



Novartis Investor Relations

Entresto[®] label update

Investor presentation
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Chronic heart failure is a complex disease affecting ~6m people in the US

CHF disease continuum		
	HFrEF	HFpEF
Patients ¹	~3m	~3m
Typical LVEF ²	≤40%	>40% ³
Diagnosis	Based on LVEF	By exclusion
Hypertension ⁴	~70%	~80%
Treatment	Entresto® 1st choice	Symptoms/comorbidities
Hospitalizations ⁵	1m p.a.	
Cost ⁵	11bn USD p.a.	

HFrEF = Heart Failure with reduced Ejection Fraction. HFpEF = Heart Failure with preserved Ejection Fraction. HFmrEF = Heart Failure with mid-range Ejection Fraction. CHF = Chronic Heart Failure. LVEF = Left Ventricular Ejection Fraction. 1. Patient numbers refer to US and are based on Fonerow GC, Gattis Stough, W, Abraham, WT, et al (2007), Characteristics, Treatments, and Outcomes of Patients With Preserved Systolic Function Hospitalized for Heart Failure. J Am Coll Cardiol;50:768-77. 2. Yancy CW et al. 2013 ACCF/AHA Guideline for the Management of Heart Failure, Journal of the American College of Cardiology (2013), doi: 10.1016/j.jacc.2013.05.019. 3. Includes HFmrEF. 4. Ibrahim NE et al. Heart failure with mid-range ejection fraction: characterization of patients from the PINNACLE Registry. ESC Heart Failure 2019; 6: 784–792. 5. Jackson SL, Tong X, King R, et al (2018) National burden of heart failure events in the United States, 2006 to 2014. Circ Heart Fail; 11(12):e004873.

The expanded Entresto® label includes all chronic heart failure patients with ejection fraction below normal

Updated label covers ~5m chronic heart failure patients in US

Indication Entresto is indicated to reduce the risk of cardiovascular death and hospitalization for heart failure in **adult patients with chronic heart failure. Benefits are most clearly evident in patients with left ventricular ejection fraction (LVEF) below normal.**

LVEF is a variable measure, so **use clinical judgment in deciding whom to treat** [see Clinical Studies (14.1)].

Clinical studies

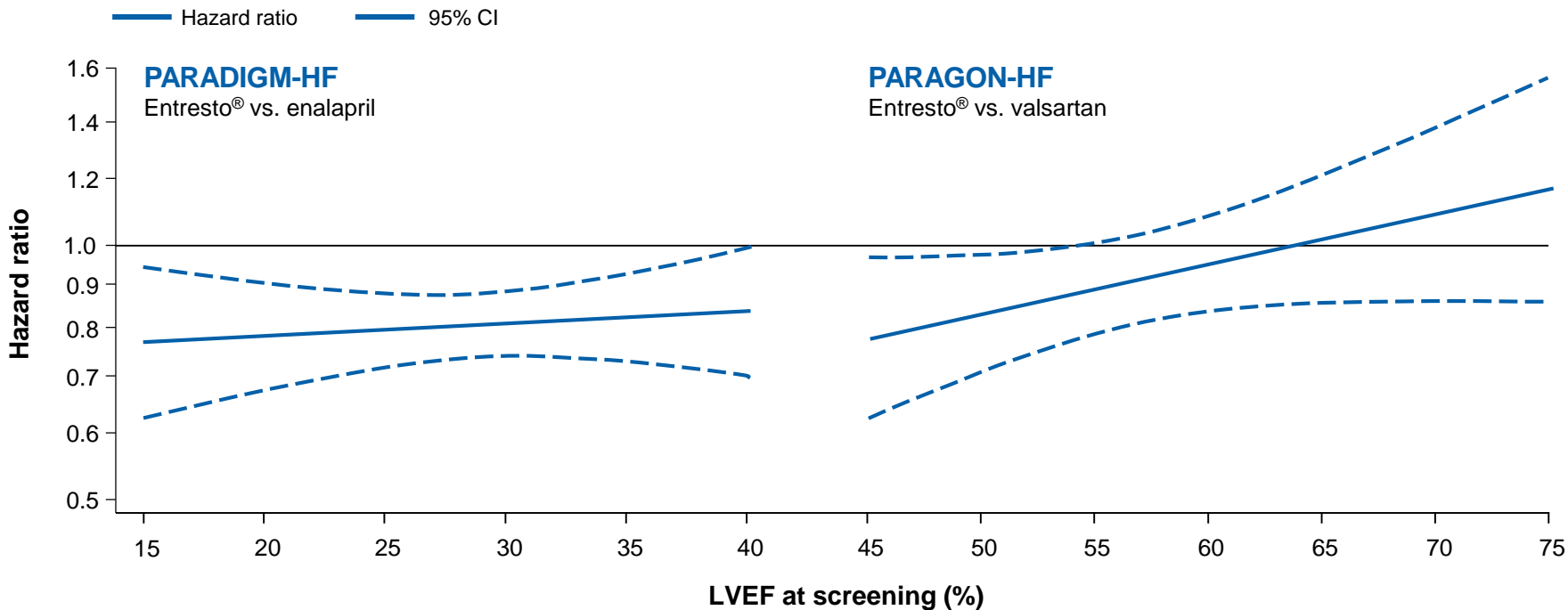
PARADIGM-HF

- Maintained as before

PARAGON-HF data included in section 14

- Table with primary composite endpoint in full population
- Graph showing primary composite endpoint over time
- Forrest plot for pre-specified subgroups including $\leq 57\%$ LVEF subgroup
- Continuous figures show treatment effect by LVEF for both PARADIGM and PARAGON

The label update recognizes chronic heart failure to be a disease continuum



CI = Confidence Interval. LVEF = Left Ventricular Ejection Fraction.

Entresto® value proposition as essential first choice treatment extended into a broader population

	Building on a strong market position	Expanding into a broader population
Value proposition	Essential first choice for LVEF below 40% (~3m patients)	Benefits for LVEF below normal (~5m patients)
Evidence	Entresto® superior vs. prior standard of care, in-hospital, cardiac remodeling ¹	Entresto® 1st evidence-based therapy ^{1,2}
Access	Lowest out of pocket for 99% Part D, 80% commercial patients	Expect to maintain broad and affordable access
Customers	Established footprint with hospitals, cardiologists, select PCPs	Targeting same customer base
Patients	Deep understanding of patient journey	Focus on hospitalizations, new diagnoses
Guidelines	Direct to ARNI recommended by ACC consensus ³	Scientific engagement on new evidence

LVEF = Left Ventricular Ejection Fraction. ARNI = Angiotensin Receptor-Nephrilysin Inhibitor. PCP = Primary Care Physician. ACC = American College of Cardiology. 1. McMurray et al. N Engl J Med. 2014;371:993-1004, Velazquez et al. N Engl J Med. 2019;380:539–48, Wachter et al. Eur J Heart Fail. 2019;21:998–1007, Januzzi JAMA. 2019;322(11):1085–1095, Desai et al. JAMA. 2019;322(11):1077–1084. 2. Solomon et al. N Engl J Med 2019;381:1609–1620. 3. 2021 Update to the 2017 ACC Expert Consensus Decision Pathway (ECCP) for Optimization of Heart Failure Treatment: Answers to 10 Pivotal Issues About Heart Failure With Reduced Ejection Fraction (in publication). <https://www.jacc.org/doi/10.1016/j.jacc.2020.11.022>.

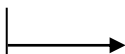
LCM could strengthen our leadership position with Entresto® – Leqvio®, pelacarsen further advance our cardiovascular pipeline

Upcoming milestones across cardiovascular portfolio



Essential first choice for chronic heart failure

- PARADISE-MI could expand value proposition into prevention – readout expected Q2 2021
- HTN indication could provide new option for patients in select Asian populations – regulatory discussions ongoing



Potential to tackle ASCVD at scale

- Approved in EU, launch in Germany ongoing
- UK launch with NHS planned Q3 2021
- US re-submission based on 3rd party readiness expected Q2-Q3 2021, in parallel working on tech transfer to Novartis facility



**pelacarsen
(TQJ230)**

Potential to lower CV risk for people with elevated Lp(a)

- HERITAGE prevalence study expected to read out in 2021
- HORIZON Phase 3 outcomes study ongoing with expected readout in 2024

LCM = Lifecycle Management. CV = Cardiovascular. HTN = Hypertension. ASCVD = Atherosclerotic Cardiovascular Disease. NHS = National Health Service. Lp(a) = Lipoprotein(a).

Conclusion

Chronic heart failure is a complex disease affecting ~6m people in the US

The expanded Entresto® label includes all chronic heart failure (CHF) patients with ejection fraction below normal (~5m people in US)

The label update recognizes CHF to be a disease continuum

Entresto® value proposition as essential first choice treatment extended into broader population

Lifecycle management could strengthen our leadership position with Entresto® – Leqvio® and pelacarsen further advance our cardiovascular pipeline