

[312] AORTIC STIMULATION FOR NEUROMODULATION OF HEART FAILURE

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- **Investment Rational**

Heart failure continues to be a major public health burden with an annual incidence of more than 500.000 new cases a year in US. Despite decades of improving drug therapy, chronic heart failure remains a significant clinical cause of morbidity and mortality.

- **Business Strategy**

Most of the Pacemaker companies have established innovative programs for neuromodulation device therapies to treat heart failure and associated comorbidities such as hypertension, sleep apnea and renal insufficiency.

- **Core Technology**

Evidence has been accumulated in clinical studies investigating stimulation of the vagus nerves and the carotid baroreceptors. Neuromodulation in these instances involves implanting a lead placed on a nerve or an artery and attached to an implantable power generator that delivers electrical stimulation. Heart failure patients who received the stimulation in the studies have shown improved systolic function.

- **Product Profile/Pipeline**

In the past couple of years, Heart failure with preserved ejection fraction (HFPEF) has overtaken heart failure in the setting of reduced ejection fraction (HFREF; also known as systolic heart failure) as the most common form of heart failure and now comprises more than 50% of all patients with heart failure.

What's Next?

The autonomic nervous system plays a predominant role in controlling the cardiac performance. For that reason, both experimental and clinical pilot studies have explored the effect on heart failure of modulation of the autonomic nervous system. Outcomes from these neuromodulation studies may become an accepted strategy in treatment guidelines for heart failure