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New analyses show Novartis' Entresto™ reduced cardiovascular death or hospitalization for heart failure, consistently benefitting patients with reduced ejection fraction regardless of prior heart failure hospital admissions or background therapy

- *The analysis determined that Entresto benefited patients considered clinically stable, with no history or only a remote history of prior heart failure hospitalization, just as much as it did those who were least-stable (heart failure hospitalization within 3 months of baseline).*[1]

- *For just over half of patients considered clinically stable who experienced an event, the first event was cardiovascular death*[1]

- *In a second analysis, patients taking Entresto had about a 20% reduction in CV death or heart failure hospitalization compared to those taking enalapril, regardless of background therapy*[1,2]

Basel, April 2, 2016 – Novartis announced today new analyses of the data from PARADIGM-HF showing that Entresto™ (sacubitril/valsartan) consistently demonstrated benefit among heart failure patients with reduced ejection fraction (HFrEF), even when patients are considered clinically stable and regardless of background therapy.[1,2]

An analysis of PARADIGM-HF patients found the following:

- Even patients considered clinically stable – defined as patients with no history or a remote history of prior heart failure hospitalization – were still at risk for a serious clinical event.
- In the analysis, over one third of patients were identified as clinically stable, and 20% of those experienced a primary endpoint event (CV death or heart failure hospitalization).[1] Among these patients, 51% suffered CV death as their first event.
- Further, the analysis determined that Entresto benefited patients considered clinically stable just as much as it did those who were least-stable (heart failure hospitalization within 3 months of baseline).[1]
- Among both groups, patients taking Entresto had a 20% or greater reduction in CV death or heart failure hospitalization compared to those taking enalapril.[1]

"This new analysis shows that heart failure patients are never truly stable since in the majority of patients their first clinical event was death. We cannot afford to wait for patients to worsen to use Entresto and improve their chance at a better length of life," said Vas Narasimhan, Global Head, Drug Development and Chief Medical Officer. "These data also show treating with Entresto led to a 20% or greater reduction in cardiovascular death or heart failure hospitalization in patients with reduced ejection fracture (HFrEF) including those who are considered clinically stable and regardless of background therapy."

In another analysis of PARADIGM-HF, Entresto showed:

- Consistent benefits among HFrEF patients, reducing the risk of CV death or heart failure hospitalization by approximately 20% compared to enalapril, regardless of background therapy.[2]
- These benefits were observed for Entresto among patients taking higher and lower doses of beta blockers and those with or without an implantable cardioverter-defibrillator (ICD) or a cardiac resynchronization therapy defibrillator (CRT-D) – two commonly used treatment approaches for heart failure – as well as mineralocorticoid receptor antagonists (MRAs).[2]

The analyses are from PARADIGM-HF, the largest clinical trial ever conducted in heart failure comparing Entresto to current standard of care, [3] and are being presented at the American College of Cardiology's 65th Annual Scientific Session in Chicago.

About Heart Failure
Heart failure is a debilitating and life-threatening condition, which impacts nearly 6 million Americans and is the leading cause of hospitalization among Americans over the age of 65.[4,5] About half of people with heart failure have heart failure with reduced ejection fraction (HFrEF).[6] Reduced ejection fraction means the heart does not contract with enough force, so less blood is pumped out.[7] Heart failure presents a major and growing health-economic burden that currently exceeds $30 billion in the United States, which accounts for both direct and indirect costs.[4,8]

About Entresto
Entresto is a twice-a-day medicine that reduces the strain on the failing heart. It does this by enhancing the protective neurohormonal systems of the heart (NP system) while simultaneously suppressing the harmful effects of the overactive renin-angiotensin-aldosterone system (RAAS).[9] Other heart failure medicines only block the harmful effects of the overactive RAAS.[10] Entresto contains the neprilysin inhibitor sacubitril, which is a new molecular entity, and the angiotensin receptor blocker (ARB) valsartan.[9]

Entresto is approved for patients with chronic heart failure with reduced ejection fraction (HFrEF) in more than 50 markets worldwide.

Entresto is indicated for the treatment of heart failure (NYHA class II-IV) in patients with systolic dysfunction. Entresto has been shown to reduce the rate of cardiovascular death and heart failure hospitalization compared to enalapril.

Entresto has also been shown to reduce the rate of all-cause mortality compared to enalapril. Entresto is indicated in the US to reduce the risk of cardiovascular death and hospitalization for heart failure in patients with chronic heart failure (NYHA Class II-IV) and reduced ejection fraction.[9] Entresto is usually administered in conjunction with other heart failure therapies, in place of an ACE inhibitor or other angiotensin receptor blocker (ARB).

Entresto is indicated in adult patients for treatment of symptomatic chronic heart failure with reduced ejection fraction

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The foregoing release contains forward-looking statements that can be identified by words such as "being presented" or similar terms, or by express or implied discussions regarding potential new indications or labeling for Entresto, or regarding potential future revenues from Entresto. You should not place undue reliance on these statements. Such forward-looking statements are based on the current beliefs and expectations of management regarding future events, and are subject to significant known and unknown risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those set forth in the forward-looking statements. There can be no guarantee that Entresto will be submitted or approved for any additional indications or labeling in any market,

or at any particular time. Nor can there be any guarantee that Entresto will be commercially successful in the future. In particular, management's expectations regarding Entresto could be affected by, among other things, the uncertainties inherent in research and development, including unexpected clinical trial results and additional analysis of existing clinical data; unexpected regulatory actions or delays or government regulation generally; the company's ability to obtain or maintain proprietary intellectual property protection; general economic and industry conditions; global trends toward health care cost containment, including ongoing pricing pressures; unexpected safety issues; unexpected manufacturing or quality issues, and other risks and factors referred to in Novartis AG's current Form 20-F on file with the US Securities and Exchange Commission. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

About Novartis

Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, eye care and cost-saving generic pharmaceuticals. Novartis is the only global company with leading positions in these areas. In 2015, the Group achieved net sales of USD 49.4 billion, while R&D throughout the Group amounted to approximately USD 8.9 billion (USD 8.7 billion excluding impairment and amortization charges). Novartis Group companies employ approximately 119,000 full-time-equivalent associates. Novartis products are available in more than 180 countries around the world. For more information, please visit http://www.novartis.com.

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