

QRS Scoring

Patient ID 01 QRS duration 156ms Amplitude adjust +10%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 45 Male QRS axis -30° Duration adjust 0% RAO(**, ***)Yes(No)
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
II	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
aVL	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
aVF	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 60 ms	3	Q ≥ 50 ms	3
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 50 ms	2	Q ≥ 40 ms	2
V1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
Ant.	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
	Init R ≤ 20 ms	1					Ntchlnit40			
V1 Post.*	Init R ≥ 60 ms	2	R ≥ 50 ms	2	Init R ≥ 60 ms	2	R ≥ 50 ms	2	R ≥ 50 ms	2
	Init R ≥ 15 mV	1	R ≥ 1 mV	1	Init R ≥ 15 mV	1	R ≥ 1 mV	1	R ≥ 1 mV	1
V2	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	R ≥ 0.7 mV	1
Ant.***	Q ≥ 50 ms	2	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
	any Q	1	R ≤ 10 ms	1	any Q	1	R ≤ 10 ms	1	R ≤ 10 ms	1
V2 Post.*	R ≤ 10 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	Ntchlnit40	1	R ≤ 0.1 mV	1
	Init R ≥ 70 ms	2	R ≥ 60 ms	2	Init R ≥ 70 ms	2	R ≥ 60 ms	2	R ≥ 60 ms	2
V3	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	R ≥ 2 mV	1
	Init R ≥ 2.0 mV	1	R ≥ 1.5 mV	1	Init R ≥ 2.0 mV	1	R ≥ 1.5 mV	1	R ≥ 1.5 mV	1
V4	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2
	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
V5	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2
V6	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1
Total	Points		Points		Points		Points		Points	4

Lead	Criteria	Pts
I	any Q	1
	R/Q ≤ 1	2
II	R/S ≤ 1	1
	R/Q ≤ 15	1
aVL	R/S ≤ 15	1
	Q ≥ 40 ms	2
aVF	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
V1	Q ≥ 50 ms	2
	R/S ≤ 0.5	2
Ant.***	R/Q ≤ 0.5	1
	R/S ≤ 1	1
V1 Post.*	R/Q ≤ 1	1
	Ntchlnit40	1
V2	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
Ant.***	R/Q ≤ 0.5	1
	R/S ≤ 0.5	1
V2 Post.*	Ntchlnit40	1
	R ≥ 0.3 mV	2
V3	R ≥ 30 ms	1
	R ≥ 0.2 mV	1
V4	R ≥ 20 ms	1
	R ≥ 0.2 mV	1
V5	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
V6	S/S' ≥ 1.25	1
	Ntchlnit40	1
Ant.***	R ≥ 0.4 mV	2
	R ≥ 30 ms	1
V2 Post.*	R ≥ 0.3 mV	1
	R ≥ 20 ms	1
V5	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
V6	S/S' ≥ 1.5	1
	any Q	1
Total	Points	

%LV infarct (3 #pts) _____

%LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ 12

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 02 QRS duration 82ms Amplitude adjust -22%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 67 Female QRS axis -9° Duration adjust -10% RAO(**, ***)Yes(No)
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
II	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
aVL	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
aVF	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 60 ms	3	Q ≥ 50 ms	3
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 50 ms	2	Q ≥ 40 ms	2
V1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
Ant.	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
	Init R ≤ 20 ms	1					Ntchlnit40			
V1 Post.*	Init R ≥ 60 ms	2	R/S ≥ 1	1	Init R ≥ 60 ms	2	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 15 mV	1	R ≥ 50 ms	2	Init R ≥ 15 mV	1	R ≥ 1mV	1	R ≥ 1mV	1
V2	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	R ≥ 0.7 mV	1
Ant.	Q ≥ 50 ms	2	Qs0.2&Ss0.2mV	1	Q ≥ 50 ms	2	Qs0.2&Ss0.2 mV	1	Qs0.2&Ss0.2mV	1
	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
V2 Post.*	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
	R ≤ 0.1mV	1	R ≤ 0.1mV	1	R ≤ 0.1mV	1	Ntchlnit40		R ≤ 0.1mV	1
Ant.	Init R ≥ 70 ms	2	R/S ≥ 15	1	Init R ≥ 70 ms	2	R/S ≥ 15	1	R/S ≥ 15	1
	Init R ≥ 2.5 mV	1	R ≥ 60 ms	2	Init R ≥ 2.5 mV	1	R ≥ 60 ms	2	R ≥ 60 ms	2
V3	Init R ≥ 50 ms	1	R ≥ 50 ms	1	Init R ≥ 50 ms	1	R ≥ 50 ms	1	R ≥ 50 ms	1
	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	R ≥ 15 mV	1
Ant.	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1
	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
V4	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	Ntchlnit40	1	R ≤ 10 ms	1
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR (or any Q if *)	1	Q ≥ 20 ms	1
Ant.	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2
V5	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
Ant.	R/S ≤ 2	1	R/S ≤ 15	1	R/S ≤ 2	1	R/S ≤ 2	1	R/S ≤ 2	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
V6	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Ant.	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
Total	R/S ≤ 3	1	R/S ≤ 2	1	R/S ≤ 3	1	R/S ≤ 3	1	R/S ≤ 3	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
Total Points										0

Lead	Criteria	Pts
I	any Q	1
	R/Q ≤ 1	2
II	R/S ≤ 1	1
	R/Q ≤ 15	1
aVL	R/S ≤ 15	1
	Q ≥ 40 ms	2
aVF	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
V1	R/S ≤ 0.5	2
	R/Q ≤ 0.5	1
Ant.	R/S ≤ 1	1
	R/Q ≤ 1	1
V1 Post.	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
Ant.	R/Q ≤ 0.5	1
	R/S ≤ 0.5	1
V2	Nchlnit40	1
	R ≥ 0.3 mV	2
Ant.	R ≥ 30 ms	1
	R ≥ 0.2 mV	1
V1 Post.	R ≥ 20 ms	1
	S/S' ≥ 2.0	3
Ant.	S/S' ≥ 15	2
	S/S' ≥ 125	1
V2	Nchlnit40	1
	R ≥ 0.4 mV	2
Ant.	R ≥ 30 ms	1
	R ≥ 0.3 mV	1
V2	R ≥ 20 ms	1
	S/S' ≥ 2.5	3
Ant.	S/S' ≥ 2.0	2
	S/S' ≥ 15	1
V5	any Q	1
	R/R' ≥ 2	2
Ant.	R/R' ≥ 1	1
	R/S ≤ 2	1
V6	R ≤ 0.5 mV	1
	R/R' ≥ 2	2
Ant.	R/R' ≥ 1	1
	R/S ≤ 2	1
Total	R ≤ 0.6 mV	1
	Points	

%LV infarct (3 #pts) _____

%LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ 0

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS scoring

Patient ID 03 QRS duration 158ms Amplitude adjust -21%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 76 Male QRS axis -1° Duration adjust 0% RAO(**, ***)Yes/No
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1
II	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2
aVL	Q ≥ 30 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 30 ms R/Q ≤ 1	1
aVF	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 2 2	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1	Q ≥ 60 ms Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1
V1 Ant.	Q ≥ 50 ms any Q Init R ≤ 20 ms	2 1	any QR	1	any Q	1	any QR (or any Q if *) Ntchlnit40	1	any Q	1
V1 Post.**	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV Qs0.2&Ss0.2mV	1 2 1 1 1 1	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV Qs0.2&Ss0.2 mV	1 2 1 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV Qs0.2&Ss0.2 mV	1 2 1 1 1 1
V2 Ant.	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2 1	any QR R ≤ 10 ms R ≤ 0.1 mV	1	any Q R ≤ 10 ms R ≤ 0.1 mV	1	any QR (or any Q if *) Ntchlnit40	1	any Q R ≤ 10 ms R ≤ 0.1 mV	1
V2 Post.**	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV Qs0.3&Ss0.3mV	1 2 1 1 1 1	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV Qs0.3&Ss0.3mV	1 2 1 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV Qs0.3&Ss0.3mV	1 2 1 1 1 1
V3	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	QR&(Q ≥ 30 ms) Ntchlnit40 any QR (or any Q if *)	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1
V4	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1
V5	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 15 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 15 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1
V6	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1
Total	Points		Points		Points		Points		Points	

LBBB		
Lead	Criteria	Pts
I	any Q R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 15 R/S ≤ 15	1 2 1 1
II	Q ≥ 40 ms Q ≥ 30 ms	2 1
aVL	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5	2 1 2
aVF	Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 0.5	2 1 1
V1 Ant.***	Ntchlnit40 R ≥ 0.3 mV R ≥ 30 ms R ≥ 0.2 mV R ≥ 20 ms	1 2 1 1
V1 Post	S/S' ≥ 2.0 S/S' ≥ 15 S/S' ≥ 125	3 2 1
V2 Ant.***	Ntchlnit40 R ≥ 0.4 mV R ≥ 30 ms R ≥ 0.3 mV R ≥ 20 ms	1 2 1 1
V2 Post	S/S' ≥ 2.5 S/S' ≥ 2.0 S/S' ≥ 15	3 2 1
V5	any Q R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.5 mV	1 2 1 1 1
V6	Q ≥ 20 ms R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1 2 1 1 1
Total	Points	2

%LV infarct 6
(3 #pts)

%LV infarct (3 x #pts) ——— %LV infarct (3 x #pts) ——— %LV infarct (3 x #pts) ——— %LV infarct (3 x #pts) ——— %LV infarct (3 x #pts) ———

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3
 ** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria
 *** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS duration

Patient ID 04 QRS duration 148ms Amplitude adjust -4%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)

Age & gender 59 Male QRS axis +87° Duration adjust 0% RAO(**, ***)Yes(No)
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1
II	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2
aVL	Q ≥ 30 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 30 ms R/Q ≤ 1	1
aVF	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 60 ms Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3
V1 Ant.	Q ≥ 50 ms any Q Init R ≤ 20 ms	2	any QR any QR	1	any Q any Q	1	any QR (or any Q if *) Ntchlnit40	1	any Q any Q	1
V1 Post.**	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2	R ≥ 50 ms R ≥ 1mV R ≥ 40 ms R ≥ 0.7 mV	2	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2	R ≥ 50 ms R ≥ 1mV R ≥ 40 ms R ≥ 0.7 mV	2	R ≥ 50 ms R ≥ 1mV R ≥ 40 ms R ≥ 0.7 mV	2
V2 Ant.	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1mV	2	any QR any QR R ≤ 10 ms R ≤ 0.1mV	1	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1mV	2	any QR (or any Q if *) Ntchlnit40	1	any Q R ≤ 10 ms R ≤ 0.1mV	1
V2 Post.**	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1
V3	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	QR& (Q ≥ 30 ms) Ntchlnit40 any QR (or any Q if *)	1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2
V4	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1
V5	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1
V6	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1
Total	Points	0	Points	0	Points	0	Points	0	Points	0

Lead	Criteria	Pts
I	any Q R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 15 R/S ≤ 15	1
II	Q ≥ 40 ms Q ≥ 30 ms	2
aVL	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5 R/Q ≤ 0.5	2
aVF	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5 R/Q ≤ 0.5	2
V1 Ant.***	Ntchlnit40 R ≥ 0.3 mV R ≥ 30 ms R ≥ 0.2 mV R ≥ 20 ms	1
V1 Post	S/S' ≥ 2.0 S/S' ≥ 15 S/S' ≥ 125	3
V2 Ant.***	Ntchlnit40 R ≥ 0.4 mV R ≥ 30 ms R ≥ 0.3 mV R ≥ 20 ms	1
V2 Post	S/S' ≥ 2.5 S/S' ≥ 2.0 S/S' ≥ 15	3
V5	any Q R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.5 mV	1
V6	Q ≥ 20 ms R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1
Total	Points	0

%LV infarct _____
 (3 x #pts)

%LV infarct 0 (3 x #pts) %LV infarct _____ (3 x #pts) %LV infarct _____ (3 x #pts) %LV infarct _____ (3 x #pts) %LV infarct _____ (3 x #pts)

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS scoring

Patient ID 05 QRS duration 150ms Amplitude adjust 0%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)

Age & gender 55 Male QRS axis +176° Duration adjust 0% RAO(**, ***)Yes/No (No)
 (↓ 10% for females)

	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
Lead	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1 1 1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1 1 1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1 1 1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1 1 1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1 1 1
II	Q ≥ 40 ms Q ≥ 30 ms	2 1	Q ≥ 40 ms Q ≥ 30 ms	2 1	Q ≥ 40 ms Q ≥ 30 ms	2 1	Q ≥ 40 ms Q ≥ 30 ms	2 1	Q ≥ 40 ms Q ≥ 30 ms	2 1
aVL	Q ≥ 30 ms R/Q ≤ 1	1 1	Q ≥ 40 ms R/Q ≤ 1	1 1	Q ≥ 40 ms R/Q ≤ 1	1 1	Q ≥ 40 ms R/Q ≤ 1	1 1	Q ≥ 30 ms R/Q ≤ 1	1 1
aVF	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1	3 2 1 2	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1	3 2 1 2	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1	3 2 1 2	Q ≥ 60 ms Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 1	3 2 1 2	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1	3 2 1 2
V1 Ant.	Q ≥ 50 ms any Q Init R ≤ 20 ms	2 1 1	any QR	1	any Q	1	any QR (or any Q if *) Ntchlnit40	1	any Q	1
V1 Post.**	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1 2 1 1	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1 2 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1 2 1 1
V2 Ant.	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2 1 1 1	any QR R ≤ 10 ms R ≤ 0.1 mV	1 1 1	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2 1 1 1	any QR (or any Q if *) Ntchlnit40	1	any Q R ≤ 10 ms R ≤ 0.1 mV	1
V2 Post.**	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1 2 1 1 1	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1 2 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1 2 1 1
V3	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	QR& (Q ≥ 30 ms) Ntchlnit40 any QR (or any Q if *)	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1
V4	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 2 1 1 1 1
V5	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1
V6	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1 1
Total	Points	16	Points		Points		Points		Points	

Lead	Criteria	Pts
I	any Q R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 15 R/S ≤ 15	1 2 1 1 1
II	Q ≥ 40 ms Q ≥ 30 ms R/S ≤ 0.5 R/S ≤ 0.5	2 1 1 1
aVL	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5 R/Q ≤ 0.5	2 1 1 1
aVF	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5 R/Q ≤ 1	2 1 1 1
V1 Ant.***	Ntchlnit40 R ≥ 0.3 mV R ≥ 30 ms R ≥ 0.2 mV R ≥ 20 ms	1 2 1 1 1
V1 Post	S/S' ≥ 2.0 S/S' ≥ 15 S/S' ≥ 125	3 2 1
V2 Ant.***	Ntchlnit40 R ≥ 0.4 mV R ≥ 30 ms R ≥ 0.3 mV R ≥ 20 ms	1 2 1 1 1
V2 Post	S/S' ≥ 2.5 S/S' ≥ 2.0 S/S' ≥ 15	3 2 1
V5	any Q R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1 2 1 1 1
V6	Q ≥ 20 ms R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1 2 1 1 1
Total	Points	

%LV infarct (3 #pts) _____

%LV infarct 48 (3 x #pts) %LV infarct _____ (3 x #pts) %LV infarct _____ (3 x #pts) %LV infarct _____ (3 x #pts) %LV infarct _____ (3 x #pts)

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 06 QRS duration 143ms Amplitude adjust -11%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 66 Male QRS axis -40° Duration adjust 0% RAO(**, ***)Yes/No
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1
II	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2
aVL	Q ≥ 30 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 30 ms R/Q ≤ 1	1
aVF	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 60 ms Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3
V1 Ant.	Q ≥ 50 ms any Q Init R ≤ 20 ms	2	any QR any QR	1	Q ≥ 50 ms any Q any Q	2	any QR (or any Q if *) Ntchlnit40	1	any Q any Q	1
V1 Post.*	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2	R ≥ 50 ms R ≥ 1mV R ≥ 40 ms R ≥ 0.7 mV	2	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2	R ≥ 50 ms R ≥ 1mV R ≥ 40 ms R ≥ 0.7 mV	2	R ≥ 50 ms R ≥ 1mV R ≥ 40 ms R ≥ 0.7 mV	2
V2 Ant.	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2	any QR any QR R ≤ 10 ms R ≤ 0.1 mV	1	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2	any QR (or any Q if *) Ntchlnit40	1	any Q R ≤ 10 ms R ≤ 0.1 mV	1
V2 Post.*	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	2	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	2
V3	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	QR& (Q ≥ 30 ms) Ntchlnit40 any QR (or any Q if *)	1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2
V4	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1
V5	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1
V6	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1
Total	Points		Points		Points	10	Points		Points	

Lead	Criteria	Pts
I	any Q R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 15 R/S ≤ 15	1
II	Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 0.5 R/S ≤ 0.5	2
aVL	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5 R/Q ≤ 0.5	2
aVF	Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 0.5 R/S ≤ 0.5	2
V1 Ant.***	Ntchlnit40 R ≥ 0.3 mV R ≥ 30 ms R ≥ 0.2 mV R ≥ 20 ms	1
V1 Post	S/S' ≥ 2.0 S/S' ≥ 15 S/S' ≥ 125	3
V2 Ant.***	Ntchlnit40 R ≥ 0.4 mV R ≥ 30 ms R ≥ 0.3 mV R ≥ 20 ms	1
V2 Post	S/S' ≥ 2.5 S/S' ≥ 2.0 S/S' ≥ 15	3
V5	any Q R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.5 mV	1
V6	Q ≥ 20 ms R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1
Total	Points	

%LV infarct (3 #pts) _____

%LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) 30 %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 07 QRS duration 84ms Amplitude adjust -3%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)

Age & gender 48 Female QRS axis -19° Duration adjust -10% RAO(**, ***)Yes(No)
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1
II	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2
aVL	Q ≥ 30 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 30 ms R/Q ≤ 1	1
aVF	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 2 2	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1	Q ≥ 60 ms Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3 2 1 2 1
V1 Ant.	Q ≥ 50 ms any Q Init R ≤ 20 ms	2 1	any QR any QR	1	any Q any Q	1	any QR (or any Q if *) Ntchlnit40	1	any Q any Q	1
V1 Post.**	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1 2 1 1	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2 1 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1 2 1 1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1 2 1 1
V2 Ant.	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2 1	any QR any QR R ≤ 10 ms R ≤ 0.1 mV	1	any Q any Q R ≤ 10 ms R ≤ 0.1 mV	1	any QR (or any Q if *) Ntchlnit40	1	any Q any Q R ≤ 10 ms R ≤ 0.1 mV	1
V2 Post.**	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1 2 1 1	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2 1 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1 2 1 1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1 2 1 1
V3	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1	QR& (Q ≥ 30 ms) Ntchlnit40 any QR (or any Q if *)	2 1 1 1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2 1 1 1
V4	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1 2 1 1 1 1
V5	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 15 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 15 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1
V6	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1 2 1 1 1 1
Total	Points		Points		Points		Points	0	Points	

Lead	Criteria	Pts
I	any Q R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 15 R/S ≤ 15	1 2 1 1
II	Q ≥ 40 ms Q ≥ 30 ms	2 1
aVL	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5	2 1 2
aVF	Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 0.5	2 1 1
V1 Ant.***	Ntchlnit40 R ≥ 0.3 mV R ≥ 30 ms R ≥ 0.2 mV R ≥ 20 ms	1 2 1 1
V1 Post	S/S' ≥ 2.0 S/S' ≥ 15 S/S' ≥ 125	3 2 1
V2 Ant.***	Ntchlnit40 R ≥ 0.4 mV R ≥ 30 ms R ≥ 0.3 mV R ≥ 20 ms	1 2 1 1
V2 Post	S/S' ≥ 2.5 S/S' ≥ 2.0 S/S' ≥ 15	3 2 1
V5	any Q R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.5 mV	1 2 1 1 1
V6	Q ≥ 20 ms R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1 2 1 1 1
Total	Points	

%LV infarct _____
 (3 #pts)

%LV infarct _____ %LV infarct _____ %LV infarct _____ %LV infarct _____ 0 %LV infarct _____
 (3 x #pts) (3 x #pts) (3 x #pts) (3 x #pts) (3 x #pts)

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 08 QRS duration 138ms Amplitude adjust -36%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 81 Female QRS axis +2° Duration adjust -10% RAO(**, ***)Yes/No
 (↓ 10% for females)

	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
Lead	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
II	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
aVL	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
aVF	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
V1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Ant.	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
V1 Post.*	Init R ≥ 60 ms	2	R/S ≥ 1	1	Init R ≥ 60 ms	2	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 15 mV	1	R ≥ 1 mV	1	Init R ≥ 15 mV	1	R ≥ 1 mV	1	R ≥ 1 mV	1
V2	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	R ≥ 0.7 mV	1
Ant.	Q ≥ 50 ms	2	Qs0.2&Ss0.2mV	1	Q ≥ 50 ms	2	Qs0.2&Ss0.2 mV	1	Qs0.2&Ss0.2 mV	1
	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
V2 Post.*	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1
Ant.	Init R ≥ 70 ms	2	R/S ≥ 15	1	Init R ≥ 70 ms	2	R/S ≥ 15	1	R/S ≥ 15	1
	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	R ≥ 2 mV	1
V3	Init R ≥ 50 ms	1	R ≥ 50 ms	1	Init R ≥ 50 ms	1	R ≥ 50 ms	1	R ≥ 50 ms	1
	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	R ≥ 15 mV	1
Post.	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1	Qs0.3&Ss0.3mV	1
	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2
V4	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
Post.	R ≤ 20 ms	1	R ≤ 20 ms	1	R ≤ 20 ms	1	R ≤ 20 ms	1	R ≤ 20 ms	1
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
V5	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2
	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
Ant.	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1
V6	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Ant.	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V6	R/S ≤ 2	1	R/S ≤ 15	1	R/S ≤ 2	1	R/S ≤ 2	1	R/S ≤ 2	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
Total	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Total	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
Total	R/S ≤ 3	1	R/S ≤ 2	1	R/S ≤ 3	1	R/S ≤ 3	1	R/S ≤ 3	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
Total	Points		Points		Points		Points		Points	

LBBB		
Lead	Criteria	Pts
I	any Q	1
	R/Q ≤ 1	2
II	R/S ≤ 1	1
	R/Q ≤ 15	1
aVL	R/S ≤ 15	1
	Q ≥ 40 ms	2
aVF	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
V1	R/S ≤ 0.5	2
	R/Q ≤ 0.5	1
Ant.	R/S ≤ 1	1
	R/Q ≤ 1	1
V1 Post.	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
Ant.	R/Q ≤ 0.5	1
	R/S ≤ 0.5	1
V2	Nchlnit40	1
	R ≥ 0.3 mV	2
Ant.	R ≥ 30 ms	1
	R ≥ 0.2 mV	1
V1 Post.	R ≥ 20 ms	1
	S/S' ≥ 2.0	3
Ant.	S/S' ≥ 15	2
	S/S' ≥ 125	1
V2	Nchlnit40	1
	R ≥ 0.4 mV	2
Ant.	R ≥ 30 ms	1
	R ≥ 0.3 mV	1
V2	R ≥ 20 ms	1
	S/S' ≥ 2.5	3
Post.	S/S' ≥ 2.0	2
	S/S' ≥ 15	1
V5	any Q	1
	R/R' ≥ 2	2
Ant.	R/R' ≥ 1	1
	R/S ≤ 2	1
V6	R ≤ 0.5 mV	1
	R ≤ 0.5 mV	1
Ant.	R/R' ≥ 2	2
	R/R' ≥ 1	1
Total	R/S ≤ 2	1
	R ≤ 0.6 mV	1
Total	Points	2

%LV infarct 6
(3 #pts)

%LV infarct (3 x #pts) — %LV infarct (3 x #pts) — %LV infarct (3 x #pts) — %LV infarct (3 x #pts) — %LV infarct (3 x #pts) —

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3
 ** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria
 *** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 09 QRS duration 110ms Amplitude adjust +25%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 30 Male QRS axis +73° Duration adjust 0% RAO(**, ***)Yes/No (No)
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
II	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
aVL	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
aVF	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
V1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Ant.	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	Q ≥ 50 ms	2	any QR	1	any QR	1	any QR	1	any QR	1
V1 Post.*	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	Init R ≥ 60 ms	2	R/S ≥ 1	1	Init R ≥ 60 ms	2	R/S ≥ 1	1	R/S ≥ 1	1
V2	Init R ≥ 15 mV	1	R ≥ 50 ms	2	Init R ≥ 15 mV	1	R ≥ 50 ms	2	R ≥ 50 ms	2
	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
V2 Ant.***	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	R ≥ 0.7 mV	1
	Q ≥ 50 ms	2	Qs0.2&S≤0.2mV	1	Q ≥ 50 ms	2	Qs0.2&S≤0.2mV	1	Qs0.2&S≤0.2mV	1
V2 Post.*	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
V2 Ant.***	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1
	Init R ≥ 70 ms	2	R ≥ 60 ms	2	Init R ≥ 70 ms	2	R ≥ 60 ms	2	R ≥ 60 ms	2
V3	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	R ≥ 2 mV	1
	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	R ≥ 15 mV	1
V3 Post.*	Qs0.3&S≤0.3mV	1	Qs0.3&S≤0.3mV	1	Qs0.3&S≤0.3mV	1	Qs0.3&S≤0.3mV	1	Qs0.3&S≤0.3mV	1
	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2
V4	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
V4 Post.*	R ≤ 20 ms	1	R ≤ 20 ms	1	R ≤ 20 ms	1	R ≤ 20 ms	1	R ≤ 20 ms	1
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
V5	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2
	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1
V5 Post.*	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
V6	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2	1	R/S ≤ 2	1	R/S ≤ 2	1	R/S ≤ 2	1	R/S ≤ 2	1
V6 Post.*	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
Total	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
Total	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3	1	R/S ≤ 3	1	R/S ≤ 3	1	R/S ≤ 3	1	R/S ≤ 3	1
Total	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
	Ntchlnit40	1	Ntchlnit40	1	Ntchlnit40	1	Ntchlnit40	1	Ntchlnit40	1
Total	Points		Points		Points		Points	6	Points	

Lead	Criteria	Pts
I	any Q	1
	R/Q ≤ 1	2
II	R/S ≤ 1	1
	R/Q ≤ 15	1
aVL	R/S ≤ 15	1
	Q ≥ 40 ms	2
aVF	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
V1	R/S ≤ 0.5	1
	R/Q ≤ 0.5	2
Ant.***	R/S ≤ 1	1
	R/Q ≤ 1	1
V1 Post.*	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
V2	R/Q ≤ 0.5	1
	R/S ≤ 0.5	1
V2 Ant.***	R/S ≤ 0.5	1
	Ntchlnit40	1
V2 Post.*	R ≥ 0.3 mV	2
	R ≥ 30 ms	1
V3	R ≥ 0.2 mV	1
	R ≥ 20 ms	1
V3 Ant.***	S/S' ≥ 2.0	3
	S/S' ≥ 15	2
V3 Post.*	S/S' ≥ 125	1
	Ntchlnit40	1
V4	R ≥ 0.4 mV	2
	R ≥ 30 ms	1
V4 Ant.***	R ≥ 0.3 mV	1
	R ≥ 20 ms	1
V4 Post.*	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
V5	S/S' ≥ 15	1
	any Q	1
V5 Ant.***	any Q	1
	R/R' ≥ 2	2
V5 Post.*	R/R' ≥ 1	1
	R/S ≤ 2	1
V6	R ≤ 0.5 mV	1
	Q ≥ 20 ms	1
V6 Ant.***	Q ≥ 20 ms	1
	R/R' ≥ 2	2
V6 Post.*	R/R' ≥ 1	1
	R/S ≤ 2	1
Total	Points	

%LV infarct
 (3 #pts)

%LV infarct %LV infarct %LV infarct %LV infarct 18 %LV infarct
 (3 x #pts) (3 x #pts) (3 x #pts) (3 x #pts) (3 x #pts)

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 10 QRS duration 152ms Amplitude adjust -14%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)
 Age & gender 69 Male QRS axis -64° Duration adjust 0% RAO(**, ***)Yes/No
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
II	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1	R ≤ 0.2 mV	1
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
aVL	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
aVF	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 60 ms	3	Q ≥ 50 ms	3
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 50 ms	2	Q ≥ 40 ms	2
V1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
Ant.	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
	Init R ≤ 20 ms	1					Ntchlnit40			
V1 Post.*	Init R ≥ 60 ms	2	R/S ≥ 1	1	Init R ≥ 60 ms	2	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 15 mV	1	R ≥ 50 ms	2	Init R ≥ 15 mV	1	R ≥ 50 ms	2	R ≥ 50 ms	2
V2	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	R ≥ 0.7 mV	1
Ant.	Q ≥ 50 ms	2	Qs0.2&S≤0.2mV	1	Q ≥ 50 ms	2	Qs0.2&S≤0.2 mV	1	Qs0.2&S≤0.2mV	1
	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
V2 Post.*	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1
	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1	R ≤ 0.1 mV	1
V2 Ant.**	Init R ≥ 70 ms	2	R/S ≥ 15	1	Init R ≥ 70 ms	2	R/S ≥ 15	1	R/S ≥ 15	1
	Init R ≥ 2.5 mV	1	R ≥ 60 ms	2	Init R ≥ 2.5 mV	1	R ≥ 60 ms	2	R ≥ 60 ms	2
V3	Init R ≥ 50 ms	1	R ≥ 50 ms	1	Init R ≥ 50 ms	1	R ≥ 50 ms	1	R ≥ 50 ms	1
	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	R ≥ 15 mV	1
V3 Ant.	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Qs0.3&S≤0.3mV	1	Qs0.3&S≤0.3mV	1
	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	QR& (Q ≥ 30 ms)	2	QR& (Q ≥ 30 ms)	2
V4	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Ntchlnit40	1	Ntchlnit40	1
	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	any QR (or any Q if *)	1	any QR (or any Q if *)	1
V4 Ant.	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
V5	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/S ≤ 1	1	R/S ≤ 1	1
V5 Ant.	R/S ≤ 2	1	R/S ≤ 15	1	R/S ≤ 15	1	R/S ≤ 2	1	R/S ≤ 2	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R/S ≤ 1	1	R/S ≤ 1	1
V6	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	Q ≥ 20 ms	1	Q ≥ 20 ms	1
V6 Ant.	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1
V6 Post.	R/S ≤ 3	1	R/S ≤ 2	1	R/S ≤ 2	1	R/S ≤ 1	1	R/S ≤ 1	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R/S ≤ 1	1	R/S ≤ 1	1
Total	Points		Points		Points	5	Points		Points	

Lead	Criteria	Pts
I	any Q	1
	R/Q ≤ 1	2
II	R/S ≤ 1	1
	R/Q ≤ 15	1
aVL	R/S ≤ 15	1
	Q ≥ 40 ms	2
aVF	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
V1	R/S ≤ 0.5	2
	R/Q ≤ 0.5	1
Ant.	R/S ≤ 1	1
	R/Q ≤ 1	1
V1 Post.	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
V2	R/Q ≤ 0.5	1
	R/S ≤ 0.5	1
Ant.	Ntchlnit40	1
	R ≥ 0.3 mV	2
V2 Post.	R ≥ 30 ms	1
	R ≥ 0.2 mV	1
V2 Ant.	R ≥ 20 ms	1
	S/S' ≥ 2.0	3
V3	S/S' ≥ 15	2
	S/S' ≥ 125	1
V3 Ant.	Ntchlnit40	1
	R ≥ 0.4 mV	2
V4	R ≥ 30 ms	1
	R ≥ 0.3 mV	1
V4 Ant.	R ≥ 20 ms	1
	S/S' ≥ 2.5	3
V5	S/S' ≥ 2.0	2
	S/S' ≥ 15	1
V5 Ant.	any Q	1
	R/R' ≥ 2	2
V6	R/R' ≥ 1	1
	R/S ≤ 2	1
V6 Ant.	R/S ≤ 2	1
	R ≤ 0.6 mV	1
Total	Points	

%LV infarct (3 #pts) _____

%LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) 15 %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 11 QRS duration 102ms Amplitude adjust -14%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)

Age & gender 59 Female QRS axis -55° Duration adjust -10% RAO(**, ***)Yes/No
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1	Q ≥ 30 ms R/Q ≤ 1 R ≤ 0.2 mV	1
II	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2	Q ≥ 40 ms Q ≥ 30 ms	2
aVL	Q ≥ 30 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 40 ms R/Q ≤ 1	1	Q ≥ 30 ms R/Q ≤ 1	1
aVF	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 60 ms Q ≥ 50 ms Q ≥ 40 ms R/Q ≤ 1 R/Q ≤ 2	3	Q ≥ 50 ms Q ≥ 40 ms Q ≥ 30 ms R/Q ≤ 1 R/Q ≤ 2	3
V1 Ant.	Q ≥ 50 ms any Q Init R ≤ 20 ms	2	any QR any QR	1	any Q any Q	1	any QR (or any Q if *) Ntchlnit40	1	any Q any Q	1
V1 Post.**	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1	Init R ≥ 60 ms Init R ≥ 15 mV Init R ≥ 50 ms Init R ≥ 10 mV	2	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1	R/S ≥ 1 R ≥ 50 ms R ≥ 1 mV R ≥ 40 ms R ≥ 0.7 mV	1
V2 Ant.	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2	any QR any QR R ≤ 10 ms R ≤ 0.1 mV	1	Q ≥ 50 ms any Q R ≤ 10 ms R ≤ 0.1 mV	2	any QR (or any Q if *) Ntchlnit40	1	any Q R ≤ 10 ms R ≤ 0.1 mV	1
V2 Post.**	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1	Init R ≥ 70 ms Init R ≥ 2.5 mV Init R ≥ 50 ms Init R ≥ 2.0 mV	2	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1	R/S ≥ 15 R ≥ 60 ms R ≥ 2 mV R ≥ 50 ms R ≥ 15 mV	1
V3	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2	QR& (Q ≥ 30 ms) Ntchlnit40 any QR (or any Q if *)	1	Q ≥ 30 ms R ≤ 10 ms Q ≥ 20 ms R ≤ 20 ms	2
V4	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1	Q ≥ 20 ms R/Q ≤ 0.5 R/S ≤ 0.5 R/Q ≤ 1 R/S ≤ 1 R ≤ 0.5 mV Ntchlnit40	1
V5	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 2 R/S ≤ 2 R ≤ 0.6 mV Ntchlnit40	1
V6	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1	Q ≥ 30 ms R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 3 R/S ≤ 3 R ≤ 0.6 mV Ntchlnit40	1
Total	Points		Points	0	Points		Points		Points	

Lead	Criteria	Pts
I	any Q R/Q ≤ 1 R/S ≤ 1 R/Q ≤ 15 R/S ≤ 15	1
II	Q ≥ 40 ms Q ≥ 30 ms R/S ≤ 0.5	2
aVL	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5	2
aVF	Q ≥ 50 ms Q ≥ 40 ms R/S ≤ 0.5	2
V1 Ant.***	Ntchlnit40 R ≥ 0.3 mV R ≥ 30 ms R ≥ 0.2 mV R ≥ 20 ms	1
V1 Post	S/S' ≥ 2.0 S/S' ≥ 15 S/S' ≥ 125	3
V2 Ant.***	Ntchlnit40 R ≥ 0.4 mV R ≥ 30 ms R ≥ 0.3 mV R ≥ 20 ms	1
V2 Post	S/S' ≥ 2.5 S/S' ≥ 2.0 S/S' ≥ 15	3
V5	any Q R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1
V6	Q ≥ 20 ms R/R' ≥ 2 R/R' ≥ 1 R/S ≤ 2 R ≤ 0.6 mV	1
Total	Points	

%LV infarct _____
 (3 #pts)

%LV infarct _____
 (3 x #pts) 0 %LV infarct _____
 (3 x #pts) %LV infarct _____
 (3 x #pts) %LV infarct _____
 (3 x #pts)

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points

QRS Scoring

Patient ID 12 QRS duration 78ms Amplitude adjust -3%
 (↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females)

Age & gender 58 Male QRS axis +94° Duration adjust 0% RAO(**, *** Yes)
 (↓ 10% for females)

Lead	RBBB		LAFB		LAFB + RBBB		LVH		No Confounders	
	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts	Criteria	Pts
I	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
II	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2	R ≤ 0.2 mV	2
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
aVL	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
aVF	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3	Q ≥ 50 ms	3
	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
V1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Ant.	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
V1 Post.*	Init R ≥ 60 ms	2	R/S ≥ 1	1	Init R ≥ 60 ms	2	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 15 mV	1	R ≥ 1 mV	1	Init R ≥ 15 mV	1	R ≥ 1 mV	1	R ≥ 1 mV	1
V2	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	Init R ≥ 10 mV	1	R ≥ 0.7 mV	1	R ≥ 0.7 mV	1
Ant.***	Q ≥ 50 ms	2	Qs0.2&S≤0.2mV	1	Q ≥ 50 ms	2	Qs0.2&S≤0.2 mV	1	Qs0.2&S≤0.2mV	1
	any Q	1	any QR	1	any Q	1	any QR (or any Q if *)	1	any Q	1
V2 Post.*	R ≤ 10 ms	1	R ≤ 0.1 mV	1	R ≤ 10 ms	1	R ≤ 0.1 mV	1	R ≤ 10 ms	1
	R ≤ 0.1 mV	1	R/S ≥ 15	1	R ≤ 0.1 mV	1	R/S ≥ 15	1	R/S ≥ 15	1
V2 Ant.***	Init R ≥ 70 ms	2	R ≥ 60 ms	2	Init R ≥ 70 ms	2	R ≥ 60 ms	2	R ≥ 60 ms	2
	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	Init R ≥ 2.5 mV	1	R ≥ 2 mV	1	R ≥ 2 mV	1
V3	Init R ≥ 50 ms	1	R ≥ 50 ms	1	Init R ≥ 50 ms	1	R ≥ 50 ms	1	R ≥ 50 ms	1
	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	Init R ≥ 2.0 mV	1	R ≥ 15 mV	1	R ≥ 15 mV	1
V3 Post.	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Qs0.3&S≤0.3mV	1	Qs0.3&S≤0.3mV	1
	R ≤ 10 ms	1	R ≤ 10 ms	1	R ≤ 10 ms	1	QR&(Q ≥ 30 ms)	2	QR&(Q ≥ 30 ms)	2
V4	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Ntchlnit40	1	Ntchlnit40	1
	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2	any QR (or any Q if *)	1	any QR (or any Q if *)	1
V5	R/S ≤ 0.5	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 0.5	2	R/Q ≤ 0.5	2
V5 Post.	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 0.5	1	R/S ≤ 0.5	1
	R/Q ≤ 2	1	R/S ≤ 1	1	R/Q ≤ 2	1	R/Q ≤ 1	1	R/Q ≤ 1	1
V6	R/S ≤ 2	1	R/S ≤ 15	1	R/S ≤ 2	1	R/S ≤ 1	1	R/S ≤ 1	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.5 mV	1	R ≤ 0.5 mV	1
Total	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2	R/Q ≤ 1	2
Total	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1	R/S ≤ 1	1
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
Total	R/S ≤ 3	1	R/S ≤ 2	1	R/S ≤ 3	1	R/S ≤ 3	1	R/S ≤ 3	1
	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1	R ≤ 0.6 mV	1
Total	Ntchlnit40	1	Ntchlnit40	1	Ntchlnit40	1	Ntchlnit40	1	Ntchlnit40	1
	Points		Points		Points		Points	7	Points	

Lead	Criteria	Pts
I	any Q	1
	R/Q ≤ 1	2
II	R/S ≤ 1	1
	R/Q ≤ 15	1
aVL	R/S ≤ 15	1
	Q ≥ 40 ms	2
aVF	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
V1	Q ≥ 50 ms	2
	R/S ≤ 0.5	1
Ant.	R/Q ≤ 0.5	1
	R/S ≤ 1	1
aVF	R/Q ≤ 1	1
	Q ≥ 50 ms	2
V1	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
Ant.***	R/S ≤ 0.5	1
	Ntchlnit40	1
V1	R ≥ 0.3 mV	2
	R ≥ 30 ms	1
Ant.***	R ≥ 0.2 mV	1
	R ≥ 20 ms	1
V1	S/S' ≥ 2.0	3
	S/S' ≥ 15	2
Post	S/S' ≥ 125	1
	S/S' ≥ 125	1
V2	Ntchlnit40	1
	R ≥ 0.4 mV	2
Ant.***	R ≥ 30 ms	1
	R ≥ 0.3 mV	1
V2	R ≥ 20 ms	1
	S/S' ≥ 2.5	3
Post	S/S' ≥ 2.0	2
	S/S' ≥ 15	1
V5	any Q	1
	R/R' ≥ 2	2
V6	R/R' ≥ 1	1
	R/S ≤ 2	1
Total	R ≤ 0.6 mV	1
	Points	

%LV infarct (3 #pts) _____

%LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ %LV infarct (3 x#pts) _____ 21 %LV infarct (3 x#pts) _____

* (for LVH) if ≥ 4 other points in leads I, aVL, V4, V5 or V6 then count QS in V1+V3

** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 Post criteria

*** (RAO) if P positive amp in V1 ≥ 0.1 mV or aVF P ≥ 0.175 mV, then exclude V1+V2 R-criteria points