bandage supervision, and extending social services after burn injury.

Institution: Hospital Regional da  
Asa Norte, Brasília, DF, Brazil.

Article received: December 25, 2016.

Article accepted: April 11, 2017.

Conflicts of interest: none.

DOI: 10.5935/2177-1235.2017RBCP0051

<sup>1</sup> Universidade de Brasília, Brasília, DF, Brazil.

<sup>2</sup> Sociedade Brasileira de Cirurgia Plástica, São Paulo, SP, Brazil.

<sup>3</sup> Escola Superior de Ciências da Saúde, Brasília, DF, Brazil.

<sup>4</sup> Hospital Regional da Asa Norte, Brasília, DF, Brazil.

<sup>5</sup> Secretaria de Estado de Saúde do Distrito Federal, Brasília, DF, Brazil.

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**\*Corresponding author:****Jefferson Lessa Soares de Macedo**

SQS 213 Bloco H Apto 104, Asa Sul, Brasília, DF, Brazil

Zip Code 70292-080

E-mail: [jlsmacedo@yahoo.com.br](mailto:jlsmacedo@yahoo.com.br)