BACKGROUND

The inappropriate use of antibiotics is leading to the appearance of resistance that, along with the decline in the development of new antibacterial, makes some experts talk about a future post-antibiotic period. Approximately between 80% and 90% of antibiotics use occurs in outpatient patients. It is estimated that about half of the antibiotic prescriptions in outpatients are inappropriate due to: antibiotic selection, dosage or duration.

PURPOSE

The primary objective of the project is to measure the impact of a multimodal intervention on the use of antibiotics in the emergency department (ED) of a primary care area (PCA).

MATERIAL AND METHODS

- Prospective study with intervention in ED of a PCA (population: 260.517)
- From January-June 2017.
- Recorded variables: Defined Daily Dose (DDD) of Amoxicillin, Amoxicillin/Clavulanic, Macrolides, Quinolones and Other Antibiotics from January-June 2016 and 2017. The information was extracted from patients medical prescriptions.

Intervention:

1) Emergency Physicians
   a) COMMITMENT: The program was presented to: head of ED Medical service, emergency physicians and primary care center directors, through face to face sessions. Posters reminders of the project were placed in medical consultations and ED.
   b) ACTIONS DIRECTED TO IMPROVE THE PRESCRIPTION OF ANTIBIOTICS: An antimicrobial stewardship guideline was designed with the local antimicrobial recommendations.
   c) AUDIT AND FEEDBACK: Information was provided to emergency physicians with their antimicrobial consumption rate establishing a comparison between physicians and the ED average.
   d) EDUCATION AND EXPERIENCE: Interactive clinical sessions were held on different pathologies included in the antimicrobial stewardship program.

2) Patients
   Posters and educational brochures for waiting rooms and consultations were designed.

RESULTS

<table>
<thead>
<tr>
<th>DDD</th>
<th>% DECREASE</th>
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</thead>
<tbody>
<tr>
<td>Amoxicillin</td>
<td>22,42%</td>
</tr>
<tr>
<td>Amoxicillin/Clavulanic</td>
<td>6,89%</td>
</tr>
<tr>
<td>Macrolides</td>
<td>21,96%</td>
</tr>
<tr>
<td>Quinolones</td>
<td>32,42%</td>
</tr>
<tr>
<td>Other Antibiotics</td>
<td>1,73%</td>
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</tbody>
</table>

CONCLUSION

The strategy designed to improve the use of antibiotics in the ED of the PCA led to a decrease in antibiotic consumption.