

# Basics & Beyond Session 1 Quiz Questions

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Pacemaker Syndrome \_\_\_\_\_

- ☐ Is largely of historical interest
- ☐ Is unique to ventricular pacing modes
- ☐ Is minimized by ventricular pacing avoidance algorithms
- ☐ Is a result of loss of AV synchrony

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Pacemaker syndrome could be caused by ALL BUT WHICH one of the following?

- ☐ Loss of atrial capture
- ☐ Algorithm to promote intrinsic AV conduction
- ☐ Persistent crosstalk in DDD PM dependent patient in absence of safety pacing
- ☐ Noise sensing on atrial lead in DDD PM
- ☐ Sinus arrest in VDD pacing mode

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66 yo with intermittent CHB; LV ejection fraction = 40%; you believe he will require pacing <40% of the time. Which of the following would provide optimal hemodynamics?

- ☐ DDD with apical V lead
- ☐ DDD with LBBAP
- ☐ CRT-P
- ☐ CRT-D
- ☐ VVI with LBBAP lead positioning

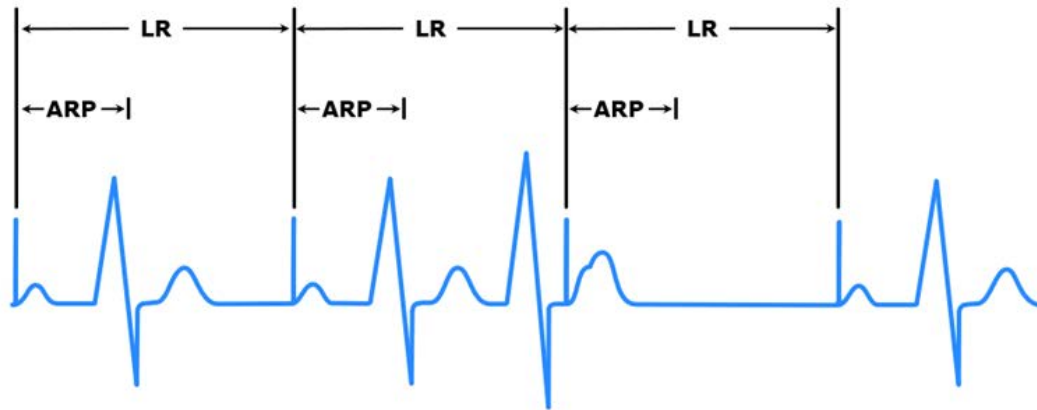
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Which of the following defines the maximum tracking rate of a DDD pacemaker?

- ☐ PVARP
- ☐ VRP + AVI
- ☐ TARP
- ☐ AVI + Blanking Period
- ☐ TARP - VRP

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If the PM represented in this schematic is functioning normally, what is the pacing mode?

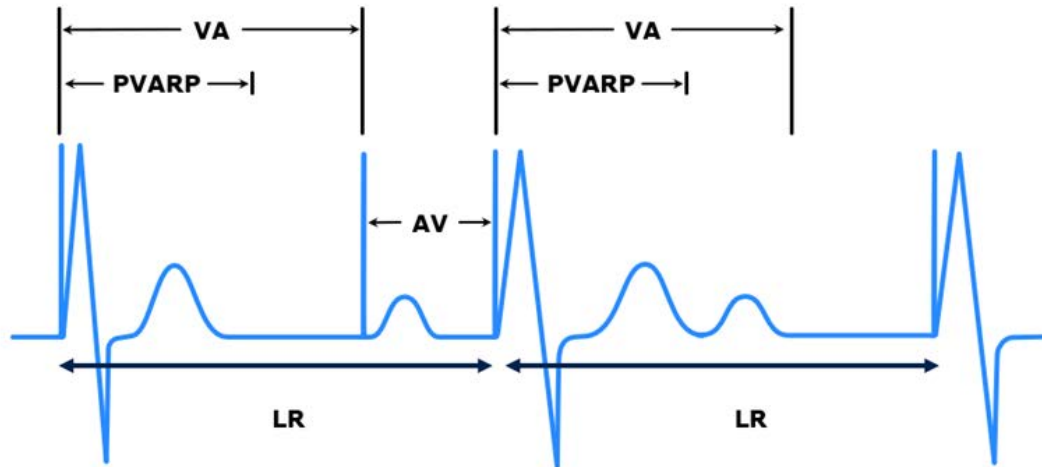


- ☐ DDD
- ☐ AAI
- ☐ VVI
- ☐ VDD
- ☐ VAT



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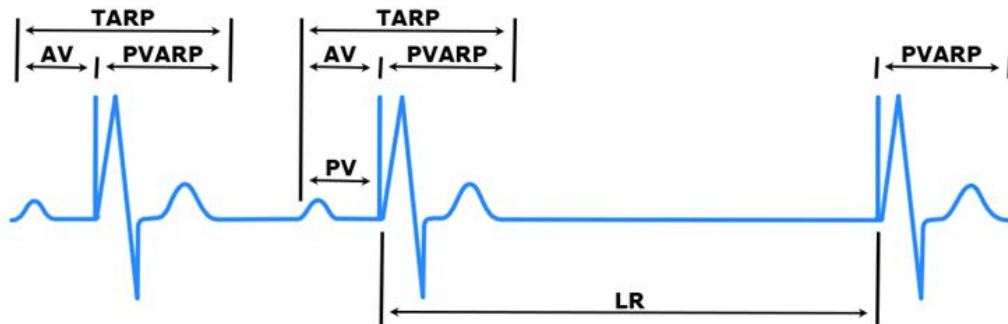
If the PM represented in this schematic is functioning normally, what is the pacing mode?



- ☐ DDD
- ☐ AAI
- ☐ VVI
- ☐ VDD
- ☐ DDI

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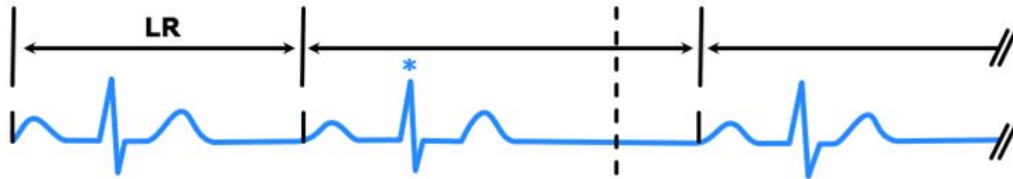
If the PM represented in this schematic is functioning normally, what is the pacing mode?



- ☐ DDD
- ☐ AAI
- ☐ VVI
- ☐ VDD
- ☐ VAT

8

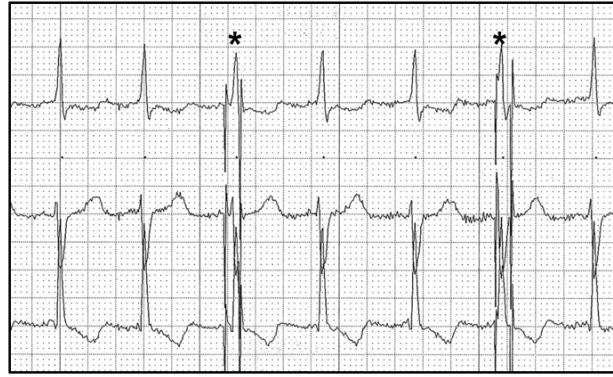
The Timing Cycle Is Compatible With:



- ☐ AAI with far-field sensing
- ☐ VDD pacing mode
- ☐ Normal blanking
- ☐ Normal VVI

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Programmed AV = 220; The labeled QRS complex (\*) occurs in the:

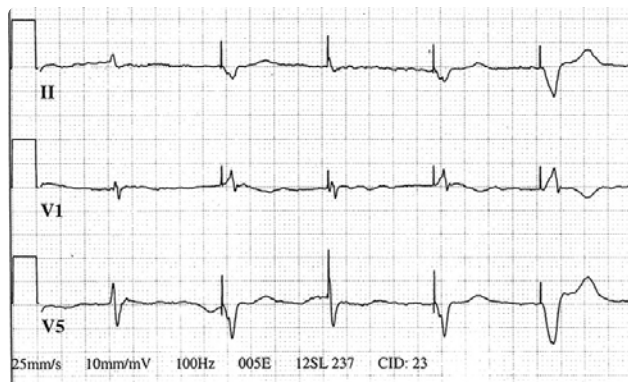


- ☐ Crosstalk sensing window
- ☐ Alert portion of AVI
- ☐ Post-atrial ventricular blanking period



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The tracing includes:



- ☐ Intrinsic beat
- ☐ Paced beat
- ☐ Fusion beat
- ☐ Pseudofusion beat
- ☐ All of the above

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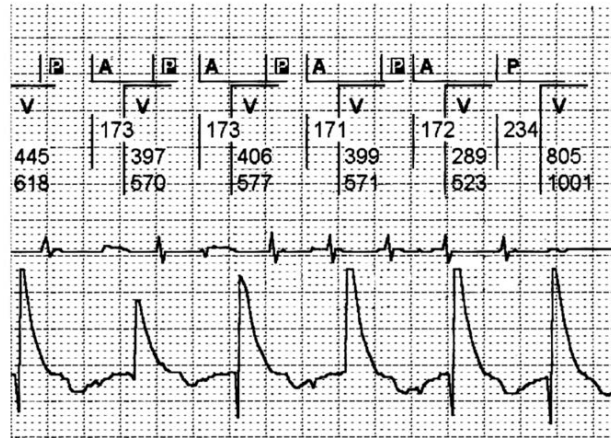
Tracing compatible with:



- ☐ Frequent ventricular extrasystoles
- ☐ Ventricular oversensing
- ☐ Pacemaker mediated tachycardia
- ☐ Ventricular fibrillation

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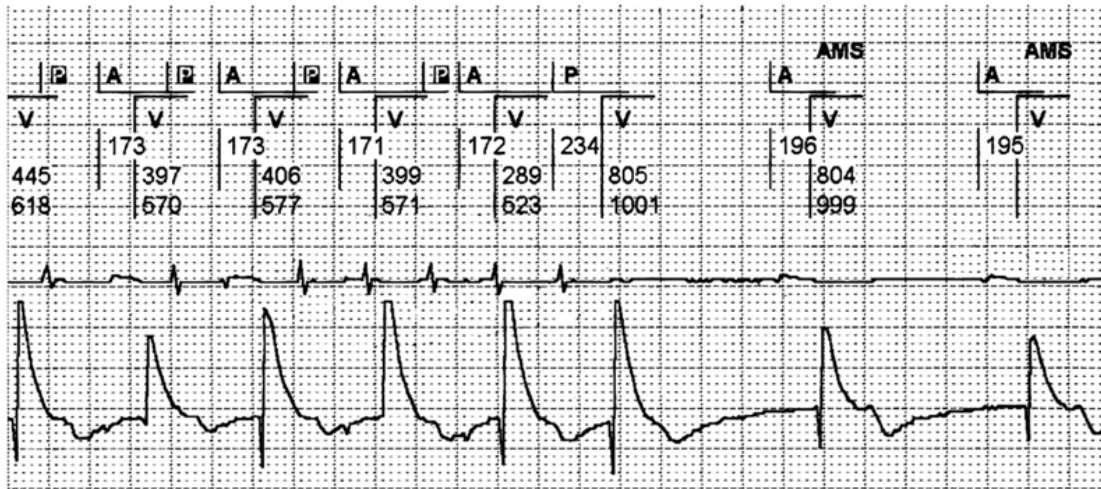
Tracing demonstrates all BUT:



- ☐ Atrial pacing
- ☐ Atrial sensing
- ☐ Ventricular pacing
- ☐ Atrial event in refractory
- ☐ Ventricular event in refractory

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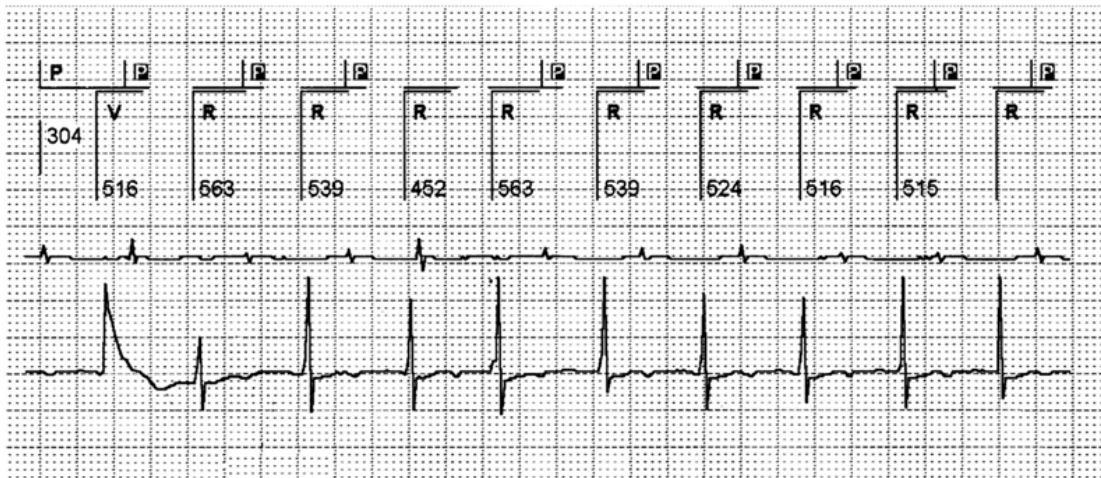
Tracing compatible with:



- ☐ Appropriate mode switching
- ☐ Far-field sensing
- ☐ Pacemaker mediated tachycardia
- ☐ Normal rate-adaptive pacing

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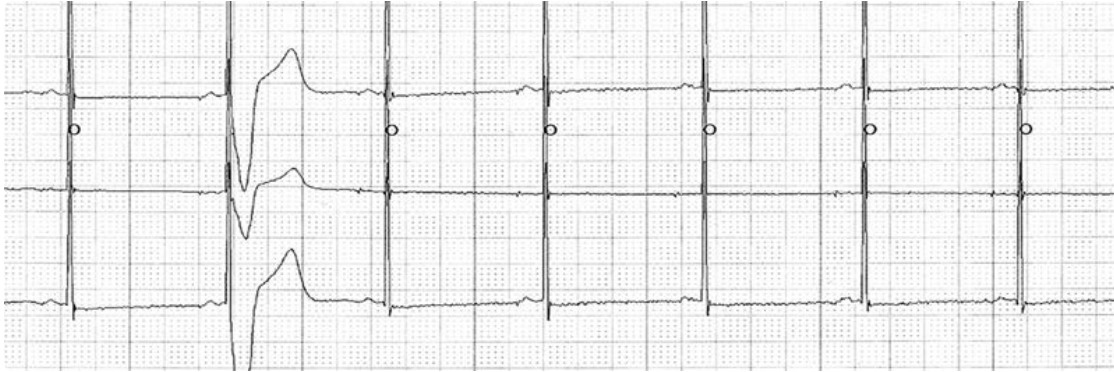
Tracing compatible with:



- ☐ Functional under-sensing
- ☐ Far-field sensing
- ☐ Crosstalk
- ☐ Pacemaker mediated tachycardia

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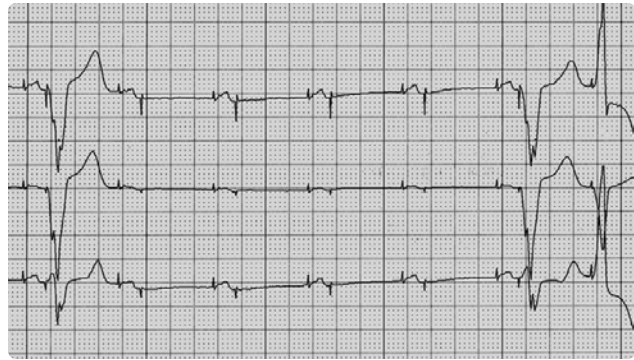
66 year old female 1 wk post-implant. The only compatible etiology of the problem is:



- ☐ Crosstalk
- ☐ Ventricular lead dislodgement
- ☐ Ventricular avoidance pacing algorithm
- ☐ Ventricular oversensing
- ☐ Exit block

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1 year after PPM, uneventful to date, patient presents with recurrent syncope. Etiology could be all but which of the following:



- ☐ Exit block
- ☐ Threshold increase secondary to medications
- ☐ Lead dislodgment
- ☐ Complete fracture of the ventricular lead conductor coil

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What is your ECG diagnosis?

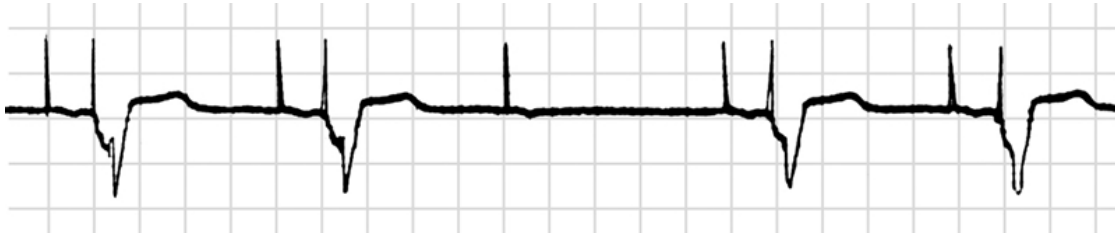


- ☐ Hysteresis
- ☐ Over-sensing retrograde events
- ☐ Fallback behavior
- ☐ Normal sensor-driven pacing



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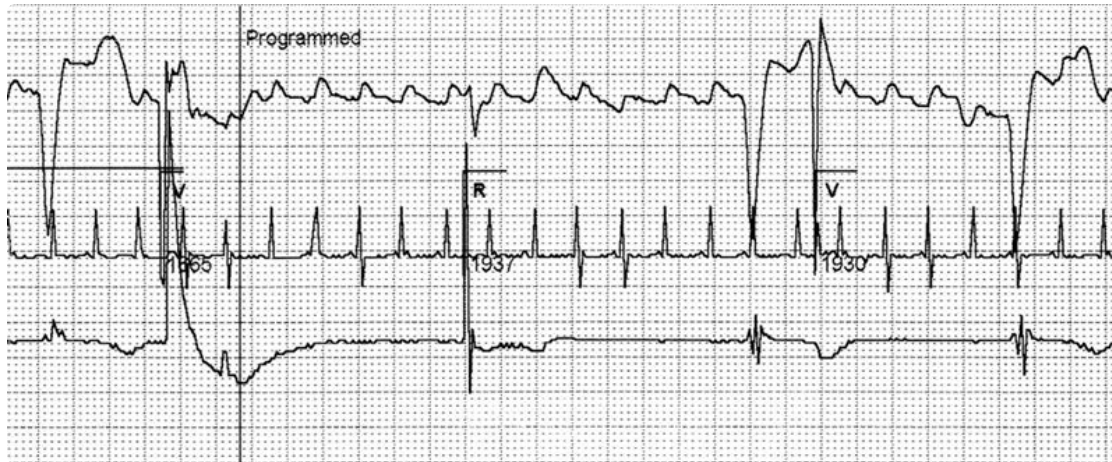
The ECG is obtained the morning after pacemaker implant. Which of the following is the most likely problem?



- ☐ Crosstalk in absence of safety pacing
- ☐ Ventricular lead dislodgement
- ☐ Artifact
- ☐ Ventricular lead fracture
- ☐ Myopotential over-sensing

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What would correct the observed abnormality:



- ☐ Increase V pacing output
- ☐ Make V more sensitive
- ☐ Increase V pacing rate
- ☐ Lengthen the AV interval

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The programmed P-AVI is 240 ms. Labeled QRS complex (\*) occurs in:



- ☐ Crosstalk sensing window
- ☐ Post-Atrial Ventricular blanking period
- ☐ Alert window

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83-Year-Old Male with Increasing Dyspnea on Exertion: History of coronary artery disease status post stent placement x 2; Third-degree AV block, status post pacemaker placement 8 years earlier (Medtronic dual-chamber Kappa KDR 901, atrial lead 5568, ventricular lead 4076); Programmed DDDR, lower rate 60 bpm, upper rate 130 bpm

Prior to pacemaker interrogation, rhythm was ventricular pacing at 65 bpm. This tracing obtained when the programming wand is placed on the pacemaker. Tracing can be explained by:



- ☐ Normal magnet function for this pacemaker
- ☐ ERI (Elective replacement indicator)
- ☐ EOS (End of service)
- ☐ Ventricular lead loose in header

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