



## 1. Dysrhythmia Tests

- a. Review BOTH the *Basic and Advanced Refreshers* provided by your recruiter (even if you are taking the Basic Dysrhythmia exam). These are absolutely wonderful EKG refreshers for the Relias Dysrhythmia exams
- b. PRACTICE! PRACTICE! PRACTICE!
  - i. Here are some links to use:
    1. <https://ekg.academy/>
    2. <https://www.skillstat.com/tools/ecg-simulator/>
    3. <https://www.teachingmedicine.com/Case.aspx?mode=demo>
  - ii. Use any other resources you can find to practice reading different strips of the different rhythms, especially for the rhythms you have the most difficulty with
- c. Know how to measure!
  - i. Hover the cursor over the strip and that part of the strip will magnify to make it easier to count the number of “little” boxes
  - ii. Check the Basic Refresher document provided your recruiter to review how to measure PR and QRS intervals
- d. Know both ways to determine rates
  - i. Count number of R’s then multiply by 10 OR
  - ii. Use the rate chart after counting the number of little boxes between R’s (see Basic Refresher document for rate chart – have this handy when you take the exam)
- e. NEVER just “look” at a rhythm or think “it looks like” a particular rhythm to determine the rhythm unless it is clear and unmistakable like asystole (example: SR may actually be SR with first degree AV block but you wouldn’t know that if you didn’t measure the PR interval)
  - i. **IMPORTANT** – it is always best to use a routine process for reviewing each strip – the answers to each step will help rule out certain rhythms and will help steer you to the correct rhythm:
    1. What is the RATE?
    2. Is the rate REGULAR or IRREGULAR?
    3. Is there a P WAVE?
    4. What is the PR INTERVAL?
    5. What does the QRS look like?
- f. Know what the hallmarks are for certain rhythms to help reduce confusion when trying to determine the correct rhythm
  - i. Blocks
    1. First Degree – PR is prolonged  $>.20$ , NO dropped QRS
    2. Second Degree Type I - PR gets progressively longer then a QRS is dropped
    3. Second Degree Type II – PR interval is constant with randomly dropped QRS (PR interval may be  $<.20$ )
    4. Third Degree – no correlation between P’s and QRS’s , P waves usually march out consistently, even if buried in another wave
  - ii. Junctional rhythms
    1. P wave is absent or inverted



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2. If P wave is present, the PR interval will be short ( $< 0.12$ )
  3. Know rates to determine the correct Junctional rhythm
    - a. Junctional rhythm – rate is 40-60 bpm
    - b. Accelerated Junctional – rate is 61 – 100 bpm
    - c. Junctional Tachycardia – rate is  $> 101$  bpm
  - iii. Idioventricular rhythms
    1. NO P waves AND widening of QRS
    2. Know the rates to determine the correct Idioventricular rhythm
      - a. Idioventricular rhythm – rate is  $< 40$  bpm
      - b. Accelerated Idioventricular – rate is 40 – 100 bpm
      - c. VTach – rate is  $>100$  bpm
  - iv. Don't confuse:
    1. Afib and aflutter
      - a. AFib
        - i. Rate is always irregular (irregularly irregular)
        - ii. No distinguishable P waves
        - iii. Atrial activity won't always be the same before each QRS
      - b. Aflutter
        - i. Sawtooth "like" pattern –may be more rounded than pointed
    2. PACs and PVCs
      - a. PACs
        - i. A normal beat but it occurs early
          1. Will have P wave with normal looking QRS
        - ii. Irregular rhythm is result of the PAC, would be regular otherwise
      - b. PVCs
        - i. QRS is always wide and bizarre compared to a "normal" beat
        - ii. P wave will be absent before the PVC
    3. ST with SVT
      - a. ST – rate is 101-160 bpm
      - b. SVT – rate is 150 – 250 BPM, P waves and PR intervals not usually discernable
  - g. Know ventricular bigeminy, trigeminy, couplets & triplets
    - i. Bigeminy – every other beat is a PVC
    - ii. Trigeminy – every 3<sup>rd</sup> beat is a PVC
    - iii. Couplets – 2 PVCs in a row
    - iv. Triplets – 3 PVCs in a row
  - h. Pacer spikes
    - i. Every pacer spike (if capturing) should have either a P wave or a QRS complex following it depending on if the pacer is atrial, ventricular or both
    - ii. Look at wave following the spike to determine what type of pacer it is