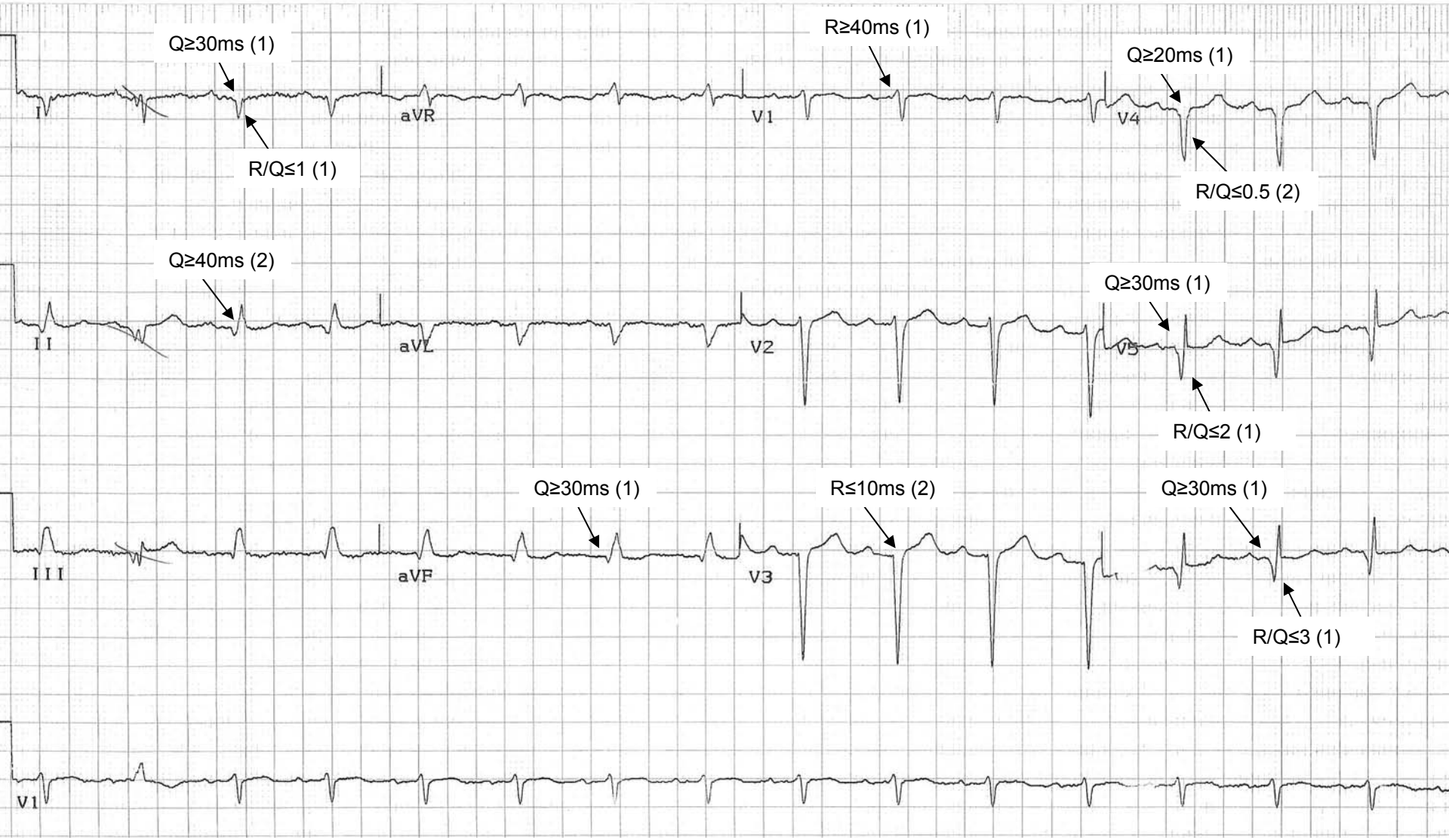
Patient ID:	01	**QRS Duration:**	112ms	**Amplitude Adjustment:**	+2%
Age & Sex:	53 Male	**QRS Axis:**	+122˚	**Duration Adjustment:**	0%
Conduction Type:	No Confounders	**Right Atrial Overload:**	No	**Total Points**	15 points (45%)



QRS Scoring

Patient ID 01 QRS duration 112ms Amplitude adjust +2%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 53 Male QRS axis +122° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	15
	%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)	45

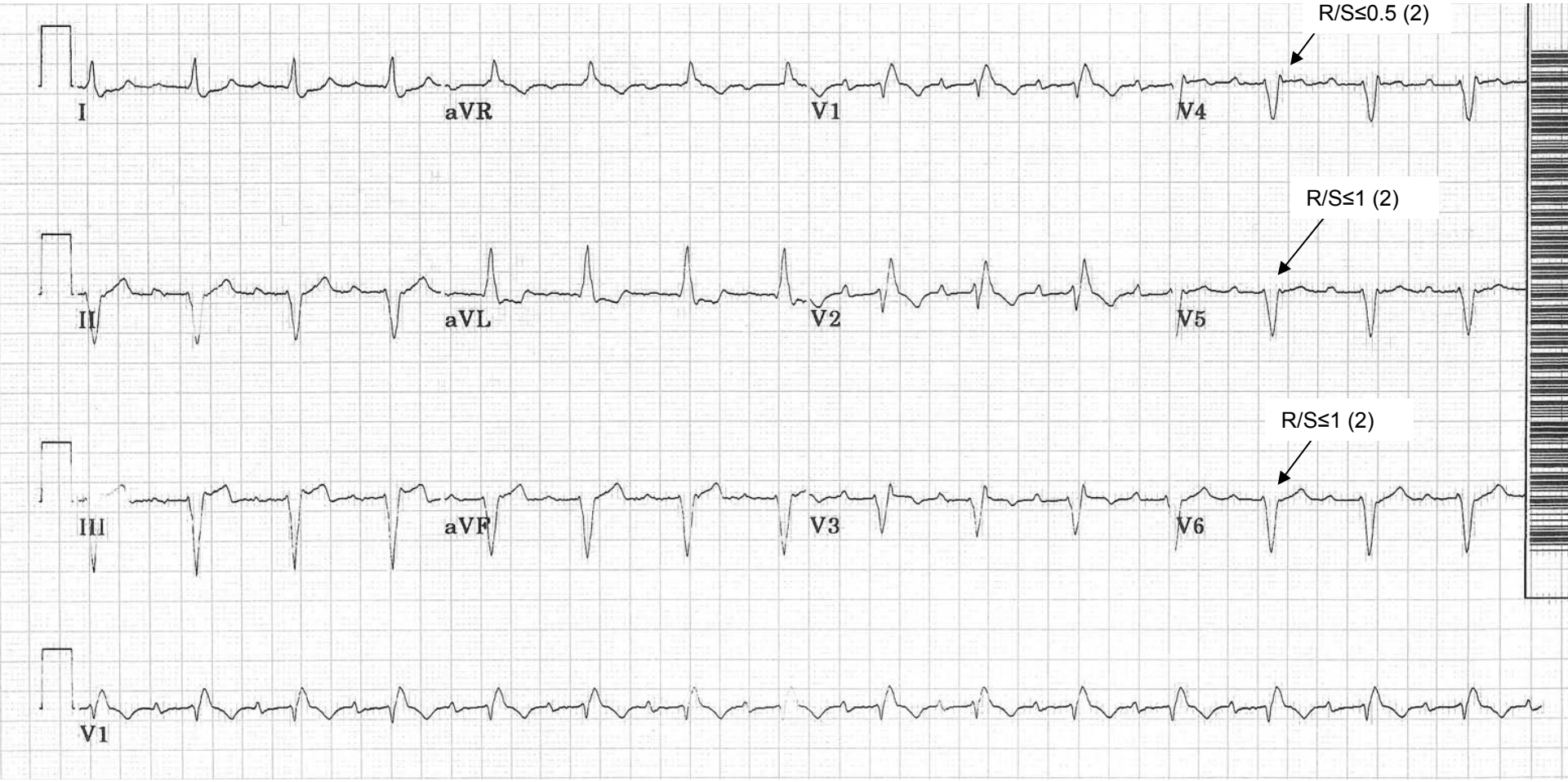
Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 15	2
	S/S' ≥ 125	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 15	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	
	%LV infarct (3 * #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

Patient ID:	02	**QRS Duration:**	166ms	**Amplitude Adjustment:**	+3%
Age & Sex:	42 Female	**QRS Axis:**	-74˚	**Duration Adjustment:**	-10%
Conduction Type:	LAFB + RBBB	**Right Atrial Overload:**	No	**Total Points**	6 points (18%)



QRS Scoring

Patient ID 02 QRS duration 166ms Amplitude adjust +3%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 42 Female QRS axis -74° Duration adjust -10% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 60 ms	2	R ≥ 50 ms	2	Init R ≥ 60 ms	2	R ≥ 50 ms	2	R ≥ 50 ms	2
	Init R ≥ 1.5 mV		R ≥ 1mV		Init R ≥ 1.5 mV		R ≥ 1mV		R ≥ 1mV	
	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 1.0 mV		R ≥ 0.7 mV		Init R ≥ 1.0 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points	6	Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	18	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

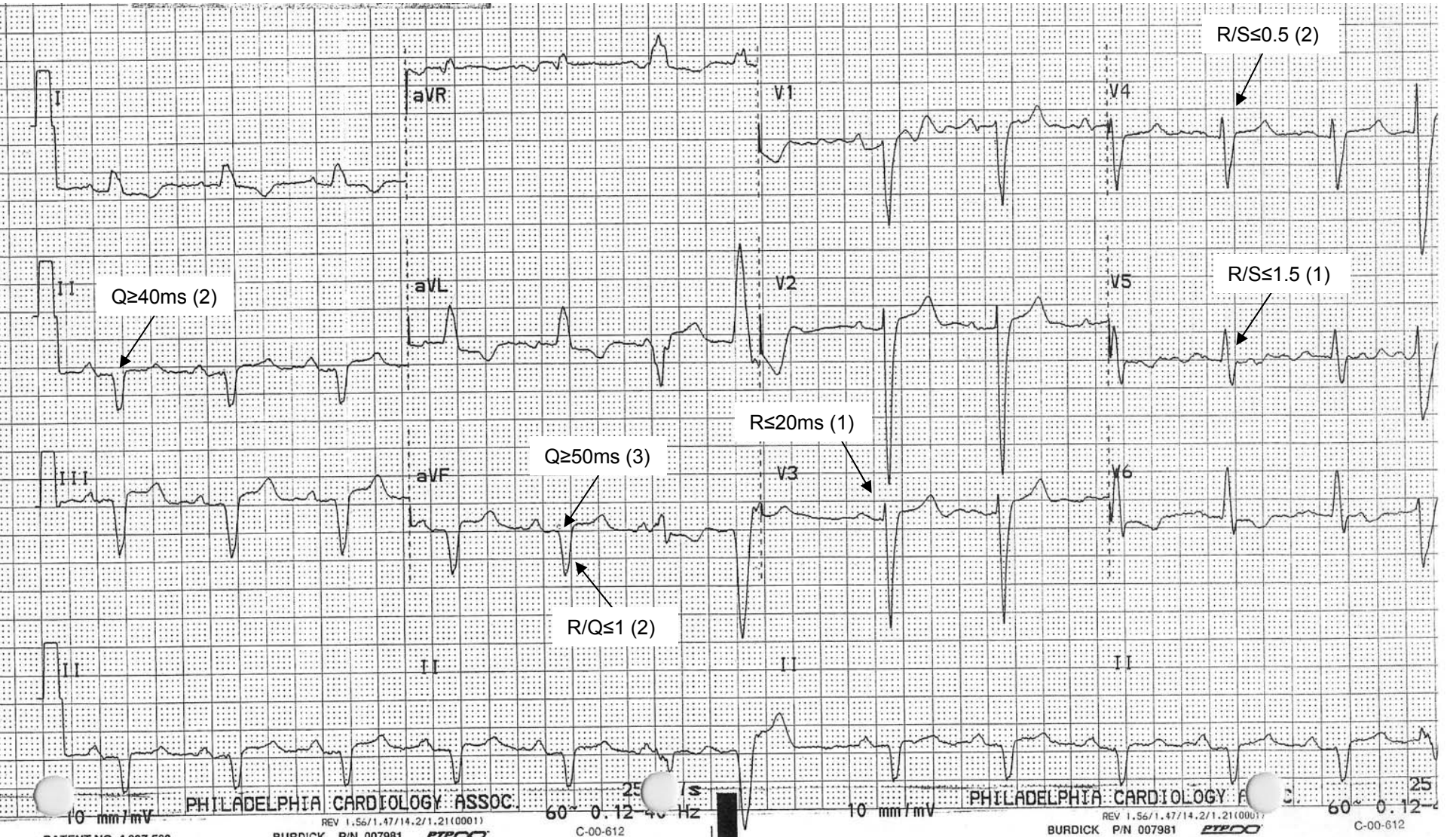
%LV infarct (3 * #pts) ____

* (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

Patient ID:	03	**QRS Duration:**	118ms	**Amplitude Adjustment:**	+1%
Age & Sex:	54 Male	**QRS Axis:**	-68˚	**Duration Adjustment:**	0%
Conduction Type:	LAFB	**Right Atrial Overload:**	Yes	**Total Points**	11 points (33%)



QRS Scoring

Patient ID 03 QRS duration 118ms Amplitude adjust +1%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 54 Male QRS axis -68° Duration adjust 0% RAO(**, ***) (Yes) No
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points	11	Points		Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	33	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

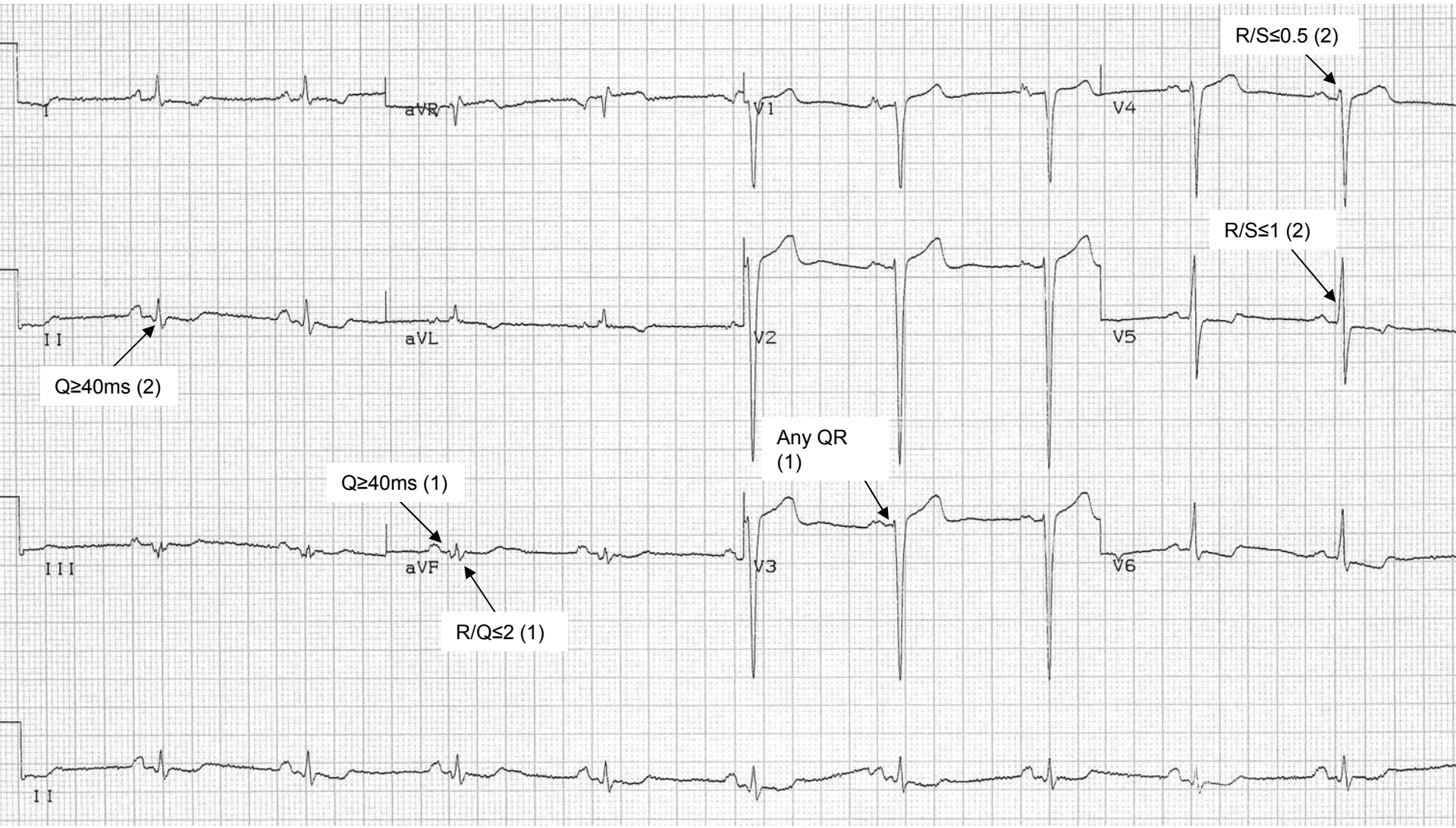
%LV infarct (3 * #pts) ____

* (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

Patient ID:	04	**QRS Duration:**	112ms	**Amplitude Adjustment:**	+1%
Age & Sex:	54 Male	**QRS Axis:**	-9˚	**Duration Adjustment:**	0%
Conduction Type:	LVH	**Right Atrial Overload:**	Yes	**Total Points**	9 points (27%)



QRS Scoring

Patient ID 04 QRS duration 112ms Amplitude adjust +1%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 54 Male QRS axis -9° Duration adjust 0% RAO(**, ***) (Yes) No
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 60 ms	2	R ≥ 50 ms	2	Init R ≥ 60 ms	2	R ≥ 50 ms	2	R ≥ 50 ms	2
	Init R ≥ 1.5 mV		R ≥ 1mV		Init R ≥ 1.5 mV		R ≥ 1mV		R ≥ 1mV	
	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 1.0 mV		R ≥ 0.7 mV		Init R ≥ 1.0 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	1	R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1		R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points	9	Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	27	%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

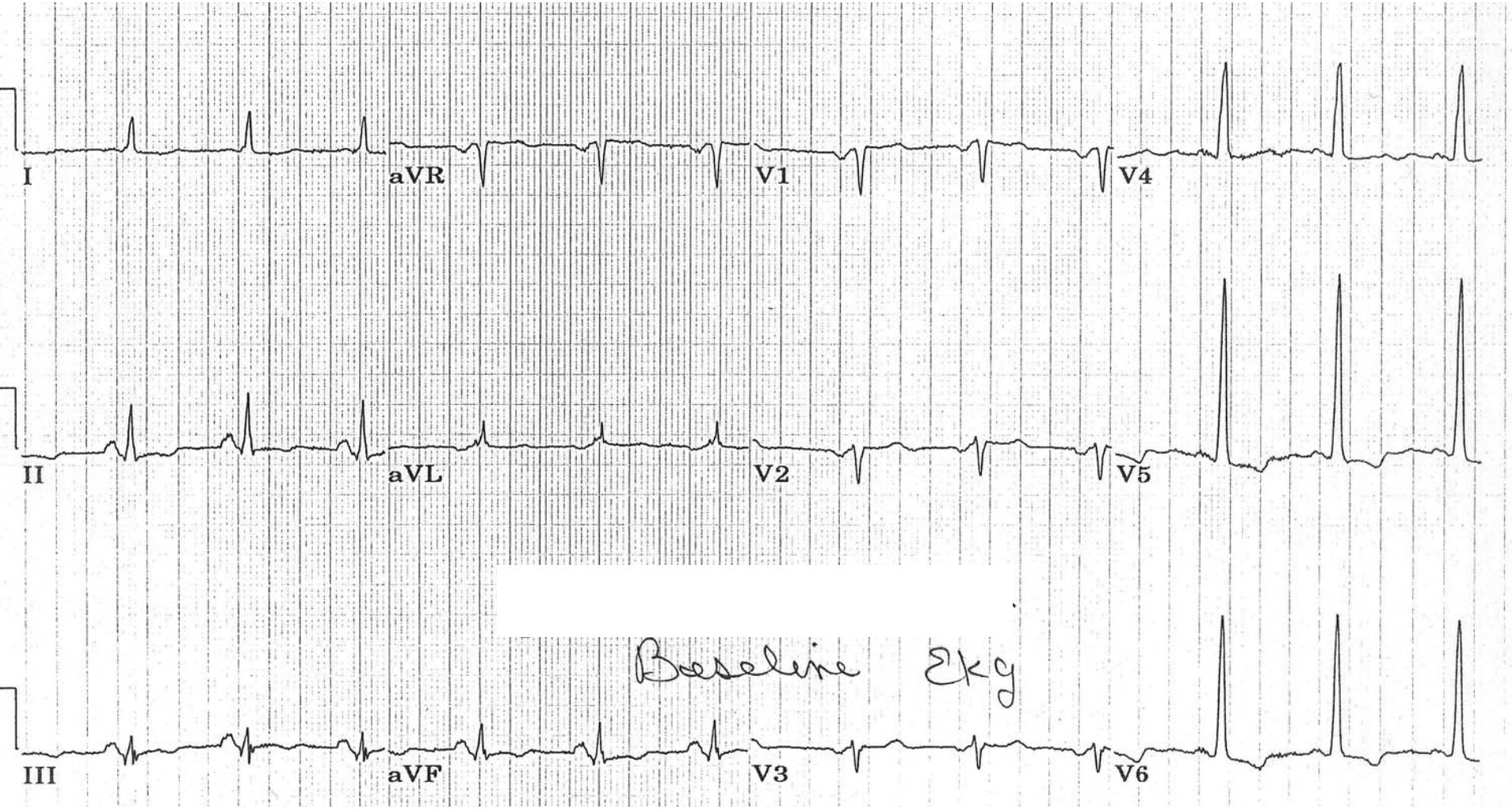
%LV infarct (3 * #pts) ____

* (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

Patient ID:	05	**QRS Duration:**	96ms	**Amplitude Adjustment:**	-15%
Age & Sex:	60 Female	**QRS Axis:**	+37˚	**Duration Adjustment:**	-10%
Conduction Type:	LVH	**Right Atrial Overload:**	No	**Total Points**	0 points (0%)



QRS Scoring

Patient ID 05 QRS duration 96ms Amplitude adjust -15%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 60 Female QRS axis +37° 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	Init R ≥ 60 ms	2	R ≥ 50 ms	2	Init R ≥ 60 ms	2	R ≥ 50 ms	2	R ≥ 50 ms	2
	Init R ≥ 1.5 mV		R ≥ 1mV		Init R ≥ 1.5 mV		R ≥ 1mV		R ≥ 1mV	
	Init R ≥ 50 ms	1	R ≥ 40 ms	1	Init R ≥ 50 ms	1	R ≥ 40 ms	1	R ≥ 40 ms	1
	Init R ≥ 1.0 mV		R ≥ 0.7 mV		Init R ≥ 1.0 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 1.0 ms		R ≤ 1.0 ms		R ≤ 1.0 ms		(or any Q if *)		R ≤ 1.0 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 1.0 ms		R ≤ 1.0 ms		R ≤ 1.0 ms		NtchInit40	1	R ≤ 1.0 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points	0	Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	0	%LV infarct (3 x #pts)	

LBBB		
Lead	Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

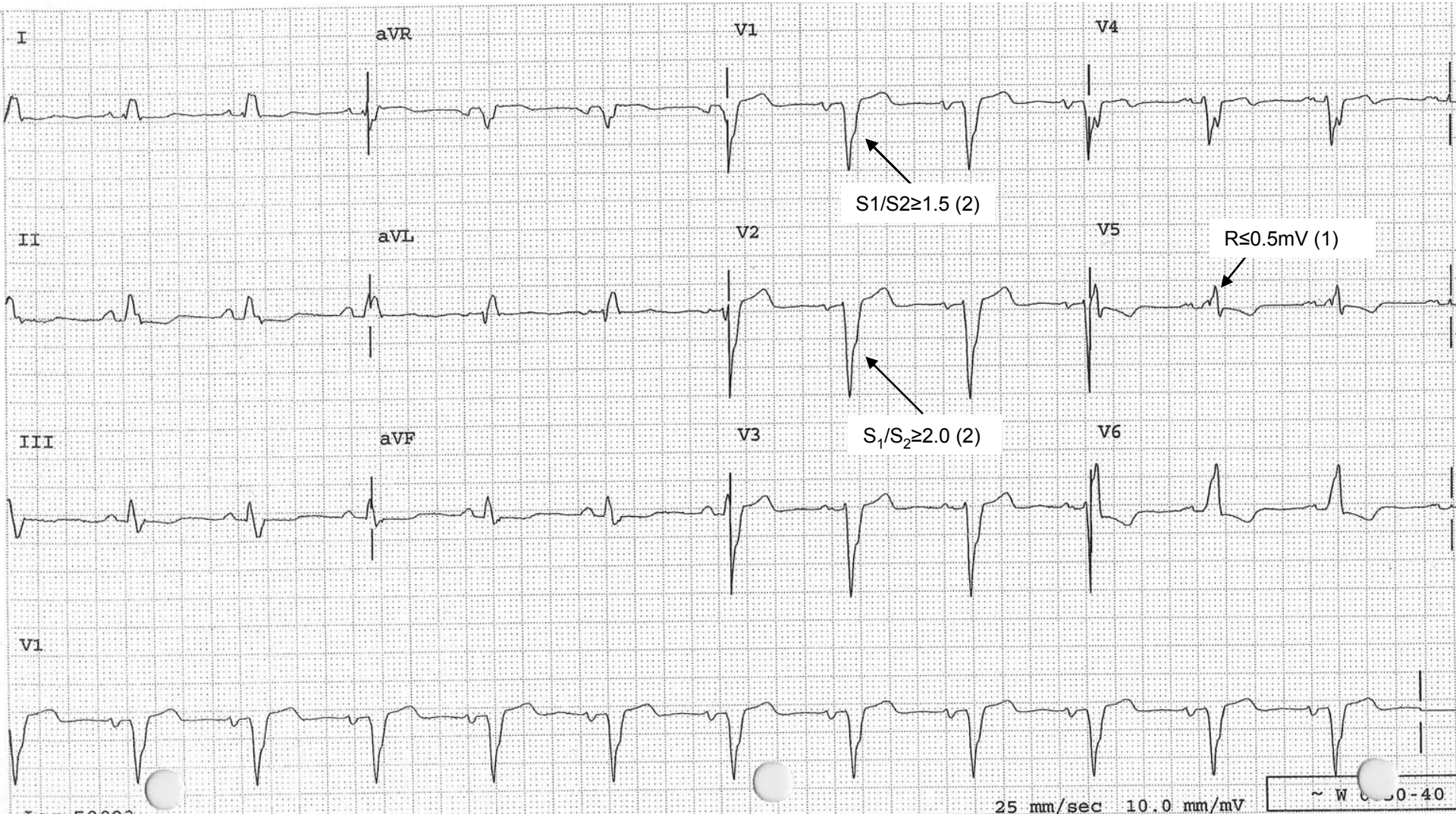
%LV infarct (3 * #pts) ____

* (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

Patient ID:	06	**QRS Duration:**	140ms	**Amplitude Adjustment:**	-15%
Age & Sex:	60 Female	**QRS Axis:**	+30˚	**Duration Adjustment:**	-10%
Conduction Type:	LBBB	**Right Atrial Overload:**	No	**Total Points:**	5 points (15%)



QRS Scoring

Patient ID 06 QRS duration 140ms Amplitude adjust -15%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 60 Female QRS axis +30° Duration adjust -10% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	
	%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)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	5

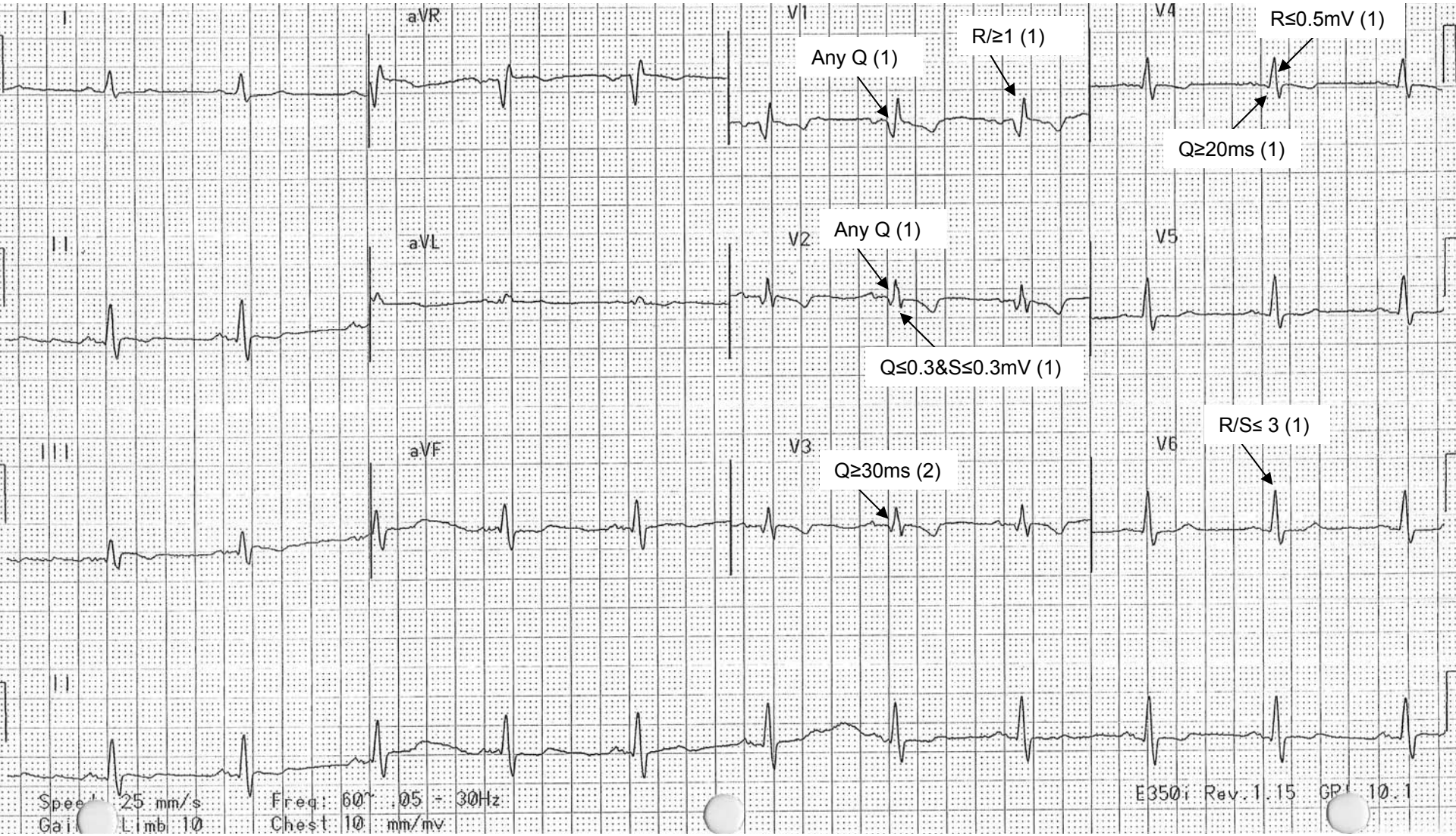
%LV infarct (3 * #pts) 15

* (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

Patient ID:	07	**QRS Duration:**	108ms	**Amplitude Adjustment:**	-3%
Age & Sex:	58 Male	**QRS Axis:**	+39˚	**Duration Adjustment:**	0%
Conduction Type:	No Confounders	**Right Atrial Overload:**	No	**Total Points**	9 points (27%)



QRS Scoring

Patient ID 07 QRS duration 108ms Amplitude adjust -3%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 58 Male QRS axis +39° Duration adjust 0% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	9
	%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)	27

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

%LV infarct (3 * #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

Patient ID:	08	**QRS Duration:**	162ms	**Amplitude Adjustment:**	+1%
Age & Sex:	54 Male	**QRS Axis:**	+112˚	**Duration Adjustment:**	0%
Conduction Type:	RBBB	**Right Atrial Overload:**	No	**Total Points**	17 points (51%)

QRS Scoring

Patient ID 08 QRS duration 162ms Amplitude adjust +1%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 54 Male QRS axis +112° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points	17	Points		Points		Points		Points	
	%LV infarct (3 x #pts)	51	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

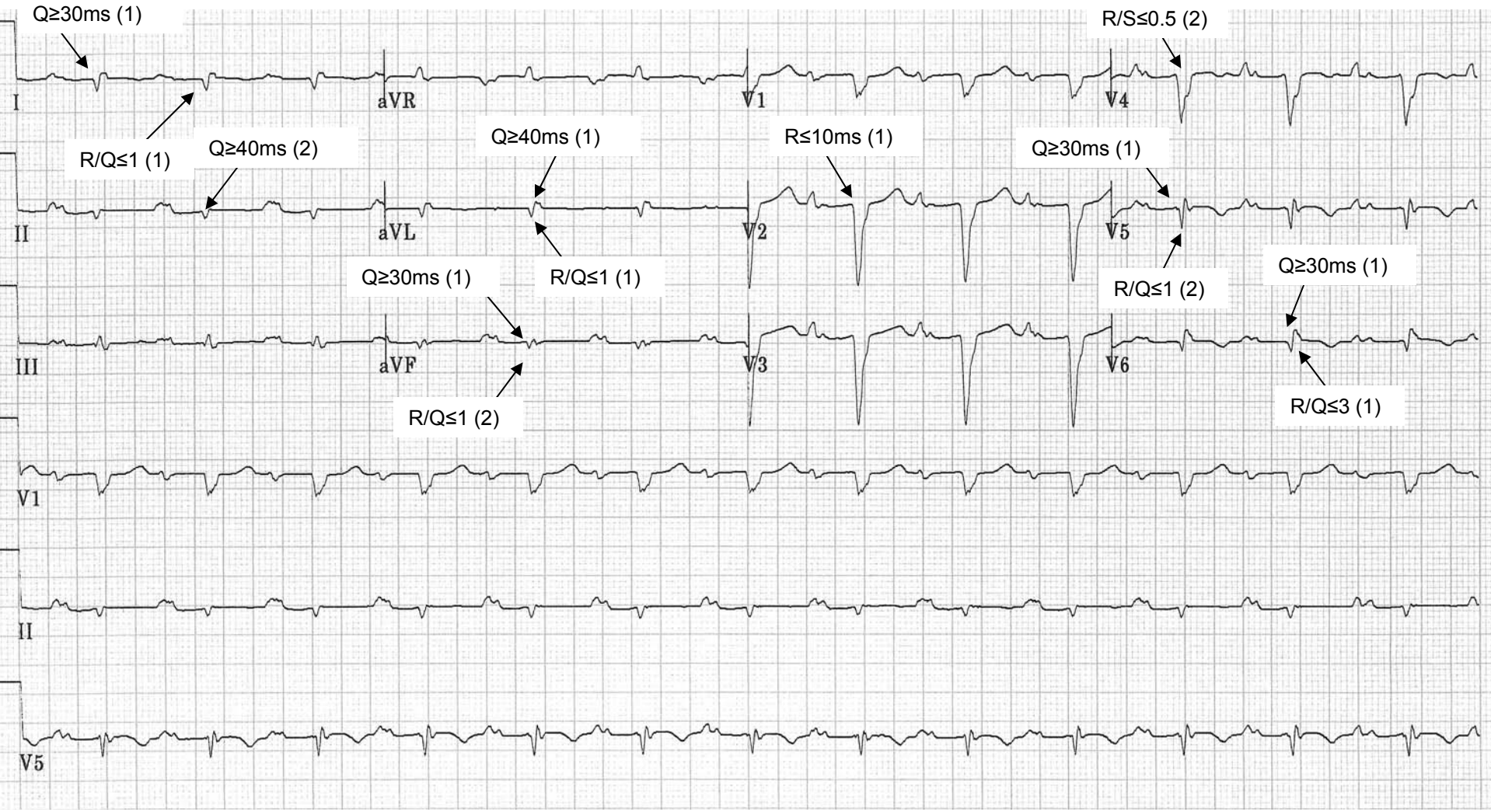
%LV infarct (3 * #pts) ____

* (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

Patient ID:	09	**QRS Duration:**	114ms	**Amplitude Adjustment:**	+1%
Age & Sex:	54 Male	**QRS Axis:**	204˚	**Duration Adjustment:**	0%
Conduction Type:	LAFB	**Right Atrial Overload:**	No	**Total Points**	17 points (51%)



QRS Scoring

Patient ID 09 QRS duration 114ms Amplitude adjust +1%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 54 Male QRS axis 204° Duration adjust 0% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points	17	Points		Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	51	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 125	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

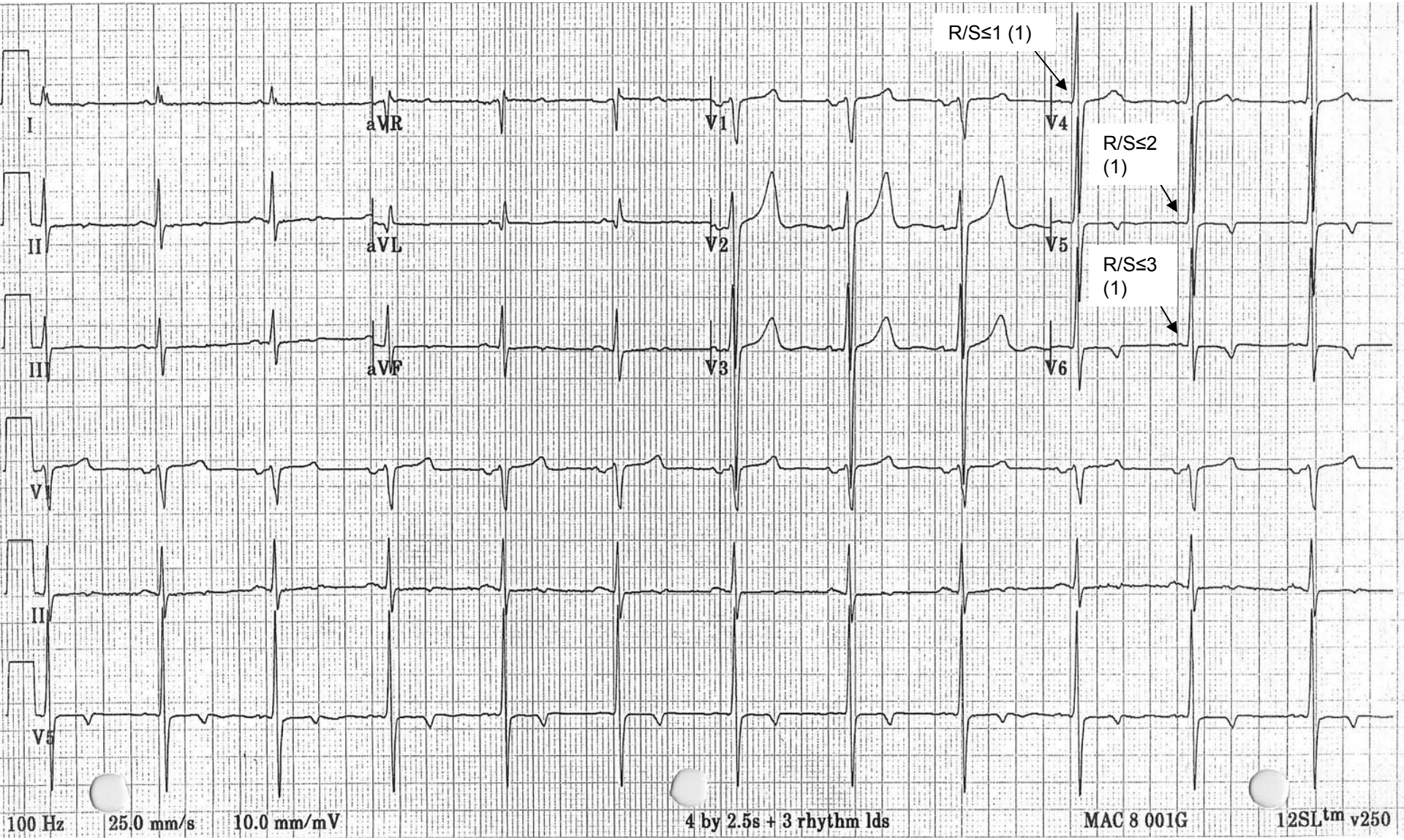
%LV infarct (3 * #pts) ____

* (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

Patient ID:	10	**QRS Duration:**	92ms	**Amplitude Adjustment:**	+4%
Age & Sex:	51 Male	**QRS Axis:**	+33˚	**Duration Adjustment:**	0%
Conduction Type:	LVH	**Right Atrial Overload:**	No	**Total Points**	3 points (9%)



QRS Scoring

Patient ID 10 QRS duration 92ms Amplitude adjust +4%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 51 Male QRS axis +33° Duration adjust 0% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points	3	Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	9	%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

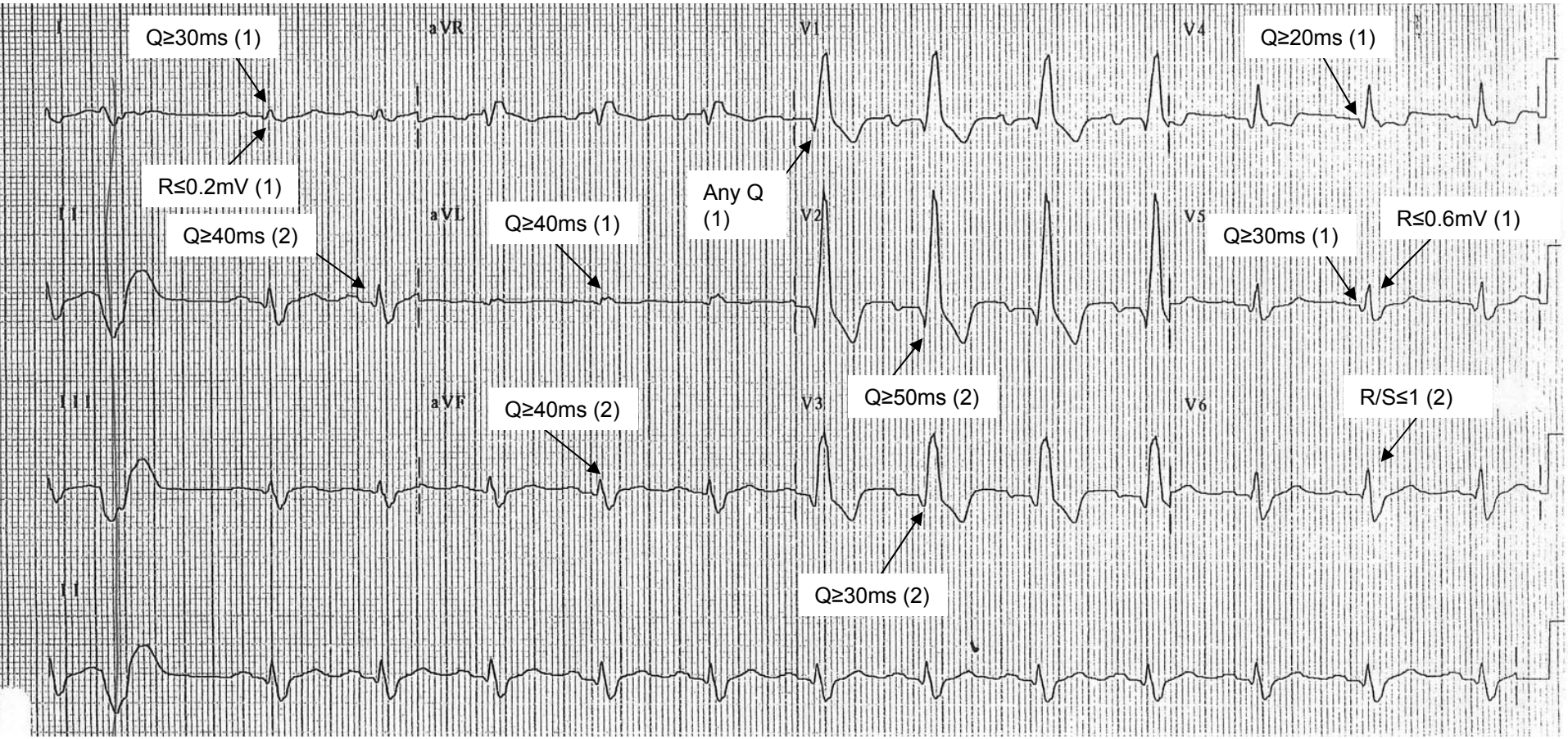
%LV infarct (3 * #pts) ____

* (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

Patient ID:	11	**QRS Duration:**	169ms	**Amplitude Adjustment:**	-6%
Age & Sex:	61 Male	**QRS Axis:**	+245˚	**Duration Adjustment:**	0%
Conduction Type:	LAFB + RBBB	**Right Atrial Overload:**	No	**Total Points**	17 points (51%)



QRS Scoring

Patient ID 11 QRS duration 169ms Amplitude adjust -6%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 61 Male QRS axis +245° Duration adjust 0% RAO(**, ***)Yes/No
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points	17	Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	51	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

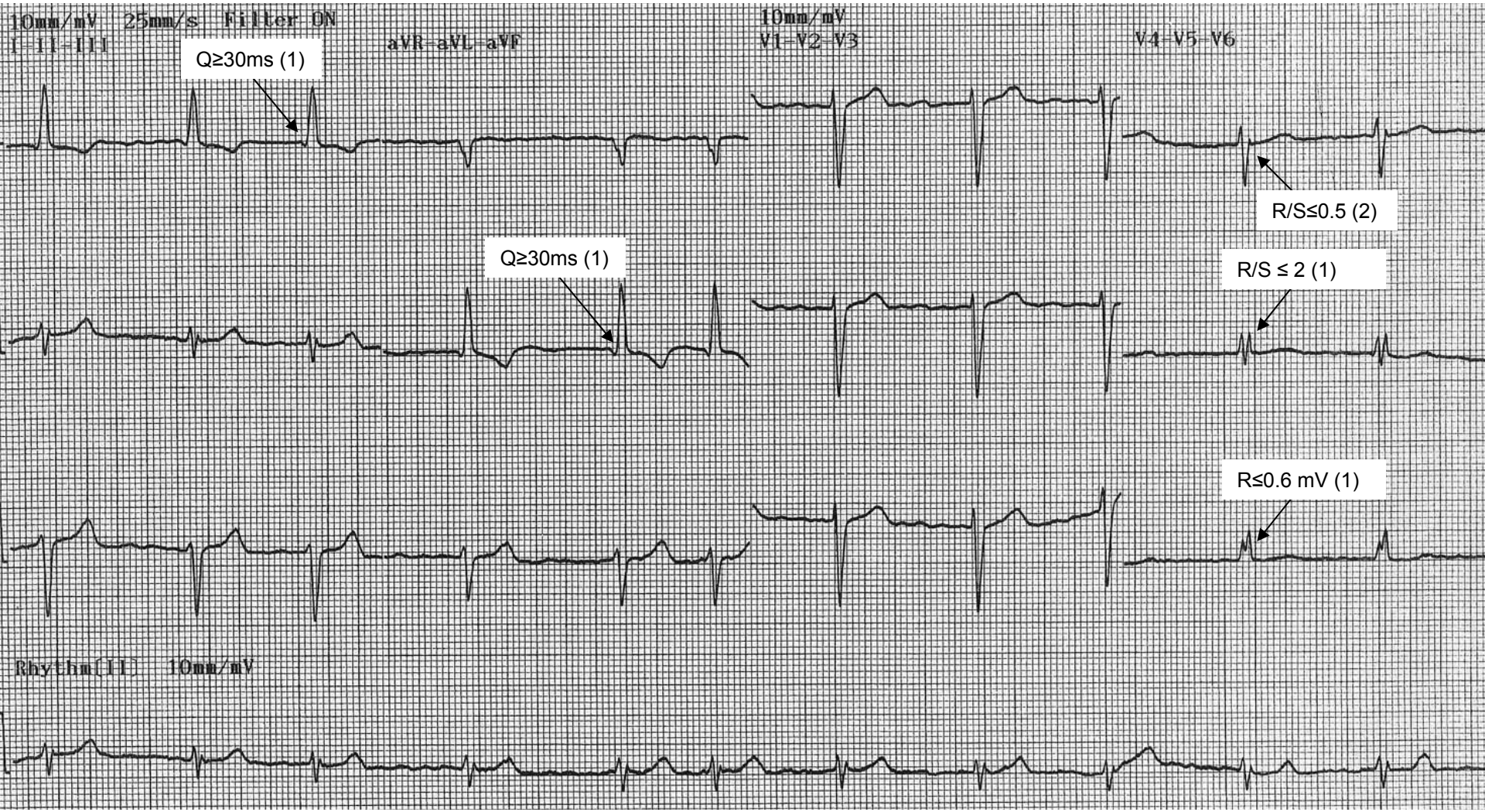
%LV infarct (3 * #pts) ____

* (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

Patient ID:	12	**QRS Duration:**	104ms	**Amplitude Adjustment:**	-26%
Age & Sex:	81 Male	**QRS Axis:**	-36˚	**Duration Adjustment:**	0%
Conduction Type:	No Confounders	**Right Atrial Overload:**	No	**Total Points**	6 points (18%)



QRS Scoring

Patient ID 12 QRS duration 104ms Amplitude adjust -26%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 81 Male QRS axis -36° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	6
	%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)	18

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

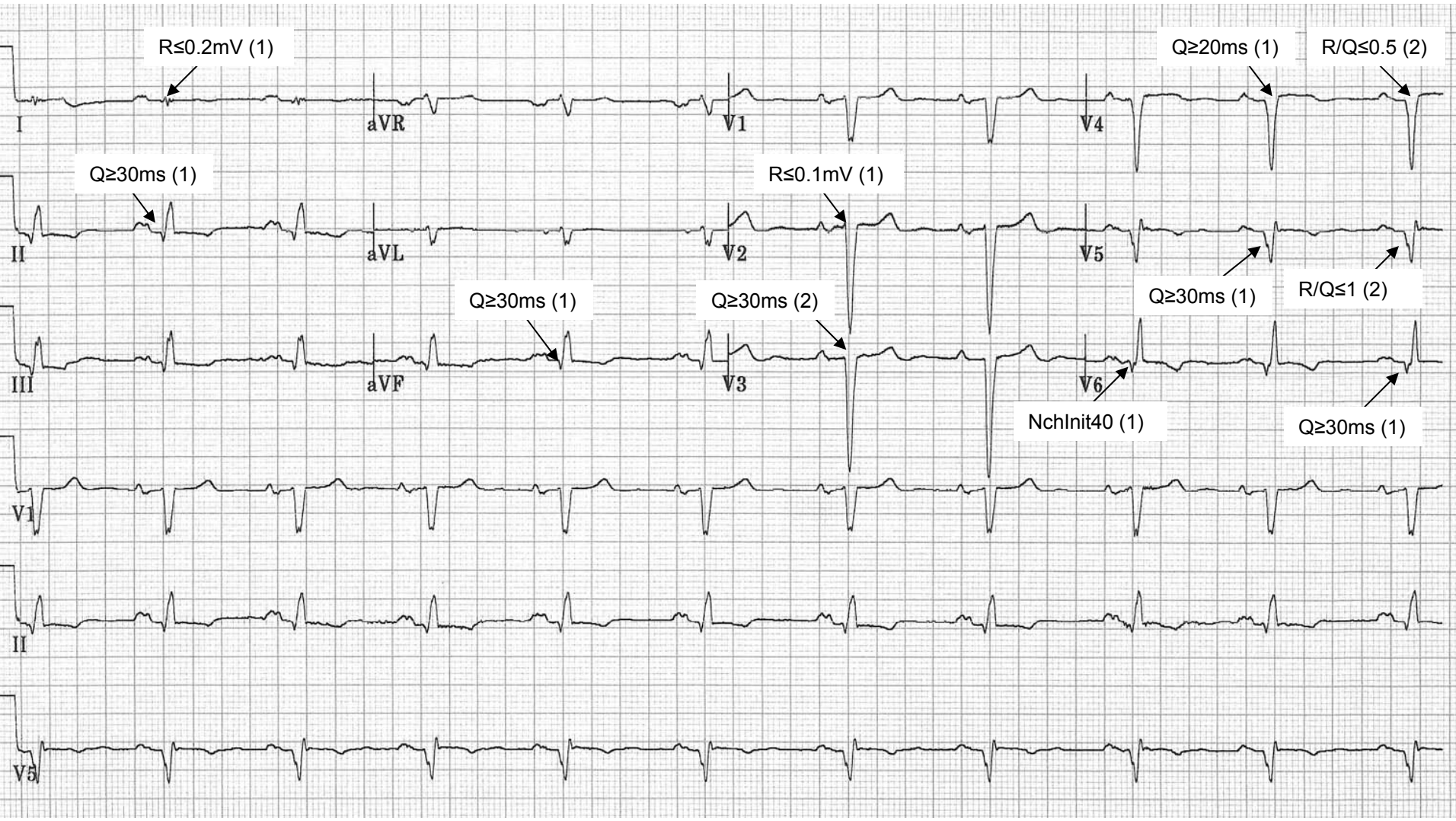
%LV infarct (3 * #pts) ____

* (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

Patient ID:	13	**QRS Duration:**	104ms	**Amplitude Adjustment:**	+4%
Age & Sex:	51 Male	**QRS Axis:**	+91˚	**Duration Adjustment:**	0%
Conduction Type:	No Confounders	**Right Atrial Overload:**	No	**Total Points**	14 points (42%)



QRS Scoring

Patient ID 13 QRS duration 104ms Amplitude adjust +4%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 51 Male QRS axis +91° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	14
	%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)	42

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

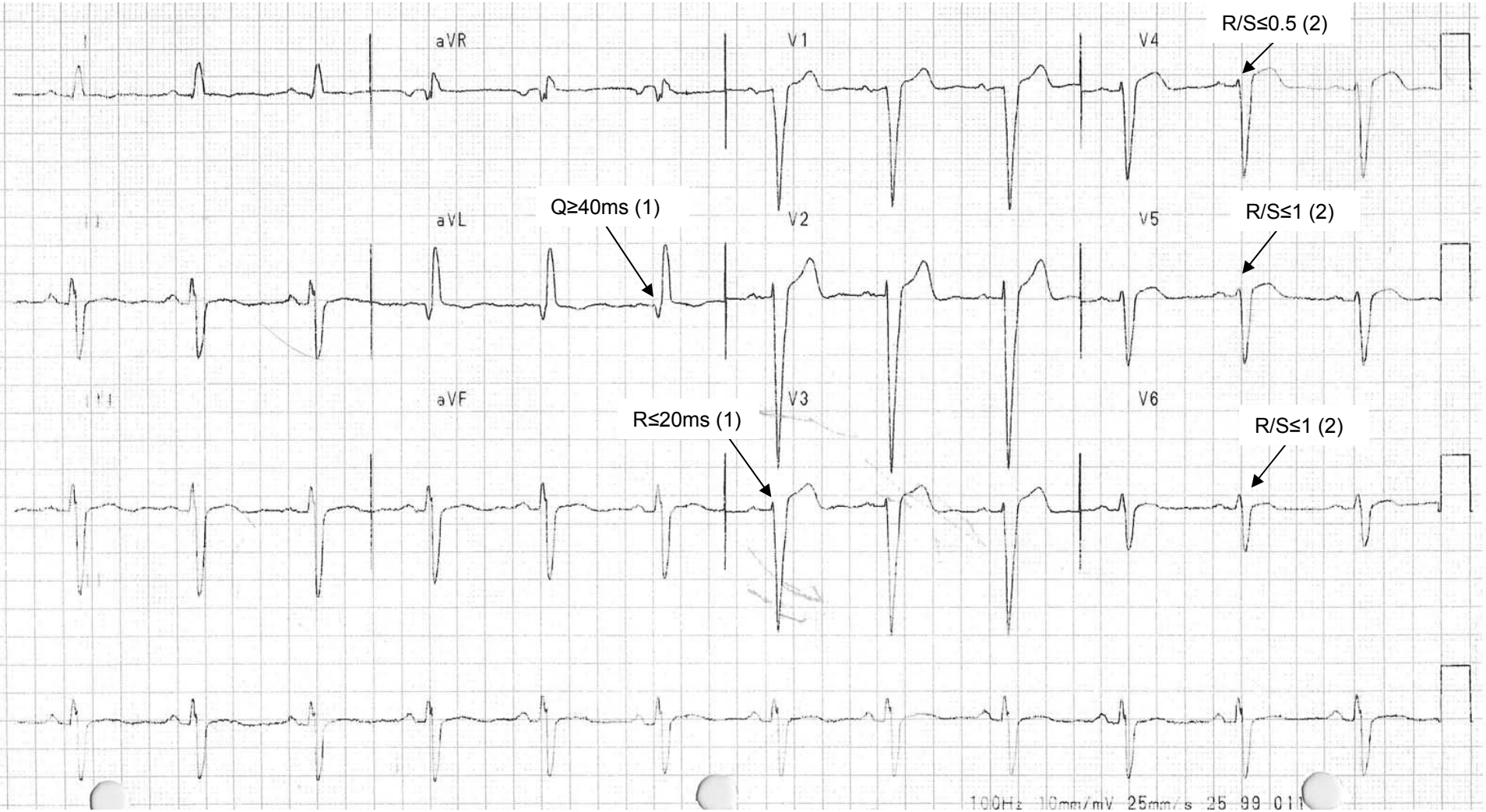
%LV infarct (3 * #pts) ____

* (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

Patient ID:	14	**QRS Duration:**	128ms	**Amplitude Adjustment:**	-2%
Age & Sex:	57 Male	**QRS Axis:**	-59˚	**Duration Adjustment:**	0%
Conduction Type:	LAFB	**Right Atrial Overload:**	No	**Total Points**	8 points (24%)



QRS Scoring

Patient ID 14 QRS duration 128ms Amplitude adjust -2%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 57 Male QRS axis -59° Duration adjust 0% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points	8	Points		Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	24	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 125	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

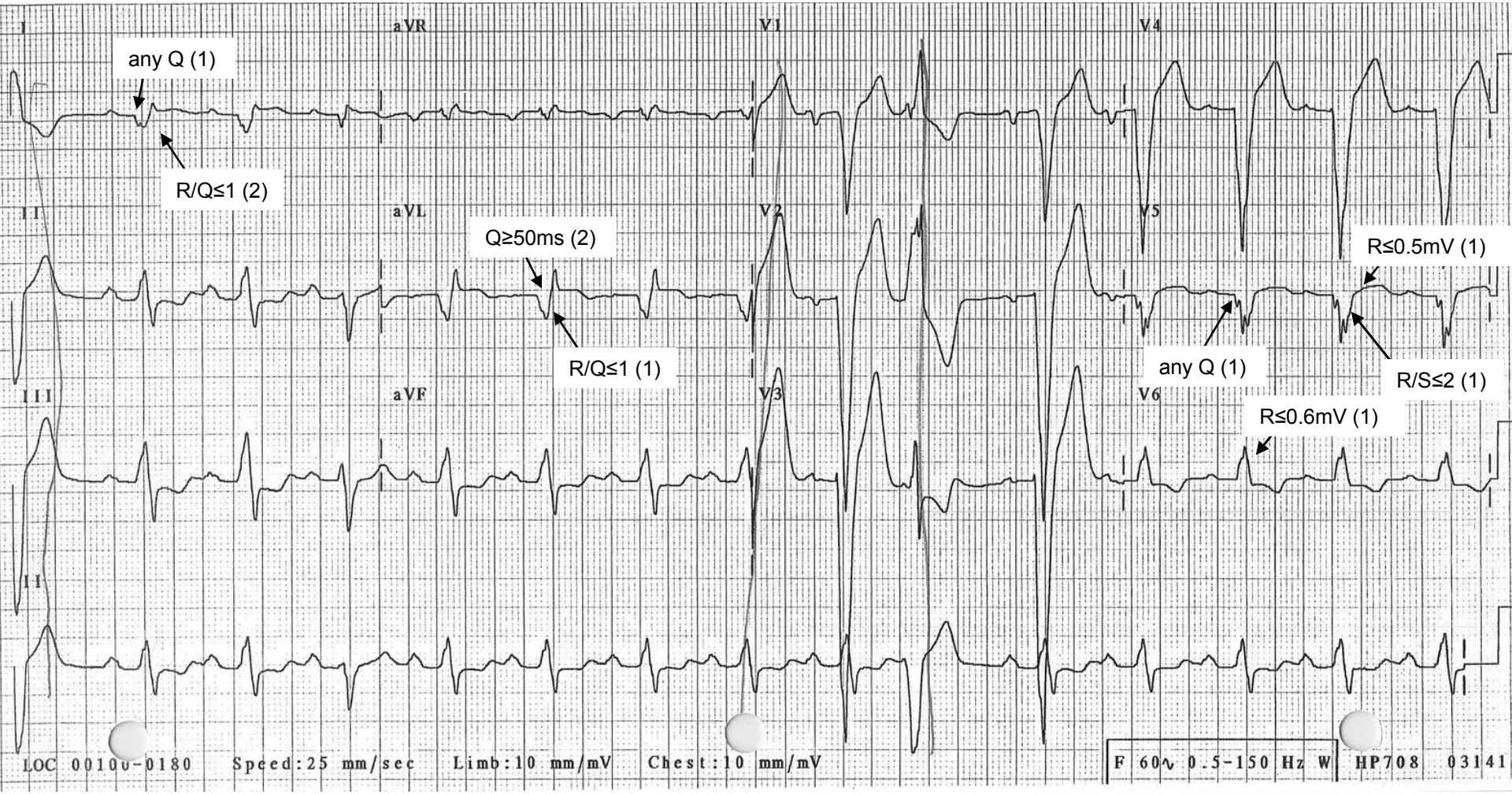
%LV infarct (3 * #pts) ____

* (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

Patient ID:	15	**QRS Duration:**	154ms	**Amplitude Adjustment:**	-4%
Age & Sex:	59 Male	**QRS Axis:**	0˚	**Duration Adjustment:**	0%
Conduction Type:	LBBB	**Right Atrial Overload:**	No	**Total Points**	10 points (30 points)



QRS Scoring

Patient ID 15 QRS duration 154ms Amplitude adjust -4%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

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

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	
	%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)	

LBBB

Lead	Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	30
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	10

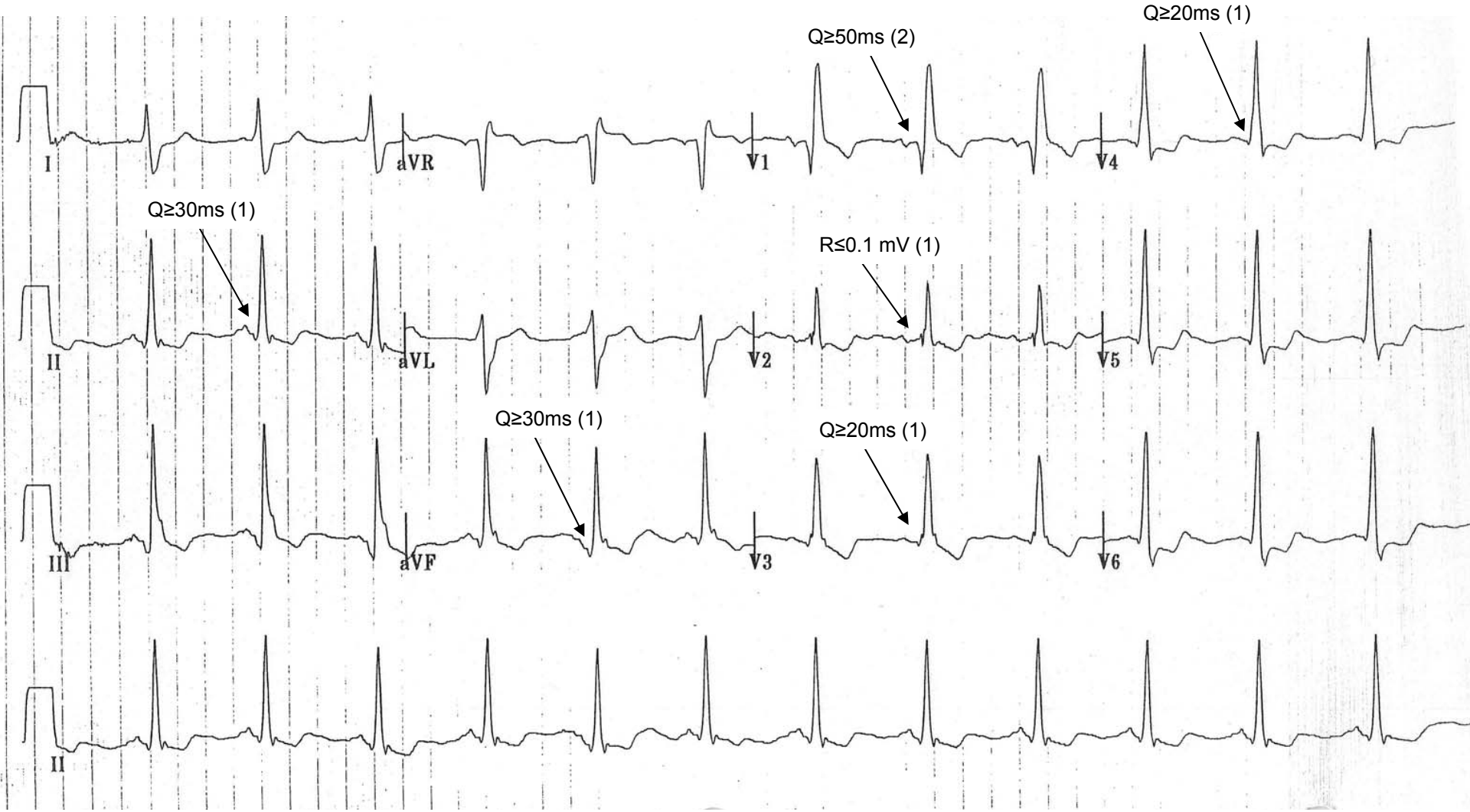
%LV infarct (3 * #pts) 30

* (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

Patient ID:	16	**QRS Duration:**	146ms	**Amplitude Adjustment:**	-1%
Age & Sex:	56 Male	**QRS Axis:**	+88˚	**Duration Adjustment:**	0%
Conduction Type:	RBBB	**Right Atrial Overload:**	No	**Total Points**	7 points (21%)



QRS Scoring

Patient ID 16 QRS duration 146ms Amplitude adjust -1%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 56 Male QRS axis +88° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points	7	Points		Points		Points		Points	
	%LV infarct (3 x #pts)	21	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

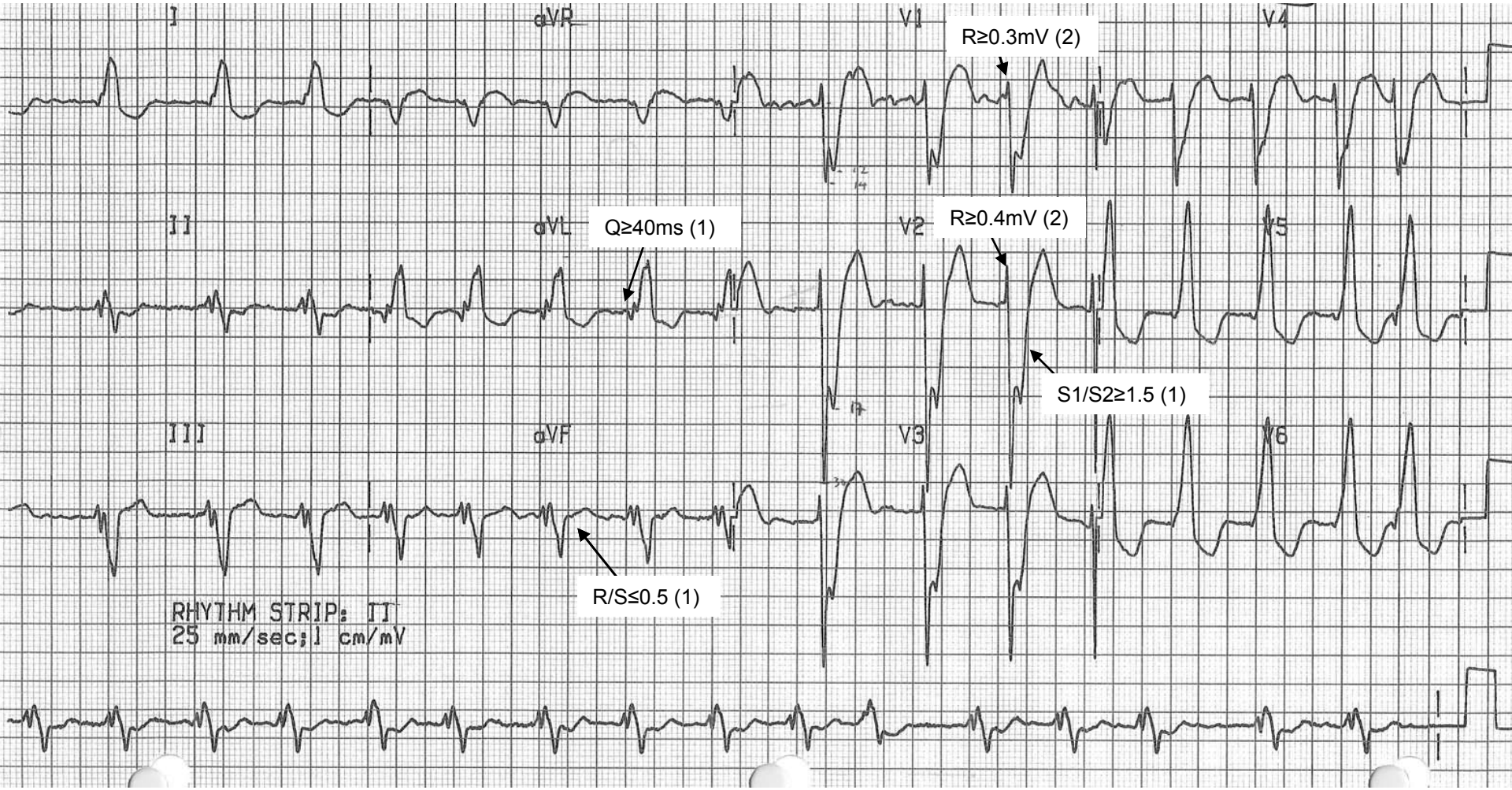
Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	
	%LV infarct (3 * #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

Patient ID:	17	**QRS Duration:**	171ms	**Amplitude Adjustment:**	-13%
Age & Sex:	68 Male	**QRS Axis:**	-40˚	**Duration Adjustment:**	0%
Conduction Type:	LBBB	**Right Atrial Overload:**	No	**Total Points:**	7 points (21%)



QRS Scoring

Patient ID 17 QRS duration 171ms Amplitude adjust -13%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 68 Male QRS axis -40° Duration adjust 0% RAO(**, ***)Yes/No
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	
	%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)	

LBBB Lead	Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.*	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.*	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	7

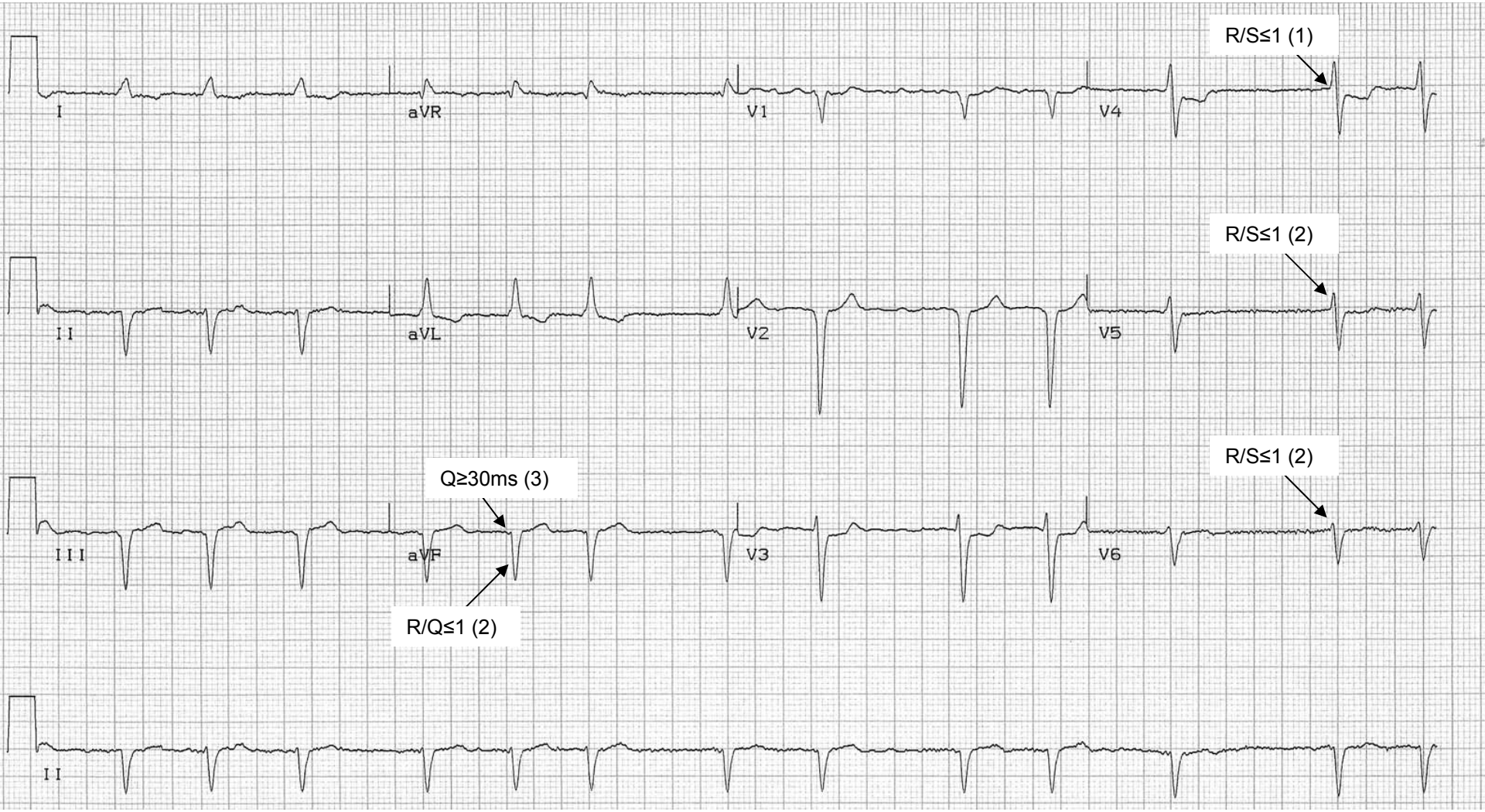
%LV infarct (3 * #pts) 21

* (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

Patient ID:	18	**QRS Duration:**	112ms	**Amplitude Adjustment:**	-17%
Age & Sex:	72 Male	**QRS Axis:**	-73˚	**Duration Adjustment:**	0%
Conduction Type:	LAFB	**Right Atrial Overload:**	No	**Total Points:**	8 points (24%)



QRS Scoring

Patient ID 18 QRS duration 112ms Amplitude adjust -17%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 72 Male QRS axis -73° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points	8	Points		Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	24	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 125	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

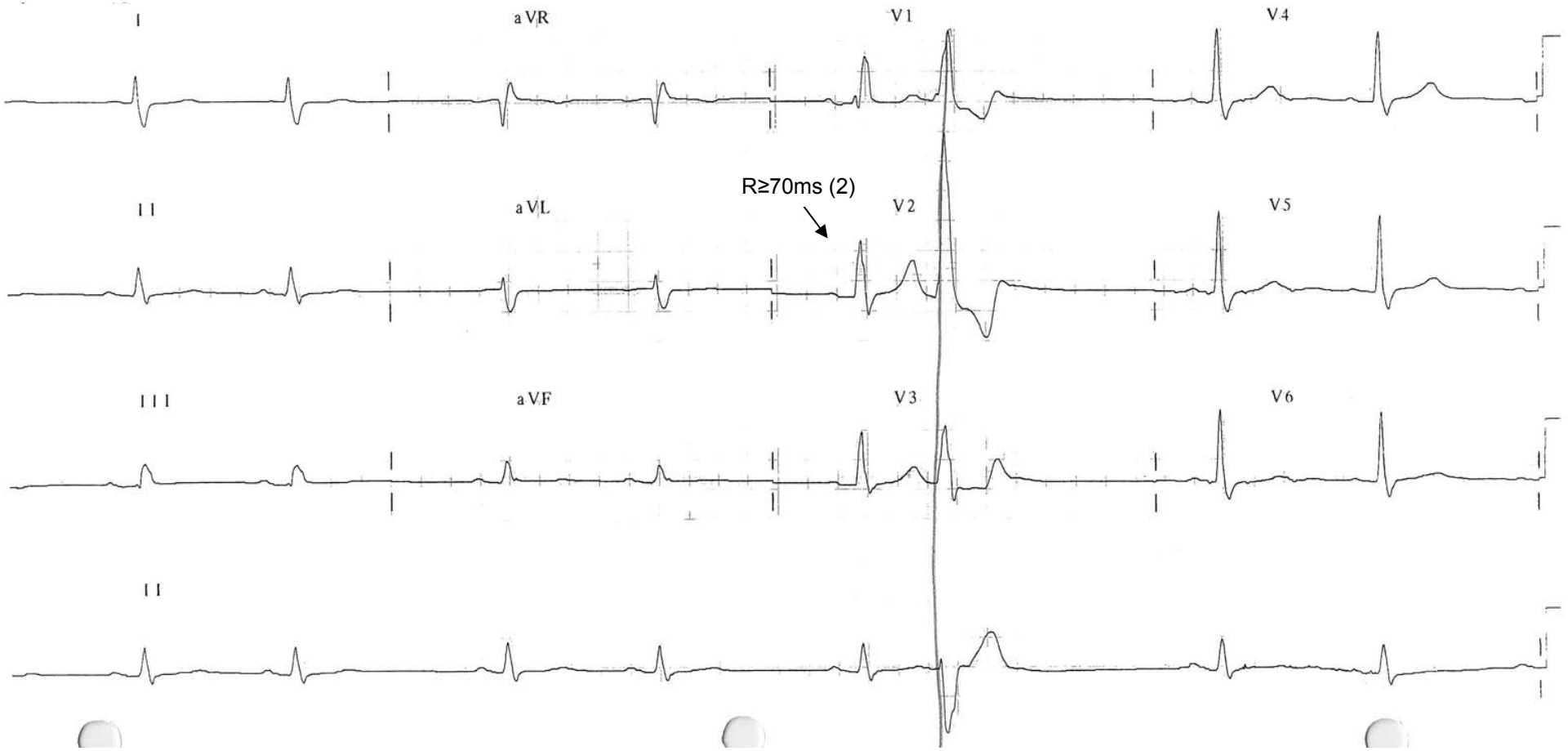
%LV infarct (3 * #pts) ____

* (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

Patient ID:	19	**QRS Duration:**	134ms	**Amplitude Adjustment:**	-9%
Age & Sex:	64 Male	**QRS Axis:**	+115˚	**Duration Adjustment:**	0%
Conduction Type:	RBBB	**Right Atrial Overload:**	No	**Total Points**	2 points (6%)



QRS Scoring

Patient ID 19 QRS duration 134ms Amplitude adjust -9%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 64 Male QRS axis +115° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points	2	Points		Points		Points		Points	
	%LV infarct (3 x #pts)	6	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

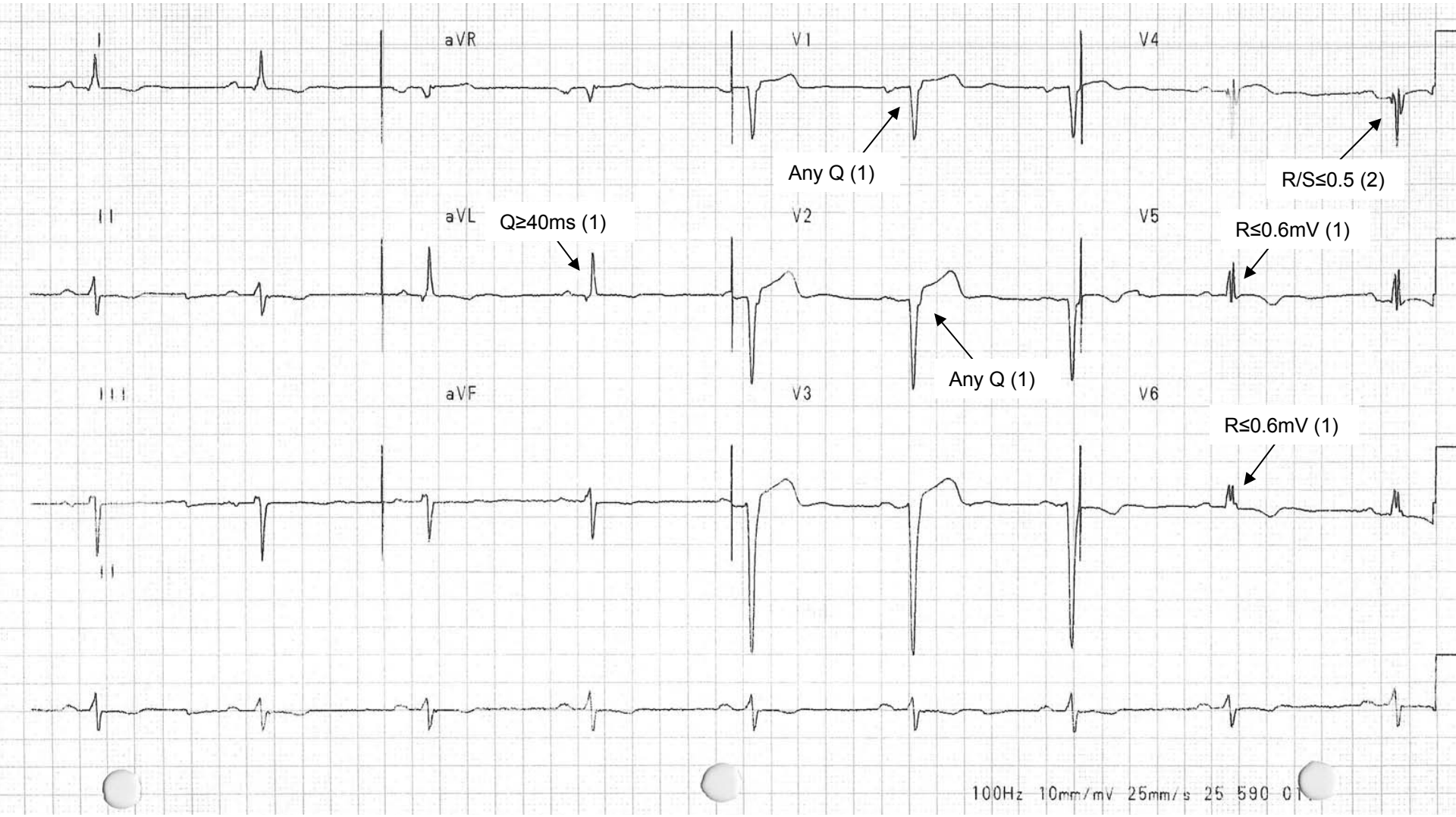
Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	
	%LV infarct (3 * #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

Patient ID:	20	**QRS Duration:**	112ms	**Amplitude Adjustment:**	+16%
Age & Sex:	39 Male	**QRS Axis:**	-42˚	**Duration Adjustment:**	0%
Conduction Type:	LVH	**Right Atrial Overload:**	No	**Total Points**	7 points (21%)



QRS Scoring

Patient ID 20 QRS duration 112ms Amplitude adjust +16%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 39 Male QRS axis -42° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points	6	Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	18	%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

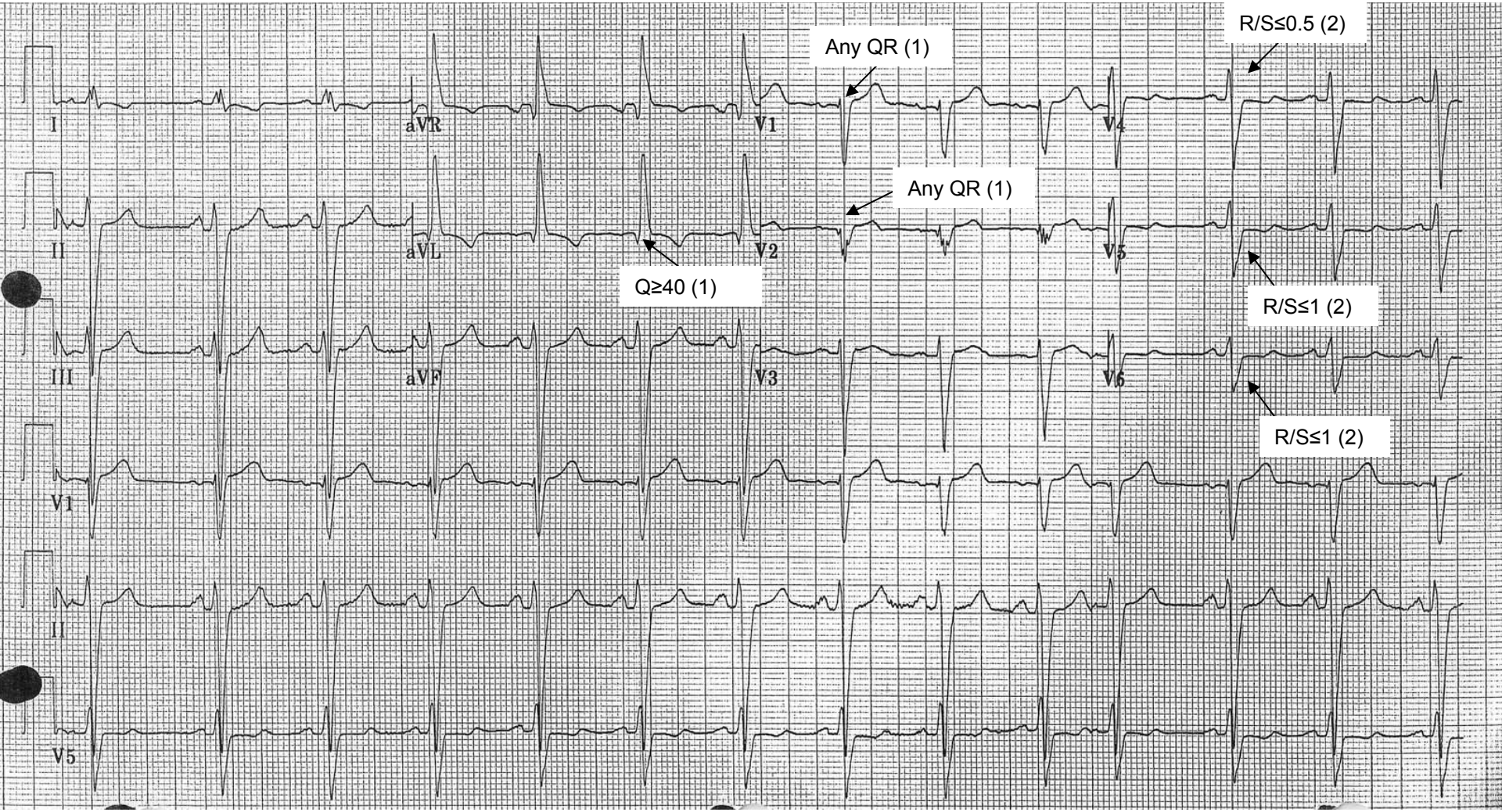
%LV infarct (3 * #pts) ____

* (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

Patient ID:	21	**QRS Duration:**	138ms	**Amplitude Adjustment:**	-13%
Age & Sex:	68 Male	**QRS Axis:**	-87˚	**Duration Adjustment:**	0%
Conduction Type:	LAFB	**Right Atrial Overload:**	No	**Total Points:**	9 points (27%)



QRS Scoring

Patient ID 21 QRS duration 138ms Amplitude adjust -13%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 68 Male QRS axis -87° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points	9	Points		Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	27	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

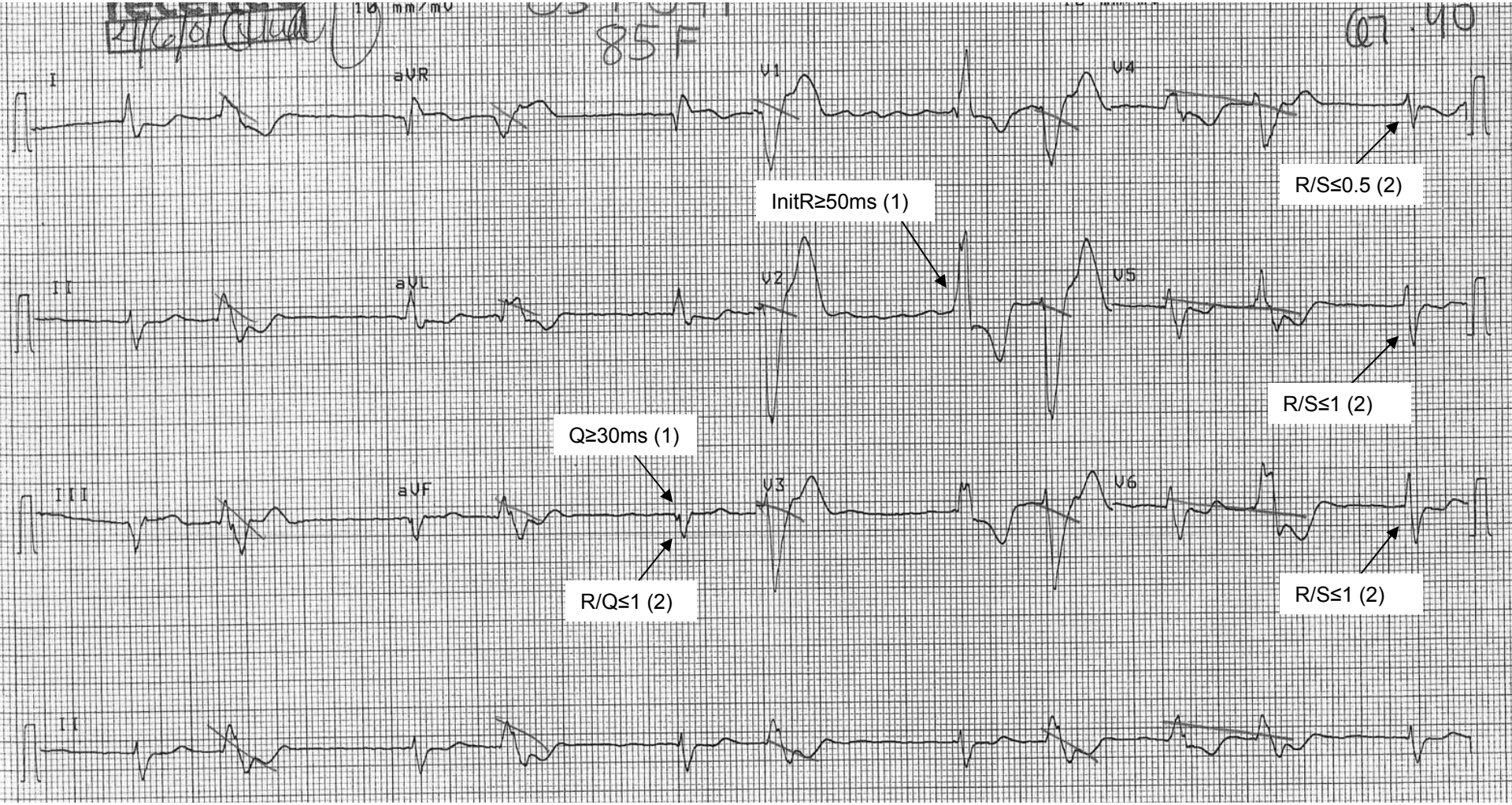
%LV infarct (3 * #pts) ____

* (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

Patient ID:	22	**QRS Duration:**	130ms	**Amplitude Adjustment:**	-40%
Age & Sex:	85 Female	**QRS Axis:**	-62˚	**Duration Adjustment:**	-10%
Conduction Type:	LAFB + RBBB	**Right Atrial Overload:**	No	**Total Points**	10 points (30%)



QRS Scoring

Patient ID 22 QRS duration 130ms Amplitude adjust -40%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 85 Female QRS axis -62° Duration adjust -10% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points	10	Points		Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	30	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

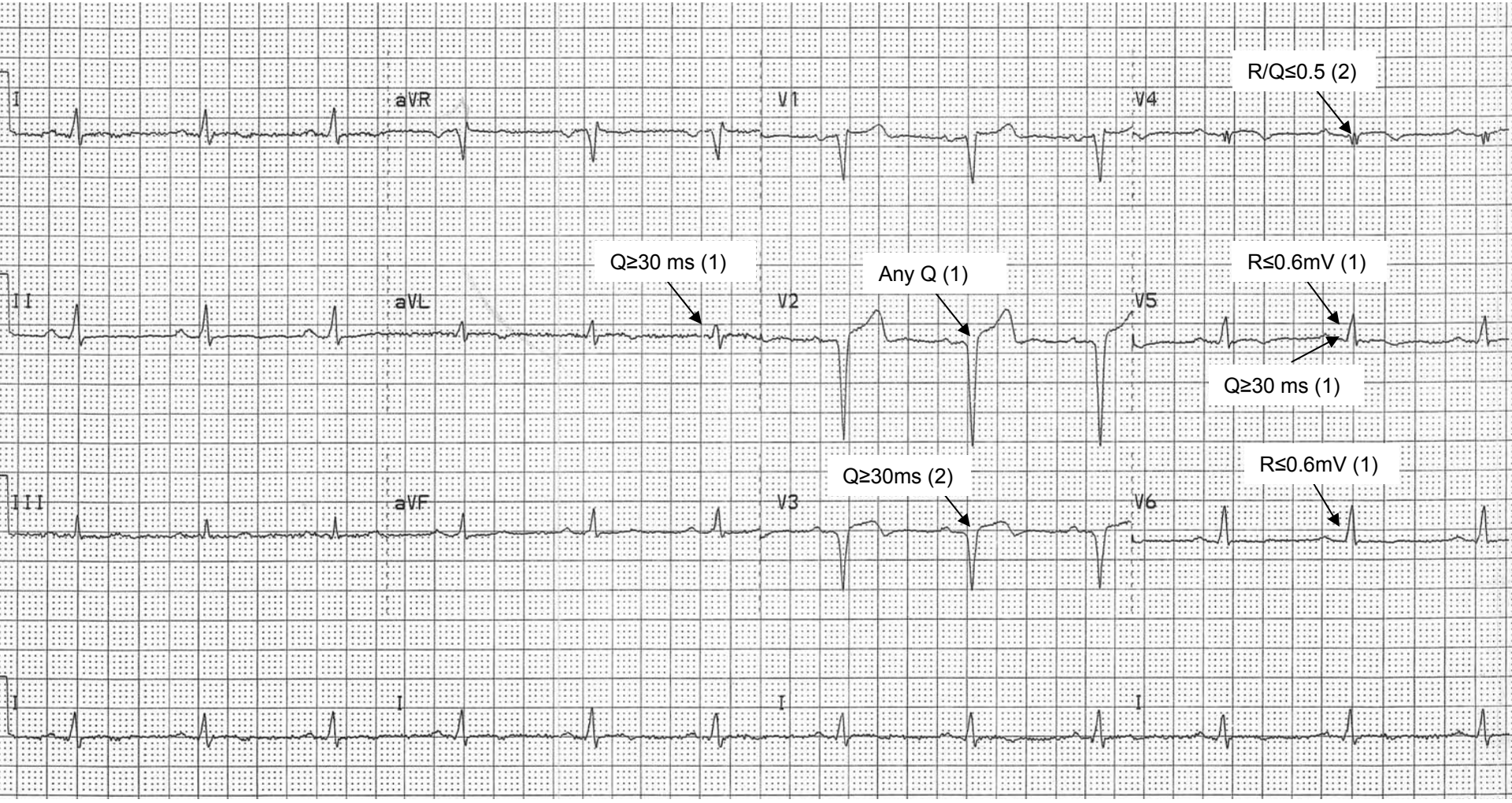
%LV infarct (3 * #pts) ____

* (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

Patient ID:	23	**QRS Duration:**	94ms	**Amplitude Adjustment:**	+10%
Age & Sex:	45 Male	**QRS Axis:**	+60˚	**Duration Adjustment:**	0%
Conduction Type:	No Confounders	**Right Atrial Overload:**	No	**Total Points**	9 points (27%)



QRS Scoring

Patient ID 23 QRS duration 94ms Amplitude adjust +10%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓10% for females)

Age & gender 45 Male QRS axis +60° Duration adjust 0% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	9
	%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)	27

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 125	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

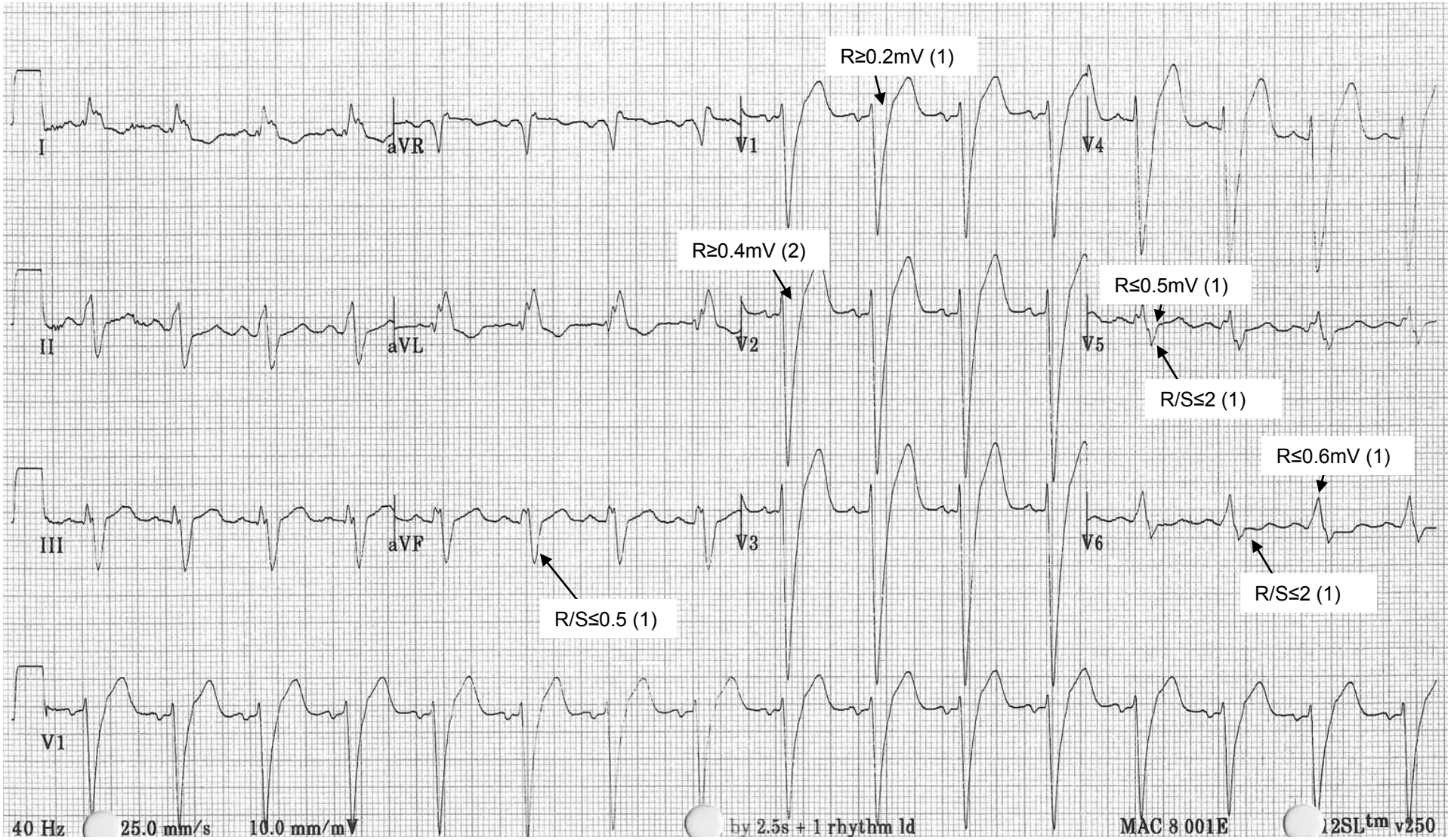
%LV infarct ___
(3 * #pts)

* (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

Patient ID:	24	**QRS Duration:**	170ms	**Amplitude Adjustment:**	-9%
Age & Sex:	54 Female	**QRS Axis:**	-37˚	**Duration Adjustment:**	-10%
Conduction Type:	LBBB	**Right Atrial Overload:**	No	**Total Points:**	8 points (24%)



QRS Scoring

Patient ID 24 QRS duration 170ms Amplitude adjust -9%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 54 Female QRS axis -37° Duration adjust -10% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 1.5	1			R/S ≥ 1.5	1	R/S ≥ 1.5	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 1.5 mV		Init R ≥ 2.0 mV		R ≥ 1.5 mV		R ≥ 1.5 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 1.5		R/S ≤ 1.5		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points		Points	
	%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)	

LBBB		
Lead	Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 1.5	1
	R/S ≤ 1.5	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	8

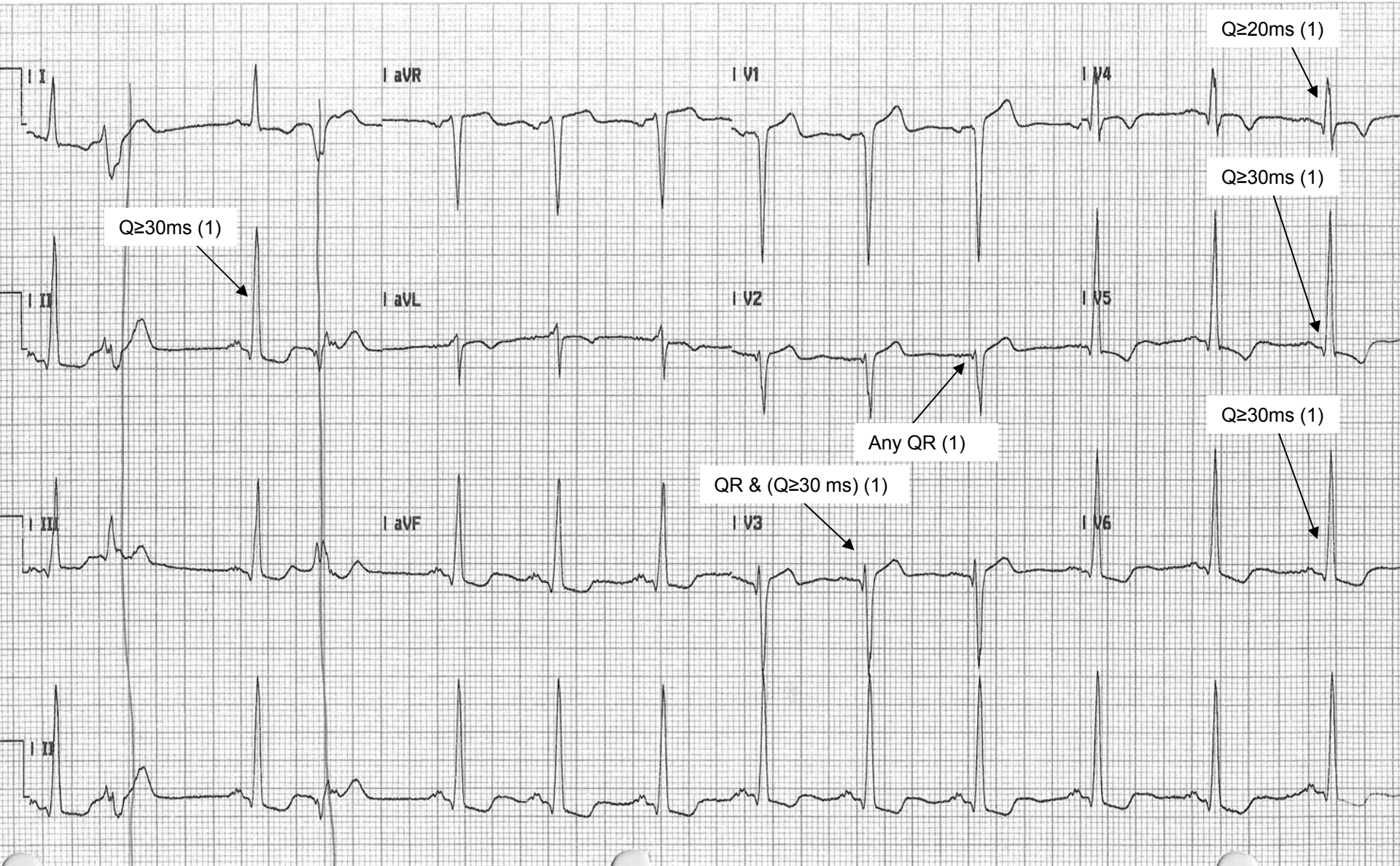
%LV infarct (3 * #pts) 24

* (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

Patient ID:	25	**QRS Duration:**	110ms	**Amplitude Adjustment:**	-12%
Age & Sex:	67 Male	**QRS Axis:**	+66˚	**Duration Adjustment:**	0%
Conduction Type:	LVH	**Right Atrial Overload:**	No	**Total Points**	6 points (18%)



QRS Scoring

Patient ID 25 QRS duration 110ms Amplitude adjust -12%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 67 Male QRS axis +66° Duration adjust 0% RAO(**, ***)Yes (No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points		Points		Points		Points	6	Points	
	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	18	%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
	R/S ≤ 1	1
	R/Q ≤ 1	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 1.25	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

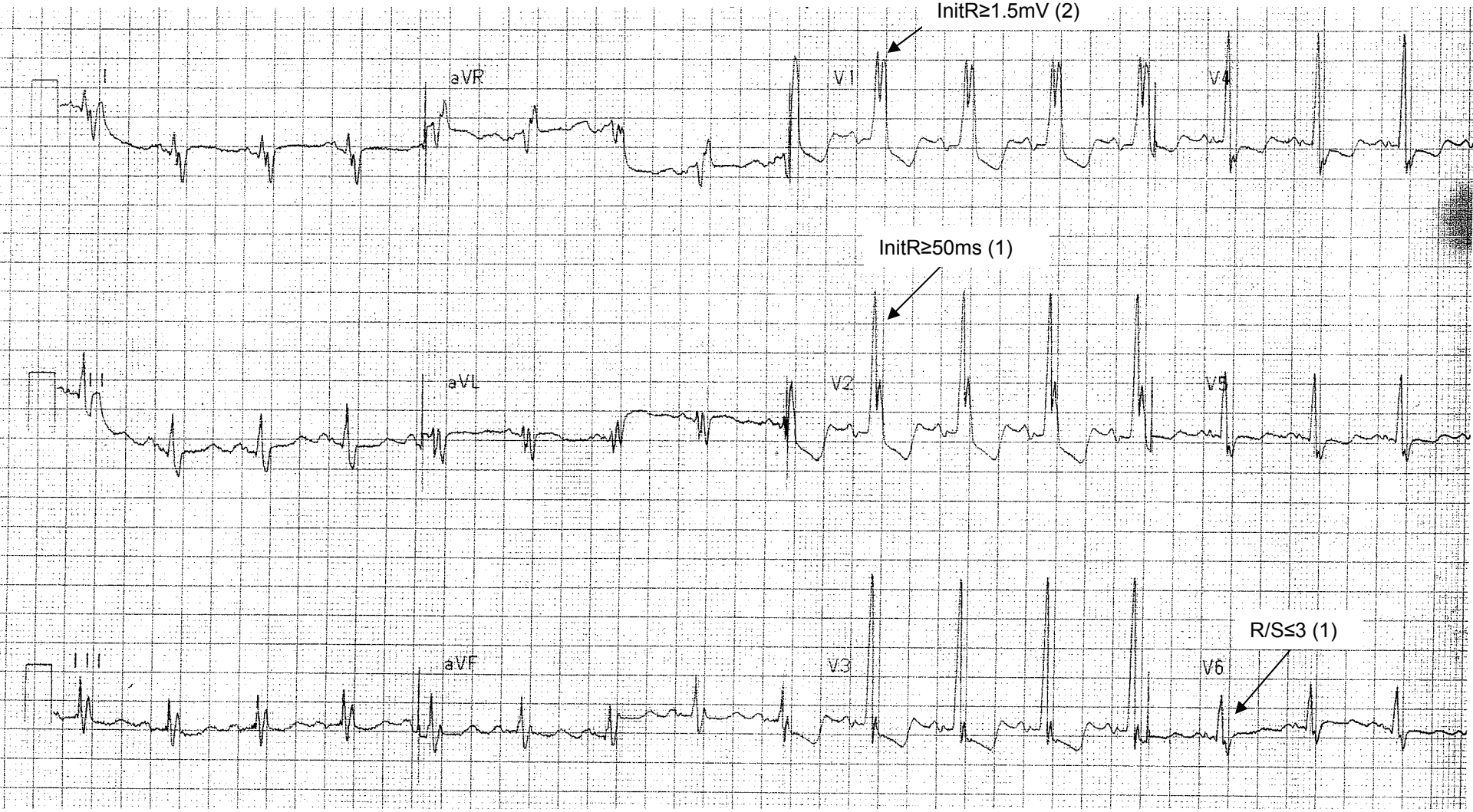
%LV infarct (3 * #pts) ____

* (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

Patient ID:	26	**QRS Duration:**	128ms	**Amplitude Adjustment:**	-7%
Age & Sex:	62 Male	**QRS Axis:**	+121˚	**Duration Adjustment:**	0%
Conduction Type:	RBBB	**Right Atrial Overload:**	No	**Total Points**	4 points (12%)



QRS Scoring

Patient ID 26 QRS duration 128ms Amplitude adjust -7%
(↑1%/yr age 20-54; ↓1%/yr >55 yrs; ↓ 10% for females

Age & gender 62 Male QRS axis +121° Duration adjust 0% RAO(**, ***)Yes/(No)
(↓ 10% for females)

Lead	RBBB Criteria	Pts	LAFB Criteria	Pts	LAFB + RBBB Criteria	Pts	LVH Criteria	Pts	No Confounders 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
	R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV		R ≤ 0.2 mV	
II	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2	Q ≥ 40 ms	2
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1
aVL	Q ≥ 30 ms	1	Q ≥ 40 ms	1	Q ≥ 40 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
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
	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 30 ms	1	Q ≥ 40 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
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
V1 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2	any QR			
	any Q	1	any QR	1	any Q	1	(or any Q if *)	1	any Q	1
	Init R ≤ 20 ms						NtchInit40			
V1 Post.**			R/S ≥ 1	1		1	R/S ≥ 1	1	R/S ≥ 1	1
	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		R ≥ 1mV		Init R ≥ 15 mV		R ≥ 1mV		R ≥ 1mV	
	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		R ≥ 0.7 mV		Init R ≥ 10 mV		R ≥ 0.7 mV		R ≥ 0.7 mV	
			Q≤0.2&S≤0.2mV	1			Q≤0.2&S≤0.2 mV	1	Q≤0.2&S≤0.2mV	1
V2 Ant.	Q ≥ 50 ms	2			Q ≥ 50 ms	2				
	any Q	1	any QR	1	any Q	1	any QR	1	any Q	1
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		(or any Q if *)		R ≤ 10 ms	
	R ≤ 0.1mV		R ≤ 0.1mV		R ≤ 0.1mV		NtchInit40		R ≤ 0.1mV	
V2 Post.**			R/S ≥ 15	1			R/S ≥ 15	1	R/S ≥ 15	1
	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		R ≥ 2 mV		Init R ≥ 2.5 mV		R ≥ 2 mV		R ≥ 2 mV	
	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		R ≥ 15 mV		Init R ≥ 2.0 mV		R ≥ 15 mV		R ≥ 15 mV	
			Q≤0.3&S≤0.3mV	1			Q≤0.3&S≤0.3mV	1	Q≤0.3&S≤0.3mV	1
V3	Q ≥ 30 ms	2	Q ≥ 30 ms	2	Q ≥ 30 ms	2	QR& (Q ≥ 30 ms)	2	Q ≥ 30 ms	2
	R ≤ 10 ms		R ≤ 10 ms		R ≤ 10 ms		NtchInit40	1	R ≤ 10 ms	
	Q ≥ 20 ms	1	Q ≥ 20 ms	1	Q ≥ 20 ms	1	any QR		Q ≥ 20 ms	1
	R ≤ 20 ms		R ≤ 20 ms		R ≤ 20 ms		(or any Q if *)		R ≤ 20 ms	
V4	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
	R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5		R/S ≤ 0.5	
	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1	R/Q ≤ 1	1
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV		R ≤ 0.5 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
V5	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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1	R/Q ≤ 2	1
	R/S ≤ 2		R/S ≤ 15		R/S ≤ 15		R/S ≤ 2		R/S ≤ 2	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
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
	R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1		R/S ≤ 1	
	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1	R/Q ≤ 3	1
	R/S ≤ 3		R/S ≤ 2		R/S ≤ 2		R/S ≤ 3		R/S ≤ 3	
	R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV		R ≤ 0.6 mV	
	NtchInit40		NtchInit40		NtchInit40		NtchInit40		NtchInit40	
Total	Points	4	Points		Points		Points		Points	
	%LV infarct (3 x #pts)	12	%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)		%LV infarct (3 x #pts)	

Lead	LBBB Critera	Pts
I	any Q	1
	R/Q ≤ 1	2
	R/S ≤ 1	
	R/Q ≤ 15	1
	R/S ≤ 15	
II	Q ≥ 40 ms	2
	Q ≥ 30 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
aVL	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/S ≤ 0.5	2
	R/Q ≤ 0.5	
aVF	Q ≥ 50 ms	2
	Q ≥ 40 ms	1
	R/Q ≤ 0.5	1
	R/S ≤ 0.5	
V1 Ant.***	NchInit40	1
	R ≥ 0.3 mV	2
	R ≥ 30 ms	
	R ≥ 0.2 mV	1
	R ≥ 20 ms	
V1 Post	S/S' ≥ 2.0	3
	S/S' ≥ 1.5	2
	S/S' ≥ 125	1
V2 Ant.***	NchInit40	1
	R ≥ 0.4 mV	2
	R ≥ 30 ms	
	R ≥ 0.3 mV	1
	R ≥ 20 ms	
V2 Post	S/S' ≥ 2.5	3
	S/S' ≥ 2.0	2
	S/S' ≥ 1.5	1
V5	any Q	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.5 mV	1
V6	Q ≥ 20 ms	1
	R/R' ≥ 2	2
	R/R' ≥ 1	1
	R/S ≤ 2	
	R ≤ 0.6 mV	1
Total	Points	

%LV infarct (3 * #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