A cooperative, multicenter, retrospective cohort study was performed to monitor a Cardiac Implantable Electronic Defibrillator (CIED) antimicrobial device. Procedures following an explantation for a prior CIED Infection or for off-label indication were excluded from analyses.1

**METHODS**

Patients enrolled in the COMMAND Study were at high-risk for CIED Infection, compared to those in a typical US electrophysiology practice.†,1, 2

- Objectives were defined as:1
  - Successful CIED implantation.
  - Measurement of CIED Infection rate in patients undergoing CIED procedures with the TYRX Antibacterial Envelope.
- 642 patients enrolled at 10 US academic, community, and VA Medical Centers.1
- 624 patients met criteria for analyses.1

**RESULTS**

- >99% of implantations were successful.1
- There were low rates of CIED Infection following COMMAND Study procedures:1
  - 0.00% for initial implant procedures.
  - 0.48% for all procedures.
  - 0.71% for all replacement/revision procedures.

**CONCLUSIONS**

- After an average follow-up of 1.9 ± 2.4 months, the COMMAND Study demonstrated that there were fewer infections in the study cohort that received the TYRX Antibacterial Envelope, than in certain historical control cohorts that did not receive the Envelope.1
- In the highest-risk subset, Implantable Cardioverter Defibrillator/Cardiac Resynchronization Therapy Defibrillator (ICD/CRT) replacements/revisions, the CIED Infection rate in the COMMAND Study was lower than the rate in published series of similar cohorts of patients implanted without the TYRX Antibacterial Envelope; the study demonstrated 60% to 70% fewer infections than in some previous studies.1, 3, 4

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**HIGH RATE OF SUCCESSFUL CIED IMPLANTATION**

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Pacemaker</th>
<th>ICD</th>
<th>CRT-D</th>
<th>All CIED Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate (%)</td>
<td>100.0</td>
<td>100.0</td>
<td>98.7</td>
<td>99.5</td>
</tr>
</tbody>
</table>

**LOW RATE OF CIED INFECTION**

<table>
<thead>
<tr>
<th>Procedure Type</th>
<th>PM</th>
<th>ICD/CRT</th>
<th>All CIED Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Procedure</td>
<td>0/84 0.00%</td>
<td>0/117 0.00%</td>
<td>0/201 0.00%</td>
</tr>
<tr>
<td>Replacement/Revision</td>
<td>0/137 0.00%</td>
<td>3/286 1.05%</td>
<td>3/423 0.71%</td>
</tr>
<tr>
<td>All Procedures</td>
<td>0/221 0.00%</td>
<td>3/403 0.74%</td>
<td>3/624 0.48%</td>
</tr>
</tbody>
</table>

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*Study performed utilizing the TYRX™ Non-Absorbable Antibacterial Envelope.
† All subjects in the study received the TYRX Antibacterial Envelope.