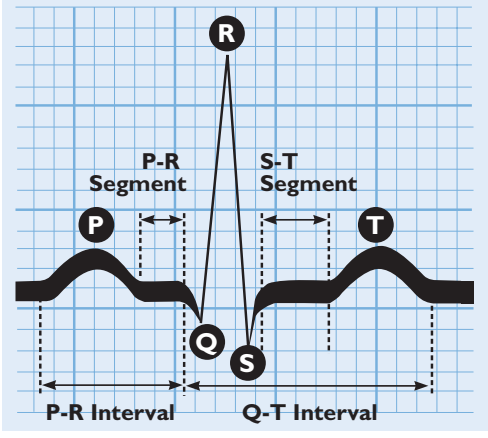


Recognizing Dysrhythmias



Sinus Rhythms

Lead II

Lead V1

Normal Sinus Rhythm

P Wave	PR Interval	QRS	Rate	Rhythm
Precedes each QRS complex; Identical size and shape; Normal & upright in leads II, III, aVF	0.12 to 0.20 s	0.12 s	60 to 100 bpm	Regular

Lead II

Lead V1

Sinus Tachycardia

P Wave	PR Interval	QRS	Rate	Rhythm
Precedes each QRS complex; Identical size and shape; Normal & upright in leads II, III, aVF	0.12 to 0.20 s	0.12 s	100 to 200 bpm	Regular

Lead II

Lead V1

Sinus Bradycardia

P Wave	PR Interval	QRS	Rate	Rhythm
Precedes each QRS complex; Identical size and shape; Normal & upright in leads II, III, aVF	0.12 to 0.20 s	0.12 s	< 60 bpm	Regular

Lead II

Lead V1

Sinus Arrhythmia

P Wave	PR Interval	QRS	Rate	Rhythm
Precedes each QRS complex; Identical size and shape; Normal & upright in leads II, III, aVF	0.12 to 0.20 s	0.12 s	60 to 100 bpm	Variable P-P or R-R vary by more than 0.16 s

Atrial Rhythms

Lead II

Lead V1

Sinus Pause/Arrest

P Wave	PR Interval	QRS	Rate	Rhythm
No P wave	N/A	No QRS	Rate depends on pauses	Usually Regular < 3.0 s Pause > 3.0 s Arrest

Lead II

Lead V1

Wandering Atrial Pacer

P Wave	PR Interval	QRS	Rate	Rhythm
P Wave changes shape and direction	Varies from short to normal	0.12 s	60 to 100 bpm	Irregular

Lead II

Lead V1

Premature Atrial Beat

P Wave	PR Interval	QRS	Rate	Rhythm
Looks different from the normal sinus P Wave	Conduction may be shortened, normal, lengthened or blocked	0.12 s	N/A	Early beat with non-compensatory pause

Lead II

Lead V1

Atrial Tachycardia

P Wave	PR Interval	QRS	Rate	Rhythm
P waves best seen in V1; Visible P Waves may look different than normal; May be hidden in	previous T Wave	0.12 to 0.20 s	0.12 s	150 to 250 bpm

Junctional Rhythms

Lead II

Lead V1

Junctional Escape Rhythm

P Wave	PR Interval	QRS	Rate	Rhythm
Inverted if retrograde conduction; absent or following the QRS	< 0.12 s if retrograde conduction	0.12 s	40 to 60 bpm	Regular

Lead II

Lead V1

Junctional Premature Beat

P Wave	PR Interval	QRS	Rate	Rhythm
Inverted, absent or following QRS	< 0.12 s	0.12 s	N/A	Early beat

Lead II

Lead V1

Atrial Flutter

P Wave	PR Interval	QRS	Rate	Rhythm
Saw-toothed appearance	Not measurable	0.12 s	Atrial Rate 250 to 350 bpm Ventricular rate depends on conduction block	Regular 2:1, 3:1, 4:1 or variable

Lead II

Lead V1

Atrial Fibrillation

P Wave	PR Interval	QRS	Rate	Rhythm
Rapid atrial activity producing irregular fibrillatory waves	N/A	0.12 s	Atrial rate 350 to 450 Ventricular rate slow to rapid	Irregular

AV Blocks

Lead II

Lead V1

First Degree AV Block

P Wave	PR Interval	QRS	Rate	Rhythm
Precedes each QRS complex; Identical size and shape; Normal & upright in leads II, III, aVF	> 0.20 s	0.12 s	60 to 100 bpm	Regular

Lead II

Lead V1

Second Degree AV Block Type I Mobitz I or Wenckebach

P Wave	PR Interval	QRS	Rate	Rhythm
Normal	PR Interval increases until impulse fails to conduct	0.12 s R-R interval progressively shortens	Variable	Irregular

Lead II

Lead V1

Second Degree AV Block Type II Mobitz II

P Wave	PR Interval	QRS	Rate	Rhythm
Identical size and shape; Some P Waves fail to conduct	Constant with conducted beats	0.12 s or > 0.12 s	P-P rate 60 to 100 bpm R-R rate depends on degree of block (2:1, 3:1, 4:1)	P-P rate regular; R-R interval may be Regular or Irregular depending on block

Lead II

Lead V1

Third Degree AV Block

P Wave	PR Interval	QRS	Rate	Rhythm
P and QRS not associated	P and QRS not associated	> 0.12 s Depends on escape pacemaker	P-P rate 60 to 100 bpm R-R rate usually 20 to 40 bpm; Depends on escape pacemaker	P-P Regular R-R Regular

Ventricular Rhythms

Lead II

Lead V1

Ventricular Escape Rhythm

P Wave	PR Interval	QRS	Rate	Rhythm
No P Wave associated	N/A	> 0.12 s	20 to 40 bpm	Regular

Lead II

Lead V1

Ventricular Tachycardia

P Wave	PR Interval	QRS	Rate	Rhythm
Retrograde P Waves may be present, usually AV dissociation	Variable or absent	> 0.12 s	100 to 250 bpm	Regular

Lead II

Lead V1

Ventricular Fibrillation

P Wave	PR Interval	QRS	Rate	Rhythm
Absent	Absent	Absent	Chaotic baseline	No PQRS

Lead II

Lead V1

Premature Ventricular Beat

P Wave	PR Interval	QRS	Rate	Rhythm
May have retrograde conduction	N/A	> 0.12 s	Full compensatory pause; R-R intervals surrounding PVC = 2 normal R-R intervals	Early beat

