

FIRST RESPONSE Emergency Training Associates

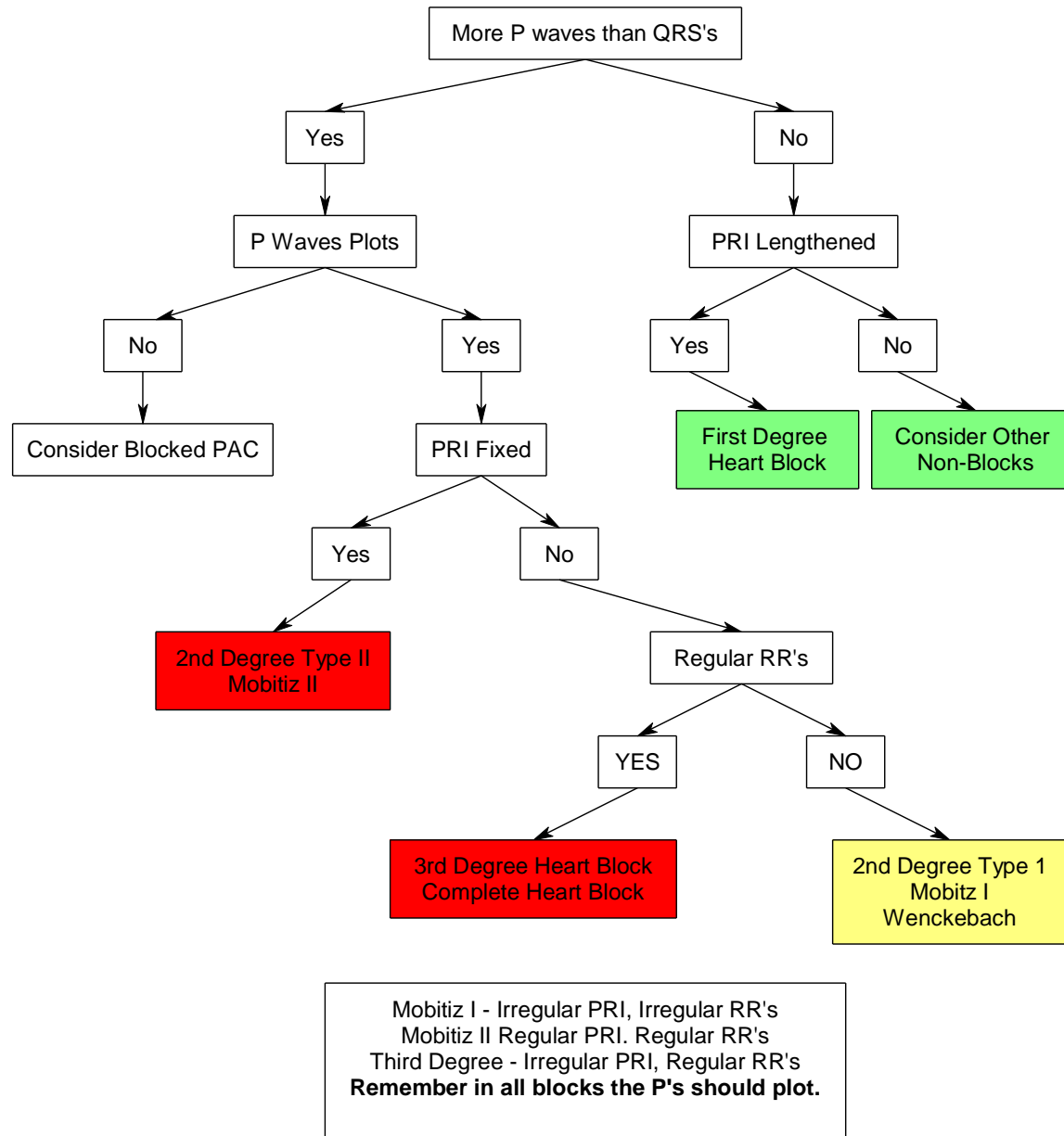
| Sinus Rhythms / Narrow Complex Parameters | | | | | | |
|---|------------------------------------|-----------------------------|---------------------------------|--|------------------|---|
| Name of Rhythm | Rate | Regularity of R to R | P-Wave Present | PR Interval | QRS Width | Special Markers |
| Normal Sinus (NSR) | 60-100 | Regular | Yes | .12-.20 | .04-.12 | |
| Sinus Bradycardia | <60 | Regular | Yes | .12-.20 | .04-.12 | Looks like NSR only slow |
| Sinus Tachycardia | 100-150 | Regular | Yes | .12-.20 | .04-.12 | Look like NSR only fast |
| Sinus Arrhythmia | 60-100 | Irregular | Yes | .12-.20 | .04-.12 | Increases with Respirations |
| Atrial Rhythms / Narrow Complex Parameters | | | | | | |
| Name of Rhythm | Rate | Regularity of R to R | P-Wave Present | PR Interval | QRS Width | Special Markers |
| Atrial Tachycardia | 160-240 | Regular | Possible | If present <.12 | .04-.12 | Fast, Regular, Narrow |
| Supraventricular Tachycardia | 160-240 | Regular | None | None | .04-.12 | Fast, Regular, Narrow Difference between this and A-Tach you will not see P-waves |
| Atrial Flutter | Atrial rate 220-350 | Varies | Flutter waves | Unable to measure | .04-.12 | Saw tooth pattern appearance on flutter waves |
| Atrial Fibrillation | Atrial rate 400-700 | Irregular | Unidentifiable Fib wave only | Unable to measure | .04-.12 | Irregular, No P waves, Narrow QRS |
| Premature Atrial Contraction (PAC) | Underlying rhythm | Irregular | Yes | Shortened <.12 | .04-.12 | Incomplete Compensatory Pause; Peaked T wave preceding the irregular beat, Time table resets; QRS in same |
| (WAP) Wandering Atrial Pacemaker | Usually 60-100 But maybe slower | Usually irregular | Yes Changing in size | Varies from .12-.20 depending on location of pacemaker | .04-.12 | To call it a WAP you need at least 3 different configurations of P waves |

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| Junctional Rhythms | | | | | | |
|---|-------------------|--|-----------------------|-------------------------------|-----------|--|
| Name of Rhythm | Rate | Regularity of R to R | P-Wave Present | PR Interval | QRS Width | Special Markers |
| Junctional | 40-60 | Regular | No, Inverted or Retro | <.12-.20 Usually shortened | 04-.12 | Inverted or No P wave Regular narrow complex |
| Accelerated Junctional | 60-100 | Regular | No, Inverted or Retro | <.12-.20 Usually shortened | 04-.12 | Inverted or No P wave Regular narrow complex |
| Junctional Tachycardia | 100-150/160 | Regular | No, Inverted or Retro | <.12-.20 Usually shortened | 04-.12 | Inverted or No P wave Regular narrow complex |
| Premature Junctional Complex | Underlying Rhythm | Irregular | No, Inverted or Retro | <.12-.20 Usually shortened | 04-.12 | Incomplete or Complete Compensatory Pause; Inverted P wave if present or no p wave |
| Ventricular Rhythms / Wide Complex Parameters | | | | | | |
| Name of Rhythm | Rate | Regularity of R to R | P-Wave Present | PR Interval | QRS Width | Special Markers |
| Premature Ventricular Contraction (PVC) | Underlying rhythm | Irregular | No | None | >.12 | Complete Compensatory Pause; Time table does NOT reset ; QRS in opposite direction as normal beats |
| Ventricular Fibrillation | None | Irregular | None | None | None | Chaotic pattern |
| Ventricular Tachycardia | 100-220 | Regular may be irregular if a sinus beat fires | None | None | >.12 | Wide complex, Fast, Looks like V's VVVVVVV |
| Idioventricular IVR | 20-40 | Regular | None | None | >.12 | Slow, regular, wide |
| Accelerated Idioventricular AIVR | 40-100 | Regular | None | None | >.12 | Just like IVR, once gets above 100 turns into V-Tach |

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| Heart Blocks Parameters | | | | | | |
|--|-----------------------------------|-------------------------------------|-----------------------|---|------------------------------|---|
| Name of Rhythm | Rate | Regularity of R to R | P-Wave Present | PR Interval | QRS Width | Special Markers |
| First Degree Heart Block | 60-100 | Regular | Yes | <.20 | .04-.12 | Looks like NSR only the PRI is > than .20 |
| 2nd Degree Type I; Mobitz I; Wenkebach | Varies Usually bradycardic | Irregular | Yes | Increasing PRI | .04-.12 | Increasing PRI till dropped QRS; P waves will plot More P's than QRS's |
| 2nd Degree Type II; Mobitz II | Varies Usually bradycardic | Regular but can be Irregular | Yes | .12-.20 and fixed with QRS it is associated with | May be narrow or wide | More P's than QRS; P waves plot; P waves will be fixed in time with ones associated with QRS |
| 3rd Degree Heart Block | Slow | Regular | Yes | Constantly changing | <.12 | More P's than QRS; P waves plot; PRI is constantly changing |



Heart Block Chart

AMI - EKG

| AMI Location | Anterior | Inferior/ Diaphragmatic | Posterior | Anterolateral |
|-----------------|--|--|---|---|
| Coronary Artery | LAD | L-circumflex | RCA-L circumflex | L-circumflex |
| EKG Lead | V1-V3 MCL | II-III-V3 AVF | Opposite anterior V1 - no leads with + terminal over infarct | I V4-V6 AVL |
| Dysrhythmia | 1. Sinus Tach 2. 2 Mobitz II 3. BBB 4. 3 AV Block w/ ventricular | 1. S-T Elevation 2. Sinus Brady 3. 1 AV Block 4. 2 AV Mobitz I 5. 3 AV Block w/ junction 6. AIVR | S-T depression initial force of complex - away from infarct | S-T elevation R BBB Abnormal Q wave |

EKG changes in:

1. Ischemia: T wave inversion
2. Injury: S-T elevation
3. Necrosis: Pathologic Q wave

i.e. Greater than 0.04 second duration

Greater than 4mm in depth

Appear in leads that do not normally have deep/wide Q.

e.g. II-III-AVG

Coronary blood flow to:

1. SA Node - RCA 55%, left circumflex-45%
2. AV Node - RCA 95%, left circumflex-05%