Analysis of the use and effectiveness of Palivizumab in a tertiary hospital

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**Background**

The prevention of respiratory syncytial virus (RSV) infection consists in hygienic measures and using Palivizumab, a monoclonal antibody against the fusion protein of VRS.

**The selection criteria of patients to prescribe Palivizumab in our hospital**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
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<tbody>
<tr>
<td>Criterion 1</td>
<td>&lt;28 weeks preterm infants (PI) and age &lt;12 months</td>
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<tr>
<td>Criterion 2</td>
<td>&lt;32 weeks PI and age &lt;6 months</td>
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<tr>
<td>Criterion 3</td>
<td>age &lt;2 years with broncodisplasia</td>
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<tr>
<td>Criterion 4</td>
<td>age &lt;2 years with hemodynamically significant congenital heart disease</td>
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**Purpose**

Describe the use of Palivizumab in the vaccination campaign in our hospital, evaluating the appropriateness of its use in the established criteria and its effectiveness.

**Material and methods**

It is a retrospective observational study. All patients who received Palivizumab between 01/10/2013-31/03/2014 were included. The collected data using the clinical records were: sex, gestational age, selection criteria, and number of hospitalizations due to acute bronchiolitis between 01/10/2013-30/09/2014. In these patients Polymerase Chain Reaction (PCR) of RSV was analyzed.

**Results**

Palivizumab was administered to 68 patients (48.5 % female) with a median gestational age of 209 days (176-287). 24 patients (35.3 %) fulfilled criterion 2, 14 (20.6 %) criterion 1, 10 (14.7 %) criterion 4, 5 (7.3 %) criteria 1 and 3, 4 (5.9 %) criteria 2 and 4, 3 (4.4 %) criterion 3, 2 (2.9 %) criteria 3 and 4. 4 patients did not meet any criteria and 2 had no data. Only 6 patients who received Palivizumab were hospitalized with acute bronchiolitis diagnosis and their RSV PCR were negatives.

**Conclusions**

Palivizumab is used under the established criteria in our hospital. The study data show that addressing these risk patients with the Palivizumab vaccine is an effective strategy in the course of at least one year. Although the study period has been 1 year, it should be desirable to measure effectiveness in a longer period.