Recurrence Burden in Recurrent Pericarditis: A US-Based Retrospective Study of Administrative Healthcare Claims

### INTRODUCTION

- **Acute pericarditis (AP)** is the most common form of pericardial disease encountered in clinical practice. The majority of diagnoses are idiopathic, which poses considerable therapeutic challenges.

- **Recurrence** occurs when a subsequent episode follows a symptom-free period of at least 4 weeks and affects up to 50% of patients within 18 months following the initial episode of AP.

- **Recurrence burden** (i.e., frequency, length and patterns of recurrences) remains poorly characterized in the literature and is critical for disease management and treatment, and successful patient outcomes.

### STUDY OBJECTIVE

- To use real-world claims data to describe recurrence burden among patients with RP in the United States

### METHODS

**Data Source**

- OptumHealthCare Solutions, Inc. Reporting and insights employer claims database from January 1, 2007 to March 31, 2017 was used

- Includes administrative claims for over 19.1 million privately insured individuals from Fortune 500 companies with information on plan enrollment and duration of eligibility

**Study Design**

- A retrospective longitudinal cohort design was used with the following definitions (Figure 1):
  - **Index date:** the first AP diagnosis date
  - **Episode of care (EOC):** AP claims (hospitalization, emergency department [ED], or outpatient) occurring in sequence without a gap of 4 weeks
  - **Reurrence:** a subsequent EOC occurring >4 weeks after the end of the previous EOC
  - **Observation period:** the index date until the time from the first AP diagnosis to the end of the last recurrence and free of a subsequent AP diagnosis for at least 1.5 years

**Data Collection**

- **Comorbidities**
- **Type of visit at the index date**
- **Geographical region**
- **Frequency of recurrences**

**Exclusion Criteria**

- Patients with ≥2 recurrences and ≥3 years of disease duration

**Statistical Analysis**


**RESULTS**

#### Study Population

**Inclusion Criteria**

- Age at first AP diagnosis ≥18 years
- ≥1 hospitalization, ED, or outpatient claim with a diagnosis of AP
- ≥12 months of continuous eligibility prior to the index date and ≥12-month observation period

**Exclusion Criteria**

- Health maintenance organization or Medicare coverage (patients may have gaps in insurance)

**Recurrence Burden Among the Subset of Complicated/High Burden Patients**

**Table 1. Demographics and Clinical Characteristics at First Recurrence**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>RP Patients (N = 441)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>51.57 ± 19.02</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Male: 51.7%</td>
<td></td>
</tr>
<tr>
<td>Type of visit at the index date, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td>61.8%</td>
<td></td>
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<tr>
<td>ED</td>
<td>18.3%</td>
<td></td>
</tr>
<tr>
<td>Outpatient</td>
<td>19.9%</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>White: 66.3%</td>
<td></td>
</tr>
<tr>
<td>Education level</td>
<td>High school/GED: 41.9%</td>
<td></td>
</tr>
<tr>
<td>Geographic region</td>
<td>East: 23.4%</td>
<td></td>
</tr>
<tr>
<td>Comorbidities</td>
<td>Cardiac arrhythmias 47.5%</td>
<td></td>
</tr>
<tr>
<td>Hospitalization, ED, or outpatient claim with a diagnosis of AP</td>
<td>61.8%</td>
<td></td>
</tr>
</tbody>
</table>

#### LIMITATIONS

- **Follow-up duration limits and pericarditis episodes not resulting in a healthcare encounter likely underreport recurrence burden**
- **Some of the EOC codes are specific to pericarditis potentially resulting in an over-representation of patients with one episode**
- **The minimum of 18 months of continuous health plan enrollment was imposed to ensure a sufficient follow-up period. This may introduce selection bias.**
- **Findings were obtained in commercially insured patients and may, therefore, not be generalizable to the entire RP population**

### DISCUSSIONS

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- **The minimum of 18 months of continuous health plan enrollment was imposed to ensure a sufficient follow-up period. This may introduce selection bias.**
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