
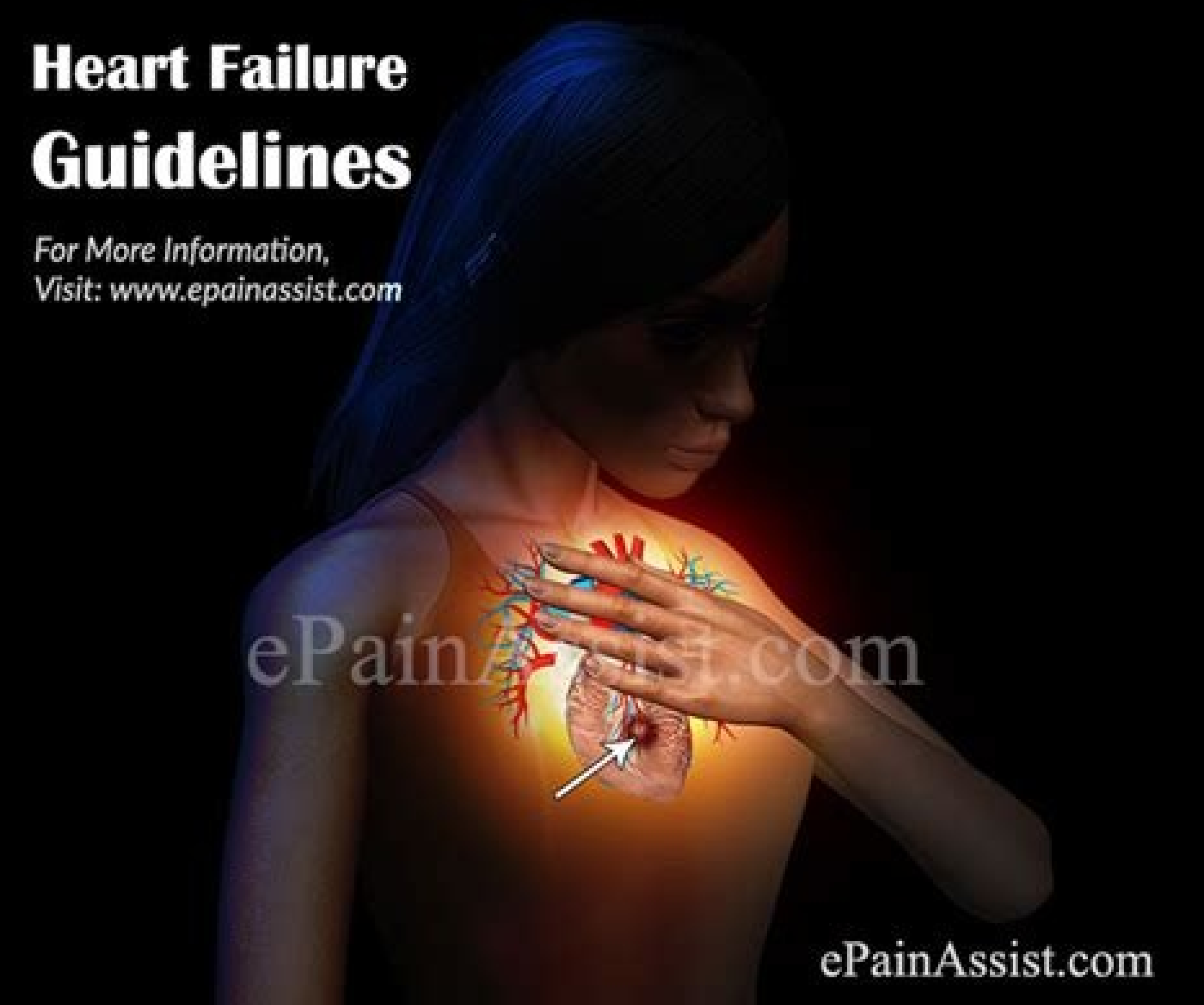
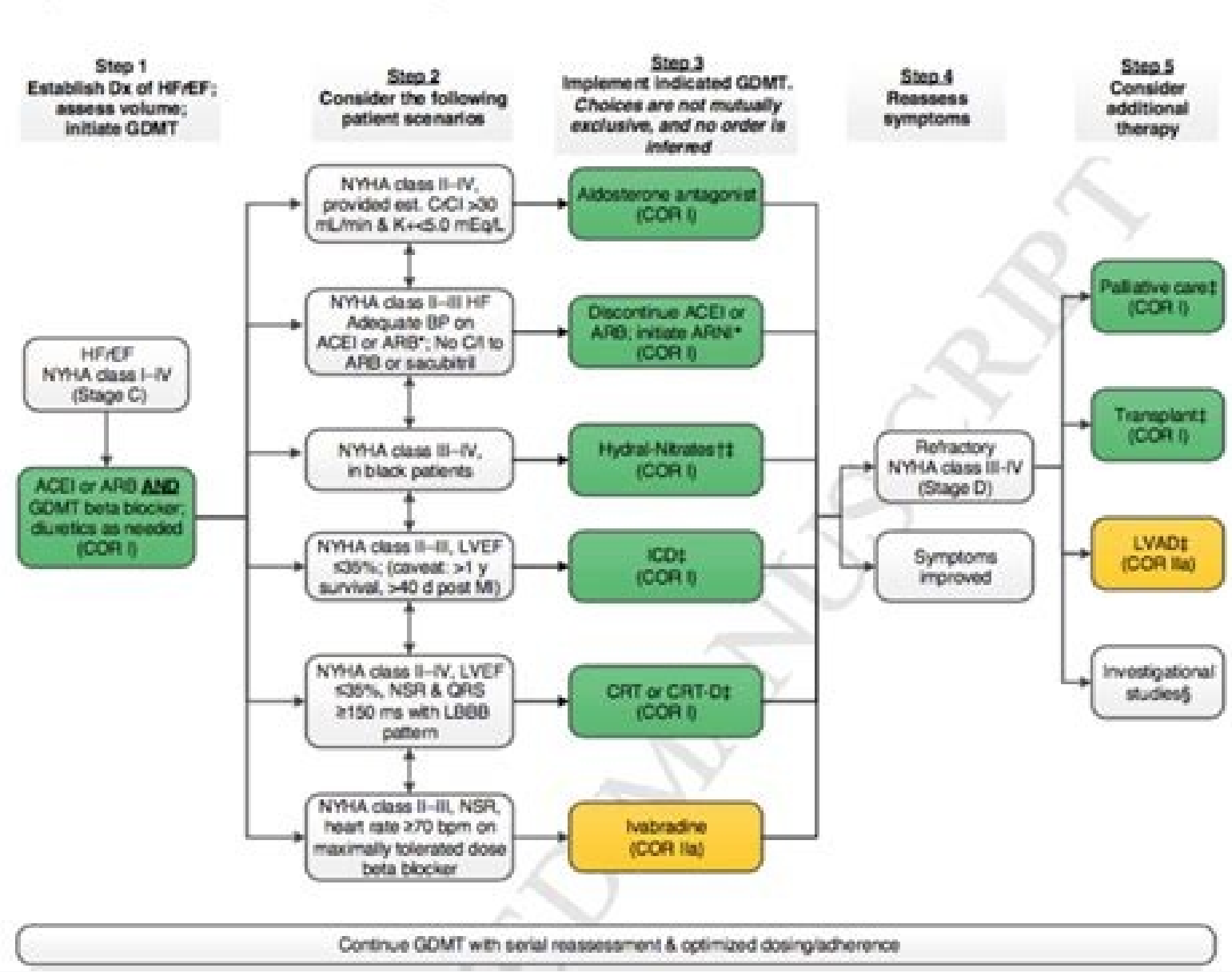


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Figure 2. Treatment of HFrEF Stage C and D



ACC Heart Failure Guidelines

2009 Focused Update: ACCF/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults

J. Am. Coll. Cardiol. April 14, 2009; 53:1343-1382
Circulation. April 14, 2009; 119:1977-2016

Class	Class I	Class IIa	Class IIb	Class III	Class IV
Recommendations	HF patients hospitalized with fluid overload should be treated with intravenous diuretics	HF patients receiving loop diuretic therapy should receive an initial parenteral dose greater than or equal to their chronic oral daily dose; then dose should be serially adjusted	HFrEF patients requiring HF hospitalization on GDMT should continue GDMT except in cases of hemodynamic instability or where contraindicated	Initiation of beta-blocker therapy at a low dose is recommended after optimization of volume status and discontinuation of intravenous agents	Thrombosis/thromboembolism prophylaxis is recommended for patients hospitalized with HF
		When diuresis is inadequate, it is reasonable to a. give higher doses of intravenous loop diuretics; or b. add a second diuretic (e.g., thiazide)	Low-dose dopamine infusion may be considered with loop diuretics to improve diuresis	Ultrafiltration may be considered for patients with obvious volume overload	Ultrafiltration may be considered for patients with refractory congestion
		Intravenous nitroglycerin, nitroprusside, or nesiritide may be considered an adjunct to diuretic therapy for stable patients with HF	In patients hospitalized with volume overload and severe hyponatremia, vasopressin antagonists may be considered		
Class of Recommendation (COR)	I	IIa	IIb	I	I
Level of Evidence (LOE)	B	B	B	B	B
References	310,311	313-316	317,318	319	320-323, 330,331

COR indicates Class of Recommendation; GDMT, guideline-directed medical therapy; HF, heart failure; HFrEF, heart failure with reduced ejection fraction; LOE, Level of Evidence; and N/A, not available.

Final Left in patients with symptomatic left ventricular dysfunction. To remedy this, it may be necessary to support the head and upper body with pillows to breathe better at night. 1998 Mayo. Inner arch Med. Using the echocardiography of dobutamine in the severe distention from non-transformed valvular aortic stenosis in patients with depressed left ventricular function and transvalve low gradients. 2018 Apr. Gpta VA, Nanda NC, Sorrell VI, Maisel as, Koon J, Hope J, et al. 79 (12): 1573-8. 53 (11): 905-18. Tailfer R, Depo, EG, Udelson Je, Beller GA, Latour and, Reeves F. 24 Supply B. 25B-9B. CD005351. Diastolic heart failure: diagnosis and therapy. 88 (1): 107-15. 13 (3): 445-66. Available at . Ketchum is, Levy WK. The use of improved magnetic resonance imaging in contrast to identify reversible myocytic dysfunction. 2010 May Survival of eleven years in the administration of veterans. Randomized test of coronary derivation surgery for stable angina. 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