CARMA collaboration with CIBC

Improving arrhythmias treatment outcomes

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AF Prevalence by Age and Gender

Total Annual Costs of AF in the US

14.65 billion dollars

Cardiac Fibrosis

Normal

Diseased
Detecting atrial fibrosis (Substrate) using MRI

“stock” Siemens sequence

“Fibrosis” sequence
New Integrated Workflow
Acquisition and Processing (CorView)
Classification system based on degree of atrial fibrosis

- **Stage I** ≤10%
- **Stage II** ≥10% to <20%
- **Stage III** ≥20% to <30%
- **Stage IV** ≥30%
Multicenter Trial

USA: 6   Europe: 8  Australia: 1

JAMA. 2014 Feb 5;311(5):498-506
Degree of atrial fibrosis predicts AF ablation success

JAMA. 2014 Feb 5;311(5):498-506
Merisight transforms and personalizes the treatment of cardiac arrhythmia.

Learn About Your Opportunity
Shape Analysis of the Heart (The Future)
Shape Recurrence Predictor

High risk recurrence shape

Low risk recurrence shape
Recurrence by Utah Fibrosis Stage

Days Since End of Blanking Period

- Utah Stage 1
- Utah Stage 2
- Utah Stage 3
- Utah Stage 4
Recurrence by Combined Shape-Fibrosis Class

Days Since End of Blanking Period

- Shape-Fibrosis Class 1
- Shape-Fibrosis Class 2
- Shape-Fibrosis Class 3
- Shape-Fibrosis Class 4
The mission of the Comprehensive Arrhythmia Research & Management (CARMA) Center is to provide worldwide pioneering leadership in advancing clinical treatments and research for cardiac arrhythmias, especially atrial fibrillation, a disease that causes both short and long term impairment in the quality of life for millions worldwide. The CARMA Center is advancing research to understand this disease and to improve medical techniques and interventions that greatly improve the lives of patients.