

# TherOx® SSO<sub>2</sub> Therapy

## Clinical and Economic Summary

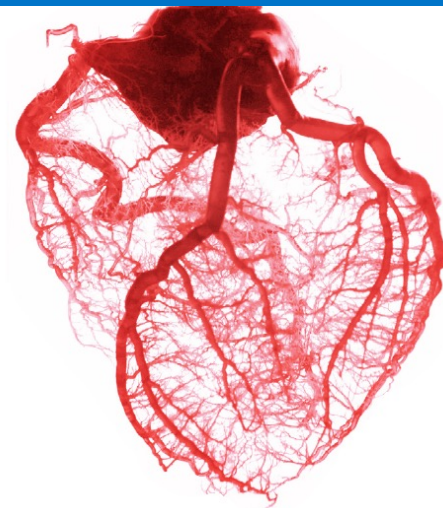
### Epicardial Patency is not Enough



of myocardial blood flow is supplied by the microvasculature<sup>1</sup>

Despite successful Percutaneous Coronary Intervention (PCI) for ST-Elevation Myocardial Infarction (STEMI), microvascular perfusion is often suboptimal, resulting in large infarctions and higher rates of heart failure hospitalization and death at 1 year.<sup>2</sup>

Patient outcomes for anterior STEMI have been stagnant since the introduction of PCI, with a two-year mortality rate of approximately 15%.<sup>3</sup> Additional treatment that goes beyond PCI is needed to improve STEMI care.



### TherOx SSO<sub>2</sub> Therapy: Designed to Restore Microvascular Flow and Reduce Myocardial Damage<sup>4</sup>

- The first FDA-approved, catheter-based treatment delivering localized oxygen targeting regions of the left anterior descending (LAD) coronary artery and its microvasculature, immediately following PCI.
- Compared to PCI alone, SSO<sub>2</sub> Therapy reduced median infarct size by 26% (relative) in patients with LAD STEMI.<sup>5,6</sup>

View the TherOx SSO<sub>2</sub> clinical compendium [here](#).

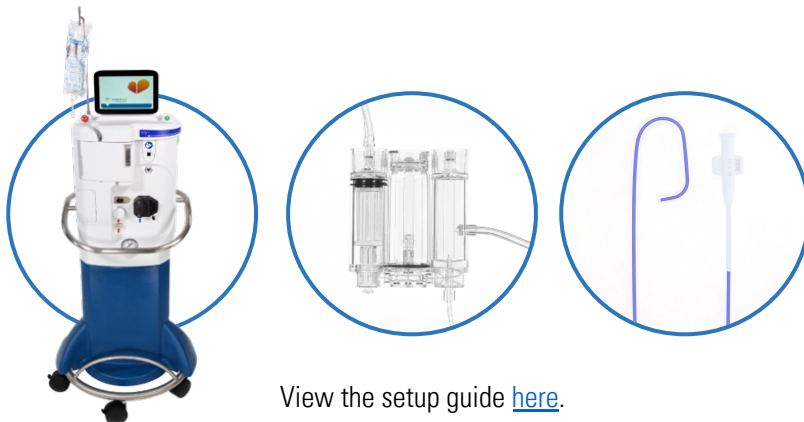
26%  
Infarct Size  
Reduction

“Even with successful PCI, we still see patients go on to develop heart failure, which significantly impacts quality of life. SSO<sub>2</sub> allows us to do more to reduce infarct size and improve outcomes.”

— Ramon Quesada, MD  
Baptist Hospital of Miami, FL

### Easy 3-in-1 Setup

The TherOx SSO<sub>2</sub> System includes three device components: console, cartridge, and SSO<sub>2</sub> catheter.

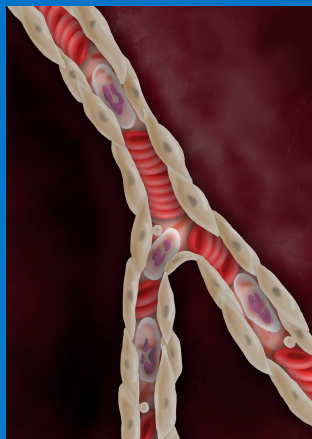


View the setup guide [here](#).

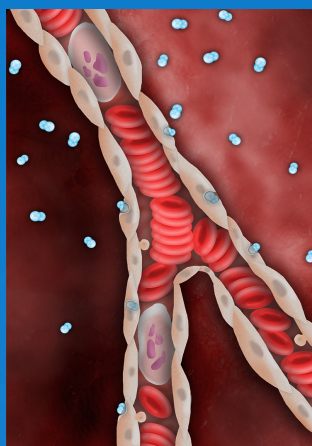
- < 5-minute device setup and 60-minute infusion via catheter to left main ostium post-PCI
- No impact on door-to-balloon time
- FDA-approved for use in LAD STEMI undergoing primary PCI within 6 hours of symptom onset

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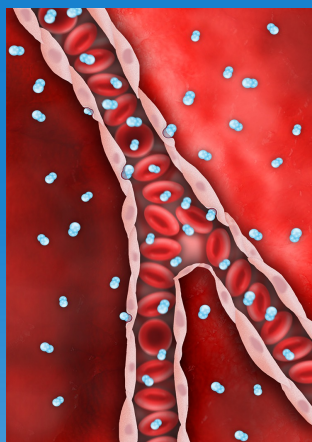
## SSO<sub>2</sub> Therapy Mechanism of Action



Capillary constriction continues despite successful PCI



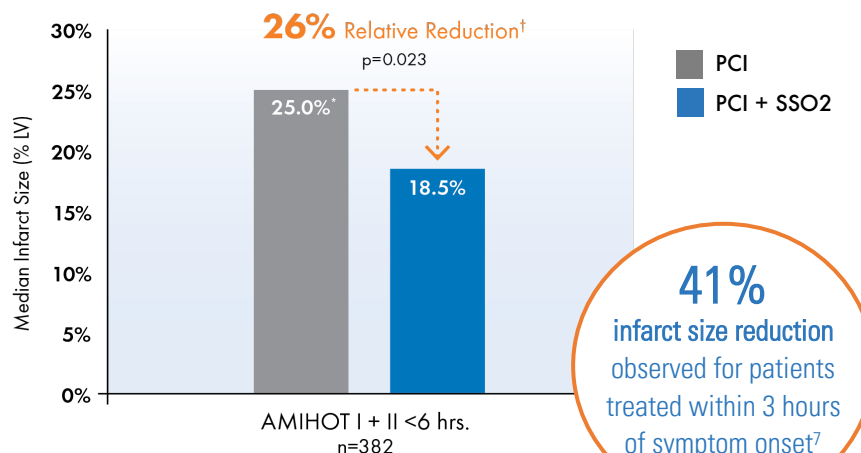
Highly concentrated O<sub>2</sub> diffuses into endothelial and myocardial tissue



Microvascular flow is restored and ischemic myocardium reperused<sup>4</sup>

# ADVANCING STEMI CARE WITH THEROX<sup>®</sup> SSO<sub>2</sub> THERAPY

## Clinically Significant Infarct Size Reduction with SSO<sub>2</sub> vs. Standard of Care<sup>5,6</sup>



\*96.9% Bayesian posterior probability of superiority.  
†26.5% relative infarct reduction=6.5% absolute reduction.



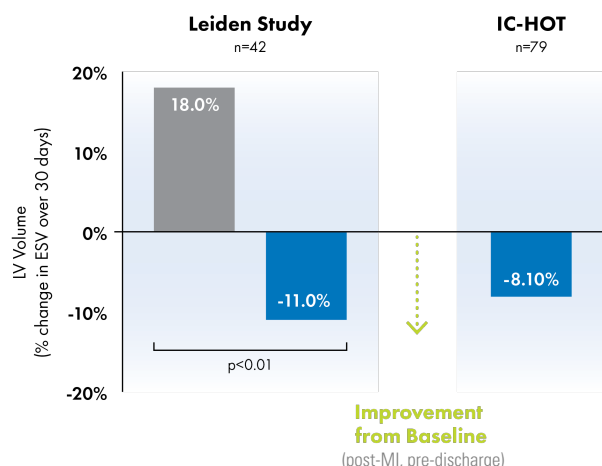
One in five acute myocardial infarction (AMI) patients will develop heart failure within one year<sup>8</sup> and of those, 50% will die within five years.<sup>9</sup>

### Infarct Size Reduction Improves Clinical Outcomes

A large meta-analysis shows that a 26% relative reduction in infarct size is correlated with relative reductions in both death and heart failure hospitalization of approx. 25% at 1 year.<sup>10</sup>

## Left Ventricular Recovery Post SSO<sub>2</sub> Treatment

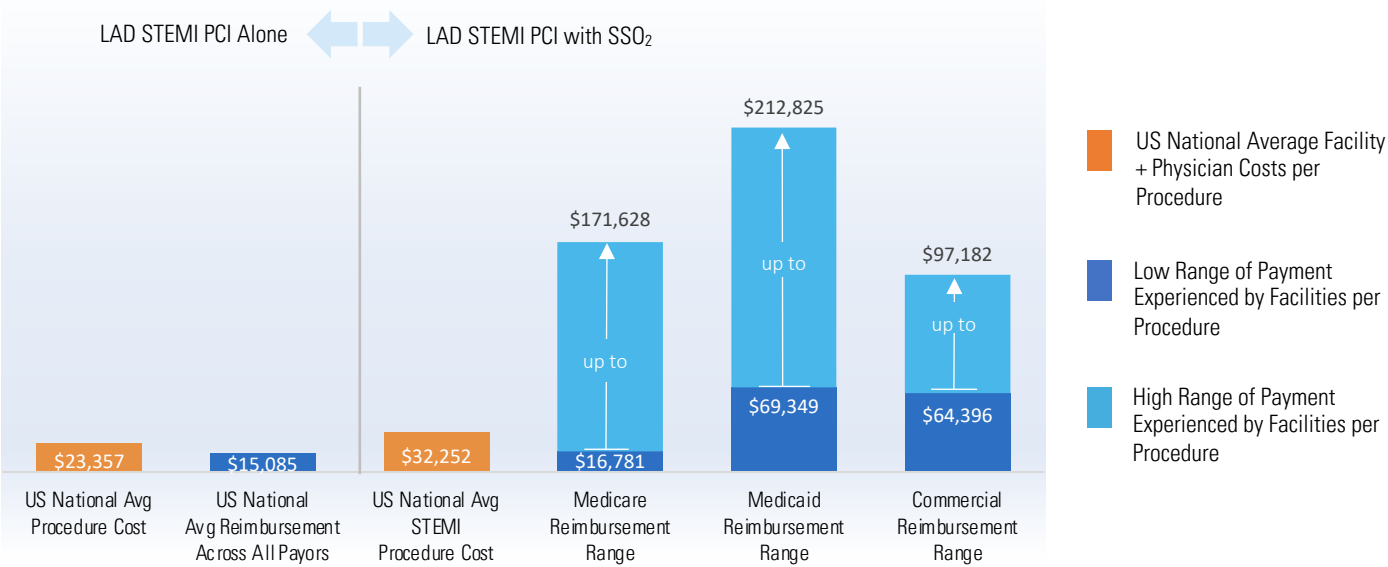
- LV enlargement is associated with a risk of progressive heart failure<sup>11</sup>
- Significant and consistent reductions in LV volume were observed at 30 days<sup>12</sup>



# HEALTH ECONOMICS

## US Average Costs and Reported Facility Reimbursements for LAD STEMI PCI Procedures, With and Without SSO<sub>2</sub>

On average, US facilities report losses on LAD STEMI PCI procedures.<sup>13</sup> However, early-adopting facilities of SSO<sub>2</sub> Therapy report claim payment ranges<sup>14</sup> above national average procedure costs.



Notes: LAD STEMI-PCI alone assumes procedures without MCC/CC | LAD STEMI-PCI with SSO<sub>2</sub> reimbursement costs are reported reimbursements are inclusive of MCC/CC and no MCC/CC | Procedure Costs based on ICD-10: I21.01, I21.02 and I21.09 | Range of reimbursement claim payments for PCI with SSO<sub>2</sub> as reported by existing TherOx customers. Reimbursement ranges are determined by the variability of each patient's care and the length of stay. | PCI with SSO<sub>2</sub> procedure costs includes SSO<sub>2</sub> per procedure list price of \$6,995 plus an estimate of \$1,900 for incremental lab and physician time, added supplies, and amortized capital, maintenance, and service costs.



**17.8%** of STEMI patients readmitted are readmitted more than once; 11.3% of those readmissions are attributable to recurrent myocardial infarction, while 13.9% and 4.2% are attributable to heart failure and arrhythmic causes.<sup>15</sup>



**\$37,524**  
The average total cost of a PCI readmission.<sup>16</sup>

## Average Cost Avoidance for Every Patient who Doesn't Develop Progressive Heart Failure

Heart failure after myocardial infarction hospitalization is diagnosed in approximately 13% of patients at 30 days and 20–30% at 1 year after discharge for MI.<sup>8</sup>

	Per Patient Cost
Avg. US total cost for heart failure hospital admission <sup>17</sup>	\$11,742
Avg. ongoing costs over 2 years in high-risk patients experiencing three heart failure events <sup>18</sup>	\$108,319
Avg. Cost Avoidance per Heart Failure Patient	\$120,061

For more information on SSO<sub>2</sub> reimbursement, contact [SSO2reimbursement@zoll.com](mailto:sso2reimbursement@zoll.com)



# TherOx® SSO<sub>2</sub> Therapy

## The Next Frontier in STEMI Care

“With SSO<sub>2</sub> we see bad ventricles in the 30% to 40% range recovering completely to an ejection fraction of 60% — and that’s strikingly rare.”

— Richard Schatz, MD

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## ZOLL MEDICAL CORPORATION

269 Mill Road | Chelmsford, MA 01824 | 978-421-9655 | 800-804-4356 | [zoll.com](http://zoll.com)

Caution: Federal law restricts this device to sale by or on the order of a physician.

**Indications For Use:** The TherOx DownStream System is indicated for the preparation and delivery of SuperSaturated Oxygen Therapy (SSO<sub>2</sub> Therapy) to targeted ischemic regions perfused by the patient's left anterior descending coronary artery immediately following revascularization by means of percutaneous coronary intervention (PCI) with stenting that has been completed within 6 hours after the onset of anterior acute myocardial infarction (AMI) symptoms caused by a left anterior descending artery infarct lesion.

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