A) To identify risk factors associated with non-compliance towards prophylactic antibiotic guidelines

B) To test the impact of a combined intervention strategy on compliance towards prophylactic antibiotic guidelines

**Table: **

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Pre-test</th>
<th>Total</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>3,819</td>
<td>7,638</td>
<td>0.46**</td>
</tr>
<tr>
<td>Female, %</td>
<td>46.6 (2,123)</td>
<td>77.5 (5,832</td>
<td>0.03</td>
</tr>
<tr>
<td>Age (years), median</td>
<td>67 (42, 80)</td>
<td>66 (45, 80)</td>
<td>0.1</td>
</tr>
<tr>
<td>Comorbidities</td>
<td>1.2 (456)</td>
<td>2.4 (1,054)</td>
<td>0.001</td>
</tr>
<tr>
<td>Total baseline number of interventions (N = 50)</td>
<td>56.4 (10,844)</td>
<td>35.9 (2,728)</td>
<td>0.22</td>
</tr>
<tr>
<td>Total baseline number of interventions (N = 50)</td>
<td>56.4 (10,844)</td>
<td>35.9 (2,728)</td>
<td>0.22</td>
</tr>
</tbody>
</table>

**Figure: **

- Monocentric quasi-experimental study with a pre-test–post-test evaluation
- Collaborative Physician–Pharmacists and Strategy
- Post-test phase evaluation of the test group regarding the compliance with the pre-test antibiotic guidelines

**Data collection and analysis**

**Test group**

- Patients with a documented infection at the time of the intervention
- Pre-test phase: Evaluation of the pre-test phase regarding the compliance with the pre-test antibiotic guidelines

**Exclusion criteria**

Patients with a documented infection at the time of the intervention

**Pre-operative protocol delivery of nominal kit containing the antibiotics with a recommendation paper**

**Compliance and exclusion criteria**

- Pre-test: Combination of previous interventions from December 2016 to April 2017 (obtained through computer extraction)

**Inclusion criteria**

- Patients who had one of the following 5 interventions: total hip prosthesis, coronary artery bypass grafting, colorectal surgery, endoscopic retrograde cholangiopancreatography, and dental extraction

**Clinical outcomes, antimicrobial resistance and nosocomial infections**

- The results presented in this work could be exploited as part of the guidelines for a new SAP

**Conclusions**

- The results of this observational study indicated that it was necessary to implement improvement actions of practices.

**Table: **

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Pre-test</th>
<th>Total</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug</td>
<td>0.7 (2,549)</td>
<td>0.7 (52)</td>
<td>0.6585</td>
</tr>
<tr>
<td>Dose (mg/kg)</td>
<td>0.003 (0.002)</td>
<td>0.006 (0.004)</td>
<td>0.001</td>
</tr>
<tr>
<td>Time of administration</td>
<td>0.23 (0.12)</td>
<td>0.23 (0.12)</td>
<td>0.6585</td>
</tr>
<tr>
<td>Additional molecule(s)</td>
<td>0.01 (0.00)</td>
<td>0.01 (0.00)</td>
<td>0.6585</td>
</tr>
<tr>
<td>Administration(s)</td>
<td>0.01 (0.00)</td>
<td>0.01 (0.00)</td>
<td>0.6585</td>
</tr>
</tbody>
</table>

**Figure: **

- Preoperative pharmaceutical interventions to practitioners of IF: presence of inclusion criteria, absence of exclusion criteria

**References**