

Category	Cutpoint, pg/ml	Sensitivity	Specificity	PPV	NPV	LR+	LR-
Confirmatory ("rule-in") cutpoints							
<50 yrs (n = 462)	450	85.7 (74.1-97.3)	93.9 (91.6-96.2)	53.6 (43.7-63.2)	98.8 (97.3-99.4)	14.08 (8.48-19.67)	0.15 (0.03-0.28)
50-75 yrs (n = 833)	900	79.3 (73.5-85.2)	84.0 (81.2-86.8)	58.4 (53.7-63.0)	93.5 (91.5-95.0)	4.95 (4.00-5.90)	0.25 (0.18-0.32)
>75 yrs (n = 166)	1,800	75.9 (64.8-86.9)	75.0 (66.8-83.2)	62.0 (53.3-70.0)	85.3 (78.4-90.2)	3.03 (1.94-4.13)	0.32 (0.17-0.47)
Rule-in, overall (n = 1,461)		79.4 (74.7-84.2)	86.7 (84.8-88.7)	58.4 (54.5-62.1)	94.7 (93.5-95.8)	5.99 (5.05-6.93)	0.24 (0.18-0.29)
Exclusionary ("rule-out") cutpoint							
All patients (n = 1,461)	300	93.9 (91.0-96.7)	71.7 (69.1-74.3)	43.7 (41.4-46.1)	98.0 (96.9-98.8)	3.32 (3.00-3.63)	0.09 (0.05-0.13)

The sensitivity, specificity, positive and negative predictive values, and positive and negative likelihood ratios are presented as % (95% confidence interval) for the age-dependent rule-in cutoffs of 450, 900, and 1,800 pg/ml for ages <50, 50-75, >75 years, and for the rule-out cutoff of 300 pg/ml, in all enrolled subjects.

HF = heart failure; LR+ = positive likelihood ratio; LR- = negative likelihood ratio; NPV = negative predictive value; NT-proBNP = N-terminal pro-B-type natriuretic peptide; PPV = positive predictive value.

年齢と共に診断の正確さが減少します。

除外診断は300以下とする事により見落としは少なくなります。

**TABLE 3 Comparison of ROC Curves for NT-proBNP-Based Diagnosis of Acute HF Across Patient Subgroups**

	Sensitivity	Specificity	PPV	NPV	AUC	p Value for Difference in AUC
Patients with eGFR <60.0 ml/min/1.73 m <sup>2</sup>	89.3 (84.0–94.6)	68.3 (61.6–75.0)	66.5 (61.4–71.2)	97.3 (90.1–99.3)	0.872	0.12
Patients with eGFR ≥60.0 ml/min/1.73 m <sup>2</sup>	70.3 (62.7–77.9)	89.6 (87.6–91.7)	51.9 (46.3–57.4)	98.1 (96.8–98.8)	0.907	
Patients with body mass index <30.0 kg/m <sup>2</sup>	90.3 (84.8–95.7)	85.0 (81.9–88.0)	56.4 (51.1–61.5)	100.0 (–)	0.946	0.001
Patients with body mass index ≥30.0 kg/m <sup>2</sup>	72.1 (65.0–79.2)	87.0 (84.2–89.8)	60.7 (54.9–66.1)	96.2 (94.1–97.6)	0.896	
Male	80.5 (74.5–86.4)	84.8 (81.9–87.8)	61.0 (56.0–65.8)	97.5 (95.5–98.6)	0.908	0.44
Female	77.8 (69.9–85.6)	88.5 (86.0–91.1)	54.5 (48.5–60.5)	98.5 (97.0–99.3)	0.922	
Black	82.4 (73.8–91.1)	90.4 (87.7–93.2)	58.7 (51.2–65.8)	98.7 (97.0–99.4)	0.933	0.16
Nonblack	78.7 (73.0–84.4)	84.5 (81.9–87.2)	58.5 (53.9–62.9)	97.9 (96.2–98.8)	0.908	
Presence of atrial fibrillation	87.2 (80.5–94.0)	56.6 (47.8–65.4)	60.7 (55.5–65.8)	100.0 (–)	0.807	<0.001
Absence of atrial fibrillation	75.6 (69.3–81.8)	90.4 (88.6–92.1)	57.1 (52.1–62.0)	98.0 (96.8–98.7)	0.918	
Patients with HFrEF	90.8 (85.1–96.5)	38.6 (24.2–53.0)	76.7 (72.1–80.8)	75.0 (38.7–93.5)	0.646	0.11
Patients with HFpEF	72.6 (61.5–83.7)	68.6 (58.8–78.4)	62.5 (54.1–70.2)	80.4 (68.2–88.7)	0.758	

Values are % (95% confidence interval). Performed with the Elecsys proBNP II Assay in all enrolled subjects. Sensitivity, specificity, and PPV refer to results for age-adjusted triple cutoff, whereas NPV refers to results for the age-independent rule-out cutoff of 300 pg/mL.

AUC = area under the curve; eGFR = estimated glomerular filtration rate; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; ROC = receiver-operating characteristic; other abbreviations as in Table 2.

腎機能の低下、心房細動、HFrEFは過剰診断の率が上がります。  
一方、肥満、HFpEFは見落としがあります。